Creating Socially Inclusive Communities: A Multi-Method Study Evaluating the Relations between Social Capital, Biopsychosocial Constructs, and Economic Outcomes in Disadvantaged Settings

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For my Mother,
Who told me I could be whatever I wanted to be and truly believed it.
Now I do too.
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Statement of Authentication

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either whole or in part, for a degree at this or any other institution.

Natasha R. Magson, 2013
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Abstract

Research has shown that social and economic disadvantage are becoming more geographically concentrated, with social isolation and intergenerational poverty becoming entrenched in whole communities. Programs aimed at building social capital attempt to improve social support networks and inclusion within the community, and may have other benefits such as improving economic outcomes, family functioning, and individuals’ health and well-being. This project addresses the gap in the research for sound multidimensional assessment of social capital and its relationship with social, economic, and health outcomes. Social capital and adolescent biopsychosocial outcomes were studied in 1371 secondary students living in two disadvantaged communities within New South Wales, Australia. A new multidimensional measure of social capital was developed, tested, and found to be psychometrically sound. Preliminary analyses revealed a number of significant associations between facets of social capital and a range of youth socio-emotional outcomes. Higher levels of social capital and belongingness in school and community were generally associated with better academic self-concept, enhanced general health, as well as reduced negative mental health symptoms, perceived discrimination, and risky behaviours. Some outcomes were more strongly associated with family and peer social capital, while others associated more with neighbour and community social capital, indicating that attempts to build social capital need to be targeted across the whole community. This study supports the notion that social capital can be measured empirically and is beneficial in alleviating many of the detrimental outcomes that are commonly associated with those living in areas of entrenched disadvantage.
CHAPTER 1
INTRODUCTION

"The new currency won't be intellectual capital. It will be social capital - the collective value of whom we know and what we'll do for each other. When social connections are strong and numerous, there is more trust, reciprocity, information flow, collective action, happiness, and...greater wealth" (Kouzes, 2000, n.p.).

The Australian economy has now entered its 21st year of uninterrupted economic growth (Battellino, 2010). Whilst this is both remarkable and unprecedented in both Australian history, and that of other developed countries, the rewards of this prosperity have not benefitted all Australians equally. The vast literature on disadvantage within Australia has highlighted that: despite numerous efforts to reduce disadvantage in this country, the gap between the rich and the poor is increasing (Australian Bureau of Statistics, ABS, 2011a), there are more people sleeping on our streets than ever before (Homelessness Australia, 2009), and there are over one million Australian children living in extreme poverty and deprivation (McCarthy, 2004; McClelland, 2000). Research also tells us that groups enduring both social and economic disadvantage tend to gravitate towards the same geographical areas, which in turn concentrates disadvantage in particular neighbourhoods (Vinson, 1999; 2007; Vinson & Homel, 1976). This relatively new phenomenon, termed ‘place poverty’, is a widespread characteristic of all advanced economies (Randolph, 2004). As a consequence of place poverty, some geographical areas have become socially isolated, resulting in whole communities missing out on the rewards of Australia’s continued economic growth (The Benevolent Society, 2008). To date, interventions designed to address this problem have had little success, as areas identified as extremely disadvantaged in the 1970s are still experiencing the same levels of disadvantage today (Vinson, 1970; 2007).
Furthermore, intergenerational welfare dependence is now increasingly evident in our poorest communities, whereby poverty is transferred from parent to child (Smith Family, 2010) resulting in a perpetual and entrenched cycle of intergenerational disadvantage for both families and communities.

Put simply, current welfare approaches provide enough for disadvantaged families to get by, but do not give or do enough to enable these families to improve their situation long-term. Therefore, it is argued throughout this thesis that it is time to look at innovative ways to address the formidable and ongoing challenge of long-term poverty and disadvantage within our poorest communities. What is needed is a more social and integrative approach that demonstrates the dynamic interplay between personal factors and the larger social context in which individuals are embedded, thereby providing a new social perspective in addressing the poor outcomes experienced by disadvantaged families.

In recent times, researchers in the social sciences have examined social capital as a potentially potent theoretical construct that may help to both better explain, and address, enduring disadvantage. Proponents of social capital claim that it can make us “smarter, healthier, safer, richer, and better able to govern a just and stable democracy” (Putnam, 2000, p. 290). This has ignited an ‘explosion’ of research across a wide array of disciplines and has engendered considerable debate in both political and social policy arenas. This new research is significant as it moves away from traditional welfare approaches in dealing with disadvantage and offers an alternative and novel way of viewing the causes and potential solutions for addressing place-based disadvantage.

Social capital is defined as “the connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000, p. 18) and attempts to offer a potential explanation as to why some communities function in ways that ameliorate the effects of disadvantage whilst others tend to become even further entrenched in it (Kearns & Forrest, 2000; Putnam, 2000; Vinson, 2007). However, whilst there has been a number of advances in social capital theory and research of heuristic value over the last two decades, this field of research has been plagued with theoretical and methodological issues that have hampered its progress. The quality of the existing research has been questioned and there still remains a lack of consensus among researchers and policy makers on how social capital can be best utilised to enhance social, physical, and economic well-
being in poor communities (Sabatini, 2009). Therefore, before governments and other non-government organisations (NGOs) can be persuaded to invest the substantial funding required for the systematic implementation of social capital interventions and initiatives, there are a number of barriers that need to be overcome.

Whilst each of these barriers will be presented separately below, they include: theoretical imprecision and a-theoretical approaches; definition and conceptualisation difficulties; problems in understanding the structure and nature of social capital, and how best to measure it; and inconsistent and often contradictory research findings when attempting to ascertain the relation of social capital to desirable outcome measures. As such, even though the literature relating to social capital is extensive, it remains complex, varied, and often tautologous such that clear ways to advance this field of research remain elusive. A main goal of the present investigation is to contribute to disentangling the key aspects of the social capital literature in order to: explicate more cogent understandings of its evolution, structure, and inherent problems, and ultimately test its worth in providing potential solutions to real world problems.

The theoretical imprecision relating to the measurement of social capital construct may well be attributed to differences in the conceptualisations of the three theorists considered by many to be the forefathers of social capital theory: Pierre Bourdieu (1986), James Coleman (1988), and Robert Putnam (2000). Each focuses on and conceptualises social capital in different ways. Bourdieu adopts a particular view of social capital that sees it as an exclusionary tool for maintaining power amongst the elite. In contrast, Coleman demonstrated that social capital built within the family can be used to strengthen one’s social and economic position regardless of their location in the social structure. Finally, the work of Putnam extended the concept the furthest, emphasising the value of weak and informal ties across entire communities, cities, and nations for improving the lives of all citizens. To address the differential theoretical viewpoints within the literature, the present research design capitalised on the commonalties found among these theoretical positions by including the strengths of each theory, whilst acknowledging and attempting to address the key limitations of each conceptual approach. As a result, the theoretical stance taken in this thesis is that social capital arising from one’s social connections can assist individuals as stated by Bourdieu, but it can also be beneficial for families, bystanders, and entire communities as posited firstly by Coleman (1988), and then by
Putnam (1993; 2000). Additionally, whilst it is recognised that social capital can have a downside and has the potential to be exclusionary, as first proposed by Bourdieu (1986), the focus of this study is to examine its prospective positive externalities.

Another key issue extant in the literature is the problem in finding a consistent and comprehensive definition of social capital which has been shown to continually hinder the progression of social capital research (Wall, Ferrazzi, & Schryer, 1998). As a consequence, this research attempted to reconcile the three most commonly cited components found in the theoretical and empirical literature defining social capital as consisting of social relations or networks based on trust, and the values and norms of reciprocity. It is also acknowledged that social capital operates at different levels within the social structure, with bonding (connections with like people), bridging (connections with unlike people), and linking (connections across power hierarchies) social capital the most commonly cited in the literature (Gittell & Vidal, 1998; Putnam, 2000; Stone & Hughes, 2002; Van Deth, 2003). As such a multilevel research definition was implemented in the present investigation.

Another overarching criticism of social capital research identified within the literature is the inconsistent and often insufficient measurement tools used to examine social capital and its impact (Portes, 1998; Stone, 2001; Van Deth, 2003). The most commonly cited problems are difficulties in separating the indicators of social capital from its potential outcomes (Claridge, 2004), the use of single item indicators (Adam & Roncevic, 2003; Paxton, 1999), the continued reliance on secondary data sources (Stone, 2001), and the poor links between theory and measurement (Pope, 2003; Stone, 2001). Therefore, if social capital research is to move forward, theorists and researchers need to reach a consensus on what social capital is, develop theoretically consistent measures of social capital that are multi-item and multidimensional, clearly separate indicators of social capital from its outcomes; and capitalise on advances in research methodology. To address these within-construct problems, this research utilised the commonalities found in the literature to develop a unified theoretical and definitional primary measurement model which consisted of multiple item factors measured on multiple levels and evaluated through confirmatory factor analysis.
Once these within-construct concerns were resolved the current investigation then aimed to address the enduring between-construct issues. Despite the extensive interest in the notion of social capital and how it is associated with important outcomes (that is, the actual relations between these variables) the findings have been mixed, and as such, have had little influence on Australian government policy and the way in which disadvantage is addressed. Part of the reason for this hesitancy may be due to the theoretical, conceptual, and measurement problems already mentioned, but may also be due to the plurality of research designs employed and their varying success in demonstrating empirically the benefits of social capital.

While the majority of studies cited throughout this thesis demonstrate that social capital can exert a positive influence on numerous desirable outcomes (e.g., Henderson and Whiteford, 2003; Stevenson, 1998), others reported a lack of consistency (e.g., Leeder & Dominello, 1999; Pearce & Smith, 2003), or were shown to have no influence at all (e.g., Thompson and Krause, 1998). For instance, most studies that have failed to find positive benefits of social capital have tended to measure the quantity of social networks but have neglected to measure the quality of those relationships (e.g., Caughy, Campo, & Mantaner, 2003). To address this gap, the newly developed measure in the current research project incorporated both of these important elements. Secondly, it is argued that the inconsistent findings may also have been due to the type of social capital measured. In fact, one of the most common areas of contention within the literature is the level in which to measure social capital (Stone & Hughes, 2002). In the past it has been measured at the: individual, family, community, state, and even at the national level. However, it appears logical to assume that different types of social capital are more advantageous to some outcomes than others. Hence, it is still unclear which type of social capital is most beneficial for which outcome, and perhaps the most effective way to test this is to assess social capital at multiple levels. The current research contributes to this multicontextual perspective by measuring social capital simultaneously at the family, peer, neighbour, and community/institutional level, across a broad range of outcomes.

A third explanation for varying results is the continued use of data gained from a secondary source which fails to capture the true nature of the construct. Often these measures contain items that are assumed to relate an element of social capital, but are, in reality, measuring something entirely different or are unrelated (e.g.,
language spoken at home; see Smylie et al., 2006). To eliminate the use of ambiguous items such as these, the present investigation developed a primary measurement instrument designed solely to measure the theoretically conceptualised elements of social capital.

Finally, the socio-economic status of the sample used within each study may also explain the differential findings among them. Research indicates that the influence and type of social capital examined does not affect all communities equally, and the socio-economic context of the community was important (McGarrell, Giacomazzi, & Thurman, 1997). So while social capital has the potential to benefit all individuals across the different class structures, this research will focus on which aspect and level of social capital is most beneficial for improving outcomes for those living in disadvantaged communities as they are in most need of immediate assistance. By addressing the limitations identified in the literature, it is central to the present investigation to contribute to the research integrity and consistency into the study of social capital. Until such empirical rigor is achieved, social capital cannot be confidently integrated into the social policy agenda as a valuable resource for improving outcomes for disadvantaged Australians.

In order to address the problems surrounding the social capital construct, the current investigation employs a synergistic mixed method research design comprising of both quantitative and qualitative components. The overarching aim of the research investigation is to create knowledge about the role served by social capital and the processes that underpin the relations between social capital and social and economic outcomes in disadvantaged communities. This new knowledge will be fundamental to advancing social policy and practice in key areas of national endeavour including: education, industry, the economy, and social inclusion. Fulfilment of this aim also has the potential to make a significant contribution to conceptual advances in theory and research, as well as policy and practice advances in the midst of Australia's new social inclusion agenda.

The first steps in achieving these overarching goals are to: (a) develop a psychometrically sound measure of social capital and socio-economic outcomes in communities characterised by place-disadvantage; (b) identify community members' conceptions of these factors, as well as community issues, needs, and strengths within disadvantaged geographical locations; and (c) elucidate the relations between social capital and a range of outcomes including: physical and mental health,
educational aspirations, student self-concept, risk-taking behaviours, and fear of crime within the community.

In order to achieve these goals the current investigation consists of three interrelated studies. Study 1 will examine the psychometric properties of all quantitative instrumentation and test any differences evident across the sub-groups of interest (gender and geographic location). Study 2 will investigate the relations between social capital and multiple outcome measures in order to clarify which outcomes are positively related to social capital to inform the development of research-derived intervention. Study 3 will capitalise on in-depth semi-structured interviews and focus groups with students and principals/teachers to further explicate the goals of Study 2, and identify needs and strengths of the community in order to inform community and school-based intervention.

This thesis consists of 10 chapters. Following the current chapter, Chapters 2 and 3 present a review of the literature most relevant to the current study’s aims. Specifically, Chapter 2 provides an overview of the current state of disadvantage within Australia and a review of the literature regarding the impact of social capital on important social, educational, and economic outcomes. Chapter 3 traces the origins and evolution of social capital theory and considers prominent contemporary theorists in the field. It also provides an overview of the conceptual and measurement issues hampering the progression of social capital research. Chapter 4 states the specific aims, hypotheses, and research questions of the present investigation, whilst Chapter 5 outlines the methods employed to achieve these aims and the particular steps involved in completing the quantitative and qualitative elements of the study. Chapter 6 outlines the results pertaining to the psychometric testing of all quantitative instrumentation and highlights any sub-group differences (gender and regional) found across the variables tested and levels of social capital. Chapter 7 presents the results pertaining to the impact of social capital on a number of desirable socio-economic (e.g., living conditions) and educational outcomes (e.g., student self concept) and tests which form of social capital (e.g., family, neighbour, community) is most beneficial for which outcome. Chapter 8 provides the results of the qualitative focus groups with students, parents, and teachers, presenting each of the key themes that emerged from the data during analysis. Chapter 9 discusses and synthesises the information presented in the previous three chapters and provides suggestions for future research and intervention strategies. Finally, Chapter 10
presents a summary of key findings and discusses the implications of the findings for theory, research, and practice.
CHAPTER 2
WHAT RESEARCH SAYS: THE NATURE OF SOCIO-ECONOMIC DISADVANTAGE IN AUSTRALIA AND RELATIONS BETWEEN SOCIAL CAPITAL AND SOCIO-ECONOMIC OUTCOMES

Introduction

The idea that relationships serve as a resource has been repeatedly tested in an extraordinary variety of ways ranging from pet ownership (Wood, Giles-Corti, Bulsara, & Bosch, 2007) to online knowledge forums (Wasko & Faraj, 2005). Proponents of social capital claim that the benefits of the construct are far reaching and have the potential to make a significant impact on the lives of individuals and groups (Putnam, 2000). Whilst acknowledging the conceptual and measurement issues surrounding the social capital construct presented in the next chapter, the prospective advantages of the construct cannot be ignored and therefore present a challenge to researchers to ascertain research-derived solutions.

The purpose of this chapter is to examine the existing literature pertaining to disadvantage in Australia and to explore the potential impact of social capital for improving outcomes amongst those living in disadvantaged settings. There are six main sections within this chapter. The first section begins with an overview of the current state of disadvantage in Australia and the increasing gap between the rich and the poor. The second section provides an overview of research that demonstrates how poverty and lack of educational attainment contribute to the social exclusion of both individuals and groups, leaving them with fewer job opportunities, lack of available resources, and poor access to services. The third section centres on a relatively new phenomenon termed “place-based” poverty which describes the tendency of those experiencing disadvantage and exclusion to become concentrated in particular neighbourhoods or suburbs. When this occurs it is not only individuals and small
groups who experience social exclusion, but entire communities. How the government has attempted to address the problem of place-based disadvantage is the focus of the fourth section which highlights how past government attempts have failed and the majority of communities experiencing entrenched disadvantage in the early 70s are still facing the same problems and levels of disadvantage today (Vinson, 2006). The fifth section of this chapter presents a review of research examining the potential benefits of social capital across a range of desirable outcomes (e.g., physical and mental health, participation in anti-social practices, educational and career aspirations, and self-concept). Finally the implications of this body of research for the present investigation are discussed.

The main argument throughout this chapter is that if social capital is widely seen by its proponents as a potential solution to the problems facing socially and economically disadvantaged communities, then there is a need to synthesise and advance the social capital literature, and focus on how to fully develop the construct. This research makes a seminal and valuable contribution to advancing quality research in this area to assist policy makers in determining the best way to develop the social capital construct to ultimately benefit those most marginalised in the current social structure.

**Economic Disadvantage, Poverty, and Social Exclusion: Significant Australian Issues of Our Time**

**Introduction**

“We live in a society in which the value of a human being is measured by their financial ability to buy inclusion: house, car, private health, private education, support, even connectedness” (Falzon, 2008).

The literature pertaining to disadvantage in Australia and around the world is extensive. In Australia, it is a matter of growing concern that the number of Australians living below the poverty line is increasing, and that so many Australian children are going to school hungry or not attending school at all (Saunders, Hill, & Bradbury, 2007). Equally concerning, is that so many of our teenagers are growing up with limited or no job opportunities (Argy, 2007), and that many of our elderly citizens are struggling financially, are socially isolated, and are often afraid to leave
their homes due to fears of victimisation (Kerr & Spencer, 1995). These pervasive problems have presented a formidable challenge to researchers, government, and policy makers despite the unprecedented economic prosperity in Australia over the last 20 years. As will be discussed in the following section of this chapter, poverty and disadvantage go far beyond a simple lack of material resources or economic deprivation, they also limit one’s social opportunities, standard of living, and overall quality of life (World Bank, 2011). This section of the review begins by presenting the various ways in which poverty has been defined and describes the prevalence of child poverty within Australia. Next, the problems surrounding the widening gap between the rich and the poor, homelessness, and social exclusion are discussed. Finally, the phenomenon of place-based disadvantage is reviewed, and past governmental approaches attempting to address poverty and place-based disadvantage are presented.

Definitions of Poverty

Operational definitions of poverty continue to be a point of contention among researchers (Kakwani, 1993; Mendes, 2003; 2004). However, two distinct types of definitions are generally proposed. The first is “absolute poverty”, which commonly refers to people who lack the sufficient resources to survive (Mendes, 2003). This definition is often associated with those living in developing countries experiencing widespread starvation and destitution. In contrast, the second definition, “relative poverty”, usually describes economic inequality and the notion that “poverty is best understood as a condition of relative deprivation or exclusion from normal social and economic activities and participation” (Mendes, 2003, p. 1). This latter form of poverty is most commonly associated with the Western world and most relevant to the current investigation.

Child Poverty in Australia

Data from the Organisation for Economic Co-operation and Development (OECD, 2003) has shown that Australia is extremely high in world rankings of child poverty. Poverty in Australia is 12% higher than the OECD average (Watkins, 2006) and Australia is ranked 18th out of 35 of the world’s wealthiest developed countries in child poverty figures (United Nations Children’s Fund, UNICEF, 2012). OECD estimated Australian poverty rates increased from 1.3 million in 1993-94 to 2.2
million in 2005-06. In contrast, the number of millionaires in Australia doubled over this same period (Leveratt, 2011). McClelland (2000) estimated that one in eight Australian children are living below the poverty line. In addition, there are 852 000 children living in jobless households and another 163 000 living in employed “poor” households (McCarthy, 2004). This equates to over one million Australian children living in deprivation and increases concerns surrounding the widening gap between Australia’s richest and poorest citizens as discussed in the next subsection.

The Widening Gap Between the Rich and the Poor

In addition to concerning levels of poverty around the country, Australia is also experiencing widening gaps between the rich and the poor in income wealth and other social, economic, and educational opportunities. The increasing gap between the rich and the poor is evident in the latest Australian Bureau of Statistics (ABS, 2011a) figures that show that the top 20% of Australian wealth holders own 62% of Australia’s household wealth with an average net worth of 2.2 million dollars. In contrast, the poorest 20% of Australians own only 1% of Australia’s household wealth, with an average net worth of $31 829 per household (ABS, 2011a). Although not a focus of the current research, it is important to note that specific cultural groups such as Indigenous Australians are especially vulnerable to experiencing poverty (Australian Council of Social Services, (ACOSS), 2011). For example, in a recent report, the median income of Indigenous Australians was 65% of that of non-Indigenous Australians, and the unemployment rate was more than three times higher among Indigenous Australians (16.6%) compared to non-Indigenous Australians (5%; ACOSS, 2011). In addition to the issues already discussed surrounding disadvantage, homelessness has become an ever increasing problem throughout Australia as shown in the following section.

Homelessness in Australia

In modern Australia, there are also over 100 000 people without a home on any given night (Homelessness Australia, 2009). Despite numerous strategies to try and reduce these numbers, the number of homeless Australians increased by almost 10 000 between 2001 (80 725) and 2006 (90 020). The latest figures from the 2010 General Social Survey (ABS, 2011b) indicate that some 251 000 Australian adults experienced homelessness in the last 12 months. Homelessness is particularly
problematic as it disconnects individuals from their family, their community, and other adaptive social networks. This makes it extremely difficult for people who are homeless to maintain educational and occupational commitments, thereby leaving these individuals vulnerable to long-term poverty, unemployment, and chronic health problems (Homelessness Australia, 2009).

A Senate report into poverty (Community Affairs Reference Committee, 2004) also details an “unprecedented increase in social inequality during the past three decades, resulting in the pauperisation of wide layers of society” (Kelly, 2004, p. 1). The increase in income inequality, homelessness, and poverty over this time demonstrates that government policy and initiatives to reduce these problems have been unsuccessful in substantially reducing poverty in this country, and have resulted in widespread social exclusion across Australia as discussed in the next section.

**Social Exclusion**

Social exclusion can generally be defined as “multiple deprivations resulting from a lack of personal, social, political or financial opportunities” (Hunter, 2000, p. 2). The increased focus on social exclusion stems from the recognition that it contributes to poor health, employment, educational, and social outcomes, all of which result in adverse economic consequences (Centre for Health through Action on Social Exclusion, 2007). Whilst terms such as poverty and economic disadvantage are most often concerned with lack of financial resources, social exclusion is a much broader concept. In addition to economic disadvantage, social exclusion encapsulates the idea of capability or opportunity deprivation (Saunders et al, 2007), inadequate social participation and integration, and a lack of power. All of the latter result in a sense of marginalisation that people experience when they are unable to participate fully in their society (Centre for Health through Action on Social Exclusion, 2007). Groups most likely to be socially excluded in Australia include intersections of: the homeless, Indigenous Australians, jobless families, sole parents, the aged, certain immigrants groups, individuals with low educational attainment, and those with a history of incarceration (Gillard & Wong, 2007). Research has shown that individuals with one, some, or all of these characteristics tend to gravitate towards the same geographical areas, which in turn concentrates disadvantage in particular neighbourhoods (Vinson, 2006). This concentration of disadvantage in specific areas will be discussed in the next section.
Place-Based Disadvantage

“We all know the problems of our poorest neighbourhoods - decaying housing, unemployment, street crime and drugs. People, who can, move out. Nightmare neighbours move in. Shops, banks and other vital services close” (Blair, 1998).

Whilst Australia is entering its third decade of economic growth, enduring disadvantage is still evident in many communities across the country. In fact, a new phenomenon, termed ‘place poverty’ is a widespread characteristic of all advanced economies (Randolph, 2004). Recent research shows that social and economic disadvantage has become more and more geographically concentrated (Powell, Boyne, & Ashworth, 2001; Vinson, 2007). Some geographical areas have become socially isolated, resulting in whole communities missing out on the rewards of economic growth.

In the midst of Australia’s economic growth, Vinson (2007) has found that entire communities are in danger of being left behind and becoming stuck in a perpetual cycle of social and economic disadvantage. Vinson’s (2007) pioneering study demonstrated that a small number of communities in Australia (1.7%) are substantially overrepresented when it comes to the factors that cause or demonstrate social disadvantage. These include: poverty, low incomes, early school leaving, limited computer and internet access, physical and mental disability, long-term unemployment, prison admissions, child mistreatment, and suicides. Not only is there clear evidence of the presence of social and economic disadvantage in these communities, but this disadvantage is often intergenerational in nature, consigning generations of individuals to an outcome in life that is predetermined by location, family circumstance, or lack of economic opportunity (Social Inclusion Agenda, 2007). Research in this area has generally focused on issues surrounding poverty, rather than social exclusion. However, as pointed out by Hayes, Gray, and Edwards (2008), there is a strong need for research that focuses on understanding social exclusion and the nature of policies and mechanisms that enhance social inclusion. More recent research that has focused on social exclusion has generally found that areas with concentrated poverty also have a tendency to have a concentration of other forms of disadvantage, such as poor access to services, poorer outcomes for children (Leventhal & Brooks-Gunn, 2000), poorer mental and physical health in adults
There is sufficient research evidence to suggest that targeted, coordinated, and assertive approaches can effectively address social exclusion. Whilst some advances have been made internationally (see Hayes et al., 2008), it is important to recognise that successful policy in other countries cannot replace the process of identifying the needs and challenges that are unique to the Australian context. Therefore, in depth research at the community level is required before effective policy and intervention can be developed to address place disadvantage (Hayes et al., 2008). In the next section the government approaches of the past and their levels of success in alleviating place-based disadvantage, social exclusion, and intergenerational poverty are discussed.

**Government Approaches to Addressing Poverty and Place-Based Disadvantage**

There has been increasing recognition throughout the literature that past government and non-government interventions and programs designed to alleviate the effects of disadvantage and poverty have been unsuccessful (Green & Zappala, 2000). For example, Vinson (1999) found that areas identified as disadvantaged in the 1970s were still experiencing disadvantage in the late 1990s, in spite of the proliferation of interventions and initiatives placed into those areas. While it is acknowledged that there has been some success within small community based programs aimed at building social capital (e.g., Brighter Futures, Hilferty et al., 2010) it is argued within the thesis that despite these attempts it is clear that government needs to adopt far more wide-ranging and inclusive policy strategies if place-based disadvantage is to be overcome long-term and nationwide. The following subsections will provide an overview of past and current government strategies for dealing with concentrated disadvantage.

**The welfare model.** For most of the 20th century, both the government and non-profit sectors have adopted a welfare based approach to support Australians experiencing disadvantage by providing them with funds to satisfy their immediate financial and material needs. A considerable amount of money has also been put into education at both the federal and state level as an alternative way out of poverty (see National Partnerships, n.d.). However, over the last 20 years, it has become increasingly clear that the welfare method of intervention has failed to prevent the
perpetual cycle of intergenerational disadvantage and welfare dependence now evident in this country, whereby disadvantage is simply transferred from parent to child without sufficient intervention (Smith Family, 2010). Put simply, the argument is that current welfare approaches provide enough for disadvantaged families to get by, but do not give or do enough to enable these families to improve their situation long-term. Whilst the welfare model continues to dominate in assisting the poor and addressing locational disadvantage, as discussed in the following sub-section, other strategies focusing on the physical environment of the community and the ‘culture of the poor’ have also appeared on the social policy agenda over the last half century.

The physical environment and the ‘Culture of the Poor’. In the two decades immediately following WWII, much of the focus in dealing with place-based poverty was on physical infrastructure, such as building standards and housing affordability (Nutley, 2003). Government focus on relocating residents from “the slums” to new housing estates was viewed in terms of improving the quality of life for long-term residents in decaying neighbourhoods (Jordon, 2008). The emphasis then shifted in the 1970s towards culture. It was thought that it was the values and social practices of “the poor” that perpetuated poverty in disadvantaged neighbourhoods and government money spent on improving the physical environment would be wasted (Jordon, 2008). Since that time, interventions to improve outcomes for underprivileged Australians have focused on proximal factors such as behavioural change strategies, and individual’s knowledge, attitudes, and skills (De Clercq et al., 2012). However, this approach places responsibility chiefly on individuals and has resulted in little success (De Clercq et al., 2012). More recently, governments have looked to the concentration of public housing as a contributing factor in explaining place-based disadvantage and as such, have adopted a dispersal strategy which is discussed in the next section.

The concentration of public housing and residential mobility. In Australia, the concentration of public housing was seen as a causal factor in the creation of place-based disadvantage and formed the basis for the “tenure diversification” policy (see Luxford, 2006), which involved creating areas with a ‘social mix’ of residents including home owners, and public and private renters (Darcy, 2007). An expected outcome of this strategy was the development of a “diverse, strong and sustainable community” with high levels of social capital (Luxford, 2006, p. 2). However, in contrast to the assumption that those areas with
the highest numbers of public housing would also have the highest levels of disadvantage, as measured by Randolph and Holloway (2005), the areas with the most concentrated disadvantage are those dominated by private rental homes rather than public housing.

According to Nutley (2003), policy interventions focusing on dispersal or the physical structure of the area have forged ahead without considering the experiences and views of those most directly affected - the residents. Additionally, little attempt has been made by policy makers to determine the effects of dispersal on those individuals who are moved to and from the area, or the quality of life for those who remain (Darcy, 2007). At present, after countless policies and initiatives focused on neighbourhood renewal or regeneration and/or transforming the culture of disadvantaged communities, Jordon (2008) argues that this dispersion strategy must be re-examined. Jordon suggests that the exit of, and the entry of, more resourceful residents should be seen as a problem rather than a remedy, as the promotion of mobility in and out of disadvantaged areas undermines sense of community, belonging, and collective action. In support of Jordon’s argument, Sampson, Morenoff, and Earls (1999) found that neighbourhoods characterised by residents who temporarily rented, had lived in the neighbourhood for less than five years, and had low income manual jobs, also had the lowest levels of social capital and collective efficacy.

The link between mobility rates and levels of community cohesion has been highlighted by other research conducted by Forest and Kearns (2001). Their findings suggest that the higher the rate of mobility, the lower the levels of mutual trust and shared expectations among neighbourhood residents. Similarly, Stone (2000) reported a link between communities with high residential mobility, low home ownership, and low SES with reduced levels of neighbourhood trust and cooperation. This is significant as the rationale for relocation in the past has been that producing a “social mix” of residents from different socio-economic backgrounds will enhance social capital in the community or suburb, and result in helping to alleviate the long-term disadvantage cycle of a particular area. However, trust, shared values, and common expectations are integral to the strengthening of social capital among community members. Therefore, rather than removing residents from disadvantaged areas, it is arguably the case that place-based problems should be
addressed by place-based solutions in consultation with community members and leaders.
Section Summary

The research and statistics cited throughout the first half of this chapter suggests that poverty, disadvantage, and inequality within Australia continues to be a persistent concern and the generation of new research avenues into how best to alleviate poverty within this country is now of vital importance. Social researchers have argued that there is a dire need for an effective integrative approach - demonstrated by tangible research evidence - to reduce place-based disadvantage in Australian communities (Stewart-Weeks, 1998). However, in order to achieve this goal there is a need to move away from current modes of intervention and develop new and innovative ways to overcome persistent disadvantage in this country as evaluation studies (e.g., Marmot et al., 2007) of current methods continue to indicate that the effects of these approaches are minimal. It is argued throughout the remainder of this chapter that adopting a more social approach allows for the dynamic interplay between personal factors and the larger social context in which individuals are embedded, thereby providing a new perspective in addressing the poor outcomes experienced by disadvantaged families. The present research aimed to address this need by attempting to stimulate new research avenues through the examination of the social capital construct and its potential impact upon poverty reduction using rigorous research methodology. The remaining half of this chapter now turns to the extant literature examining how building social capital can enhance life outcomes for people experiencing entrenched disadvantage.

Time for a New Socially Based Strategy: The Importance of Social Capital

In recent times, many researchers in the social sciences have turned to the notion of social capital to explore the relations between the community and individual factors contributing to disadvantage and the consequential negative outcomes that arise from these relations. It is argued that social capital theory offers a potential explanation as to why some communities function in ways that ameliorate the effects of disadvantage whilst others tend to become even further entrenched in it (Kearns and Forrest, 2002; Putnam, 2000; Vinson, 2007). As such, societies high in social capital or cohesion are currently looked to as providing potential solutions to entrenched social and economic disadvantage, and social capital has been extensively explored in relation to numerous outcome measures over the last two decades.
(Bowen, 2009). Despite this proliferation of research relating to social capital and various outcomes, it has had little influence on Australian government policy and the way in which disadvantage is addressed. For example, in a recent report investigating ways to break the cycle of intergenerational disadvantage, the Australian Social Inclusion Board (2011) identified both the causes and solutions to this problem in terms of structural (e.g., quality of, and access to services) and personal factors (e.g., childhood neglect and abuse, mental and behavioural problems) with very little mention of the value of building social capital and extending informal social networks. Part of the reason for this hesitancy may be due to the theoretical, conceptual, and measurement problems inherent in this field (see Chapter 3). However, despite the problems, omissions, and qualifications evident in the literature, as shown in the remaining sections of this chapter, the social capital concept has the potential to exert a powerful and positive influence on numerous outcomes.

The Relation Between Social Capital and Mental Health

Introduction

The impact of mental illness on the Australian population has become increasingly apparent over the last few decades. Mental disorder is the third leading cause of non-fatal burden of disease and injury within Australia (The Black Dog Institute, n.d.) and has been predicted to be the leading cause of disability worldwide by 2020 (Murray & Lopez, 1998). Results from the National Survey of Mental Health and Wellbeing (ABS, 2008) demonstrated that some 3.2 million people (one in five Australians) had suffered from a mental disorder in the 12 months prior to the survey. Additionally, almost half of the population (45%) had suffered from mental illness at some point in their lives. The increasing concern about the current and future burden of mental illness for individuals, families, communities, and nations has led to a paradigm shift away from a focus on treatment, to ways in which it can be prevented (Australian Health Ministers, 2003). There has also been growing recognition among health and human service sectors that events and everyday life contexts can influence mental health outcomes at different time points across the lifespan (Australian Health Ministers, 2003). With this renewed focus on preventative strategies and everyday settings, building social capital is seen as a
potential solution. The literature pertaining to the nexus between social capital and mental health is extensive. However, due to the wide scope of variables examined in this thesis, only a brief overview of the literature will be presented (for more detailed reviews see Almedom, 2005; Cullen & Whiteford, 2001; De Silva et al., 2005).

**Defining Mental Health**

Mental health encapsulates a wide range of social, emotional, and behavioural disorders making it difficult to categorise and define succinctly, and as a result, there are varying definitions (Almedom, 2005). One that is most closely aligned to the current research area was put forth by The World Health Organization (WHO, 2007, n.p.), defining mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”. Implicit in this definition are a number of elements directly linked to our current understanding of social capital, and thus it appears logical to assume that social capital has the potential to shape mental health outcomes. For example, individuals high in social capital are predicted to be able to cope with stress more efficiently due to support received from their social ties (Wilkinson, 2002), and the contribution or participation in one’s community is clearly consistent with Putnam’s (2000) conception of social capital. In addition, the ability to work productively and realise one’s potential requires that a person be integrated socially within one’s society.

**How Does Social Capital Promote Mental Health?**

The claim that social capital promotes mental health has been widely adopted in the social sciences by researchers, policy makers, and international organisations such as the WHO and the World Bank (De Silva, McKenzie, Harpham, & Huttly, 2005). Despite this enthusiasm, the exact mechanisms by which social capital benefits mental health outcomes remains unclear (Leeder, 1998, Pearce & Davey, 2003). Whilst a number of hypotheses to explain the relations have been put forward, few have been tested empirically (Wood, 2006). It is possible that increased levels of social capital within the population decreases the risk of mental disorders (Henderson & Whiteford, 2003). Conversely, it is equally plausible that improving the mental health status of the population can result in an increase social capital (Sartorious,
2003), as suffering from a mental illness impairs social functioning making an individual more withdrawn and less likely to seek out social relationships, thus diminishing the ability to build social capital (De Siva et al., 2005).

Regardless of which, if any, of these causal possibilities are accurate, research studies have found a strong positive relation between social capital and mental health, even after controlling for poverty (Aldridge et al., 2002). Wilkinson (2002) also argues that social relationships serve as a buffer against: stress, daily hassles, illness, and depression by providing support, care, and assistance. Similarly, Cullen and Whiteford (2001) found that social capital has positive effects for individuals at times of crisis. They argue that during a crisis, social capital at all levels is important, as the nuclear and extended family ensures that basic health needs are met (food, shelter, clothing), and religious and community institutions can provide leadership, emotional support, and open communication channels among community members, thereby facilitating psychological well-being. Additionally, high levels of social capital create feelings of well-being and belonging, whereas the absence of such capital can lead to isolation, despair, and depression (Brown & Harris, 1978).

**Measuring the Link Between Social Capital and Mental Health**

A review of the existing research examining mental health and social capital reveals a plurality of definitions, measurement scales, and methods, due to the complex nature of both constructs, making direct comparisons across research studies difficult. Using aggregated data at the macro level, Rose (1999) investigated how social capital networks contributed to measures of one’s “basic welfare” and concluded that levels of social integration accounted for ten percent of the variance in participants’ emotional health. However, in a systematic review of 21 quantitative studies, De Silva et al. (2009) found that the level of analysis (individual or ecological) impacted upon the results. The 14 studies examining social capital and its association with mental health at the individual level produced supporting evidence that cognitive types of social capital (e.g., trust) were inversely related with mental illness in children, and with common mental disorders in adults. In contrast, the studies examined at the ecological level failed to produce definitive results. The authors argue that the reason for this was the sheer diversity in the methodologies employed across the ecological studies examined making it impracticable to draw
any sound conclusions. Furthermore, many of these studies used secondary data sources, which is problematic for a number of reasons (e.g., lacks theoretical links, proxy items are used that were not originally designed to measure social capital). It is also been suggested that ecological and individual social capital do not measure the same thing and attempts to compare them simply exacerbate the confusion already associated with the construct (De Silva et al., 2009).

Social Capital and Mental Health in Disadvantaged Communities

Studies examining the effects of social capital on adolescent mental health within disadvantaged communities have also produced mixed findings. Stevenson (1998) conducted his research with African American adolescents living in disadvantaged urban neighbourhoods characterised by high or low levels of violence. Using a measure of neighbourhood social capital, Stevenson’s findings showed that youth living in neighbourhoods high in social capital were significantly less likely to suffer from depression than those living in the same type of neighbourhood with low levels of social capital, regardless of whether it was high or low risk area. This outcome was especially strong for girls who showed lower levels of sad mood, lethargy, cognitive difficulty and indecision, and instrumental helplessness. Interestingly, the importance of social capital upon these outcomes surpassed that of kinship social support or what has been termed family social capital. Based on these findings, Stevenson concluded that interventions aimed at strengthening social networks in disadvantaged neighbourhoods can have meaningful consequences and promote emotional stability in at-risk youth.

Drukker et al. (2003) explored the associations between neighbourhood deprivation, social capital, and child well-being. Their results showed that communities with high levels of socio-economic deprivation had lower levels of social cohesion, informal social control, and trust among residents. Low levels of informal social control were also significantly related to poorer mental health, general health, and behavioural outcomes in children aged 11-12 years. The social trust and cohesion variables failed to produce a significant effect on the health related outcomes. However, as the researchers explained, this does not indicate that no such relation exists, but may be due to the high correlations between social capital and socio-economic measures, thereby warranting further investigation. Similarly, to Beyer et al.’s (2003) suggestion, Drukker et al. found that neighbourhoods
experiencing high residential instability resulted in reduced levels of social capital by undermining the continuity and density of social network formation within these communities. In support of Drukker et al.’s conclusions, Aneshensel and Sucoff (1996) found that youth living in disadvantaged communities were significantly more likely to suffer from depression, anxiety, and behavioural disorders. However, when perceived levels of social cohesion among residents were included in the analysis there was a clear negative relation between depression and social cohesion within these poorer neighbourhoods. Aneshensel and Sucoff concluded that building strong social ties within low SES communities can improve mental health outcomes for adolescent residents.

Whilst the research cited above lends some support to the benefits of social capital on adolescent mental health in disadvantaged settings, other research has suggested that increased levels of social capital do not benefit all individuals and communities equally (Carlson & Chamberlain, 2003; Alemedom, 2005). For example, Caughy, Campo, and Mantaner (2003) examined the relation between indicators of social capital (e.g., knowing one’s neighbours) among parents, and behavioural problems (depression, anxiety, and aggression) in their children. They concluded that their results produced contradictory evidence for the benefits of social capital and claimed that the socio-economic context of the neighbourhood was important. In wealthy neighbourhoods, parents that knew fewer of their neighbours had children with higher levels of depression and anxiety when compared to those reporting knowing many of their neighbours. However, in poorer neighbourhoods the opposite effect was found. Children of parents who reported knowing few of their neighbours had lower levels of depression and anxiety in comparison to those who had many neighbourhood networks. Specifically, these results indicate that having a strong attachment to one’s community protects against problem behaviours in children living in wealthy communities but serves as a risk factor for children living in highly impoverished neighbourhoods.

The Importance of Access to Social Capital and the Quality of Networks

Whilst the results of Caughy et al. (2003) appear to support Bourdieu’s (1986) view of social capital as benefiting only the wealthy, there are other possible explanations for these findings and the potential benefits of building social networks in disadvantaged areas should not be dismissed prematurely. In the Caughy et al.
study, the measure used to assess “knowing your neighbours” was made up of only three items and produced a reliability estimate of .58 which is below that of generally accepted levels (Tabachnick & Fidell, 2007). Additionally, one of the items cross loaded onto both factors, and the remaining two aimed to measure the quantity of neighbourhood networks but did not address the quality of those networks (e.g., “I can recognize most of the people who live in this neighbourhood”). As Portes (1995, p. 5) states, it is important to “distinguish the resources themselves from the ability to obtain them by virtue of membership in different social structures”. In other words, it is not the merely the number of networks that one possesses that determines the benefits of social capital, but rather the value of being able to draw on those networks when needed (Boon & Farnsworth, 2011; Stephens, Alpass, Towers, & Stevenson, 2011).

In support of this view, Antonucci, Fuhrer, and Dartigues (1997) found that older people’s perceptions of satisfaction with their social relationships accounted for more variance in depressive symptoms than did the size and structure of those networks. Additionally, research produced by Ryan and Willits (2007) indicated that whilst the size of older people’s family networks had little impact on their mental and physical health, the quality of those networks was clearly associated with their personal perceptions of well-being. Overall, what these results indicate is that not all social networks have a positive influence on people’s lives. In order to disentangle the complex relations between social capital and mental health (along with other desirable outcomes) it is important to recognise and include participant’s perceptions of the quality of their social networks before drawing any conclusions regarding the advantages or disadvantages of social capital and its relation to mental health.

**Section Summary**

The majority of research discussed in this section has demonstrated that increased stores of social capital can be advantageous for mental health outcomes in children, adolescents, and adults living in both privileged and underprivileged communities. Of concern, is the consistent finding across these studies whereby the disadvantaged communities in which social capital could be most beneficial, continually present with the lowest levels. This finding makes it crucial to gain a good understanding of this construct and its potential effects in order to develop
strong community based initiatives to build social capital in these deprived areas. Social capital is not only claimed to have important benefits for mental health, there has also been a substantial area of research dedicated to the relations between social capital and physical health which will be explored in the following section.

The Relation Between Social Capital and Physical Health

Introduction

There is a considerable body of evidence which consistently supports the health benefits of social integration among individuals (Stephens et al., 2011), and demonstrates that more socially cohesive societies are healthier with lower mortality rates (Kawachi, Kennedy, Lochner, & Prothrow-Stith 1997). This section of the chapter outlines the research evidence highlighting the importance of social relationships for improving physical health outcomes and presents the emerging evidence pertaining to the prospective benefits of social capital on physical well-being for disadvantaged youth.

Research Evidence Linking Social Capital and Positive Physical Health Outcomes

As early as the nineteenth century, Durkheim demonstrated that suicide rates and poor health were lower in communities with high levels of social cohesion, and higher in communities with poor levels of social integration (Field, 2007). Another early example of the impact of social capital on health came from a series of studies conducted in the close Italian community of Roseto, Pennsylvania (Bruhn & Wolf, 1979; Stout, Morrow, Brandt, & Wolf, 1964). Researchers discovered that despite the very unhealthy diets among community members there was an extremely low incidence of heart attack. Researchers argued that this was due to the close social bonds in the community and in support of this suggestion, when community cohesiveness diminished in the late 1970s, death rates rose to the national average.

There is also sufficient evidence demonstrating that more socially isolated individuals have poorer health outcomes and are more likely to experience chronic illness (Cornwell & Waite, 2009; Penninx et al., 1999). Wilkinson (2002) argues that one of the reasons for this is that individuals with strong social ties are more likely to seek help for medical conditions, perhaps at the insistence of friends and family.
Additionally, supportive relationships are known to have significant positive effects on the immune system (Wilkinson, 2002). For example, Kennedy, Kiecolt-Glaser, and Glaser (1990) found that even the simple act of confiding in someone close to you can improve immune function. In addition, Veenstra’s (2000) research on social capital, socio-economic status (SES), and health demonstrated that socialising with work colleagues, attending religious services, and club participation are all related to positive health status. In fact, frequency of socialising with work-mates and attendance at religious services had the strongest (and most positive) relations with health even after controlling for human capital.

In the United States, Kawachi, Kennedy, Lochner, and Prothrow-Stith (1997) demonstrated that people die significantly younger in states that are low in social capital in comparison to those that are high in social capital. They also found that individuals with strong social ties had mortality rates half to one-third of those with weak ties. In a large-scale study across the Netherlands, Mohnen, Groenewegen, Völker, & Flap (2011) investigated the influence of neighbourhood social capital on individual health. Their results revealed that higher levels of social capital within the community resulted in more positive health outcomes in individual health scores than those with low social capital. Although neighbourhood contextual variables such as socio-economic status and physical environment exerted an influence, the positive impact of social capital on health remained independent of these other contextual conditions. Consistent with these findings, Ross (2002) found that Canadian adults with a strong sense of community belonging were more likely to report being in good health even after controlling for variables such as health issues (e.g., smoking, mobility), socio-economic factors (e.g., educational attainment, household income), existing chronic illness, and stress.

Further evidence for the beneficial impact of social capital on health comes from the work of Putman (2000). Drawing on a numerous studies, Putnam was able demonstrate the importance of social networks as an independent factor in negating ill-health after controlling for characteristics such as age, income, alcohol consumption, smoking, and exercise. Using his Social Capital Index, he also found a clear positive relation between state level indicators of social capital and a range of positive health indicators, along with clear negative associations between social capital and mortality rates. Providing further support for the links between social capital and health was a comparative study conducted by Green et al. (2000), who
found that higher levels of reciprocity among locals in a small mining town led to higher health scores amongst its residents.

**Social Capital and Physical Health in Disadvantaged Communities**

Whilst the research presented above provides convincing evidence for the positive link between social capital and health, until recently much of this research has been conducted in relation to adult health, hence the research relating to children and adolescents remains limited (De Cercq et al., 2012). Furthermore, there have been even fewer studies examining this relation with adolescents living in disadvantaged communities. Past studies have consistently shown that adolescents (and adults) living in poor communities report lower levels of health than their more affluent counterparts (Boyce, Davis, Gaullupe, & Shelly, 2008; Currie et al., 2008; Morgan & Hagland, 2009). Whilst this inequality in health status, often labelled the social gradient of health (Adler et al., 1994) is well established, an interesting study conducted recently by De Clercq et al. (2012) challenged the deterministic and persistent nature of the social class and perceived health association.

Surveying school aged children in a total of 601 Flemish communities (N=10,915) De Cercq et al. (2012) examined the importance of community social capital as an independent determinant of individual perceived health and well-being. Utilising multilevel statistical procedures, results indicated that whilst both individual and community levels of social capital produced positive and additive effects on individual perceived health and well-being, community social capital exerted a much stronger influence. Additionally, and most encouragingly, the results also demonstrated that the socio-economic status differences in perceived health previously discussed were significantly and substantially reduced in areas with high levels of community social capital. In other words, the results showed that the social gradient of health was “flattened” and the disparity in perceived health between high and low SES communities was eliminated when high a level of community social capital was present. These results offer some promise for the potential success of interventions focused on the social environment and suggest that communities with the lowest levels of social capital, generally also the most disadvantaged, would benefit most from an increase in community level social capital to improve health outcomes.
Section Summary

Despite the positive findings cited in the above discussion, the studies presented have used a variety of instruments to measure both social capital and health, and the links to social capital theory are often tenuous and somewhat dubious. As with the mental health research discussed previously, most of the studies have relied on secondary data sources which contain items that fail to capture the complex definition of social capital. Additionally, despite the surge of research in this area and the advances made, the way in which social capital facilitates good health is still far from clear and research with more comprehensive and precise instrumentation is still needed (Field, 2008). Whilst this chapter thus far has centred on physical and mental health, another area that has recently been theoretically linked to social capital and which can have a detrimental impact on both physical and mental health is risk-taking behaviour in youth which is the focus of the next section.

The Relation Between Social Capital and Adolescent Risk-Taking Behaviour

Introduction

Developmentally, adolescence is a challenging period characterised by increased levels of curiosity and self doubt. Thus, there is a heightened potential for engaging in risk related activities among this age group (Smylie et al., 2006). Risk-taking behaviours among youth, such as smoking, drinking, drug taking, and unsafe sexual practices, can all have an adverse impact of adolescent health in terms of unwanted pregnancy, contracting sexually transmitted infections (STIs), and an increased risk of injury, and acute and chronic disease (Smylie et al., 2006). The consumption of health compromising substances have also been linked to mental health problems such as depression and anxiety (Kaminer, Connor, & Curry, 2007), increased risk of suicide (Wilcox, Connor, & Caine, 2008), aggression, and violence (Doran, Luczak, Bekman, Koutsenok, & Brown, 2012). The current section examines the benefits of social capital at multiple levels across the social structure (e.g., family, peer, neighbourhood) in order to determine how, and if, social capital impacts on adolescent risk-taking behaviours.
The Impact of Family and Peer Social Capital on Risk Behaviours

Over the last two decades a number of studies have begun to identify sources of social capital that can ameliorate risk-taking behaviours among youth. In relation to family social capital, research has found that adolescents who have supportive parent-child relationships with open lines of communication reported lower levels of drug use (e.g., Stronski, Ireland, Michaud, Narring, & Resnick, 2000), were less likely to engage in sexual relations (Karofsky, Zeng, & Kosorok, 2000; Whitaker & Miller, 2000), and had a lower risk of unwanted pregnancy (Miller, Benson, & Galbraith, 2001) than adolescents who reported tumultuous relationships with their parents.

Studies examining peer relations as a source of social capital have illustrated that risk-taking behaviours can be encouraged or discouraged depending on the nature of peer norms (McNeely & Falci, 2004; Portes, 1998). For example, research has shown that peer group norms which advocate unsafe sexual practices tend to exert a negative influence on their peer’s behaviour (Kirby, 2001; South & Baumer, 2000), whereas those that endorse more sexually healthy practices minimise risky sexual behaviour among their friendship group (Browning, Leventhal, & Brooks-Gunn, 2004). Whilst it has been consistently shown that social involvement with delinquent peers is positively associated with delinquent behaviour (e.g., Marcos, Bahr, & Johnson, 1986), other research suggests that these relations are far from straightforward, and falling into a “bad crowd” does not inevitably mean that adolescents will engage in the same risk-taking activities (Smylie et al., 2006). It has been shown that existing family values and norms can moderate the associations found in previous research and that youth are influenced by both their peer and family values, depending on their differing needs (Watts & Nagy, 2000).

The Impact of School and Neighbourhood/Community Social Capital on Risk-Taking Behaviours

In addition to family and peer social capital, social capital arising from schools, neighbourhoods, and involvement in sports clubs and religious institutions can also influence levels of risk-taking among adolescents (Coleman, 1988). Research has shown that students with a strong attachment to school and a high level of commitment to their education, are significantly less likely to engage in smoking, drug use, alcohol consumption (Marcos, Bahr, & Johnson, 1986), and unsafe sexual
practices (Dorius, Heaton, & Steffen, 1993). For example, McNeely and Falci (2004) found that positive student-teacher relations increased the likelihood of students engaging in safe sexual practices, and decreased the likelihood of weapon-related violence, suicide (attempts and ideation), smoking, getting drunk, and marijuana use. Contrary to the predictions of this study, once the shared variance between teacher relations and school connectedness was removed, school connectedness failed to exert a significant influence. A potential explanation for this is that after removing teacher relations, school connectedness related solely to peer relations at school, and, as explained above, depending on peer norms, peers can encourage or discourage risky behaviour. Thus, it is possible that the potential positive and negative scores on this variable cancelled one another out, making school connectedness insignificant. It is also possible that the teacher-student relation is the most important aspect of school connectedness. Both of these possibilities warrant further investigation.

Research investigating the relations between adolescent religious involvement and risk-taking behaviour has consistently shown that involvement in religious activities decreases the likelihood of engaging in risky behaviours, and presumably by increasing the density of their networks, this relation is even stronger if the youth’s parents are also involved in the church (Merrill, Salazar, & Gardner, 2001). It is thought that by immersing adolescents in institutions and groups that frown upon risk-taking behaviours encourages them to adopt the same values and norms, enabling them to develop relationships built on trust and reciprocity. These same principles have been applied to involving youth in sporting teams, which has also been shown to decrease risk-related behaviour in Brazilian adolescents (Anteghini, Fonseca, Ireland, & Blum, 2001).

Researchers have become increasingly interested in the protective benefits of perceived neighbourhood social capital on health outcomes, but few have investigated this in relation to risk-taking behaviour among adolescents. One exception was the study conducted by Boyce et al. (2008). An advantage of this study over the others cited within this section, is that the measure used for neighbourhood social capital consisted of five items encompassing a number of the prescribed theoretical elements of social capital. While this potentially strengthens the validity of their findings, all data was gathered from a secondary source (Health Behaviours of School Children, HBSC) not initially designed to measure social capital, and despite improving on the single items measures more often used, could
still be considered restrictive in nature. Notwithstanding this potential methodological flaw, the study demonstrated that adolescents with the lowest perceived levels of neighbourhood social capital were the most likely to engage in frequent risk behaviours when compared to those with moderate to high levels of neighbourhood social capital. The study also found that students with the lowest family affluence scores were also the ones that engaged in the most risk related behaviours.

The Impact of Demographics on Risk-Taking Behaviour and Social Capital

Additional research also suggests that the pattern of risk-taking behaviour differs across gender (Smylie et al., 2006; Sweeting & West, 2003). For example, Boyce et al. (2006) found that males were more likely to engage in risk-taking than were females (with the exception of tobacco use), although this disparity was only evident amongst younger adolescents (12-14 years). Other research has shown that females report feeling less pressure from peers to engage in sexual activity than do males (DeGaston et al., 1996), despite perceiving a greater portion of their peers to be having sexual intercourse and using birth control (DeGaston et al., 1996). An early study by Brown, Clasen, and Eicher (1986) also established that males are more likely than females to respond to peer pressure and engage in sexual activity in order to conform to peer group norms and values.

Smylie et al. (2006) examined risk-taking behaviour in Canadian males and females aged 15-19 years of age. In an attempt to integrate social capital theory into the research, Smylie et al. also aimed to contrast the three prominent theories put forth by Bourdieu (1986), Coleman (1988), and Putnam (2000) (see Chapter 3) to determine which account best predicts adolescent risk-taking. Drawing on Bourdieu’s emphasis on forming valuable networks, his theory was operationalised as participants’ spoken language, immigrant status, frequency of contact with close friends, and involvement in a volunteer organisation. With Coleman’s theory stressing the importance of the family and religious affiliation, his interpretation was measured using questions about family compositions and frequency of church attendance. Finally, Putnam’s theory which focuses on group participation was measured by participation in the labour force, church, school, sports teams, and volunteer organisations.
The initial demographic results revealed that race and income were significant predictors of risk-taking behaviour. However, when Coleman’s predictors were introduced into the model for males the explanatory effect of income disappeared entirely, suggesting that levels of family social capital can moderate the association between income and risk behaviour. Regional differences also no longer affected behavioural risk in males after adding Putnam’s predictors. This again suggests social capital can moderate these effects. Once Bourdieu’s predictors were added (language and race) there was a decrease in the effect size of race for females, although this result was not as strong for males. However, most influential for reducing risk behaviours among females, was participation in community groups. Overall, it was concluded that levels of family social capital had the strongest influence over male risk behaviour, whilst still exerting a positive influence on females. It appears that for boys, networks formed within the home are more influential than those created elsewhere, and therefore Coleman’s theory had the most predictive power for males. In contrast, the authors concluded that for females, Putnam’s model, and the importance of group membership, had the strongest predictive power over female risk behaviour, whilst Coleman’s had the least. This indicates that for females, social groups within the community appear more important than those within the family.

Despite these findings there were a number of limitations associated with this study. Firstly, the data used was gathered from a secondary source that was adapted to correspond with the conceptualisation of social capital rather than creating new more direct measures of the construct. Secondly, as discussed previously, social capital research has highlighted the importance of the quality of networks rather than just the quantity (Antonucci et al., 1997; Ryan & Willits, 2007). However, the indicators used in this investigation did not address this aspect of the social relationships measured. Finally, and perhaps most importantly, the operationalisation of each of the theoretical viewpoints was extremely limited and often overlapping. Using demographic items such as language spoken at home and racial background does not capture Bourdieu’s theory adequately, which may explain the lack of significant associations between his theory of social capital and risk-taking behaviours. Additionally, whilst claiming that the study was comparing theoretical viewpoints, many of the indicators used to operationalise each theory overlapped (e.g., religious participation was used to measure both Putnam’s and Coleman’s
theories), indicating that the authors’ conclusions relating to the explanatory power of one theory over another is limited.

Regardless of these methodological limitations, this was one of the few studies that has attempted to advance theory in this area. Furthermore, the finding that social capital accounted for as much or more of the variation in multiple risk-taking than did demographic items is important as most of the existing prevention strategies used to reduce adolescent risk-taking behaviour are based on socio-economic factors (Smylie et al., 2006). These results indicate that the same attention should be given to strengthening an individual’s social capital (at the family, school, and neighbourhood level) and creating places where youth feel like they belong (e.g., sports teams, youth centres, church groups). Building and participating in these positive networks not only gives adolescents less time to engage in risk behaviours, but also creates an influence by encouraging youth to engage in low risk behaviours and adopt values that discourage risk-taking in adolescents.

**Section Summary**

Despite the promise that the social capital construct has shown in this area, there is still a lot of work to be done to truly disentangle the relations between social capital and the host of other variables that can have an impact on adolescent health. In order to move forward, research in this area needs to dispense with its overreliance on using convenient data sets whereby existing indicators are inadequately moulded to fit social capital theory. What is needed are more genuine and consistent indicators of social capital that have relevant links to theory so that the potential benefits of the construct can be fully developed. A second problem in this body of literature is that many of the studies fail to measure the quality of the social relations under investigation. Simply asking respondents the number of people they know in each context of their lives fails to capture whether or not they are able to draw on these people in times of need and access much needed resources through them.

In spite of the challenges mentioned above, findings presented throughout this chapter consistently demonstrate that adolescents living in poor communities are at the greatest risk of poor physical and mental health outcomes, have the lowest levels of social capital, and are more prone to taking risks with their lives than their more affluent counterparts with high levels of social capital. However, what this
body of research also suggests is that increased levels of social capital can potentially narrow the gap on health outcomes and risk-taking between disadvantaged and non-disadvantaged youth. Whilst the research presented thus far has demonstrated how social capital can improve health outcomes for disadvantaged teens, other research has investigated how social capital can be utilised to improve other important aspects of their lives. One area of research that has been prominent in the social capital literature is the potential positive benefits it can have on students’ educational outcomes, as discussed in the next section.

The Relations Between Social Capital and Educational Outcomes

Introduction

An ongoing concern in educational research is the increasing size of the academic achievement gap between socio-economically advantaged and disadvantaged students. As research has shown, this gap grows larger the longer students are in school and there is a growing concern that schools are failing their most needy students (Alexander, Entwisle, & Olson, 2001). For the disadvantaged, this fissure commonly leads to higher school dropout rates and a subsequent increased risk of poverty throughout the lifespan (Stanovich, 1986). The following discussion centres on the influence of social capital on educational outcomes and highlights the importance of social relations both within and outside of the schooling environment which can serve to enhance educational success among our most disadvantaged students. Also discussed are the difficulties disadvantaged students face in trying to access social capital, and finally, the limitations found in the social capital/educational literature are highlighted.

Moving Away From Deficit Models

Alexander et al. (2001) argue that for students’ living in disadvantaged neighbourhoods, the context outside of school (i.e., poverty, family stressors, and community decay) provides an explanation for why the achievement gap between high and low socio-economic status (SES) children is evident even when children begin school. Deficit explanations of educational disadvantage typically place the blame on those students and communities most poorly served by their schools. For example, there is an argument that in more affluent households and neighbourhoods,
preschool children are more prepared for school as parents have more time and resources to teach basic reading and numeracy skills in the home when compared to children living in low income households (Hess & Holloway, 1984; Slaughter & Epps, 1987). As children move through school, the same social and economic circumstances that diminish school readiness continues throughout the school years and the achievement gap across social lines widens (Alexander et al., 2001).

Social capital theory provides an alternative explanation and a potential solution to the ongoing systemic inequalities evident in the educational structure and the resulting differences in achievement levels between advantaged and disadvantaged students. This moves the focus away from a deficit ‘blaming the victims’ approach. For example, Aldridge et al., (2002) argue that research has shown a strong positive reciprocal relation between social capital and educational success. Like Coleman (1988), they highlighted the importance of the parent/child relationship (bonding capital), arguing the more interest, engagement, support, and encouragement that the parent gives the child in educational related issues, the higher the educational achievement. The parent/parent relationship between students’ parents (bridging capital) is also important for educational success, as is the parent to school bond (linking capital), both of which can have a powerful effect by providing children with consistent messages about the importance of learning (Coleman, 1988). These relationships are clearly not totally context or social status dependent.

**The Importance of Social Relations for School Success**

The importance of building social relations across school communities has long been recognised. As early as 1916, Hanifan suggested that schools formed the centre of the communities, providing an excellent foundation for building social relations among residents which would ultimately result in benefits for the whole community (as cited in Plagens, 2011). Later Coleman and colleagues (1982) showed that pupils attending Catholic schools clearly outperformed their counterparts in state schools and non-Catholic private schools, even after accounting for demographic factors such as social class and ethnicity. Interestingly, these differences were particularly salient for students coming from the most disadvantaged environments whose families are typically thought to have the least to contribute to their children’s cognitive development and subsequent educational success. The research concluded that an explanation for these rather striking differences may be due to the impact of
the norms and expectations operating within the Catholic school community, in which both parents and children came to endorse regardless of their socio-economic background. Coleman and Hoffer (1987) argued that this research provided a clear demonstration that school communities can be a valuable source of social capital which can be used to overcome some of the impact of social and economic deprivation experienced within the family. In a subsequent study, Coleman (1988) showed that students’ living in two parent families, who had few siblings, close ties with extended family, and whose parents had high educational expectations were more likely to complete schooling than those living in large families, single parent households, or had few ties with extended family.

Subsequent research following Coleman’s work tended to adopt both his theoretical framework and his methodology with a strong focus on minority populations (Dika & Singh, 2002). As a consequence, the majority of studies over this period used social capital indicators relating primarily to family networks and interactions, and data were gathered from existing large-scale national data bases (e.g., Carbonaro, 1998; Lopez, 1996; Pong, 1998). Whilst this research consistently demonstrated the importance of family social capital in improving educational outcomes for students (e.g., Furstenberg & Hughes, 1995; Muller, 1994; Valenzuela & Dornbusch, 1994), few studies during this period investigated the potential effects of social capital on education outside of the family context.

**The Importance of Community Social Ties**

An exception to the general trend of focusing on family capital was Sun’s (1999) study which sought to examine the links between education and social capital outside of the family context. Sun investigated whether community social capital can have a positive impact on student educational aspirations and achievement over and above the effects of family social capital and demographic variables. Sun’s analyses found that whilst family social capital is important, community social capital exerted an additional effect on school performance measures for all students living within that community. Consistent with Coleman’s account of social capital stock, results also showed that schools with a high concentration of non-traditional (e.g., single parent) and/or large families performed more poorly and possessed the lowest levels of social capital. However, after controlling for economic deprivation and other low SES factors which are thought to provide barriers to the formation of interpersonal
ties within the community, Sun found that the positive effects of community level social capital remained. In other words, if residents living in these communities can overcome the barriers preventing them from building social capital and become more involved in community activities this could help compensate for the negative effects of economic deprivation and their children would encounter fewer educational disadvantages.

These findings have important theory and policy implications. Sun (1999) argues that if local councils and community leaders could provide more opportunities for residents to interact at the community level, not only would the community benefit from the strong social ties amongst its members, but it would also “help the community to achieve its educational goals” (Sun, 1999, p. 424). Research with immigrant families has supported this view, suggesting that it is possible for poor families to overcome their financial barriers and attain high levels of social capital (Caplan, Choy, & Whitmore, 1992; Duran & Weffer, 1992). In general, it is believed that children who have a large network base are at an advantage because they have access to a variety of learning experiences and opportunities for mentoring in the skills that interest the child (Aldridge et al., 2002). Sun (1999) argued that a large network base is particularly significant as children enter secondary school as parental influence tends to decrease throughout the teenage years, and during this time, community social capital can serve as an alternative source of informational, psychological, and educational assistance.

The Impact of Social Capital in Cross-Cultural Settings

Research in a variety of social and cultural contexts also suggests that social capital can have a positive impact on educational attainment. Research with Mexican migrants showed that students with high levels of social capital not only achieved more at school but also had greater educational future aspirations (Stanton-Salazar, 2001; Stanton-Salazar & Dornbush, 1995). Social capital accumulated within the family has been found to be positively related to years of schooling (De Graaf, De Graaf, & Kraaykamp, 2000), increased levels of high school completion (Coleman, 1988; Coleman & Hoffer, 1987; Israel, Beaulieu, & Hartless, 2001; Teachman, Paasch, & Carver, 1996), and college enrolment (Furstenburg & Hughes, 1995; Yan, 1999). School settings that encourage the development of social capital and create a culture of expectation around their students attending college has also been shown to
improve academic outcomes for both disadvantaged and minority youth (Allen, Kimura-Walsh, & Griffin, 2009; Gibson, Gandara, & Koyama, 2004; Stanton-Salazar, 2010).

In one of the few studies examining social capital beyond high school, White and Glick (1999) compared high school perseverance, tertiary educational pursuits, and workforce participation between American born and immigrant youth. They found that despite the lower socio-economic status of the immigrant sample they were more likely complete secondary school than their native born counterparts. The authors claimed that this result was due in part to the higher levels of familial social capital reported by the immigrant adolescents which appeared to buffer the effects of low levels of human capital among immigrant parents. Their findings also indicated that the positive effects of family social capital did not continue once students left school, with results showing no difference in the pursuit of tertiary education or labour force entry between native and immigrant adolescents. It is possible however, that social capital is just as important once students decide to leave school, but as parental influence decreases in late adolescence, school leavers may rely on different forms of social capital (peer, neighbour, community) to secure jobs and tertiary educational opportunities.

**Barriers in Accessing Social Capital**

Whilst most educational researchers have shown little interest in departing from Coleman’s (1988) family focused theoretical model, sociologist Stanton-Salazar and colleagues (1997; 2011; Stanton-Salazar & Dornbusch, 1997) explored how youth and their families can access and utilise social capital within educational (and other) institutions. They argue that in addition to the family, social capital can be accessed at the community and school level through “institutional agents” which he defines as “high status, non-kin agents who occupy relatively high positions in the multidimensional stratification system, and who are well positioned to provide key forms of social and institutional support” (Stanton-Salazar, 2011, p. 1066). Within the schooling context, these agents or non-parent adults (i.e., teachers, other parents, counsellors etc.) have access to, and are able to distribute, limited and valuable educational resources. Following from this, Stanton-Salazar (2011) demonstrated that adolescent ties with non-parent adults enhances their psychological well-being, familial and peer relationships, academic success, and employment opportunities.
Stanton-Salazar (2011) also argued that the poor performance exhibited by disadvantaged students is not due to student skill levels or some parental deficiency but rather is due to differential access to social capital between high and low SES groups. He explains that whilst non-parental adults can make a positive contribution to the development of youth, those in the working class may not have the same level of “human, cultural, and social capital to truly alter an adolescent’s social mobility” as do those in the higher classes of society (Stanton-Salazar, 2011, p. 1071). Hence, adults with disadvantaged backgrounds may not have the authority or status to exert an influence over school administrations, nor do they always have the social connections to initiate relations between the adolescent and other adults who are in a position to access the vital resources needed for educational success. Despite this difficulty, it is possible for low status youth to gain access to institutional agents, most commonly through youth workers or student services who are very much aware of the current institutional inequalities and seek to empower disadvantaged youth (Stanton-Salazar, 1997; 2011). Therefore, if parents and students, particularly those experiencing disadvantage, are given the opportunity to invest in building strong social ties with institutional agents within the school and the surrounding community, they might well gain greater access to limited educational resources which will ultimately contribute to better educational outcomes.

**Research Limitations Identified in the Literature**

Although research consistently links social capital to students’ academic and social outcomes, the explanations remain varied and often inconclusive. There are three possible explanations for this that are pertinent for the current research. The first is largely due to the multiplicity (and often dubious) of variables used to quantify both social capital and the different educational outcomes. As stated by Dika and Singh (2002), much of the evidence linking social capital to educational outcomes fails to address the construct validity of the research, and when it is included, only basic statistical techniques are employed. A second concern within this literature is that few researchers have designed their own surveys to measure social capital, instead relying on existing large panel style questionnaires which consequently leads to poor, diverse, and unreliable indicators of social capital. Consequently in the research reviewed here, the term has become conceptually diluted: existing indicators of social capital are made to fit its conceptualisation
rather than measure the concept itself. A third issue is the almost exclusive reliance on the family as the source of social capital for getting ahead in educational pursuits. Largely ignored is the value of social relationships outside the family which may be used as a resource for facilitating educational success. Research that demonstrates the importance of forming networks outside of the family environment is closely aligned with Bourdieu’s ideas surrounding the reproduction of institutional and social inequality. This framing holds promise for understanding how social capital can be accessed by both privileged and underprivileged youth to improve educational outcomes. In conclusion, this section has demonstrated how stronger social networks can benefit educational achievement, attainment, and aspirations. The way in which social capital can facilitate employment prospects and aspirations, and help alleviate poverty forms the basis for the discussion in the next section.

Relations Between Social Capital and Poverty Reduction

Introduction
Finding ways of reducing poverty has long held the interest of governments and social scientists across a large range of disciplines. Until recently, most policy and development attempts to reduce poverty have focused on economic, physical, and human capital strategies and the role of social capital has been largely neglected (Abdul-Hakim, Abdul-Razak, & Ismail, 2010). However as Field (2008) points out, “economic behaviour is always imbedded in social structures and shaped by cultural values” (p. 56) and therefore these factors cannot be ignored. These thoughts are reiterated by Robison, Siles, and Schmid (2002), who argue that whilst other types of capital are important for reducing poverty, they alone are not sufficient, and the failure to incorporate social capital theory into past reduction strategies provides some explanation for why they were less successful than expected. More recently, researchers have begun to examine the ways in which social capital can be used to alleviate poverty and long-term disadvantage. It is now thought that social capital can have positive socio-economic consequences, not only for individuals but for whole communities (Abdul-Hakim et al., 2010). Putnam (1993; 2000) also argues that entire economies in well-connected societies consistently outperform those that are poorly connected. This section of the chapter outlines the importance of research-derived forms of social capital (bonding, bridging, and linking) for securing
employment and also highlights the barriers disadvantaged individuals face in gaining access to the labour market through social connections. The final component of this section presents the research evidence supporting the positive influence of social capital in enhancing one’s economic position.

**Relations of Social Capital and Employment**

A major focus within the recent literature is the way in which social networks can influence job seeking behaviour and be used to gain employment. The research examining the links between social capital and employment has consistently shown that the networks and contacts that constitute social capital can also assist in highly cost effective processes for securing employment (Field, 2008). Numerous studies have shown that “more people find employment through friends and personal contacts than through any other single route” (Aldridge et al., 2002, p. 20). For example, a study conducted by Peterson, Saporta, and Seidel (2000), found that 80% of employees at a large technology firm used personal networks in order to secure their current position. In addition, a Swiss study found that graduates who found employment through their social networks formed at university were more likely to enter professional careers at the graduate level (Frazen & Hangartner, 2006). Hence research suggests that not only can social connections help find individuals employment but also when making recommendations about potential job opportunities, the social contact also takes the job seekers qualifications into account to ensure that they find the most suitable employment (Field, 2008).

An early study by Granvotter (1973) found that information about upcoming job opportunities was most often passed on by acquaintances rather than close family and friends, thus highlighting the importance of developing weak social ties (bridging and linking social capital). In contrast, Sabatini’s (2005) study in Italy found that it was people’s close ties (bonding capital) that were most important for entering the labour market, although bridging and linking capital were positively associated with higher incomes. A qualitative study by Boon and Fransworth (2011) revealed the complexities of entering the job market for those living in poverty and the need to possess all forms of social capital. One respondent, a single father with a young daughter, was highly qualified as a chef and an acquaintance had offered him a job. However, this required him to work evenings and weekends, which is outside the normally prescribed childcare hours. As he had no family or close female friends
to care for his daughter, he was unable to accept it. In other words, whilst he had the human and bridging capital to get the job, he lacked the bonding capital necessary to perform it.

This lack of social connections is commonly seen as a potential barrier to the labour market, particularly for ethnic minority and other disadvantaged groups, as they lack access to potential job opportunities through informal networks (Cabinet Office, UK, 2003; Reingold, 1999). Furthermore, individuals who are unemployed and living in areas with concentrated disadvantage are even less likely to improve their situation as those around them tend to be unemployed, and therefore unable to provide avenues into the labour market (Buck, 2001). Whilst it is commonly documented that the poor tend to have good stocks of bonding capital, the factors contributing to the difficulties in establishing bridging and linking capital is succinctly put by Robison et al. (2002, p. 20) who state, “too frequently, the rich and the poor attend separate schools, live in separate locations, take their meals isolated from each other, worship at different times and in different places, marry within their own class, and obtain their medical services at different places. The poor are reminded by their frequent separation from the rest of society that they are different”.

Social Capital and Economic Outcomes

In addition to influencing employment opportunities, researchers have examined a range of other economic outcomes that are positively linked to social capital. Elevating levels of social capital have been shown to be an effective component in the successful exit from homelessness in both Los Angeles and Tokyo (Marr, 2012). For example, MacKnee and Mervyn (2002) found that reaching out and forming new relationships with housed people and re-establishing familial relations was a critical element in the success and longevity of an exit from homelessness. Other studies including Rupasingha and Goetz (2007) have demonstrated that social capital is critical for alleviating poverty and that simply creating job opportunities and improving educational qualifications is not enough to reduce economic hardship.

In support of this view, Narayan and Pritchett’s (1999, see also Grootaert, 1999) village study in rural Tanzania showed that not only did increased social capital at the village level exert positive effects on economic well-being, but the influence of social capital on income levels was greater than all other forms of
capital assessed (e.g., human, cultural, physical). Abdul-Hakim et al. (2010) examined the relation between social capital and poverty and found that whilst human and physical capital were important determinants of poverty, promoting social capital amongst disadvantaged groups was vital for the effectiveness of poverty eradication strategies. Based on his earlier 1993 study investigating relations between civic engagement and prosperity, Putnam claimed that “where trust and social networks flourish, individuals, firms, neighbourhoods and even nations prosper” (2000, p. 319). Despite this claim, Knack and Keefer (1997) found no links between economic growth rate and association membership, although they did find strong links between interpersonal trust and economic growth. Finally, using the social capital indicators within the World Values Survey, Whitely (2000) examined the relations between social and human capital, and economic growth rates. He found that social capital was just as influential as human capital across 34 countries. These studies provide some evidence that social capital is related to economic prosperity at both the micro and macro levels, although Field (2008) warns that a clear explanation of why exactly this is so is still elusive and more research in the area is needed.

Section Summary

In summary, most traditional poverty reduction strategies have focused on enhancing human and economic capital to increase skills, productivity, and income levels of the poor whilst ignoring the prospective benefits of social capital in poverty alleviation. However, this section has demonstrated the importance of social capital at all levels (bonding, bridging, and linking) for improving the lives of the disadvantaged through the social context in which they are embedded. Whilst acknowledging there are a number of barriers in accessing this social resource for low income groups, the literature presented above leaves no doubt that social capital can be a powerful asset for accessing employment opportunities, affordable housing, and improving economic well-being, thus making it an important area of future study. Although recent studies have begun to examine the links between social capital and poverty, few have explored all three types of capital simultaneously. Therefore, it remains unclear which type of capital is the most beneficial for which socio-economic outcomes. To summarise, this chapter has so far explored the links
between social capital and mental health, physical health, risk-taking behaviours, educational outcomes, and economic well-being. The final outcome relevant to the current research is the relation between social capital and crime, fear of crime, and deviancy which is discussed in the next section.

The Relations Between Social Capital and Crime

Introduction

Research has consistently shown that crime and fear of crime levels differ significantly across comparable: towns, cities, and nations (Glaeser, Sacerdote, & Scheinkman, 1996; Sampson, Raudenbush, & Earls, 1997). While local area characteristics (e.g., unemployment rates and income inequality) can explain approximately one third of this variance, the other factors accounting for this high variation have continued to perplex social researchers for decades (Akcomak & Weel, 2008). More recently, researchers have begun to look at the social environment in which crime and fear of victimisation occur, and claim that it is the differences in levels of social capital that account for a significant part of the variance in crime rates across communities and cities (Akcomak & Weel, 2012; Glaeser, Sacerdote, & Scheinkman, 1996). The following section discusses how the social context of an area serves to facilitate or inhibit crime and resident’s fear of victimisation through the mechanisms of informal social control, shared values, and community trust and cohesion.

Social Dislocation, Disorganisation, and Crime

Social dislocation is commonly viewed as a cause of criminal activity and the social influences on youth offending has been well recognised in the literature (Haynie, 2001; Haynie & Osgood, 2005). Drawing on social disorganization theory to explain the link between social capital and crime rates, Rosenfeld, Messer, and Baumer (2001) argue that the lack of informal social controls evident in disorganised communities result in crime because community members are reluctant to engage in the kind of monitoring and surveillance needed to deter potential offenders (Rosenfeld et al., 2001). In contrast, in highly organised communities, Sampson and Laub (1993) argue that social capital can have an effect on crime rates by promoting norms and values among community members that discourage unlawful behaviour.
Social capital is also said to provide sanctions against individuals who violate those norms and values through shaming and intervention by neighbours (Sampson & Laub, 1993). As early as 1942, Shaw and McKay argued that residents living in cohesive communities are better able to control youth anti-social behaviours through their ability to monitor and control adolescent peer groups. The importance of informal social control and community sanctions is highlighted by Smith (1995) who states that the most powerful form of control against youth deviancy does not come from the formal criminal justice system, but rather from “reciprocal relationships and the resulting interpersonal bonds” that arise from them (p. 428). The significance of reciprocal relationships serving as an informal social control mechanism among youth is also thought to explain the universal trend that shows a peak in adolescent male offending between the ages of 15 and 19 (Smith, 1995). In an attempt to explain this trend, Smith (1995) argued that offending may escalate during this developmental period because reciprocal relations with parents and family weaken, but the young person who has yet to settle into a career and have a family of their own, has not yet formed new social bonds. In other words, during this transitional period, adolescents engage in delinquency because they “slip between the mechanisms of informal social control that are effective for children (e.g., parents) and for adults (e.g., work colleagues, spouse)” (Smith, 1995, p. 428).

Social Cohesion, Trust, and Collective Efficacy

The criminology literature has also demonstrated that bonds to mainstream society and strong ties within the local community prevent people from offending at the individual, neighbourhood, and state level (Sampson et al., 1997). In a study conducted by Sampson et al. (1997), residents were asked to report their perceptions of social cohesion and trust within their neighbourhood, in addition to questions relating to informal means of social control. Informal social control items were then collated to form a composite measure of collective efficacy. The findings demonstrated that high levels of collective efficacy were significantly related to lower levels of neighbourhood violence, violent victimisation, and homicide rates. The relation between social capital and violent crime has also been demonstrated at the state level. Berkman and Kawachi (2000) found that states exhibiting low levels of social trust had higher rates of homicide, assault, robbery, and burglary when compared to states showing high levels of societal trust. Examining the associations
between social capital and violent crime at the state level, Putnam (2000) concludes that higher “levels of social capital, all else being equal, translate into lower levels of crime” (p. 308).

Whilst much of the research examining the association between social capital and actual crime rates consistently validates the benefits of social capital, the research findings relating to social capital and the fear of crime have been far from conclusive. It is commonly assumed that social capital reduces fear of crime. However, the association is complex. Like many of the other variables reviewed throughout this chapter, the causality between the two variables can run both ways (Lederman, Loayza, & Menendez, 2002), thus social capital can reduce fear of crime, but fear of crime can also diminish social capital as explained in the next subsection.

**Fear of Crime**

Fear of crime can be defined as “an emotional reaction of dread or anxiety to crime or symbols that a person associates with crime” (Ferraro, 1995, p. xiii). The fear of real or imagined calamity is a powerful stressor which can have detrimental effects on one’s health and emotional state (Stafford, Chandola, & Marmot, 2007; Stevenson, 1998). However, there is a growing recognition that fear of crime, and the consequences of it, reach far beyond individual anxieties and feelings of personal vulnerability (Gainey, Alper, & Chappell, 2009; Hale, 1996), and is now considered a “major social problem” (Box, Hale, & Andrews, 1988, p. 40). In an effort to investigate the association between individual and community factors and fear of crime, many social researchers have turned to the concept of social capital both as a way to explain fear of crime and as a possible solution to improve neighbourhood safety (Ferguson & Mindel, 2007). It has been shown that persistent fear of victimisation can potentially undermine the quality of community life as fearful people are less likely to engage in civic activities, are more likely to stay at home and avoid public places, and are thereby less likely to contribute to the mechanisms of informal social control required for maintaining social order (Gainey et al., 2009). The consequence of low informal social control, as explained above, is an actual increase in crime, and as residents withdraw from social life the opportunity to form ties with other residents in order to create social capital is substantially reduced.
Mixed Research Evidence Linking Social Capital and Fear of Crime

Previous studies examining the relation between fear of crime and social capital (or related constructs) have produced mixed findings. In support of the positive effects of social capital, Lewis and Salem (1986) found that fear levels were low in well integrated communities when compared to their poorly integrated counterparts, and Taylor, Gottfredson, and Brower (1984) concluded that anxieties concerning crime were lower for individuals with strong social ties within the neighbourhood. It has also been shown that citizens who can differentiate strangers from neighbours and feel socially embedded in their communities reported low levels of fear (Hunter & Baumer, 1982). Conversely, Thompson and Krause (1998) concluded that levels of social integration in high crime neighbourhoods had no effect on reducing residents’ fear of calamity, and Sacco (1993) found that participation in social networks actually increased concerns for personal safety.

A potential explanation for the ambiguity surrounding this association is the level at which social capital was measured in each of these studies. The research supporting the positive effects of social capital on reducing fear (Hunter & Baumer, 1982; Lewis & Salem, 1986; Taylor et al., 1984) have used measures of social networks and integration at the neighbourhood or community level, whereas the two studies cited above (Sacco, 1986; Thompson & Krause, 1998) that showed social capital having no effect on levels of fear, focused their level of analysis on family and friend networks. Whilst it has been well established that supportive relationships involving friends and family help victims cope more effectively with trauma post victimisation (e.g., Fattah & Sacco, 1989; Lurigio & Resick, 1990; Rubak, Greenberg, & Westcott, 1984), there is little evidence to suggest that social capital at the bonding level is effective for reducing fear of crime. As crime is something that occurs outside of the family, and most often when the victim is alone, it may be that social support from family and friends is irrelevant to one’s degree of fear. Put simply, whilst family and friends can be relied on to provide socio-emotional support should one become a victim of crime, they unable to prevent an actual victimisation episode from occurring, thereby having little effect on one’s level of fear when out in the community (Sacco, 1993).
Community Characteristics, Social Capital, and Fear of Crime

The characteristics of a community have also been shown to have a strong influence on residents’ level of fear. A vast body of research has consistently shown that the incivilities (e.g., graffiti, gang, activity, litter, public drinking), evident in neighbourhoods characterised by social and economic impoverishment, are significantly and positively related to increased fear of crime (Doran & Lees, 2005; Hinkle, 2009; Hinkle & Weisburd, 2008; Perkins & Taylor, 2002; Sampson, 2001; Vacha & McLaughlin, 2001). In fact, it has long been argued that community disorder is a greater predictor of fear of crime than previous experiences of victimisation (Hunter, 1978). Consistent with this view, a research study conducted by Gainey et al. (2011) found that social and physical disorder was a significant predictor of fear of crime. However, interestingly, measures of neighbourhood social capital (e.g., social support networks, collective efficacy, and neighbourhood satisfaction) were shown to successfully mediate this relation in both low and high disordered communities, suggesting that even in highly disordered neighbourhoods’ social capital can effectively lower residents’ fear of impending crime.

In a similar study, McGarrell et al. (1997) also found that whilst community breakdown was a powerful predictor of fear at both the neighbourhood and individual level, residents who felt a strong sense of belonging and connectedness to their community, perceived informal social control and support amongst fellow residents, and believed that local institutions were responsive to their needs had significantly greater perceptions of safety. Again, this finding was significant in both high and low disorder contexts. McGarrell et al. (1995) conclude that even though poor and crime ridden neighbourhoods are traditionally the least adept at organising community social control and policing practices, their research suggests that despite these difficulties, intervention efforts to lower fear can be successful in such neighbourhoods when social integration, informal social control, and neighbourly support is promoted. Validating McGarrell et al.’s conclusions, Delone (2008) investigated the association between social integration and fear of crime within a poor public housing development. The results demonstrated that even in this highly disordered context, when levels of social integration increased, fear of victimisation decreased.

Further evidence for the importance of social capital at the neighbourhood level was provided by Ferguson and Mindel (2007). As with the studies cited above,
they too found that perceived incivility in the community increased residents’ fear of crime, but most noteworthy was the finding that the social context of the neighbourhood had a greater impact on perceived risk and fear of crime than did the more objective measures of neighbourhood disorder and demographic variables (e.g., gender and age). This is important as most current efforts to reduce fear of crime in disadvantaged communities tend to focus their efforts on regenerating the dilapidated physical infrastructure (and other visible incivilities) of the area instead of promoting social connections between residents, when the research suggests that the latter is more effective (Ferguson & Mindel, 2007; Rosenbaum, 1987).

Finally, research examining fear of crime in relation to age and gender has also been linked to levels of community disorder. In general, most of the past research indicates that females and the elderly exhibit greater levels of fear than their younger and male counterparts (Madriz, 1997; Pain, 1997; Starkweather, 2007; Warr, 1984; 1994). However, more recent studies have found that the importance of these demographic variables diminishes as levels of disorder within the neighbourhood increase (McGarrell et al., 2007). Gainey et al. (2011) found no significant gender differences in fear levels in neighbourhoods characterised by high levels of visible incivilities once perceived vulnerability to crime was added to the model. Additionally, McGarrell et al.’s (2007) study demonstrated that significant age differences concerning fear were only evident in low-disorder contexts. A possible explanation for this is that in highly disordered neighbourhoods, all residents are attuned to the reality of crime through their everyday experiences thereby diminishing the importance of personal traits. In contrast, in low disordered areas where crime and disorder are scarce, personal vulnerabilities may be more salient (McGarrell et al., 2007).

**Section Summary**

In summary, this section has demonstrated that social capital can play an important role in not only reducing fear of crime but also actual crime rates through social vigilance mechanisms. Whereas community breakdown can exacerbate fear in residents and lead to a general sense of “urban unease” (McGarrell, 2007, p. 494), the research presented above shows that social capital can mediate this association when residents feel connected to others within their community thereby enhancing
their perceptions of community safety. It has also been acknowledged that the empirical precedent to date has produced some contradictory findings regarding the relations between social capital and both fear of crime and crime rates. However, it has been suggested here that these inconsistencies may be due to the type and level at which social capital has been measured. It appears that social capital arising from the family and close friendships is most valuable for reducing youth offending and helping victims of crime cope more effectively, whereas neighbour and community level social capital is more effective at reducing fear and perceived risk of becoming a victim of crime.

**Implications for the Present Investigation**

Based on the conflicting research findings presented throughout this chapter, a central aim of the present investigation is to attempt to unify the literature on social capital and disentangle the relations between social capital and the outcomes discussed above. The literature presented on disadvantage throughout the first half of this chapter has highlighted that despite numerous efforts to reduce disadvantage in this country, the gap between the rich and the poor is increasing, there are more people sleeping on our streets than ever before, and that some geographical pockets within this country have endured persistent socio-economic disadvantage for over three decades. The present investigation adopts the view that the utilisation of social capital offers a possible solution and when mobilised effectively, may to reduce poverty and disadvantage where more traditional welfare models have failed. However, before governments and other NGOs can be persuaded to invest the substantial funding required for the systematic implementation of social capital interventions and initiatives, there are a number of barriers that need to be overcome, the most pressing of these is producing better quality social capital research which is a main goal of the present research.

While the majority of studies cited throughout the chapter demonstrated that social capital exerted a positive influence on the outcomes examined here, others reported a lack of consistency, were sometimes contradictory, or were shown to have no influence at all. It was argued above that these inconsistencies were due to the methodological diversity used across different research projects. Firstly, the number of studies that failed to find the positive benefits of social capital tended to measure the quantity of social networks but neglected to measure the quality of those
relationships. To address this gap, the measure in the current research project incorporated both of these important elements. Secondly, it was argued that the inconsistent findings may also have been due to the type of social capital measured. In fact, one of the most common areas of contention within the literature is the level at which to measure social capital. In the past it has been measured at the individual, family, community, state, and even at the national level. However, it appears logical to assume that different types of social capital are more advantageous to some outcomes than others at different levels. Hence, it is still unclear which type of social capital is most beneficial for which outcome, and the only way to test this effectively is to assess social capital at multiple levels. The current research contributes to this multilevel perspective by measuring social capital simultaneously at the family, peer, neighbour, and community/institutional level, across a broad range of outcomes.

A third explanation for varying results in social capital research is the continued use of data gained from a secondary source which fails to capture the true nature of the construct. Often these measures contain items that are assumed to relate to an element of social capital but are in reality measuring something qualitatively different (e.g., language spoken at home; see Smylie et al., 2006). To eliminate the use of ambiguous items such as these, the present investigation developed a primary measurement instrument designed solely to measure the theoretical elements of social capital. Following this, the psychometric properties were thoroughly tested to demonstrate the robustness of the instrumentation employed, and to create a psychometrically sound suite of instruments to further social capital research. Finally, the socio-economic status of the sample used within each study may also explain the differential findings among them. As explained above, the influence and type of social capital examined does not affect all communities equally, and the socio-economic context of the community was important. So while social capital can benefit all individuals across the different class structures, this research will focus on which aspect and level of social capital is most beneficial for improving outcomes for those living in disadvantaged communities as they are in most need of immediate assistance. By addressing the limitations listed here it is hoped that more consistent results can be achieved when examining social capital and its relation to important educational, health, and other desirable outcomes. It is an aim of the present investigation to contribute to the research integrity and consistency of the study of social capital, which once achieved, will assist in placing social capital firmly on the
social policy agenda as a potentially potent resource for improving outcomes for disadvantaged Australians.

**Chapter Summary**

This chapter has provided a brief overview of the current state of disadvantage in Australia. It was shown that despite the economic prosperity enjoyed by many Australians over the last 20 years, poverty and disadvantage was identified as a pervasive problem still affecting hundreds of thousands of Australians despite countless reduction attempts by government and NGO organisations. It was also shown that entire communities are becoming stuck in a perpetual cycle of social and economic disadvantage as those experiencing it become more and more concentrated in particular geographical areas. It was argued that we need to move away from current modes of intervention and adopt a more social approach which captures the dynamic interplay between personal factors and the larger social context in which individuals are embedded. It was further argued that the social capital construct provides such an approach.

The second half of the chapter demonstrated that social capital can have a positive impact on the lives of individuals, groups, and communities. The majority of research discussed in relation to social capital and mental health has demonstrated that increased stores of social capital can be advantageous for mental health outcomes in children, adolescents, and adults living in both privileged and underprivileged communities. Discussion surrounding social capital and physical health identified a number of positive findings. However, due to the variety of instruments used to measure both social capital and health, the way in which social capital facilitates good health remains far from clear and it was recommended that research with more comprehensive and precise instrumentation is still needed. Social capital within the family, school, and community was also shown to have a positive influence on reducing adolescent anti-social and risk-taking behaviours, with some types of social capital being particularly important for teens living in disadvantaged neighbourhoods.

In regard to social capital and educational outcomes, the research presented in this chapter demonstrated how stronger social networks can benefit educational achievement, attainment, and aspirations which in turn can facilitate employment
prospects and aspirations. One of the main problems identified within this body of literature was the failure of most educational researchers to explore the potential benefits of social capital outside of the family context, thereby leaving a considerable gap in our knowledge base. The chapter also recognised how social capital can improve economic outcomes by emphasising the importance of social capital at all levels (bonding, bridging, and linking) for improving the lives of the disadvantaged through the social context in which they are embedded. Whilst it was acknowledged there are a number of barriers in accessing this social resource for low income groups, the literature presented leaves little doubt that social capital can be a powerful asset for accessing employment opportunities, affordable housing, and improving economic well-being.

The final outcomes reviewed within this chapter in relation to social capital were crime rates and fear of crime. Whilst much of the research examining the association between social capital and actual crime rates consistently validates the benefits of social capital, the research findings relating to social capital and the fear of crime were less conclusive. However, these inconsistencies are believed to be due to methodological differences and potential flaws, and in general, it was that social capital can play an important role in not only reducing fear of crime but also actual crime rates through social vigilance mechanisms. Whereas community breakdown can exacerbate fear in residents, the research shows that social capital can mediate this association when residents feel connected to others within their community thereby enhancing their perceptions of community safety.

In conclusion, it appears that different types of social capital are required at different times throughout the lifespan and for different outcomes making them all equally important. Bonding capital appears to be most important for children and the elderly when physical and mental health is crucial. Although bonding capital is still important in adulthood, bridging capital becomes more significant when employment and financial security become essential. In general, health outcomes seem most closely related to bonding capital, whereas economic outcomes rely more heavily on bridging capital. Finally, it appears that reducing crime and enhancing educational outcomes require all types of social capital (bonding, bridging, and linking) for successful outcomes. Of concern, is the consistent finding throughout this chapter that the disadvantaged communities in which social capital could be most beneficial, continually present with the lowest levels. This finding makes it crucial to gain a
good understanding of this construct and its potential effects in order to develop strong community based initiatives to build social capital in these deprived areas. As stated above the present investigation aims to contribute to the advancement of social capital research by employing a rigorous research methodology addressing the most common concerns found throughout the literature. Hence, this chapter has examined the state of disadvantage in Australia and reviewed the prospective benefits of the social capital construct.

The following chapter traces the origins and evolution of social capital theory and considers the most prominent contemporary theorists in the field to ensure that the present research is guided by a sound theoretical framework. Also provided is a synopsis of the conceptual and measurement issues hampering the progress of social capital research, along with recommendations for addressing these problems, and the implications of these issues for current research investigation.
CHAPTER 3
SOCIAL CAPITAL THEORY, RESEARCH-ADVANCES, AND CURRENT CHALLENGES IN CONCEPTUALISATION AND MEASUREMENT

Introduction

“Social capital is the glue that holds societies together and without which there can be no economic growth or human well-being... society at large will collapse, and today’s world presents some very sad examples of this.” (World Bank, 1999).

Over the last two decades, the concept of social capital has gained increased attention across a wide array of disciplines and has engendered considerable research and debate in both political and social policy arenas. Despite this “explosion” of interest in the notion of social capital, the definition, conceptualisation, structure, and measurement of the construct remains elusive. Subsequently, there is a lack of consensus among researchers and policy makers on how social capital can be best utilised to enhance social, physical, and economic well-being. Furthermore, the literature relating to social capital is extensive, complex, varied, and often perplexing. It is the aim of this chapter to disentangle the social capital literature and provide a coherent overview of its evolution, structure, inherent problems, and its ultimate worth in providing potential solutions to real world problems.

The chapter begins by tracing the origins and evolution of social capital and some of its earliest proponents. The first section considers the prominent contemporary authors of social capital (Bourdieu, Coleman, and Putman) and their conceptualisations of the construct. Having established the key theorists in the literature, the chapter progresses to the current debate and controversy surrounding social capital research including a discussion of the problems in theorising and defining the social capital construct consistently, and the measurement issues that
arise as a consequence. After outlining key conceptual and measurement issues found throughout the literature, the final section of the chapter provides suggestions for addressing some of the concerns raised, and offers some potential ways to move forward in the empirical study of social capital.

Theoretical Origins and the Evolution of Social Capital

‘Since the dawn of time, the survival of human beings has depended on their level of integration into one or more mutually helpful communities...Those with social support and links with others live better than those who remain isolated’ (Satorius, 2003, p. S105).

Historical Background

Although references to social capital have become increasingly popular over the last two decades, the concept of social capital is not new, with its traditions rooted in economics, sociology, anthropology, and political science (Claridge, 2004; Pawar, 2006). Its origins can be traced back as far as Aristotle and other early philosophers and their discussions surrounding civic society (Brewer, 2003). Social capital, as an idea or way of thinking, was again prominent in the eighteenth and nineteenth centuries in the writings of renowned thinkers such as Tocqueville, J.S. Mill, Toennies, Durkheim, Weber, Locke, Rousseau, and Simmel (Brewer, 2003; Portes & Sensenbrenner, 1993). For example, Portes (1998) identified the social capital connection in Durkheim’s normative theory and its focus on group life as a remedy to social anomie and chaos. As an explicit term, most authors agree that the term “social capital” was first coined by Hanifan (1920, p. 227, as cited in Claridge, 2004) who described it as:

Those tangible substances that count for most in the daily lives of people: namely good will, fellowship, sympathy and social intercourse among the individuals and families who make up a social unit. If an individual comes into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community.
Highlighting its cross-disciplinary appeal, subsequent uses of the term were put forth by sociologists Seely, Sim, and Loosely (1956), exchange theorist Homans (1961), and finally Loury (1977), whom is still frequently cited in the literature. Since its original use, the term has received unprecedented acceptance and application to diverse areas and disciplines (Claridge, 2004) and has stimulated considerable research, social policy issues, and debate among current theorists.

**Contemporary Theorists**

The conceptualisation of social capital has evolved in two distinct ways: in terms of shared norms and social integration (functionalist); and in terms of access to institutional resources (socio-cultural). Drawing on these two viewpoints, most modern conceptualisations of social capital are personified by the works of Pierre Bourdieu, James Coleman, and Robert Putman. Adopting a socio-cultural perspective, Bourdieu’s formulation of social capital was the least developed of the three authors, and sometimes considered exclusionary. However, he is most often credited with introducing the concept into theoretical debate (Schuller, Baron, & Field, 2000). Coleman takes the functionalist perspective of social capital. With strong ties to economics and sociology, he draws on both disciplines in his conceptualisation of social capital and represents a shift away from Bourdieu’s individualism to a more social focus (Claridge, 2004). Putnam, a political scientist, also adopts the functionalist view and has become a widely cited author on social capital across a range of disciplines. It is generally believed that Putnam’s comprehensive work on social capital is responsible for placing it firmly on the mainstream political agenda (Field, 2008; Schuller et al., 2000). The three will be discussed in turn in the following sections.

**Pierre Bourdieu**

**Overview.** French sociologist Pierre Bourdieu’s view of social capital was motivated by his interest in explaining the inequalities evident in the social structure and the way in which they were maintained (O’Brien & Fathaigh, 2005). He was particularly focused on the contrasting educational outcomes amongst children from different socioeconomic classes. Bourdieu (1986) believed that the “upper class” could not retain their dominant position simply by economic advantage alone,
leading him to theorise about other types of capital and how they operate in the social structure to explain why disadvantaged groups consistently remain at the bottom of the social ladder, whilst the privileged remain at the top.

Although Bourdieu is most commonly known for his views on cultural capital (1986; 1996; Bourdieu & Passeron, 1990), his observations surrounding social capital are certainly relevant to any theoretical discussion of the concept. As such, both types of capital, and the interrelations between the two, will be explained in more detail below. However, in order to understand Bourdieu’s perspective on social capital it is important to explain two of his key theoretical concepts: habitus and capital which are discussed in the following sections.

**Habitus.** In accordance with the theory, habitus can be defined as a set of durable dispositions which are developed over time in response to the objective structures an individual encounters and his or her subjective perceptions of them (O’Brien & O’Fathaigh, 2005). Bourdieu argued that it is through habitus that social and cultural information transfers to, and strongly influences, a person’s thoughts and behaviour patterns. Furthermore, because children are socialised differently according to their social class and experience, this process ultimately shapes the amount and form of resources they inherit (Weininger & Lareau, 2003). As Rudd (2003) argues, the socialisation and background experiences of the middle and upper class (which Bourdieu termed “class habitus”) make them far more capable of mobilising their ideals and adopting socially valued lifestyle patterns than the lower classes, thus allowing them to more easily “reproduce” their social position and maintain the inequality of the social structure. Bourdieu (1986) argues that this transmission of privilege occurs through the interaction and exchange of different forms of capital.

**Types of capital.** Bourdieu (1986) proposed that there are four fundamental types of capital: symbolic, economic, cultural, and social. He claims that the dynamic interaction of these capitals determines ones position in the social structure. Importantly, Bourdieu (1984) stresses that it is not simply the possession of these capitals that is significant, but rather the honour and prestige associated with them, and the way they are recognised within the social sphere (Bourdieu, 1984). The status value attached to certain types of capital (cultural, social, and economic) is what Bourdieu (1984) termed symbolic capital.
Bourdieu’s (1984) view of economic capital refers simply and directly to an individual’s financial resources and assets, whereas the concept of cultural capital is more complex. According to his theory, cultural capital can exist in three alternate forms: embodied (dispositions of the mind and body), objectified (cultural goods), and institutionalised (educational qualifications). Bourdieu (1986) justifies the use of the term capital as he argues that cultural capital can, under certain conditions, be translated into economic capital. For example, as all institutionally sanctioned qualifications are roughly equivalent in the labour market, cultural capital in this form is easily converted into economic capital.

The final type of capital described by Bourdieu (1986), and the most relevant to the current discussion, is social capital. Bourdieu defines social capital as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu & Wacquant, 1992, p.119). Essentially, he argues that group membership enables an individual access to the collective resources of the whole group, which is above and beyond what the individual could accrue alone.

Bourdieu takes an individualistic view of social capital and places emphasises on how social capital can be utilised for personal success rather than communal (O’Brien & O’Fathaigh, 2005). Bourdieu (1986) also argues that the volume of social capital available to an individual is dependent on the number of effective social networks made, and the amount of capital (cultural, economic, and symbolic) possessed by those with whom they are connected. Bourdieu believes it improbable that those in the lower classes are able to form social bonds with the elite, so their capacity to access the higher echelons of society is limited. It is this restriction that sets Bourdieu’s theory apart from those discussed later in the chapter, as he views social capital as a way to maintain social and economic boundaries rather than break them down.

Furthermore, although Bourdieu (1984; 1986) makes a definitional distinction between social and cultural capital, the two are inexplicitly intertwined. He claims that cultural capital is fundamental to the specific social networks one can access and therefore, it is central to the reproduction of class division. This means that the subtle codes of behaviour required to successfully form social relationships of trust and reciprocity, and navigate particular social settings, are clearly culturally specific.
Therefore, we can conclude that in Bourdieu’s conception, social capital cannot be separated from cultural capital. **Critique.** Whilst Bourdieu’s framework is useful in explaining the systemic inequalities in the social structure and moves research and theory away from previous deficit models (see González, 2005; Gorski, 2007), it provides little provision for social change. His view that social capital functions as only an exclusionary concept to reproduce the dominance of the most powerful in social structure rather than as a tool for social change is very deterministic and has been termed the most “depressing of models” (Gauntlett, 2011, p.2). This does not mean Bourdieu’s theory is inaccurate; however, it is important to evaluate some of the more optimistic theories of social capital and look for ways in which it can be utilised to improve the lives of societies most marginalised. This leads the discussion to the second major theorist, James Coleman.

**James Coleman**

Coleman’s functionalist conceptualisation of social capital continues to be the most commonly used and the most influential (Poder, 2011). In contrast with Bourdieu’s view that social capital serves only to solidify class division, Coleman (1988) saw it not only as a tool of dominance for the elite but also as a resource which could be used by all types of people, including the powerless and marginalised. Coleman’s more optimistic view of social capital emerged out of his attempt to reconcile the economist principles of rational action, whereby human action is wholly independent of the social structure, and those of sociology relating to the “over socialised individual” lacking in human agency (Coleman, 1988, p. S96).

To overcome this dichotomy, Coleman (1988) introduces the concept of social capital as a way to combine these two polarised views and makes an effort to unite the micro and macro analysis of sociological study (Poder, 2011). In order to establish a link between social control and individual choice, he argued that the social interactions which occur when pursuing one’s self interest build over time into established relationships and become not only another part of the social structure but an additional resource (i.e., social capital). Therefore according to Coleman, social capital is not a resource that one intentionally pursues, rather it is an unintended
benefit or “a by-product of activities engaged in for other reasons” (Coleman, 1994, p. 312).

For Coleman, social capital signifies a resource because it is based on the expectation of reciprocity that goes beyond the individual into the wider social context, whereby relationships and networks are governed by high levels of trust and shared ideals (Field, 2008). Coleman (1988) proposed that value of social capital exists in the relations among people; therefore unlike physical capital (observable materials) it is intangible. He states that social capital is:

...defined by its function. It is not a single entity but a variety of different entities with two elements in common: they all consist of some aspect of the social structure, and they facilitate certain actions of actors—whether persons or corporate actors—within the structure (p. S98).

This potential resource is then used alongside other forms of capital such as human capital (skills and expertise), physical capital (materials/tools), and economic capital (money/assets) in the pursuit of individual goals. Coleman also highlighted that certain characteristics within the social structure are more beneficial for amassing social capital than others. Here Coleman (1991) placed particular emphasis on the importance of family, believing that the social ties formed from birth (which he called primordial) represented the most important form of social capital and were the most useful for the social and cognitive development of young children. He argued that social ties outside of the family (he termed “constructed” forms of social obligation) were far weaker in comparison and had a limited usefulness. For Coleman, the breakdown of extended family over time meant that the responsibility for the primary socialisation of the child shifted from primordial forms of social organisation to constructed forms (e.g. schools) resulting in the long-term erosion of the “social capital on which societal functioning has depended” (Coleman, 1991, p. 9).

Critique. One of the benefits of Coleman’s theory was that unlike Bourdieu’s individualistic conception of social capital, Coleman’s (1994) definition includes both the individual and the collective, whereby he views it not only an asset for the individual but also as a public resource that accumulates or pools within the social
structure. Although his main emphasis was on familial benefits (Field, 2008), he argued that social capital benefits not only those that directly participate in the production of it, but also all of those within that structure.

Coleman’s contribution to the theoretical development of social capital has been far reaching. His theory has been credited with providing conceptual clarity and erudition to a previously poorly understood concept and was successful in emphasising that the benefits of social capital are not restricted to the privileged, but can also aid society’s most disadvantaged groups (Field, 2008). Whilst Coleman’s approach is clearly far more optimistic than Bourdieu’s, critics claim that he is “overly optimistic” and somewhat naive in his conceptualisation of the concept. As pointed out by Field (2008), Coleman’s view of social capital as a public good in which individuals adhere to sanctioned norms and values for mutual benefit, neglects the potential negative consequences and outcomes that can arise from close social ties. This has been termed by many as the “dark side of social capital” (e.g., Callahan, 2005; Dekker, 2004; Van Deth & Zmerli, 2010). For example, organisations such as the Klu Klux Klan, the Mafia, and religious extremists groups rely strongly on social networks, common values and norms, and information sharing to improve their efficiency, although the consequences of such relations can hardly be considered a public good (Van Deth & Zmerli, 2010).

An additional criticism of Coleman’s (1988) theory, is that his definition of social capital is somewhat vague (Portes, 1998). Defining social capital by its function and as “some aspect of social structures” (Coleman, 1990, p. 302, italics added) implies that anything stemming from a social network that facilitates individual or collective action constitutes social capital. This ambiguous definition provides researchers with the opportunity to label copious, different, and varied processes as social capital, and as a result a proliferation of variables have now been associated with the term (Portes, 1998). As noted by de Sousza Briggs (1997, p.111), although a useful concept “social capital has taken on a circus-tent quality, piling all things positive and social underneath”. Furthermore, by including the mechanisms that generate social capital (e.g., reciprocity, group norms), the benefits of possessing it (e.g., trust, informational channels), and the context in which it is provided (the social structure), into the definition of the construct leaves Coleman vulnerable to making tautological statements (Portes, 1998). As stated by Dika and Singh (2002, p.
34) defining social capital with the resources acquired through it “is tantamount to saying that the successful succeed”.

So whilst Coleman offers us a broader view of social capital and emphasises its applicability to both society’s privileged and under privileged, it is not without its weaknesses. Perhaps the most serious of these was his inability to distinguish between resources available to an individual via group membership and one’s ability to obtain them, something that was clearly emphasised in Bourdieu’s theory. However, by demonstrating how the construct can benefit the whole of the community, Coleman has been credited with attracting the attention of scholars in an a wide array of disciplines. One such scholar was political scientist Robert Putnam, who building on the work of Coleman subsequently joined the theoretical debate.

**Robert Putnam**

**Overview.** Putnam is often considered the public face of social capital (Gauntlett, 2011). Unlike the work of his predecessors Bourdieu and Coleman, Putnam’s research was not confined to the world of academia but rather become widely known to the mainstream public after the publication of his landmark book entitled *Bowling Alone* (2000). With his theory focused on pluralism and communitarianism, Putnam’s central thesis was that since the 1940’s, America’s social capital was in a state of decline due to an ongoing lack of civic engagement and an increase in social apathy (Field, 2008).

Putnam (2000) presents evidence for this shift throughout his book in meticulous detail, drawing on a wide range of statistical data (e.g. Social and Political Trends Survey, Roper Polling Organisation) which revealed falling participation numbers in union memberships, religious institutions, parent-teacher organisations, and group associations. In particular, he argued that in the period between 1970 and 2000, there was a significant decline in levels of political and civic engagement, the number of citizens’ informal social ties, and levels of social trust and tolerance among the American people, which ultimately led to the erosion of social capital over this period (Smith, 2007). Putnam claimed the changes in the family structure (more people living alone), suburban sprawl (people travelling further to work/shop thus restricting leisure time), the advancement of electronic technology (particularly television, thereby privatising leisure time), and generational change were to blame for this rapid decline in civic engagement.
Putnam’s definition of social capital. As early as 1993, Putnam used the term social capital to highlight these changes in civic engagement over the last half century, claiming that social capital “refers to features of social organisation, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions” (p. 167). Specifically, he argued that social capital facilitates social action through social control mechanisms, through which norms of reciprocity are firmly established, information is shared, and past attempts of cooperation are drawn upon to enhance the likelihood that future social action will be successful. Any non-compliance with these well established norms and rules of behaviour comes at a cost to the individual’s reputation and the social resources available to them throughout the community (Putnam, 1993). Therefore according to Putnam, like physical and human capital “the core idea of social capital theory is that social networks have value…social contacts affect the productivity of individuals and groups” and it is in members’ best interests to adhere to the sanctioned norms of that group (Putman, 2000, pp. 18-19).

Over time there were subtle changes in Putnam’s definition of social capital. In 1996, he stated that “by social capital I mean features of social life- networks, norms and trust- that enable participants to act together more effectively to pursue shared objectives” (p. 56). As pointed out by Baron, Field, and Schuller (2000), the three key components outlined in his previous definition remain (networks, norms, and trust). However, in 2000 he defined social capital as “the connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them” (pp.18-19). This latter definition implies that reciprocity and trust are the product of social norms, thereby reducing his definition to just two key components: networks and norms (Field, 2008).

Potential application and effects of the construct. In contrast to Coleman’s view that social capital is always a positive construct, Putnam (2000) acknowledges that it can be used for malevolent and antisocial purposes, giving numerous examples throughout his book. Whilst recognising that social capital is not always “warm and cuddly” (p. 21), he argued that what is important is discovering ways to maximise the positive effects of social capital (trust, cooperation, mutual support) and minimise the negative consequences (sectarianism, ethnocentrism, corruption). With this in mind Putnam and others (e.g., Gittell & Vidal, 1998) began to distinguish between different forms of social capital.
Whilst Putnam (2000) discusses a number of forms of social capital such as repeated, intensive, and multi-stranded networks (e.g. workers meeting for a drink after work but also see each other at mass, school events etc.), episodic or single stranded anonymous networks (e.g. a familiar face on the street), formal networks (e.g. parent-teacher associations), and informal networks (e.g. a pick-up basketball game), he claims the most important distinction is the difference between bonding (networks between like people) and bridging capital (networks between unlike people). He states that bonding capital “constitutes a kind of sociological super glue, whereas bridging capital provides a sociological WD-40” (Putnam, 2000, p. 23). Putnam claims that bonding capital is inward looking and reinforces group identity and homogeneity (family, close friends) whereas bridging capital is outward looking and promotes relationships with people across diverse social contexts (age, race, religion).

Whilst both forms are necessary, it is bonding capital that can lead to negative external effects and out-group antagonisms, which could be associated with Bourdieu’s observation that social capital has exclusionary potential. However, despite these potential negative effects, Putnam argues that both forms can generate powerful and positive social effects. He argues that bonding capital provides “crucial social and psychological support” for disadvantaged groups within society, whilst bridging capital is better for “linkage to external assets and the diffusion of information” (Putnam, 2000, p. 22). As Briggs (1997) so clearly states, bonding capital is good for “getting by” but bridging capital is crucial for “getting ahead” (p. 112).

An essential difference between Putnam’s work and those that came before him was his emphasis on the public ownership and benefits of social capital (Putnam, 1993; 2000; 2007). Dismissing Bourdieu’s argument that access to social capital is constrained by the economic organisation of society, Putnam, viewed communities historically, arguing that “communities did not become civic because they were rich...they became rich because they were civic” (Putnam, 1993, p. 3). He further argues that what makes social capital so powerful is that everyone can benefit from it, even bystanders who are not directly participating within that social network. For example, research has shown that neighbourhoods strong in social capital have lower crime rates (Sampson, 2001). Therefore, even if an individual has never attended a neighbourhood event they still benefit from living in a safer neighbourhood.
Critique. Putnam’s contribution to the debate surrounding social capital has been monumental (Field, 2008). His work exhibits an extensive knowledge of the subject and provides a wide array of supporting evidence from a variety of sources. The high visibility of his work has brought it under scrutiny, and whilst it has been highly praised, it has also been subject to criticism. Like Coleman, he too has been accused of paying inadequate attention to the potential negative externalities that can arise from social capital (Cohen, 1999; Portes, 1998). For example, Field (2008) criticises both Putnam and Coleman for presenting social capital as a “cure-all for each of society’s many ills” (p. 42). However, Putnam (2001) argues that the same criticism can be aimed at all forms of capital as they can all be used for destructive ends (e.g., economic capital can be used for bribery and corruption) but that is no reason to disregard the concept but rather to concentrate on enhancing the positive externalities whilst minimising the costs.

A second criticism is that Putnam’s account of social capital lacks theoretical precision (Field, 2008). Whilst he provides a detailed account of network forms, civic engagement, and the trust and reciprocity that arise from them, he fails to offer an explanation of how these variables interact to produce and maintain supplies of social capital (Levi, 1996). Misztal (2000) claims that this is a result of his inability to show that participation in civic associations elevates levels of trust, or that the networks formed through these engagements produce a generalised trust. Furthermore, Misztal states that Putnam’s argument is circular, claiming that his key condition for collaborative action is the existence of social capital, “but at the same time, the fostering of norms of reciprocity and networks of civic engagement requires pre-existing solidarity and collaboration” (p. 121). Whilst his theory may require further explanation regarding the relationship between networks and norms of reciprocity and trust, the same cannot be said of his clear and succinct definition of the social capital construct which is certainly an advantage of his theory over the others that came both before and after him.

Section Summary

The three authors discussed above all viewed social capital as a resource with a focus on social networks, although they did so in different ways. For Bourdieu, the concept of social capital meant that privileged groups used their relationships with
other privileged groups to maintain their social position and exclude others less fortunate. He viewed social capital as a resource belonging to the individual to be used for personal success rather than for communal benefit. Restricting social capital as an asset only for the elite held little attraction for policy makers and his theory was generally viewed as overly pessimistic.

Coleman’s view was far more positive. Defining social capital by its function, he claimed that social capital can be of value to all classes irrespective of their social position. Like Bourdieu, he emphasised social capital as resource belonging mainly to individuals or families, although he did acknowledge the indirect benefits of the construct. Coleman’s theory attracted criticism for being overly optimistic and ignoring the “dark side” of social capital, and for lacking a clear and concise definition which inevitably led to research and measurement problems.

Putnam is credited with stretching the concept furthest, demonstrating its value and benefit at the societal level. Unlike Bourdieu and Coleman, Putnam placed a strong emphasis on the value of weak or loose ties within the community, claiming these were the most useful in promoting the success of both individuals and communities. In contrast to Bourdieu and Coleman, he saw social capital as the property of communities and nations rather than belonging to the individual. Although he has been accused of theoretical imprecision, he has provided a clear definition of social capital reducing it to just two simple but powerful factors (networks and norms). Putnam, like Coleman, has also been criticised for emphasising the bright side of social capital whilst ignoring its dark side, however, in his later works (2000; 2007) he readily acknowledged that it can lead to destructive ends. As stated by Field (2008) it could be argued any of the criticisms aimed at one of these theories could just as easily apply to one or both of the others.

In conclusion, whilst it is useful to understand the origins of social capital and follow its evolution through the work of Bourdieu, Coleman, and Putnam, the development of the concept continues to progress. As such, it does not appear practical to align oneself with any single theoretical viewpoint but rather take a more eclectic approach by drawing on the commonalities amongst theorists in order to capture the complexities of this theoretically diverse field. This diversity has led to attempts by others to further refine the concept in an effort to provide a holistic and multidimensional definition of social capital to then serve as a guide for its accurate measurement and application. However, the inconsistent formulations of the
construct has led to a perplexing number of definitions and measurement tools which continues to hinder the progression of social capital research and its implementation into applied settings. These ongoing difficulties in conceptualising and measuring social capital are discussed in the following section.

**Definitional and Measurement Challenges**

Despite the increased interest in the notion of social capital and its potential benefits, the construct continues to remain elusive. There is little consensus regarding: an accepted definition of the construct, a theorised conceptualisation of its structure, its relation to other constructs, and how best to measure it. These ongoing problems continue to impede its application in applied settings as theory, research, and practice are inevitably intertwined and any deficit in one area results in a deficit in another. Two enduring problems in the literature seem to hinder the progression of theoretical advancement and empirical research in the field. The first is finding a common definition of social capital, and the second is the operationalisation and measurement of the construct. Each of these are now discussed.

**Definitional Issues**

“There’s something going on ‘out there’ in people’s day to day relationships that is an important determinant of the quality of their lives...it is the ‘gluey stuff’ that binds individuals to groups, groups to organisations, citizens to societies. What exactly this ‘something’ is, remains moot” (Labonte, 1999, p. 430).

**Lack of consensus.** The literature relating to social capital is extensive and enormously divergent, and as a result the definition of social capital remains “conceptually vague” (Sabatini, 2009, p. 431). At present, the array of definitions for social capital range from the very simple to the very complex. For example, it has been defined simply as the “glue that holds a society together” (Potapchuk, Crocker, & Schechter, 1997, p. 130), or more elaborately as consisting of “the stock of active connections among people: the trust, mutual understanding, and shared values and behaviours that bind members of human networks and communities and make cooperative action possible” (Cohen & Prusak, 2001, p. 4). As Wood (2006) points out, herein lies the paradox when defining social capital: simple definitions fail to
capture its complexity, whilst complex definitions render it less comprehensible and useful.

Most recent definitions view social capital as multifaceted. According to the OECD, social capital consists of the “networks, norms, values, and understandings that facilitate co-operation within or among groups” (2001, p. 4). The World Bank focuses on social cohesion and describes it as “the internal social and cultural coherence of society, the norms and values that govern interactions among people, and the institutions in which they are embedded” (Grootaert, 1998, p.iii). Although researchers continue to voice concern that the endless number of interpretations and definitions ultimately weaken the usefulness of the concept (e.g., Wall et al., 1998), a review of the literature reveals that there is still no agreed upon definition amongst its proponents.

In addition to the lack of definitional consistency described above there are a number of other related problems evident in the literature. Each of these will be discussed below and include: 1) disentangling what social capital is, from what it does; 2) determining which aspects of social capital are best for which outcomes; 3) deciding on the types of social capital; and, 4) determining whether social capital is the property of individuals or groups.

Disentangling what social capital is, from what it does. In addition to the large array of competing definitions, another unresolved issue is the problem in distinguishing what social capital is, from what it does (Edwards & Foley, 1997; Foley & Edwards, 1999). This presents an ongoing difficulty for theorists and researchers in deciding whether social capital is a process, a product, or both (Macinko & Starfield, 2001). Using trust as an example, throughout the empirical literature, some authors equate trust with social capital (Fukuyama, 1995; 1997), some view trust as a source of social capital (Putnam & Leonardi, 1993), others believe it is a type or form of social capital (Coleman, 1988), whilst others view it as a collective resource arising from social capital (Lin, 1999). This definitional mixing of the functional and causal conceptions of social capital (or elements of it) highlights the complexity of the construct and the difficulties experienced by researchers and policy makers when trying to utilise social capital for social advantage.

Furthermore, in line with the criticism aimed at Coleman’s (1988) definition, it is commonly argued that the conceptualisation of social capital is circular. For
example, it is claimed that social norms of trust and reciprocity arising from social networks and civic engagement facilitate the creation of social capital, which in turn strengthens levels of trust, reciprocity, and civic engagement (Harriss & De Renzio, 1997). In this example social capital is both a cause and an effect, and such conceptualisations of it have been heavily criticised (e.g., Portes, 1998). However, it could also be argued that reciprocal associations between indicators and outcomes are commonplace in the social sciences, and many of these constructs have been empirically examined with their related outcomes in the field of education (e.g., Marsh & O’Mara, 2008), health (e.g., Mulatu & Schooler, 2002), psychology (e.g., Coley, Votruba-Drzal, & Schindler, 2008), and sociology (Mahaffy & Ward, 2002). Advancement in statistical techniques, theoretical understandings, and the application of suitable methodologies, means that we no longer need to abandon attempts to investigate these potentially useful associations between such inter-related constructs.

**The impact of social capital.** Whilst researchers are yet to reach a consensus amongst the diverse definitions of social capital, one commonality among them is reference to social relations that have productive benefits, although the proposed elements of social relations underpinning such benefits are often different (e.g., informal networks, political participation, cultural norms, and common values). As such, which aspect of social capital is most beneficial to which outcome remains poorly researched and largely unknown (Sabatini, 2009). Furthermore, research has tended to focus on selected aspects of social capital whilst excluding others that may be equally important. It appears that in the haste to identify the benefits of social capital and utilise this popular construct, research has neglected the definitional and within-construct validity issues that surround it (Stone, 2001).

**A multi-dimensional construct?** Despite the ongoing debate, recent advances in social capital research suggest that it is a multi-dimensional construct (Putnam, 2000; Woolcock, 1999; Woolcock & Narayan, 2000), with bonding, bridging, and linking social capital being most commonly discussed in the literature. As presented earlier in relation to Putman’s (2000) conceptualisation, bonding social capital refers to the social ties and networks within homogeneous groups in a community. Examples of bonding social capital have varied in the literature from the intimate ties between families, children, and other relatives (Terrion, 2006; Woolcock, 2001) to the intra-community ties within a neighbourhood made up of
‘similar’ members (Bowen, Martin, Mancini, & Nelson, 2000; Brisson & Usher, 2005).

Bridging social capital has been referred to as the connections and ties across diverse, heterogeneous social groups. These may include connections outside of one’s immediate social networks, families, or neighbourhoods, but with common demographics or similar geographical characteristics (Terrion, 2006). However, as stated by Bowen (2009) both bonding and bridging social capital “imply horizontal social ties or relationships among equals, and thus ignore the enduring issue of the exercise of power. Vertical linkages are essential for poor and less powerful people to make connections and develop relationships with those who enjoy power and privilege, social status and wealth” (p. 246). Therefore, building on Putman’s conceptions of bonding and bridging capital, Woolcock (2001) has made a further distinction between the different types of social capital by including linking capital.

Linking social capital is similar to bridging social capital, except that it occurs across power hierarchies, whereby individuals forge relations and alliances with individuals in positions of power in order to access resources and opportunities from formal institutions beyond their immediate communities (Woolcock, 2001). These might include relationships across individuals and government, service providers, employers, and schools. Woolcock (2001) emphasised the important role that linking capital plays in providing communities with access to resources, jobs, advice, and further education, whereas bonding and bridging capital provide communities with networks, reciprocal support, and information sharing. According to Schneider (2004), it is vital for communities to develop all three types of social capital in order for positive outcomes to ensue.

Repackaging old concepts? One of the most common criticisms aimed at the social capital literature is that it adds nothing new to our understanding but is simply the repackaging of older concepts that have long held the interest of researchers across a range of disciplines (Edward & Foley, 1997; Rose, 2000). Whilst it is true that researchers interested in social capital often pursue parallel issues to those in other disciplines, each tends to have its own vocabulary and perspective making communication across disciplines difficult (Wood, 2006). The significance of the ‘new’ social capital paradigm is that it holds promise for interdisciplinary collaboration across an array of important issues. As stated by Robison, Siles, and Schmid (2002, p. 9):
“The importance of the social capital paradigm is not that its individual elements are altogether new...but that in the process of bringing the various elements of the paradigm together and examining their interdependencies, we have learned much more than when the elements of the paradigm were studied independently”.

Therefore, the strategy employed in this research is to assess a number of outcomes across psychology, education, criminology, health, and economics, using the unified and somewhat simplified social capital perspective. This allows for improved communication across disciplines, and permits us to evaluate these outcomes using a shared vocabulary to inform future research in disadvantaged settings regardless of the different practical background of the researchers involved (Robison, Stiles et al., 2002).

**Individual verses collective conceptualisations.** A final conceptual problem contributing to much of the controversy surrounding the construct is in determining whether social capital is the property of individuals or groups (Portes, 2000). This confusion stems directly from the differential theoretical guidelines described earlier in this chapter, whereby Bourdieu (1986) and Coleman (1988) viewed social capital as the property of individuals or small groups (i.e., families), whereas Putnam’s emphasised it as a resource owned by communities and nations (Putnam, 2000). Proponents of the community conceptualisation of social capital argue that it cannot exist outside of, or be separated from, the social context and as such, individuals may draw upon and use it, but they cannot own it (Edwards & Foley, 1997; Lindström, Merlo, & Ötergren, 2002; Wall et al., 1998). It is further argued that social systems like neighbourhoods and communities cannot simply be reduced to the sum of their individual parts.

In contrast, advocates viewing social capital as an individual resource claim that it is individuals, not communities that establish social norms and values, and it is people that join community organisations, not collectivities (Brehm & Rahn, 1997; Veenstra, 2000). These conceptual differences on whether social capital is an individual or group property, continue to present problems for researchers regarding the unit of analysis in which to study social capital. Deciding whether stocks of social capital should be measured at the individual, community, or societal level,
adds to the growing number of difficulties for researchers endeavouring to study social capital empirically. The empirical measurement and accurate operationalisation of social capital is second major challenge facing researchers and is the focus of the following section.

Operationalising and Measuring Social Capital

Background. The lack of conceptual clarity in defining social capital consequently extends to the operationalisation and measurement of the construct. Most existing definitions are imprecise and are not theorised adequately enough to enable the operationalisation and development of empirical measures (Van Deth, 2003). Despite the intense popularity of the concept in the contemporary social science literature, the opinions of researchers and policy makers are divided on whether social capital can be measured and if so, how to measure it (Portes, 1999). Fukuyama (2001, p. 12) concluded that “one of the greatest weaknesses of the social capital concept is the absence of consensus on how to measure it”. Similarly, Stone (2001, viii) has emphasised that the recent popularity of social capital “has fuelled demand for empirical understandings of it, yet demand for empirical measures of social capital exceeds supply”. Furthermore, Lillbacka (2006) argued that very few studies have attempted to develop a stable measure of social capital and research is continually hampered by this lack of consensus. Therefore, the following sections will include a discussion on: 1) whether social capital can be measured; 2) the ambiguity of measures and models used to estimate the impact of social on desirable outcomes; 3) the separation of indicators of social capital from potential outcomes; 4) the use of single item indicators; 5) the continued reliance on secondary data sources; 6) the link between theory and measurement; and 7) the search for commonalities in the literature to develop a theoretical and definitional unified measurement model.

Can social capital be measured? The social capital concept became popular almost two decades ago, although the debate continues over the feasibility, worth, and practicality of trying to measure it. Collier (2002) has contended that it is difficult or even impossible to measure social capital directly as the construct is abstract and subjective. Furthermore, if social capital consists of the invisible bonds which connect people (Day & McDonald, 2010; Lin, 2000), how can we measure it? As stated by Hopkins and Thomas (2002), such intangible features of our social life
are far easier to describe than measure, and Labonte (1999, p. 430) goes as far as to say that social capital is merely a confluence of ideas, it “doesn’t exist”, and it is simply “being constructed with our choice of ‘things’ with which to fill it”.

In contrast, other researchers argue that it is possible to measure both social capital and its impact (Grootaert & Van Bastalaer, 2002; Onyx & Bullen, 2000) and published studies abound throughout the literature. However, after close examination, it appears that research investigating the relations between social capital and various outcomes have utilised different measures of social capital and used different conceptualisations of both the construct and its related outcomes. Fukuyama (1995), using a single item, simply equated trust with social capital, Krishna and Uphoff (1999) relied on membership in networks as their measure of social capital, Reid and Salmen (2002) used measures of social trust, and Isham and Kahkonen (1999) measured social networks and social interactions as indicators of social capital. Other studies have used proxy measures to evaluate levels of social capital. For example, Coleman (1988) measured social capital within the family by assessing the physical and attentive presence of adults within the home, and levels of family mobility. Based on the theoretical guidelines set by Bourdieu, Coleman, and Putnam outlined earlier in this chapter, it is evident that few studies have attempted to incorporate all theorised aspects of the social capital construct into their assessment measures, bringing into question which aspects of social capital (if any) are the most important in influencing desirable outcomes.

**Measuring the impact of social capital.** Whilst the proponents of social capital continue to claim that social capital yields an array of benefits (Bowles & Gintis, 2002; Coulthard Walker & Morgan, 2002; Day, 2002; Machin, 2006; Sampson et al., 1999), researchers have warned that the empirical evidence on the importance of social capital for economic and social outcomes needs to be treated with caution because of the ambiguity of measures or models used to estimate its impact (Aldridge et al., 2002). This has led some researchers to question whether or not these positive benefits of the construct presented in the previous chapter are well-founded. The range of measures used makes it difficult to ascertain what types of social capital are beneficial for what outcomes and at what level. Without a rigorous method for measurement, it is unclear how the benefits are ascertained and tested. As argued by Durlauf (2002) without an adequate way to measure the stock of social capital, its true elements and potential social benefits will remain a mystery. Aldridge
et al. (2002) state that it is surprising that there is little scepticism in the literature over the validity of the purported benefits of social capital given the uncertainty of measurement techniques utilised. One of the reasons for this lack of validity is the difficulty in separating the indicators of social capital from its associated outcomes leading us directly into the next subsection.

**The separation of outcomes and indicators.** As with the definitional issues, another criticism aimed at the existing measures is the difficulty in separating the source, form, and consequences of social capital. There has been a tendency in past research to use outcomes of social capital (e.g., educational retention, teen pregnancy rates, and criminal activity) as indicators of it (or lack of it), which will inevitably lead to the finding that social capital is related to that outcome, without the empirical means to explain why this is so (Claridge, 2004; see also Stone, 2000; 2001). For example, those viewing social capital as a source of social cohesion and cooperation have used problematic outcomes such as criminal activity as inverse measures of social capital. In other words, high levels of criminal activity within a community, is interpreted by researchers as an indicator of a lack of social capital at the community level (OECD, 2001).

The continued use of reverse causation and inverse measures of social capital has exacerbated the complexities in understanding what social capital is, how it is distinct from its outcomes, and what the type and strength of the relation is between social capital and various outcomes. In order to move forward it is vital that future research clearly separates social capital from its outcomes, both of which need to be unambiguously defined at the onset of any empirical research if we are to reach the aim of conceptual clarity (Stone, 2001).

**Use of single item indicators.** Another measurement concern is the use of single item measures. Social capital is a complex concept and using a single item to measure it (e.g., “most people are trustworthy”) fails to encapsulate its multifaceted nature. Additionally, Paxton (1999) argues that the use of single item measures does not allow researchers to account for measurement error even though one would expect it when dealing with such an abstract variable. In support of this view, Adam and Roncevic (2003) criticise the use of single item indicators as being overly simplistic and as having the potential to produce misleading results. For example, if social capital is simply being measured as generalised trust or volunteer membership, then any decrease in either of these constructs over time would lead to the premature
and potentially false conclusion that there has been a decrease in social capital (Paxton, 1999).

The importance of the number and type of indicators used, and the conclusions drawn, is apparent in a comparison between Putnam’s (2000) and Paxton’s (1999) longitudinal studies which examined levels of social capital in the United States. Using longitudinal data on membership (volunteering, newspaper readership, voting participation) as his main indicator, Putnam clearly concluded that social capital is declining across America. In contrast, Paxton’s data, using a different set of indicators (trust in intuitions and individuals, and individual and group associations), contradicted Putnam’s findings. She concluded that whilst there was a decline in trust in individuals over time, general social capital (trust in institutions and levels of association) had not declined over the 20 year period examined. These opposing results emphasise the significance of using multiple item indicators of all theorised aspects of social capital and should make researchers and policy makers more cautious when assessing research employing overly simplistic or single item measures.

Secondary analysis. An additional concern is that much of the social capital research to date has relied on secondary analysis. In defence of this method, the OECD (2001, p. 45) claims “...trust maybe an acceptable proxy for social capital in the absence of a wider and more comprehensive set of indicators.” In other words, as there is no broad measure of social capital available we can use trust as a proxy. However, it could be argued that by using trust as a measure of social capital, we are only measuring social trust, not social capital. Putnam’s (2000) study of social capital in the United States also relied heavily on secondary data sources such as the General Social Survey and the American National Election Studies (ANES, 1952-1998), neither of which were initially designed to measure social capital. As Stone (2001) points out, the use of this method “is inherently limited as data gathered originally for purposes other than the study of social capital are unlikely to provide conceptually thorough measures of it” (p. 2). She goes on to say that this “ad hoc mixture of measures, indicators and outcomes” have most certainly contributed to the perplexities surrounding the measurement of social capital and how best to operationalise it.

Additionally, using secondary sources to fit with our current conceptualisation of social capital provides us with few theoretical links to the data.
Whilst Paxton (1999) highlights this problem in her comprehensive paper, she also relies on secondary data in her analysis of the decline of social capital in the United States using nine of the existing items from the General Social Survey. Although this is an improvement on the single item measures discussed above and is more theoretically comprehensible, ideally, if one is to pursue the potential benefits of social capital then a primary measurement tool needs to be developed whereby social capital is clearly and consistently operationalised (Stone, 2001).

**Link between theory and measurement.** Paxton (1999) argues that the main reason for the diversity of measurement tools is that the majority of previous studies have failed to demonstrate how their measure of social capital relates to our theoretical understandings of it. This gulf between theory and measurement contributes to the continued use of “questionable indicators” and to the bewildering number of different measures used when examining social capital (Paxton, 1999, p. 90). Some studies have attempted to integrate Bourdieu’s theory into their research designs (e.g., Portes, 1995), although it could be argued that any attempt to measure social capital according to Bourdieu’s definition must also include a measure of the material/economical conditions driving the social interactions under study.

Applying Coleman’s (1988) definition is somewhat easier as one need only consider the motivation at the individual level (Pope, 2003), nevertheless, the overall vagueness of his definition has led researchers to use an infinite number of indicators, all of which are claimed to be measuring social capital. Finally, measuring social capital, according to Putnam’s conceptualisation has also been criticised as the claim that social capital is the property of nations, leads to the use of proxy measures (e.g., newspaper readership, voter turnout, blood donations etc.) and as explained above, it remains unclear exactly how these indicators relate to social capital (Van Deth, 2003).

Others employing Putman’s theory simply aggregate individual scores and use them as a measure of social capital for the collective (Portes & Landolt, 1996). However, it has been commonly argued that collective social capital is different to, and more than, the sum of individual social capital (Kawachi et al., 1997; Shiell & Hawe, 1996). As Fukuyama (2001) posited, producing anything like a believable census of a society's stock of social capital is a nearly impossible task, since it involves multiplying numbers that are either subjectively estimated or simply non-existent. It is clear that aligning oneself with any single theoretical explanation
proves difficult when it comes to measuring social capital. As suggested by Van Deth (2003), a more effective strategy may be to use a ground up approach and search for commonalities among the available theoretical and empirical applications of the concept in order to effectively research it. Based on Van Deth’s recommendation, the present research adopted this approach which is detailed in the next section.

The search for commonalities. Throughout the literature, most authors agree that social interactions form the basis of social capital. However, the type, strength, elements, and outcomes of these interactions, and their implications for social capital, vary substantially. In an attempt to find commonalities within the social capital literature, and successfully operationalise the construct, Roberts and Roche (2001; see also Stone, 2001) suggest that it is most useful to separate existing conceptualisations into structural and cultural components. Structural aspects usually refer to one’s social networks or connections (memberships, ties, acquaintances), whereas the cultural aspect refers to levels of trust, and civic norms and values (obligations, reciprocity, solidarity, tolerance; Paxton, 1999; Van Deth, 2003). When viewed in this manner, a close examination of the theoretical and empirical literature reveals a surprising number of similarities that can be used as a guide for developing an integrated empirical model for the current research.

Looking at the dominant theoretical perspectives, the work of Bourdieu (1986) clearly makes reference to the structural component of social capital in his discussion of “connections” and the actual or potential resources arising from them (p. 243). Cultural elements are also evident with frequent references to “social obligations” (p. 243) and “manners” (p. 256) which he describes as necessary elements of social capital. Both structural and cultural aspects of social capital are also evident in the works of Coleman (1988) and Putnam (2000). Here the structural component is described most commonly as social networks, and the cultural component is made of their descriptions of trust, reciprocity, and cultural norms. As Van Deth (2003) points out, in the works of the latter two authors, the structural aspects of social capital facilitate the development of trust and norms, just as connections imply obligations in the work of Bourdieu. Making the distinction between structural and cultural components is also useful for empirical purposes as it is far easier to develop a set of consistent indicators based on social networks, mutual
trust, and norms and values, than to operationalise abstract terms such as ‘invisible bonds’ or ‘social super glue’.

Turning to the empirical literature, it is clear that both structural and cultural aspects of social capital have been used. Measures of networks (structural), trust, and norms and values (cultural) dominate the empirical literature, however, few attempts have been made to integrate both structural and cultural aspects into the same measurement model (Van Deth, 2003). Additionally, the structural and cultural features of social capital have been measured at different levels within the social structure. For example, some studies concentrate solely on networks and/or trust within the family (e.g., Amato, 1998; Furstenberg & Hughes, 1995), others have researched networks among friends and/or neighbours (e.g., Baum, Palmer, Modra, Murray, & Bush, 2000), whilst others concentrate on social capital at the community level (e.g., Bullen & Onyx, 1998).

Researching social capital at separate levels inherently assumes that the positive (or negative) effects of social capital operate individually, when it is entirely possible they have a cumulative effect on desirable outcomes. Furthermore, partitioning the study of social capital at the singular level potentially obscures important findings relating to what type/level of social capital is the most beneficial for which outcomes. Ideally what is needed is a research study examining social capital at all levels (bonding [family & friends], bridging [neighbours], and linking [community]), using a theoretically informed multi-item, multi-dimensional measure of social capital to determine how each facet relates to advantageous outcomes. The development of such a measure was one of the central aims of this research thesis.

In accordance with this view, Stone and Hughes (2002) have argued that if the concept of social capital is to be useful theoretically, empirically, and socially, then four key principles must be followed to avoid a host of problems associated with the measurement of social capital: 1) social capital measurement needs to be theoretically informed; 2) social capital needs to be viewed as a resource and assessed as to whether or not it generates desirable social and economic outcomes; 3) social capital needs to be theorised as a multidimensional construct; and 4) it needs to be recognised that social capital will vary depending on network type and social scale under examination (i.e., family, community, societal).

In sum, what is urgently needed is the use of multi-method multi-contextual strategies in order to strengthen the role of empirical evidence in debates on social
capital and citizenship (Van Deth, 2003). In order to advance knowledge in the area of social capital research needs to move away from single item indicators, secondary analysis, and proxy measures, and develop a set of consistent indicators that can be used to draw conclusions across research studies. Additionally, future research needs to clearly separate the indicators of social capital from outcome measures, and incorporate both structural and cultural elements of social capital into a comprehensive measure which can be used to assess social capital across the levels of the social structure. Once this has been accomplished, we may begin to examine the varying levels and potential benefits of social capital across individuals of different ages from diverse cultural and socioeconomic groups.

Implications for the Present Investigation

The literature presented in this chapter has clearly identified a number of problems and gaps in social capital research that urgently need addressing if the study of social capital is to progress and achieve robust research integrity. Due to the different theoretical viewpoints described, the position taken in the present research was to capitalise on the commonalties among them by including the strengths of each theory in the research design whilst acknowledging and attempting to address the limitations. As a result, the theoretical stance taken in this thesis is that social capital arising from one’s social connections can assist individuals as stated by Bourdieu, but it can also be beneficial for families, bystanders, and entire communities as posited firstly by Coleman, and then by Putnam. Additionally, whilst it is recognised that social capital can have a dark side and has the potential to be exclusionary, as proposed by Bourdieu, the focus of this study is to examine its prospective positive externalities.

The discussion relating to the definitional issues established the difficulty in defining social capital consistently and the failure of most previous research to include all theorised elements of social capital into their definitions. As a consequence, this research attempted to reconcile the three most commonly cited components in the theoretical and empirical literature defining social capital as consisting of social relations or networks based on trust, and the values and norms of reciprocity. It is also acknowledged that social capital operates at different levels
within the social structure and as such a multi-contextual (bonding, bridging, and linking) research design was implemented.

The final overarching criticism of social capital identified throughout this literature review was the inconsistent and often insufficient measurement tools used to examine social capital and its impact. As the most commonly cited problems were difficulties in separating the indicators of social capital from potential outcomes resulting in reverse causation estimates, the use of single item indicators, the continued reliance on secondary data sources, and the poor links between theory and measurement; this research utilised the commonalities found in the literature to develop a unified theoretical and definitional primary measurement model which consisted of multiple item factors measured on multiple levels. A more detailed discussion of the research aims and development of this new measure can be found in chapters 4 and 5 of the thesis.

**Chapter Summary**

This chapter has given a brief summary of the theoretical origins of social capital and has outlined the theories of Pierre Bourdieu, James Coleman, and Robert Putnam who are considered the most prominent theorists in the field. Bourdieu’s concepts of habitus and types of capital were used to explain how social capital can be used as not only as a resource but also as a source of social division and exclusion. Drawing on economist and sociological principles the presentation of James Coleman’s theory demonstrated that social capital can be utilised by not only the rich but also the poor to strengthen the social and economic position of individuals and families, thereby providing a more optimistic view of the construct. Finally Robert Putnam’s theory was presented showing how his popular theory moved the discussion of social capital outside the research realm and firmly into political and public debate. The significance of Putnam’s theory was that he demonstrated the value of social capital at the societal level, therefore stressing the importance of weak or loose ties within the community which could benefit not only individuals and families, but also entire nations.

The second half of the chapter outlined the conceptual and measurement issues prominent in the literature. Problems in finding a consistent and comprehensive definition of social capital, separating the sources and outcomes of
social capital, and the issues in trying to identify the potential positive and negative outcomes of social capital were shown to continually hamper the progression of social capital research. In addition to the conceptual problems presented, a number of measurement concerns were delineated. The most problematic of these were the use of secondary or proxy measures, single items indicators, poor links between theoretical conceptualisations of social capital and the measures used, and lastly, the use of reverse causation and inverse measures.

It was also suggested that if social capital research is to move forward, theorists and researchers need to reach a consensus on what social capital is, develop theoretically consistent measures of social capital that are multi-item and multidimensional, and clearly separate indicators of social capital from its outcomes. The present investigation attempted to address these issues by developing a multidimensional, multiple item measure that assesses social capital for secondary students at the bonding, bridging, and linking level whilst retaining strong ties to its proposed theoretical elements as outlined in the final section of this chapter. Whilst this chapter has highlighted the many challenges evident in the social capital literature, the following chapter outlines the specific aims, hypotheses, and research questions driving the present research.
CHAPTER 4
SUMMARY OF THE SPECIFIC FOCI OF THE PRESENT INVESTIGATION: AIMS, HYPOTHESES, RESEARCH QUESTIONS

Introduction
The purpose of the current chapter is to outline the aims, hypotheses, research questions guiding the present investigation. The central focus of the present research investigation was to create knowledge about the role served by social capital and the processes that underpin the relations between social capital, and social and economic outcomes in disadvantaged communities. In order to create such knowledge, there were three overarching aims directing the current research:

1. To develop a psychometrically and theoretically sound survey instrument that measures individual perceptions of community integration and social capital within multiple contexts (family, peer, neighbour, community).
2. To explicate the relations between social capital and a range of socio-economic and health outcomes including physical and mental health, educational aspirations and self-concept, risk behaviours, and fear of crime within the community; and
3. To utilise a qualitative methodology to examine community members' conceptions of the value of social relationships, and identify the issues, needs, and strengths within the disadvantaged geographical locations under study.

To achieve these aims the present investigation comprised three interrelated studies. The purpose of first quantitative study was to validate the new measure of social capital based on an extensive examination of the empirical and theoretical literature. In addition, existing psychosocial and economical measures were further validated for use with the current sample using rigorous statistical procedures. Study
2, also quantitative in nature, continued on from Study 1 and employed structural equation modelling (SEM; see Chapter 5) to investigate whether a set of predictor variables (comprising varying types of social capital and levels of community integration) could be used to predict a set of outcome variables, centring on the socio-economic outcomes in disadvantaged youth. Study 3 was qualitative in nature and used student, teacher, and parent responses to open-ended interview questions to determine the value of social relationships and how they could have been used to improve the lives of people living in entrenched disadvantage. The analysis of the responses to interview questions allowed for an in-depth examination of the issues raised in the quantitative data, as well as identifying the existing challenges requiring intervention, and strengths which can be built upon in each of the communities under study. The individual aims, hypotheses, and research questions for each study will be outlined below. In order to avoid repetition of the literature presented throughout Chapters 2 and 3, only the hypotheses and research questions (not the supporting literature) are presented here.

**Statement of Hypotheses and Research Questions**

The following is a list of research questions and hypotheses formulated to direct the present research. In cases where past research and theory were lacking, making it impractical for formulating clear predictions, research questions were devised. Each hypothesis and research question is labelled with a three-digit identifier. The first digit represents the study (e.g., 1, 2, or 3), while the second digit refers to the number of the aim it was developed to satisfy, and the third digit identifies the particular hypothesis or research question. For example, Hypothesis 1.1.1 refers to Study 1, Aim 1, Hypothesis 1; Research Question 2.2.1 refers to Study 2, Aim 2, Research Question 1, and so on.

**Study 1- Examining the Psychometric Properties of a Newly Developed Measure of Social Capital and Validating Existing Psychosocial and Economic Measures in Disadvantaged Communities**
Statement of the Problem

There are three questions centralised on the problem. Is a newly developed multi-dimensional measure of social capital psychometrically sound? Are existing psycho-social and economic measures psychometrically sound for use in disadvantage communities? Do each of the measures demonstrate factorial equivalence across different sub-groups (gender and region), and are there any significant differences evident across sub-groups?

Aims

The primary aims of Study 1 were to:

1. Test the psychometric properties of both the newly developed multi-dimensional measure of social capital (SCCS) and that of the existing measures of psycho-social outcomes (multiple dimensions of self-concept; perceived discrimination; individuals’ career and educational aspirations); physical and mental health (stress, anxiety, depression, risk behaviours, illness); fear of crime, and resident perceptions of their community will also be ascertained;

2. Further validate the factor structure of the newly developed measure of social capital and existing psychosocial, health, and economic outcome measures by testing for invariance across gender and community, thus providing further evidence of the instruments’ factorial equivalence across different groups; and

3. Explicate the commonalities and differences across gender and region in perceived levels of social capital, and social and economic outcomes, in order to target intervention appropriately in each specific community and gender group.

Social Capital and Cohesiveness Index (SCCS)

Hypothesis 1.1.1: Reliability of the SCCS. Based on the results of the pilot study (see Chapter 5), it was predicted that the SCCS’s six subscales would have acceptable Cronbach alpha coefficients.

Hypothesis 1.1.2: Factorial structure of the SCCS. Based on the results of the pilot study (see Chapter 5), it was predicted that student responses to the SCCS
would support the multidimensional six factor structure of the SCCS (see Figure 4.1.) through confirmatory factor analysis (CFA).

**Research question 1.2.1: Factorial invariance of the SCCS across gender.**
Is the factor structure of the SCCS similar across gender as demonstrated by tests of invariance?

**Research question 1.2.2: Factorial invariance of the SCCS across region.**
Is the factor structure of the SCCS similar across region as demonstrated by tests of invariance?

**Research Question 1.3.1: Region and gender differences for the six social capital scales of the SCCS.** Are there any gender and regional differences, and gender by regional interaction effects across the six subscales of the SCCS.

![Figure 4.1. Pictorial representation of the final SCCS model](image-url)
Depression, Anxiety and Stress Scale (DASS-21)

**Hypothesis 1.1.3: Reliability of the DASS.** Hypothesis 1.1.3 predicted that tests of reliability will demonstrate acceptable values for each of the three factors as measured by the DASS (Depression, Anxiety, and Stress).

**Hypothesis 1.1.4: Factorial structure of the DASS-21.** Hypothesis 1.1.4 predicted that CFA analysis would support the three *a priori* factors: Depression, Anxiety, and Stress of the DASS-21 (see Figure 4.2).

**Hypothesis 1.2.3: Factorial invariance of the DASS across gender.** Hypothesis 1.2.3 predicted that the factor structure of the DASS will be similar for both males and females, and residents living in the two different community environments being investigated.

**Hypothesis 1.2.4: Factorial invariance of the DASS across region.** Hypothesis 1.2.4 predicted that student responses to the DASS-21 would produce a consistent factor structure across regional groups.

**Research question 1.3.2: Gender and regional differences for the DASS-21.** Research Question 1.3.2 asked to what extent will gender and regional differences emerge for depression, anxiety, and stress levels, and whether there are significant regional by gender interactions.

![Figure 4.2. Pictorial representation of the Depression Anxiety and Stress Scale](#)
Negative Community Perceptions Scale (NPS)

Hypothesis 1.1.5: Reliability of the NCPS. It was predicted that the three factor, 11 item scale will be a reliable measure of students’ experiences of perceived discrimination, concerns about crime, and their perceptions about how others view their community.

Hypothesis 1.1.6: Factor structure of the NCPS. Hypothesis 1.1.6 predicted that the three factor structure of NCPS would be a valid measure of students’ perceived experiences of racial Discrimination, Fear of Crime and Community Reputation (see Figure 4.3).

Hypothesis 1.2.5: Factorial invariance of the NCPS across gender. Hypothesis 1.2.5 predicted that the factor structure of the NCPS will be a consistent measure for both males and females.

Hypothesis 1.2.6: Factorial invariance of the NCPS across region. Hypothesis 1.2.6 predicted that the factor structure of the NCPS will be a consistent measure for residents living in both Oceanview and Multiville.

Research Question 1.3.3: Regional and gender differences for the NCPS. Research question 1.3.3 asked whether there were any gender and regional differences, or interaction effects evident in students’ responses to the NCPS.

Figure 4.3. Pictorial representation of the Negative Community Perceptions Scale

Note. Per Discrim = Perceived Discrimination, Fear crime = Fear of Crime, Comm Rep = Community Reputation
Self-Description Questionnaire II-Short (SDQ II-Short)

**Hypothesis 1.1.7: Reliability of the SDQ II-Short.** Hypothesis 1.1.7 predicted the selected three factors of the SDQ II-Short would be a reliable measure of students’ General, Verbal and Math self-concepts.

**Hypothesis 1.1.8: Factor structure of the SDQ II-Short.** Hypothesis 1.1.8 predicted that student responses to the SDQ II-Short would support the multidimensional three factor structure of the SDQ II-Short (see Figure 4.4) through confirmatory factor analysis (CFA).

**Hypothesis 1.2.7: Factorial invariance of the SDQ II-Short across gender.** Hypothesis 1.2.7 predicted that the factorial structure of the SDQ II-Short would be similar for both males and females as demonstrated by structural equation modelling tests of invariance.

**Hypothesis 1.2.8: Factorial invariance of the SDQ II-Short across region.** Hypothesis 1.2.8 predicted that the factor structure of the SDQ II-Short will be a consistent measure for residents living in both Oceanview and Multiville.

**Research Question 1.3.4: Regional and gender differences across the three factors of the SDQ II-Short.** Research Question 1.3.4 asked to what extent will gender and regional differences emerge for General, Verbal, and Math self-concept scores, and if there are any regional by gender interaction effects evident?

![Figure 4.4. Pictorial representation of the Self-Description Questionnaire II-Short](image-url)
Aspirations Index (AI)

Hypothesis 1.1.9: The reliability of the AI. Hypothesis 1.1.9 predicted that tests of reliability would demonstrate acceptable values for the total sample, and males and females separately, for each of the three: subscales financial, social, and career, as measured by the AI.

Hypothesis 1.1.10: Factor structure of the AI. Hypothesis 1.1.10 predicted that the AI would be a valid measure of students’ financial, social, and career life goals as tested by confirmatory factor analysis (see Figure 4.5).

Hypothesis 1.2.9: Factorial Invariance of the AI across gender. Hypothesis 1.2.9 predicted that the factor structure of the AI will be a consistent measure for both males and females.

Hypothesis 1.2.10: Factorial Invariance of the AI across region. Hypothesis 1.2.10 predicted that the factor structure of the AI will be a consistent measure for residents living in both Oceanview and Multiville.

Research Question 1.3.5: Gender and regional differences for the AI. Research Question 1.3.5 explored the possible similarities and differences in student aspirations across gender and region.

![Figure 4.5. Pictorial representation of the Aspirations Index](image-url)
Instrumentation Battery

Research Question 1.1.11: Structure of Assessment Battery. Research question 1.1.11 asked whether the factor structure of the individual measures utilised in the current research would be upheld despite all instrumentation being combined into a single assessment battery. Also of interest was the network relations (pattern of correlations) between latent factors as these are important for determining whether the factors are related in a logical and theoretically coherent manner.

Study 2: Examining the relations between social capital, psychosocial constructs, and economic outcomes

Statement of the Problem
The key questions driving this aspect of the research are: What are the relations between social capital and depression, anxiety, and stress? Do levels of social capital impact on individuals’ perceptions of discrimination, fear of crime, and community reputation? What are the relations between social capital and math, verbal, and general academic self concept? Does social capital exert a positive influence on the endorsement of social, financial, and career/educational aspirations? What are the relations between social capital and physical health? Can increases in social capital reduce levels of risk-taking behaviour among youth? Can greater levels of social capital facilitate individuals’ access to important resources? Are the predictive relations between these constructs consistent for males and females? Does the type of community impact on the relations between social capital and the aforementioned psycho-social and economic outcomes? And finally, which form of social capital (family, peer group, neighbourhood and community) is most beneficial for which outcomes?

Aims
The aims of Study 2 were to:
1. Examine the relations between social capital and depression, anxiety, and stress in multiple contexts.
2. Ascertain whether or not social capital can impact on perceptions of discrimination, fear of crime, and views of one’s community.
3. Investigate the relations between social capital and math, verbal, and general academic self-concept.
4. Determine whether social capital can exert a positive influence on the endorsement of social, financial, and career/educational aspirations.
5. Examine how levels of social capital predict participants’ health behaviours; frequency of symptoms relating to illness; ratings of general health; reports of life satisfaction, and levels of physical inactivity.
6. Examine whether or not social capital can reduce levels of risk-taking behaviour among youth.
7. Investigate the relations between multifaceted social capital and individuals’ socio-economic position, participation in social activities, and access to resources.

Social capital and mental health

Research Question 2.1.1: Relations between SCCS and the DASS-21. Research Question 2.1.1 asked what are the predictive relations between social capital and mental health.

Research Question 2.1.2: Overall gender differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Research Question 2.1.2 investigated whether there were any overall gender differences in the predictive paths of the six social capital factors over Depression, Anxiety and Stress.

Research Question 2.1.3: Overall regional differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Research Question 2.1.3 investigated whether there were any overall regional differences in the predictive paths of the six social capital factors over Depression, Anxiety, and Stress.

Social capital, perceived discrimination, fear of crime, and community reputation

Research Question 2.2.1: Relations between the SCCS and the NCPS. Research Question 2.2.1 asked what are the relations between the different factors of the SCCS, and respondents’ perceptions of their community as measured by the NCPS.

Research Question 2.2.2: Gender differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community
**Reputation.** Research Question 2.2.2, investigated whether there were any potential gender differences in the predictive paths between the six social capital factors of the SCCS, and the three NCPS factors: Perceived Discrimination, Fear of Crime, and Community Reputation.

**Research Question 2.2.3: Regional differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation.** Research Question 2.2.3, investigated whether there were any potential regional differences in the predictive paths between the six social capital factors of the SCCS, and the three NCPS factors: Perceived Discrimination, Fear of Crime, and Community Reputation.

**Social Capital and academic self concept**

**Research Question 2.3.1: Predictive relations between the SCCS and the SDQ II-Short.** Research Question 2.3.1 examined the predictive value of SCCS’s social capital factors on participants’ academic self-concept.

**Research Question 2.3.2: Predictive relations between the SCCS and the SDQ II-Short across gender.** Research Question 2.3.2 investigated whether there were any overall gender differences in the predictive paths between the six social capital factors (Family, Peer, Neighbour, Institution, Belonging, & Isolation) and General, Verbal, and Math self-concept factors.

**Research Question 2.3.3: Predictive relations between the SCCS and the SDQ II-Short across region.** Research Question 2.3.3 investigated whether there were any overall regional differences in the predictive paths between the six social capital factors (Family, Peer, Neighbour, Institution, Belonging, & Isolation) and General, Verbal, and Math self-concept factors.

**Social capital and future aspirations**

**Research Question 2.4.1: Predictive relations between the SCCS and the AI.** Research question 2.4.1 investigated the relations between the six factors of the SCCS (Family, Peer, Neighbour, Institution, Belonging, and Isolation) and the three factors of the AI (Financial, Social, Career).

**Research Question 2.4.2: Gender differences in the predictive relations between the SCCS and the AI.** Research question 2.4.2 investigated whether any
significant gender differences were evident between males and females, with levels of social capital predicting students’ future aspirations.

**Research Question 2.4.3: Regional differences in the predictive relations between the SCCS and the AI.** Research question 2.4.3 investigated whether any significant regional differences were evident between residents residing in Oceanview and Multiville, with levels of social capital predicting students’ future aspirations.

**Social capital and physical health**

**Research Question 2.5.1: Predictive relations between the SCCS and health outcomes.** Research question 2.5.1 explored the association between levels of social capital and health outcomes. In the present investigation five outcome measures of health were utilised: General health, Life Satisfaction, Health Behaviours, Symptoms of Ill Health, and Sedentary Behaviours. Levels of social capital predicting these outcomes were Family SC, Peer SC, Neighbour SC, and Institutional SC. In addition, respondents’ sense of Belonging and Isolation were also used as predictive measures.

**Research Question 2.5.2: Gender differences in the predictive relations between the SCCS and health outcomes.** Research question 2.5.2 explored how responses relating to social capital and health varied as a function of gender.

**Research Question 2.5.3: Regional differences in the predictive relations between the SCCS and health outcomes.** Research question 2.5.3 explored how responses relating to social capital and health varied as a function of region.

**Social capital and risk behaviours**

**Research Question 2.6.1: Predictive relations between the SCCS and risk behaviours.** Research question 2.6.1 investigated the predictive relations between social capital and risk behaviours in adolescents.

**Research Question 2.6.2: Gender differences in the predictive relations between the SCCS and risk behaviours.** The purpose of the current research question was to determine whether the relations between social capital and riskbehaviours varied as a function of gender.

**Research Question 2.6.3: Regional differences in the predictive relations between the SCCS and risk behaviours.** The purpose of this research question was
to determine whether the relations between social capital and risk behaviours varied as a function of region.

Social capital and access to resources

Research Question 2.7.1: Relations between social capital and access to resources. Employing structural equation modelling, research question 2.7.1 aimed to determine the relation between each factor of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) and participants access to resources (Participation, Living Conditions, and Internet access).

Research Question 2.7.2: Gender differences in the predictive relations between the SCCS and access to resources. The purpose of the current research question was to determine whether the relations between social capital and access to resources varied as a function of gender.

Research Question 2.7.3: Regional differences in the predictive relations between the SCCS and access to resources. The purpose of the current research question was to determine whether the relations between social capital and access to resources varied as a function of region.

Study 3- Strengths and Needs Community Mapping and Assessment of Social Capital in Place-Disadvantaged Settings

Statement of the Problem
Extensive review of the literature reveals very few qualitative studies into the determinants of social capital and how they relate to desirable outcomes for individuals and communities. This is surprising considering the controversy surrounding the quantitative measurement and conceptualisation of the construct. There is growing recognition that quantitative and qualitative research methods complement each other in ways that both consolidate findings and shed light on issues that are best studied by one or the other (Martin, 2003). Therefore, the purpose of conducting the qualitative research component was to further assist in elucidating the determinants of social capital and community capacity building, capture the experiences and perceptions of target groups from a wider perspective, offer opportunities for validating the quantitative findings through triangulation, allow
comparisons of experiences from different types of disadvantage, and provide enriched explanations and additional findings.

**Aims**

The aims of Study 3 were to:

1. Conduct a ‘needs and strengths' analysis in the two communities by enabling key community leaders and members to identify the strengths of the community and the most pressing issues requiring innovative interventions;
2. Investigate any additional themes that may have been untapped or overlooked in the quantitative component of the research; and
3. Elucidate any emerging themes relating to the determinants or impact of social capital evident in the quantitative analysis.
4. Gain access to the stories behind the statistics, thereby enriching the data and providing a closeness to the cultural “lived” experience of the participants.

**Statement of the Research Questions**

**Research question 3.1.1 Assessing community strengths.** What aspects of the community are working well and can be built upon to strengthen community members’ ties and well-being?

**Research question 3.1.2. Assessing problems in the community.** What facets of community life do residents identify as problems requiring intervention?

**Research question 3.1.3. Community Building.** What improvements would the community members like to see in their community?

**Research question 1.4. Regional differences.** Are the strengths and problems in the two communities similar or different?

**Research question 3.2.1. Additional themes.** Are there any additional themes relating to social capital that were not investigated in the quantitative component of the study that require further investigation?

**Research question 3.2.2 Access to services.** Do community members believe that their access to public and private services are adequate and are there any additional services required by the community?
Research question 3.3.1 Social exclusion. Are there any particular groups within the community that are more socially excluded than others?

Research question 3.3.2. Determinants of social capital. What do individuals value in their social relationships with family, friends, neighbours and the community?

Research question 3.3.3 Group membership. Are people living in disadvantaged communities involved in their community through group membership?

Chapter Summary

This chapter has presented statements of the problem, aims, hypotheses, and research questions for each of the three studies that comprise the present investigation. Given the diversity of issues in this investigation, as well as the limitations of relying on a single method design (i.e., either a quantitative approach or a qualitative approach), a mixed methods design was adopted to address the investigation’s overarching aims. The next chapter presents the methodology employed in each of the three studies to address the hypotheses and research questions presented here.
CHAPTER 5
METHODOLOGY

Introduction

The purpose of this chapter is to present the methodological procedures used in the three studies that comprise the present investigation. Study 1 and Study 2 are quantitative in nature, whilst Study 3 employs a qualitative research design (see Chapter 4). The methodology described corresponds to the research questions and hypotheses outlined in the previous chapter. Firstly, a brief discussion on mixed method research design is presented, followed by an outline of the sample demographics, participant characteristics, and recruitment procedures used in the present research. Secondly, the development of the new social capital measure is presented followed by a detailed description of all other quantitative and qualitative instrumentation employed in the current research. Thirdly, preliminary data analyses pilot results for the newly developed social capital measure are presented. Finally, data collection and statistical procedures are described for the quantitative studies, and a description of the methodology and procedures used to collect and analyse the qualitative data are presented.

Mixed Methods Research

Over the last 20 years, utilising a mixed method research design has steadily increased in popularity, emerging as a third alternative to the long-established quantitative/qualitative dichotomy (Teddlie & Tashakkori, 2009). Traditionally, quantitative research involves adopting a positivist paradigm employing the use of numerical data and statistical analyses, whereas qualitative research primarily involves the use of textual or narrative data within the constructivist paradigm (Teddlie & Tashakkori, 2009). Teddlie and Tashakkori (2009) encourage researchers to focus on the relations that exist within and among the two major research
orientations and pursue a mixed method orientation using a pragmatic philosophy. Pragmatism has been defined as “a deconstructive paradigm that debunks concepts such as “truth” and “reality” and focuses instead on “what works” as the truth regarding the research under investigation” (T Teddlie & Tashakkori, 2003, p. 713).

Utilising this deconstructive paradigm highlights that the two methodologies can be complementary rather than opposing and each methodology can complement the other by cancelling out the disadvantages of each when used exclusively (Brewer & Hunter, 1989; Greene, 2007). For example, in quantitative research, contextual factors such as the sensitivity of the subject matter used in the survey instrument, the literacy skills of the participant, the limitation of survey items to elicit participants’ true opinions, all impact on the integrity of the data that are collected and analysed, and the subsequent validity of the interpretation given to the data. “Qualitative data, it is argued, can redress that imbalance by providing contextual information” (Guba & Lincoln, 1994, p. 106), thereby giving broader insights into the phenomena under study that are not adequately measured within the quantitative framework. In support of this Sechrest and Sidani (1995, p.77) argue that all modern, good science is “characterised by methodological pluralism”.

Therefore, it was deemed both important and necessary to employ a mixed method design in the current research in order to fully explore and explicate the influences of social capital on secondary students’ psychosocial outcomes. The quantitative data determined the validity and reliability of instrumentation, and provided objective information on the relations between levels of social capital and students’ social and psychological outcomes. The purpose of the qualitative data was threefold. It served to enrich and extend on the findings from the qualitative data, enabled the researcher to gain a deeper understanding of the social capital construct, and was used to elucidate the strengths and challenges within each of the key communities in order to inform future intervention strategies. The findings from both the qualitative and quantitative studies were also examined interactively for occurrences of “convergence, complementarity, and discordance” (Greene, 2007, p. 157) in order to validate the findings from each method and build upon social capital theory.

Several typologies (i.e., types) of mixed-methods research designs exist (see Tashakkori & Teddlie, 2003), however, the typology used in this research was concurrent mixed design (Johnson & Onwuegbuzie, 2004). Concurrent designs
involve the process whereby quantitative and qualitative data are collected, analysed, and interpreted separately, followed by the consolidation and integration of both components enabling the researcher to draw an overall “meta-inference” about the combined data sets (Tashakkori & Teddlie, 2003, p. 686). This typology is similar to the convergence model described by Creswell and Clark (2007) whereby the results from each data collection are compared and contrasted, with the aim of arriving at valid and well-substantiated conclusions about the phenomenon under study.

In summary, the use of multiple methods in research can contribute to methodological rigour (Patton, 2002) by creating synergistic research whereby the addition of a second method (i.e., quantitative or qualitative) enables the other to be more effective (Hesse-Biber & Leavy, 2011). Mixed-methods designs draw strengths from quantitative and qualitative designs, thereby minimising the limitations associated with the monomethod approach (Johnson & Onwuegbuzie, 2004). More specifically, while this research capitalised on strong statistical techniques, it is also recognised that interviewing a sample of students, parents, and school staff provided rich insights into the experiences of students that are not easily captured using only quantitative methods.

**Participants**

**Quantitative Sample**

Participants were a purposefully selected sample of students living in two disadvantaged communities in New South Wales (NSW), Australia. These communities were selected on evidence that the locations were of geographical concentrated disadvantage (based on Vinson’s (2007) Disadvantage Index and the Socio-Economic Indexes for Areas); indication that the school community would support and agree to participate in the research; evidence of poor social cohesion that is not being addressed by government programs or other NGOs; and a diversity of age, socio-economic status, and ethnic background of residents across the two communities. The total sample comprised of a range of cultural and linguistic backgrounds, as well as a representative gender mix. There were large cultural and locality differences between the two communities. Oceanview\(^1\) is located in a beach side rural town in New South Wales, whereas Multiville is located in an urban area.

\(^1\) Pseudonyms for each community have been used to maintain anonymity.
within the city of Sydney. Furthermore, Multiville is made up predominantly of residents from a non-English speaking background, whilst Oceanview residents come from a primarily Caucasian background.

A total of four secondary schools agreed to participate. The final total sample comprised of 1371 male and female secondary students (Grades 7-10) with ages ranging from 12 to 18 years, attending government schools in the communities of interest. In the Oceanview area, the school was co-educational, whereas the schools utilised in the Multiville area, were single sex schools (2 male only schools, 1 female only school). Of the total sample, 78.8% were born in Australia, whilst 21.2% were not. Almost 30% of the Multiville sample was born overseas, whilst in comparison only 6.5% of the Oceanview sample was born outside of Australia (see Table 5.1).

The majority of participants in the Multiville sample had overseas born parents (Father 88.5%; Mother 84.1%), whilst Oceanview students had predominantly Australian born parents (Father 79.3%; Mother 83.1%). There were also large religious differences between the two communities. Oceanview was largely secular with over half (54%) of the participants reporting no religious affiliation. In comparison only 2% of Multiville residents reported not following a religion. Additionally, Christianity was the most frequently reported religion (37%) amongst Oceanview residents, whilst the majority (72%) of Multiville residents reported having an Islamic affiliation.

Table 5.1

| Breakdown of Quantitative Participants by Gender, Country of Birth, and Region |
|-----------------------------|--------|-------|------|
|                             | Multiville | Ocean View | Total |
| Total participants          | 893     | 478   | 1371 |
| Gender                      |         |       |      |
| Male                        | 615     | 225   | 840  |
| Female                      | 278     | 253   | 531  |
| Country of birth            |         |       |      |
| Australia                   | 632     | 449   | 1081 |
| Other                       | 261     | 29    | 290  |
| Father country of birth     |         |       |      |
| Australia                   | 74      | 379   | 453  |
| Other                       | 790     | 90    | 880  |
| Mother country of birth     |         |       |      |
| Australia                   | 115     | 367   | 512  |
| Other                       | 751     | 78    | 829  |

*Note: Some parental country of birth data was missing resulting in unequal cell totals.*
**Qualitative Sample**

The qualitative sample consisted of a total of 125 participants. The sample was drawn from secondary students in Years 7-10, their parents, and their teachers (see Table.5.2). This was a subsample from the same four schools and communities described in the previous quantitative sample and data was collected in the form of focus groups. Principals were asked to nominate participants from diverse social and cultural groups to ensure that a variety of viewpoints and circumstances were accessed during the focus groups and interviews. In the Oceanview sample, each focus group contained five students of mixed gender from each year group. In the Multiville, area five students across each year group were selected (male or female only participants depending on the school) from each of the four participating schools. In addition, a focus group was also conducted with five of the teaching staff (of the Principal’s choosing) in each school and for the most part, the staff focus groups were made up of the school principal and his or her executive staff members. A final focus group was conducted in each of the two communities consisting of parents and community leaders. This resulted in a total of 32 focus groups.

**Table 5.2**

*Breakdown of Qualitative Participants by Gender, Role, and Location*

<table>
<thead>
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<th></th>
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<th></th>
<th>Oceanview</th>
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**Research Settings**

**Multiville**

With an estimated population of 80,694, the Multiville Local Government Area (LGA) is located in Sydney, Australia approximately 20km from Central Business District of Sydney, NSW. Multiville is primarily an urban district with established residential and commercial areas, including an industrial area in the south. Based on
the latest Australian census data (ABS, 2011c), Multiville is considered to be one of the most ethnically and linguistically diverse areas in Australia, with 51% of all residents being born overseas, and the highest percentage of non-Australian born residents came from Lebanon (9.9%), Vietnam (8%) and China (2.9%). As many as 60 different languages are spoken within the LGA and almost a third of the residents report a lack of proficiency in speaking English (28.2%). The most common religion amongst Multiville residents was Catholic (27%), followed closely by Islam affiliations (26.7) with only 6.4% of residents are not associated with any religious institution (ABS, 2011c).

The socioeconomic status of those living in Multiville is relatively low with more than a third of residents earning an annual income of $10,988 or less. Only 57% of residents were employed full time, with an average weekly income of $385 per individual (ABS, 2011c). During the Keep Australia Working initiative, the Multiville area was identified as being one of the 20 most vulnerable areas facing unemployment across Australia during times of economic recession (King, 2010). Multiville has an overall unemployment rate of 9.3% (ABS, 2011c), however the youth unemployment rate of 15.3% is significantly higher than the national average, making it one of the highest of all priority employment areas across the country (King, 2010). Multiville residents are primarily employed by the manufacturing industry (26.1%), followed by employment in the retail trade (10.8%).

According to the most recent ABS Socioeconomic Index for Areas data (SEIFA; ABS, 2008), the Multiville LGA ranked in the top 20 most disadvantaged areas in NSW.

In addition to the economic challenges in Multiville and its surrounding suburbs, the LGA has endured considerable social disadvantage, particularly in the last decade (Betts & Healy, 2002; Grewel, 2007). Media over the past 10 years have continued to draw attention to Lebanese crime following the series of gang rapes in the Multiville area in the early 2000s, the terrorist attack on the World Trade Centre in the Unites States in 2001, the London suicide bombings, and the Cronulla riots in 2005. In this climate of growing apprehension toward Islamic fundamentalism and terrorism, the large Lebanese population in the Multiville LGA claim to have been subjected to open hostility, racism, and discrimination by both the media and the public (Betts & Healy, 2002; Grewel, 2007) which has adversely impacted on wider community perceptions of the community.
Oceanview

Oceanview is a small beachside suburb located in NSW, approximately 105 km from the major city of Sydney. With a population of approximately 9000 people, the area is primarily residential, with a substantially older population than the rest of NSW, with 40.8% of the population being over the age of 55 (compared to the Australian national average of 25.6%, ABS, 2011d). The population of Oceanview is less culturally and linguistically diverse than Australia as a whole, as residents are largely Australian born with only 17.6% of residents reporting they were born overseas, and of those, only 0.3% came from non-English speaking backgrounds. There is, however, an Aboriginal and Torres Strait Islander population in Oceanview (4.25%) which is estimated to be growing and is larger than the proportion of the overall Australian population (2.5%, ABS, 2011e). Additionally, based on the 2011 Census data, the majority of residents have a Christian or Catholic religious affiliation (66.8%), whilst 17.1% reported no religious association.

Research has shown that the suburb of Oceanview is economically disadvantaged, falling in the top three per cent of Tony Vinson’s (2007) index of disadvantage (ranked 19 out of approximately 640 postcodes). The postcode area has particularly high unemployment rates, psychiatric admissions, and rental stress scores when compared to other postcodes throughout NSW (ABS, 2011d). The suburb’s overall unemployment rate of 9.7% is almost double the Australian average of 5.2%, however, youth unemployment is even higher at 18.4% (ABS, 2008). Oceanview is in the lowest ranking 7% of suburbs on the SEIFA scale of advantage/disadvantage (ABS, 2008), ranking 99th out of the 490 NSW postcodes surveyed. Twenty five percent of Oceanview residents earned less than $10 998 annually and the median weekly income for persons aged 15 years and over in Oceanview is $431 compared to the Australian median of $577. The median weekly household income in Oceanview is $742 whilst the average weekly household income for the whole of Australia is $1, 237 (ABS, 2011d). Finally, Oceanview has a high rate of one parent families (22.5%) in comparison to the Australian average of 15.9% (ABS, 2011d).
Materials and Instrumentation

Quantitative Measures

The present research used a combination of instrumentation that has been previously tested for strong psychometric properties as well as additional scales that are specific to the issues of the two targeted disadvantaged communities. The study utilised a 283 item questionnaire (Appendix A) to assess students’ levels of social capital and how this may influence various psychosocial and economic outcomes for secondary students. Constructs measured by the selected instrumentation included: groups and networks; trust and solidarity; collective action and cooperation; network structure, participation in the local community; feelings of trust and safety; neighbourhood, work, friends, and family connections; and tolerance of diversity. The social and economic outcome measures also included a range of objective and subjective measures, including: physical and mental health, educational aspirations, behavioural problems, drug and alcohol use, physical well-being, quality of life, and perceived safety.

The Development of the Social Capital and Cohesion Scale (SCCS)

The Social Capital and Cohesion Scale (SCCS) was specifically developed for the purposes of the current study. As discussed in Chapters 2 and 3, existing measures were often out dated, utilised single item indicators, or lacked sufficient theoretical basis or consistency. It was therefore deemed necessary to develop a new measure of social capital that was valid and reliable, multidimensional, up to date, and could be used to make valid comparisons across various empirical studies.

Item generation. In developing the SCCS, a construct-based scale construction approach (Jackson, 1970) was adopted, with the aim of developing a measure that was theoretically grounded with high validity and internal consistency. As social capital is a multidimensional construct it was also an aim to develop a number of factors that measured the various dimensions of social capital whilst minimising the overlap between factors to ensure the measure had good discriminate validity.

Item selection began by generating items for each of the proposed facets of social capital. Based on the theory and recommendations found in the current literature (see Stone, 2001; Stone & Hughes, 2002) these factor items were created to
assess participant networks that reflected both the types (trust, reciprocity) and levels of social capital (family, friends, neighbours, community). This resulted in eight first order factors and four higher order factors (see Figure 5.1). The four higher order factors were named Family, Peer, Neighbour, and Community social capital to reflect the different levels in which social capital operates. As shown in the literature, almost all current definitions of social capital view it as a multidimensional construct including both trust and reciprocity as important functions of building and maintaining an individuals’ social capital (Putnam, 2000; Woolcock, 1999; Woolcock & Narayan, 2000). Therefore, under each higher order factor, there were two first order factors named Trust and Reciprocity (refer to Figure 5.1).

It is important to note that one’s concept of community can be subjective and is not necessarily defined by precise geographical boundaries or intersections (Chavis & Pretty, 1999). With this in mind, when designing the community social capital scale, where possible, items were written with the aim of directing the participant to the particular aspect of the community we were most interested in exploring. For example, when investigating access and relationships with different services within the community participants were presented with the item “I can trust the police in my area” to narrow the focus to police officers within close proximity. Additionally, when enquiring about students’ school community, items such as “I trust my school to do what is best for me” were used, and when the focus was on the immediate neighbourhood this was made clear within the item (e.g., “My neighbourhood has a good reputation”). Whilst this may not have overcome all of the complexities associated with defining community, it goes some way in ensuring that both researcher and participant have a shared understanding of the items and the information inferred from participant responses.

An initial pool of 36 variables were selected using items from existing measures of social capital as well as the creation of new items (see Appendix B). Some of the existing items used were adapted from measures such as the Integrated Questionnaire for the Measurement of Social Capital (SC-IQ; Groothaert, Narayan, Jones, & Woolcock, 2004), and the Social Capital Index (Onyx & Bullen, 1997; 2000).

**Analyses of initial item pool.** The 36 items were piloted on 506 secondary students within New South Wales, Australia. A CFA was conducted whereby each of the 36 items were assigned to load only onto their designated factor. The initial CFA
resulted in a poor fitting model with a RMSEA of .82, and a CFI and TLI of .92 (Chi-square = 7657.71, df = 750). An additional problem was the lack of discriminant validity evident between the trust and reciprocity first order factors within each of the higher order factors.

As shown in Table 5.3, within-factor construct correlations varied from .84 to .99 indicating that the two first order factors (trust and reciprocity) were largely indistinguishable and as recommended by Byrne (2001) should be collapsed into a single factor. In contrast, correlations between unrelated first order factors (e.g. Family Trust and Peer Trust) indicate the measurement of distinct constructs across the four levels of social capital and were therefore retained in the subsequent analysis. Collapsing all Trust and Reciprocity first order factors into a single factor, resulted in a final four factor model measuring Family, Peer, Neighbour, and Institutional SC. All original items were retained and the CFA was rerun using the revised structural model.
The revised model produced less than optimal fit indices when the second CFA was run. The RMSEA was .84 thereby exceeding the acceptable level of .80 (Browne & Cudeck, 1993; Holmes-Smith, 2000) and the CFI and TLI, whilst considered acceptable at .92 (Hu, Bentler, & Kano, 1992; Schumacker & Lomax, 1996) is not indicative of an excellent fitting model. Examination of the modification indices, factor loadings, and squared multiple correlations ($R^2$) indicated a number of problematic items. Coote (2004) recommends that the $R^2$ of an observed variable...
should exceed .50 in order to demonstrate reliability. Recommendations relating to factor loadings are varied and there is as yet no commonly accepted criterion for determining the inclusion of a particular variable within a factor. The .30 criteria is often cited as a cut-off point (Hills, 2008; Tabachnick & Fidell, 2007), whilst others recommend a range of more stringent guidelines including .40 (Guadagnoli & Velicer, 1988; Snook & Gorsuch, 1989), .50 (Hair, Babin, Anderson & Tatham, 2006), and .60 to .70 (Coote, 2004). Coote (2004) argues that rather than relying on an arbitrary cut-off value, the key criteria in assessing factor loadings should be that the estimated parameter is statistically significant. However, perhaps the most pragmatic approach was introduced by Comfy and Lee (1992) who suggested that loadings greater than .75 are considered excellent, .65 very good, .55 good, .45 fair, and .35 poor. The criteria set by Comfrey and Lee will be used in the current research when deciding whether to retain or delete variables during the instrument's development.

Table 5.3

*Correlations between the SCCS’s First Order Factors*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.FamTrust</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.FamRecip</td>
<td>.95</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.PeerTrust</td>
<td>.41</td>
<td>.41</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.PeerRecip</td>
<td>.45</td>
<td>.51</td>
<td>.99</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.NeighTrust</td>
<td>.26</td>
<td>.27</td>
<td>.28</td>
<td>.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.NeighRecip</td>
<td>.32</td>
<td>.36</td>
<td>.34</td>
<td>.41</td>
<td>.98</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.InstitTrust</td>
<td>.41</td>
<td>.42</td>
<td>.46</td>
<td>.48</td>
<td>.70</td>
<td>.69</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>8.InstitRecip</td>
<td>.38</td>
<td>.46</td>
<td>.31</td>
<td>.39</td>
<td>.44</td>
<td>.52</td>
<td>.84</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note.* FamTrust = Family Trust, FamRecip = Family Reciprocity, NeighTrust = Neighbour Trust, NeighRecip = Neighbour Reciprocity, InstitTrust = Institutional Trust, InstitRecip = Institutional Reciprocity.

Of the 36 items assigned to the four factors, all factors loadings were greater than .35, positive and significant, thereby adhering to Hills (2007) criteria. However, nine of the items fell into Comfrey and Lee’s (1992) poor to fair category (.35 - .45). All nine of these items also had $R^2$ scores below .50 and relatively high modification
indices in the theta epsilon matrix. As a result all nine were deleted from the instrument. Two items in the Family factor were particularly problematic showing extremely high modification indices (“I trust my family to do what is best for me” and “I can tell my family anything”). It is probable that the wording of the first item was somewhat ambiguous or “double barrelled” as it possible that a respondent may trust their family but not believe that their family always do what is best for them. The latter item may have been overly general and naming specifics (i.e. “I can talk to my family about problems at school”) may be more beneficial in the future. These two items were also excluded from further analyses. The remaining 25 items were then analysed in a third CFA.

The results of the third CFA indicated an excellent fitting model with an RMSEA of .05 and a CFA and TLI of .98. All factor loadings were positive and significant, and exceeded values of .45. All item squared multiple correlations exceeded the criteria value of .50 with the exception of two items, item nine in the family factor (“I am always happy to help my family”) and item six in the Peer factor (“I depend on my friends when I am upset”). It is likely that the qualifier “always” in the first item is too absolute. That is, very few things in life can be so definitive, as there are usually exceptions to any proposition. The second item could be interpreted as depending only on one’s friends when upset, thereby excluding other important social networks such as family members. As a consequence of the low $R^2$ values and the problematic wording of these items, these items were also deleted from the instrument. This resulted in a total of 23 items measuring the four levels of social capital in the final SCCS instrument. As highlighted in Chapter 2, an important element of social capital which is often overlooked is the quality of one’s social networks (Antonucci et al., 1997; Ryan & Willits, 2007). As such, it was deemed necessary to include factors assessing levels of social integration into the model. As a result, an additional six items, measuring two factors (School Belonging and School Isolation) adapted from the Program for International Student Assessment (PISA) survey (2003) were integrated into the SCCS model, thereby resulting in a total of 29 items, and six first order factors (see Figure 5.2).
Figure 5.2. Pictorial representation of the final SCCS model

*Note.* SC = Social Capital
Cronbach’s reliability analysis was conducted on all six subscales and the results are presented in Table 5.4. As shown, all scales had an internal consistency greater than, or equal to, the minimum research requirement of .70 (Tabachnick & Fidell, 2001). Item-total statistics indicated that the deletion of further items in any of the subscales would result in a poorer Cronbach’s Alpha level, and as such, it was not necessary to delete any item based on the reliability analysis.

Table 5.4

Social Capital and Cohesion Scale reliability estimates

<table>
<thead>
<tr>
<th>Factor</th>
<th>(N=1371)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family social capital</td>
<td>.87</td>
</tr>
<tr>
<td>Peers social capital</td>
<td>.82</td>
</tr>
<tr>
<td>Neighbour social capital</td>
<td>.89</td>
</tr>
<tr>
<td>Community social capital</td>
<td>.70</td>
</tr>
<tr>
<td>Community Belonging</td>
<td>.78</td>
</tr>
<tr>
<td>Community Isolation</td>
<td>.74</td>
</tr>
</tbody>
</table>

As shown pictorially in Figure 5.2, the final scales consisted of: Family Social Capital (e.g., “I trust my family”); Peer Social Capital (e.g., “I can depend on my friends for help when I need it”); Neighbour Social Capital (e.g., “My neighbours would help me in an emergency”); Community Social Capital (e.g., “I’m happy to work with people in my community to improve it” and “the police in my local area are trustworthy”); School Belonging (e.g., “My school is a place where I make friends easily”) and School Isolation (e.g., My school is a place where I feel awkward and out of place). All responses were measured on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The psychometric properties of the final model using the current sample are presented in Chapter 6.

Self-Description Questionnaire II- Short

The theoretical model of the Self-Description Questionnaire II- Short (SDQII-S; Marsh et al., 2005) is based on a review of the self-concept literature conducted by Shavelson, Hubner, & Stanton (1976; cf. Marsh Bella, & McDonald, 1988; Marsh & Shavelson, 1985), whereby self-concept is viewed as a multidimensional construct. As such, the 102 item SDQ-II is used to measure the multiple facets of self-concept in adolescence by assessing 11 different dimensions.
of self-concept within the school environment (General School, Mathematics, Verbal, Physical Ability, Physical Appearance, Same-Sex Relationships, Opposite-Sex Relationships, Parent Relationships, Honesty/ Trustworthiness, Emotional Stability, Global Self-Esteem). The shortened version formulated by Marsh, Ellis, Parada, Richards, & Heubeck (2005), retains the original 11 domains of self-concept, however, it consists of only 51 items. For the purposes of this study, only the mathematic, English, and general self-concept factors were utilised.

The mathematics (4 items), English (4 items), and school in general (4 items) subscales include items such as “I have always done well in mathematics”, “English is one of my best subjects” and “I am good at most school subjects”. Although the SDQ-II was designed using a six-point Likert scale (1 = False to 6 = True), the present research adapted the response format to a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) in order to avoid participant confusion and keep the rating scale consistent with the other measures included in the overall questionnaire. Items from each subscale were positioned randomly throughout the relevant section of the questionnaire.

All factors of the SDQ-II Short have undergone rigorous investigation into the factor structure and reliability of the various subscales (Marsh et al., 2005) with results demonstrating sound psychometric properties in various cross-cultural and educational settings (e.g., Bodkin-Andrews, Craven & Marsh, 2004) with Marsh and Craven (2006) reporting reliability estimates ranging from .89 to .95 for the various subscales.

**Depression, Anxiety, and Stress Scale**

The Depression, Anxiety, and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995) measures negative mental health states. The DASS-21 (a shortened version of the original 42-item scale) measures three factors consisting of Depression, Anxiety, and Stress each containing seven items. The Depression scale assesses dysphoria, lethargy, despondency, self-deprecation, disinterest, and a lack of positive affect, with items such as “I felt I wasn’t worth much as a person”. The anxiety scale measures: “somatic subjective symptoms of fear...autonomic arousal, skeletal musculature effects, and situational anxiety” (Bados, Solanas & Andres, 2005, p. 679) and includes items such as “I felt I was close to panic”. The stress scale assesses levels of continual tension and arousal, impatience, overreaction, and
excessive irritation or agitation. The Stress scale contains items such as “I tended to overreact to situations”. Participants indicate their responses with reference to their experiences over the past week on a four-point Likert scale from 0 (“did not apply to me at all”) to 3 (“applied to me very much or most of the time”).

The factor structure and reliability of the DASS-21 have been evaluated in both clinical and non-clinical samples and have consistently exhibited good psychometric properties for both diagnostic and research purposes (Antony, Bieling, Cox, Enns, & Swinson, 1998). Reliability estimates for the Depression, Anxiety, and Stress subscales range between .84 and .94 for the Depression factor, .70 and .87 for the Anxiety factor, and .82 and .93 for the Stress factor (Antony et al., 1998; Babos et al., 2005; Crawford & Henry, 2003). The factor structure of the scale has been shown to have good discriminant validity in the majority of studies (Antony et al., 1998; Bados et al., 2005; Brown, Chorpita, Korotitsch, & Barlow, 1997; Lovibond & Lovibond, 1995). However, Henry and Crawford (2005) have found evidence for a general psychological distress factor underlying the three proposed factors as their result showed a substantial amount of common variance shared among the Depression, Anxiety, and Stress factors.

**The Aspirations Index (AI)**

The Aspiration Index (AI; Kasser & Ryan, 1993) measures people’s aspirations using seven sub-scales, two of which were selected for the current study. Participants were asked to rate: (1) How important of each goal or aspiration was to them, and (2) their beliefs about the likelihood of attaining those goals. The responses were measured on a 3-point Likert scale: 1 “not at all”, 2 “moderately”, and 3 “very” important. The scales included in the present research were: Wealth (e.g. “to be financially successful”) and Social Contributions (e.g. “to help people in need”). A third subscale pertaining to Career goals (“to have a job I find challenging”) was also developed for the purposes of the current research, resulting in a 13 item instrument measuring students’ aspirations. Previous reports of the alpha coefficients for the various subscales in the AI have ranged from .58 to .87 (Kasser & Ryan, 1993; 1996).
Negative Community Perception Scale

The Negative Community Perceptions Scale (NCPS) included the measures of: Perceived Discrimination, Fear of Crime, and Community Reputation. The Perceived Discrimination subscale used was drawn from the larger Personal Discrimination and Multiculturation Scale (PDMS, Bodkin-Andrews, O’Rourke, Grant, Denson, & Craven, 2010). The single factor consists of three items measuring respondents’ perceived experiences of racial discrimination at the personal level (e.g. “I’ve overheard people speak in a nasty way about me because of my culture”) on a five-point scale (1 = strongly disagree to 5 = strongly agree). The Fear of Crime factor was drawn from the International Crime Victims Survey (ICVS, Van Kesteren, Mayhew, & Nieuwbeerta, 2000). This factor consists of four items (e.g. “how safe do you feel walking alone in this area after dark?”) and was also measured on the same scale of one to five. Finally, three items were developed to assess respondents’ perceptions of their community’s reputation (“people living outside of my community think it is a nice place to live”) and consistent with the other two factors in this instrument, were measured on a scale of one to five. For the purposes of this research this combined measure will be collectively called the Negative Community Perceptions Scale.

Physical Health Outcomes and Risk Behaviours

To measure physical health and risk behaviour in the adolescence the current research utilised selected variables from the Health Behaviour of School Children survey (Currie et al., 2008; 2009). The HBSC is a self-report measure designed to target school children aged 11 to 16 and is currently being used in a longitudinal international study across 41 countries worldwide. The survey includes four sets of questions relating to: individual and social resources, participants’ background demographics, health behaviours, and health outcomes. It was the latter two sets of questions that were utilised in the current study.

Health behaviours measured included: levels of physical activity (e.g. “in your spare time on weekdays, how many hours per day do you do the following?”), eating habits (e.g. “how often do you eat breakfast on school days?”), and dieting habits (e.g. “are you currently on a diet or doing something to try and lose weight?”). Also assessed in this section were a number of risk-taking behaviours such as smoking tobacco (e.g. “how often do you smoke cigarettes?”), alcohol use (e.g.
“How often do you drink the following alcoholic drinks?”), cannabis use (e.g. “have you had cannabis in the last 30 days?”), sexual behaviour (e.g. did you or your partner use a condom the last time you had sexual intercourse?”), physical violence (“how many times in the last 12 months have you been involved in a physical fight?”), and the number of injuries incurred (e.g. “how many times in the last 12 months have you been injured and had to be treated by a doctor or nurse?”).

Health outcomes were measured using single item indicators to determine levels of: life satisfaction (responses ranged from 1 = worst possible life, to 10 = best possible life), self-reported general health (e.g. “would you say your health is”: 1 = Poor to 4 = excellent”), and symptoms of ill health (e.g. “How often over the last 6 months have you experienced the following symptoms? 1 = rarely to 6 = daily).

Haugland and Wold (2001) state that the HBSC demonstrates good face validity and acceptable test-retest intraclass correlation coefficients (ICC) ranging from .76 to .79. Research into the factor structure of the HBSC has produced varied results. Some have argued for a single factor solution in relation to the list symptoms of ill-health (Attanasio, Andrasik, Blanchard, & Arena, 1984; Wisniewski, Naglieri, & Mulick., 1988), whilst others argue that a two factor solution is optimal (Haughland & Wold, 2001; Hopland Aaroe, & Wold, 1993; Hurrelman, Engel, Holler, & Nordlohne, 1988). Hagquist and Andrich (2004) adopted a third approach finding that the one factor solution was optimal, although three problematic items required removal before being able to draw such a conclusion.

Access to Resources

Three outcome measures were included to assess participants access to resources including: Participation (participation in activities that require monetary funds), Living conditions, and Internet access. A single item was used to determine whether participants had internet access in their homes (“Do you have the internet at home?”). Participation was measured using a composite factor comprising the mean of four items. Students were asked the frequency in which they participated in activities that required monetary funds such as going the movies, playing a sport for a local club, dining at a restaurant, and attending school excursions/camps. These items were rated on a seven point Likert scale (0 = ‘never’ to 6 = ‘everyday’). Living conditions were measured using four variables asking students the number of bedrooms in the household, whether they had a bedroom of their own, the number of
operating motor vehicles in their homes, and their average household income. All variables were standardised and then used to form a mean composite score.

Demographic Characteristics

In addition to the instrumentation described above, participants were also asked to provide a range of demographic information. This information included their age, gender, country of birth, and that of their parents, language/s spoken at home, their religious affiliation, whether they had an Indigenous background, and finally they were asked to describe their cultural background.

Qualitative Study: Interview/Focus Groups Schedules

A series of semi-structured interviews were conducted in focus groups with students from each of the participating schools. This particular type of interview utilises strategies so that the interview resembles a conversation and covers several key target areas (Bogdan & Biklan, 1992). The semi-structured interview permits enough flexibility for participants to illuminate important and significant areas spontaneously, but also allows specific key areas to be targeted. In addition, the interviewer is provided with the opportunity to ask spur-of-the-moment questions resulting from information given by the interviewee/s. After student focus groups were undertaken, an additional focus group was also held with the teaching staff in each school. Both students and staff were asked a series of prepared questions (see Appendix C) relating to the research questions under study.

To address each of the research questions outlined in chapter four, and to build upon the quantitative study of social capital, the semi-structured interview schedule contained questions investigating what respondents’ value in their proximal and distal social relationships (family, friends, neighbours, school, and community), and their involvement within their local community. To assess community strengths and weaknesses for potential intervention strategies, participants were also asked to describe their community, identify any problems, and highlight community strengths. Interviewees were also asked about the types of services operating within the community and whether or not they felt these services were adequate in addressing the needs of all community members. The final set of questions related to the various groups within the community based on age, gender, culture, and religion. Participants
were asked if the various groups lived together to create a harmonious community environment or whether tension existed between them resulting in the social exclusion of one or more of these social groups.

In sum, this section has described the survey instrumentation and interview schedules utilised in the present research. The following section will outline participant recruitment and data collection procedures for both the quantitative and qualitative elements of the present research.

Recruitment and Administration Procedures

Ethics approval was sought and subsequently obtained from the University of Western Sydney Human Ethics Committee. In addition, The State Education Research Approval Process was completed with the New South Wales Department of Education and Communities, and permission to undertake the study within NSW government schools was granted. After ethics approval, principals of potential participating schools were emailed and followed up a week later with a telephone call from the researcher. Information meetings were held with principals wishing to participate, and parent consent and information forms were distributed by the school staff (see Appendices D and E).

On the day of the data collection, students without parental consent were sent to their classrooms and given alternative activities to undertake. Students with parental consent were instructed verbally of the purpose of the study, of their voluntary and anonymous participation, and their right to withdraw at any time with lack of penalty. Signed student consent was also obtained prior to the commencement of the study. To overcome any reading or language difficulties, the questionnaire was read aloud to students in their year groups by an experienced researcher. Additional research assistants were present to answer student questions and school teachers were present to supervise student behaviour. The survey took approximately 45 minutes to complete. All collected surveys were assigned a unique identification code to ensure the anonymity of all participants, had consent forms removed to further de-identify participants, and were locked in a secure data storage unit.

Collection of the qualitative data was conducted in 30 minute focus groups using a semi-structured interview format (see Appendix E) and a digital recorder was used to record participants’ responses for the entirety of each focus group. Principals
were asked to select students from each year group that had varying demographic characteristics (e.g., SES, race, gender) in order to acquire a diverse range of opinions and life experiences. At the beginning of each focus group, students were informed that their participation was voluntary and they could leave the group discussion at any time without reason or penalty. Each student gave their consent verbally, prior to beginning each focus group. In addition to answering the prescribed set of questions, the research participants were also given the opportunity to speak of other relevant and significant issues arising from the initial set of prearranged questions. At the end of each focus group, participants were asked individually if they wanted to discuss anything that may have distressed them during the discussion, and were given the details on how to contact the school counsellor if necessary.

**Quantitative Statistical Analyses**

**Data Screening**

Using SPSS version 17, all data was screened for missing values, univariate and multivariate outliers, and assumptions of normality, linearity, and homoscedasticity were checked. Missing values were examined to determine whether they were missing at random or systematically, and whether there was evidence of any patterned response bias. Cases that displayed evidence of systematically missing data were subsequently deleted using listwise deletion as were surveys considered to contain patterned response sets. Removal of these cases resulted in reducing the sample size from 1467 to 1398.

Cases that displayed randomly missing values were replaced using the Expectation Maximisation (EM) algorithm as recommended by Tabachnik and Fidell (2001). This technique provides replacement values that do not alter the variance of the covariance matrix using an iterative process based on the means, correlations, and covariances of available cases to input the missing values. This method of imputation is currently considered the most effective and practical technique of data replacement, overcoming some of the problems associated with the more traditional methods such as listwise deletion, pairwise deletion, or mean replacement, as it does not result in a large loss of participants (i.e.; listwise deletion) or a loss in variance (mean replacement; see Schafer & Graham, 2002; Tabachnick & Fidell, 2007).
It was also necessary to identify all univariate and multivariate outliers due to the detrimental effect they have on statistical output interpretation when using advanced analytical techniques such as structural equation modelling (Tabachnick & Fidell, 2007). Univariate outliers were identified through the examination of histograms, stem and leaf plots, and variable z-scores. Any z-score exceeding +/- 3.29 was considered a univariate outlier and the corresponding raw score was modified to be only one unit more extreme than the next most extreme score. Therefore, the score remains extreme exerting a similar influence but it is no longer considered an outlier with the potential to distort the results (Tabachnick & Fidell, 2007).

Multivariate outliers occur due to an unusual relation between the independent and dependent variables or because of an unusual pattern of values among the independent variables. This type of outlier distorts the results and must be deleted from analysis. Multivariate outliers were identified by requesting Mahalanobis distance scores using the covariance matrix (Filzmoser, 2004) and cases identified as having extreme scores were deleted from the analysis using listwise deletion. This subsequently reduced the number of participants by 27 resulting in a final total sample of 1371. Distributional statistics for each of the group samples indicated some departure from normality in certain variables; however, the Maximum Likelihood Estimation method used in subsequent analyses has been shown to be robust against such violations of normality, particularly when using large sample sizes (Joreskog & Sorbom, 1993; Muthen & Kaplan, 1982). Therefore, it was concluded that the data was suitable for LISREL analysis.

**Reliability Analyses**

Reliability analyses, using Cronbach’s alpha, was conducted for each of the subscales in the instruments utilised in the present study using SPSS 17.0. The reliability coefficient is calculated by estimating the average intercorrelation between an item and a set of items drawn from the same factor (Cronbach & Shavelson, 2004). A Cronbach alpha scores range from zero to one, and the higher the estimate the more reliable a factor is considered to be. Although no universal consensus regarding acceptable reliability values currently exist, internal consistency reliability estimates should be ideally above .70 for research purposes (Hills, 2008), and .80 for clinical purposes (Anastasi & Urbina, 1997). It has been argued that alphas above .60
are acceptable in exploratory research (Nunnelly, 1978). Thus due to the exploratory nature of the present study, particularly the social capital element, coefficients greater than .90 will deemed excellent, .80 and above considered good, above .70 acceptable, and .60 and above reasonable but interpretation requires caution.

**Confirmatory Factor Analysis (CFA)**

Once acceptable reliabilities were established for the instrumentation utilised in the current study, a series of CFA’s were conducted to validate the factor structure of each instrument using PRELIS and LISREL 8.72 (Joreskog & Sorbom, 2004). CFA’s were carried out on: the six factors of the Social Capital and Cohesion Scale; the two factors of Self-Description Questionnaire-II Short; the three factor Negative Community Perceptions Scale; the three factors of the Depression, Anxiety and Stress scale; and the three factors of the Aspirations Index.

CFA tests the extent to which indicator items reflect the a priori proposed factor structure and, furthermore, whether theoretically derived relations actually manifest in the data (Byrne, 2001). In CFA, the researcher hypothesises a model that is assumed to describe or account for the data. The researcher is able to test the ability of this a priori hypothesised structure to fit the data by demonstrating: the parameter estimates are consistent with a priori predictions and theory; the solution is well defined; and the indices of fit are acceptable (Marsh et al., 1988; McDonald & Marsh, 1990). The process of determining how closely the actual data represents the proposed theoretical model is often called ‘model fitting’ using the goodness-of-fit-indices provided in the LISREL output.

In evaluating the goodness-of-fit for each model, current practices (Byrne, 2001; Holmes-Smith, 2000; Marsh, Balla, & Hau, 1996) recommend the following indices be emphasised: the Root-Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993); the Tucker Lewis Index (TLI; Bentler & Bonett, 1980); and the Comparative Fit Index (CFI; Bentler, 1990). For the RMSEA, values below .05 represent excellent fit and values as high as .08 indicates acceptable errors of approximation (Browne & Cudeck, 1993; Holmes-Smith, 2000). The TLI and CFI yield values that range from 0 to 1, with values greater than .95 indicative of excellent fit, and values greater than .90 indicative of good model fit (Hu et al., 1992; Schumacker & Lomax, 1996).
The CFI statistic contains no penalty for lack of parsimony, so that an excellent model fit may be due to the specification of more parameters and thus can capitalise on chance (Holmes-Smith, 2000). Unlike the CFI, the RMSEA and TLI statistics both include a penalty for lack of parsimony and as a result a complex model may produce lower values for these two indices when compared to the CFI statistic. It is also worth noting that when assessing model fit, cut-off values are only a guide to aid model acceptance and contain an element of subjectivity, therefore the researcher’s professional judgment must also be used when assessing the acceptability of the model under examination (Marsh, 2007).

**Invariance Testing**

After establishing the validity of each instruments’ factor structure, it is important to perform invariance tests for each of the sub-groups (gender, region) in the total sample to ensure that the measures are equivalent in meaning and structure across groups. Whilst reliability and CFA analyses justify the researcher’s use of the instrument with an individual sample, invariance testing ensures that the model is consistent across sub-groups allowing the researcher to draw valid conclusions about group differences (Byrne, 1998).

This investigation examined the factorial invariance across gender and region in relation to the SCCS, the SDQ-II Short, the DASS-21, the NCPS, and the AI. These tests involved the examination of a succession of five logically structured and increasingly stringent models whereby any one, or set, of parameters is held invariant across groups and compared to a model of no constraints (Byrne, 2004). The first model contains no constraints (free model), being completely free across groups and is thus used as the baseline model. The second model holds factor loadings invariant across groups. The third model holds factor loadings and factor variances and covariances invariant, whilst the fourth model holds factor loadings and uniquenesses invariant across groups. In the fifth and final model, all parameter estimates (i.e., factor loadings, factor variances and covariances, and uniquenesses) are held invariant across groups. The baseline model was then compared with the four successive models, and changes in the goodness-of-fit indices were examined to determine whether the factor structure is invariant across the groups of interest. Cheung and Rensvold (2002) suggest changes in the CFI statistic between the models should ideally not exceed .01 to meet the requirements of factorial invariance
across groups. There is some controversy surrounding the minimum conditions for invariance. Whilst it is generally agreed that model testing of the error variance is too restrictive (Bryne & Stewart, 2006; Marsh, 1994) there continues to be debate around the necessity of equivalent variances and covariances. However, Byrne and others (1998; 2001; Cheung & Rensvold, 2002) argue that generally speaking the minimal requirement for factorial invariance is equivalent factor loadings across groups, therefore the invariance of factor loadings (a CFI change less than .01 between the baseline model and model 2) will be emphasised in the current study to demonstrate invariance across gender and regional groups.

**Structural Equation Modelling**

Structural equation modelling (SEM) was utilised to assess the relation between types and levels of social capital and psychosocial, economic, and health outcomes. SEM is a sophisticated statistical technique for testing the hypothesised predictive relations between observed and latent variables and is able to bring together the features of factor analysis, regression, and path analysis into one cohesive statistical application (Byrne, 1998). Additionally, unlike more traditional multivariate techniques that are unable to assess or correct for measurement error, SEM provides explicit estimates of error terms associated with both the endogenous latent variables and the observed indictors (Byrne, 1998). Through multiple regression analyses, SEM tests the structural associations between both the latent and observed variables simultaneously, allowing the researcher to refine, revise, and reconstruct the theoretical model (Pedhazur, 1982; Weinburg, 1982).

**Multiple-Indicator-Multiple-Cause Models**

Multiple-Indicator-Multiple-Cause (MIMIC) modelling is a particular application of Structural Equation Modelling (SEM), which contains one or more latent variables (e.g., dimensions of self-concept) that are concurrently identified by multiple endogenous observed indicators (i.e., items comprising the latent variables), and by multiple exogenous predictive variables (e.g., gender, grade, and gender by grade interactions; Kaplan, 2000). A MIMIC model is able to concurrently evaluate the factor structure of a particular measure, as well as the effects of observed exogenous causal variables on the latent factors (Kline, 2004). Put simply, it is able to detect differences in the levels of a particular factor between groups (e.g., females
may have higher levels of peer social capital than males). MIMIC model outcomes are evaluated with the same goodness-of-fit criteria outlined in the CFA analyses.

For the present investigation, MIMIC models were performed with each of the models tested in the CFA analyses. The exogenous variables examined were gender and region, and the standardised cross product of gender by region interaction effects. When significant interaction effects were identified, interaction plots were examined and presented in the results section to aid interpretation.

**Moderating Analyses**

Moderating analyses combine invariance testing and SEM path analyses, whereby the predictive path between at least two constructs (either latent or observed) are simultaneously tested to determine whether the strength of the path is stronger in one group compared to another (Coote, 2004). Put simply, moderating analyses answer the question of whether there is a significant group difference (e.g., for gender) in the strength of a predictive path between two constructs (e.g., social capital and depression). Unlike traditional invariance testing in SEM with comparisons across five models, only two models are compared in moderating analyses. A completely free model was run initially, followed by the moderating model in which the beta matrix (predictive paths) was fixed. To determine whether a significant difference existed between the two groups, the Chi-square and degrees of freedom values in both models were examined and a Chi-square Difference Test was performed (Coote, 2004). As recommended by Jaccard and Wan (1996), when the Chi-square Difference Test returned a significant finding, post hoc comparisons were conducted to identify which of the predictive paths differed significantly between groups. The analytical procedure for performing post hoc tests is described in the following section.

**Post Hoc Comparisons.** Where a significant chi-square difference was identified across gender and regional groups, subsequent post hoc tests were carried out based on significant beta paths and mean scores. More specifically, only beta paths that were significant for one or both groups were tested. Additionally, post hoc tests were only carried out when mean group scores indicated practical differences. As recommended by Tabachnick and Fidell (2007), to avoid making a type one error the alpha level was adjusted in all post hoc tests. Whilst the Bonferroni adjustment (alpha level of .05 is divided by the number of comparisons being conducted) is the
most commonly used method in the social sciences, it has being widely argued that this method is overly conservative (e.g., Behar & Borkovec, 2003; Simes, 1986). As such, the method employed in the current research was to reduce alpha to the more stringent level of .01 across all post hoc comparisons.

**Qualitative Analysis**

Focus group digital recordings were transcribed verbatim. Analyses were undertaken within groups (e.g., Year level), across groups (e.g., students and teachers) and the two participating communities in order to elucidate differing perceptions of target groups. Inter-rater reliability checks were conducted to enhance the reliability of the coding. The analysis used established procedures for data reduction, display, verification, and the drawing of evidence-driven conclusions (Ezzy, 2002; Hatch, 2002; Yin, 2003). A combination of both a-priory (Weber, 1990) and emergent (Lincoln & Guber, 1985) coding were used to analyse the qualitative data through the method of thematic analysis (Aronson, 1994). As described by Ezzy (2002), data reduction involved four procedures: (1) open coding, an evidence-driven approach of assigning labels to meaningful sections of information were used to analyse the whole data set generated during the study; (2) axial categorisation was used to subdivide this mass of data segments according to their emergent patterns, relations, and themes; (3) interpretive summaries were produced focusing on the insights drawn from this analysis; and (4) evidence-driven commentary units were created. The latter included: (i) a key analytical point; (ii) orienting information; (iii) the evidentiary excerpt; and (iv) researcher interpretations.

Initially, manual data coding was used to identify and collate major themes relating to each of the primary focused research questions. The data was then further reduced into secondary sub-themes. Secondly, the data was further analysed for emergent themes that were not associated with the initial categories. Following this, evidentiary excerpts that best represented the theme were selected for each theme and orientation information was collated. Finally, all themes were triangulated across the qualitative and quantitative data to ensure concurrent and external validity (Cohen, Manion, & Morrison, 2000) as discussed in the following section.
Data Integration

Following the independent analysis and interpretation of the quantitative and qualitative data, both sets of data were examined for convergent and divergent results in order to provide a greater understanding of the phenomenon under study. This final stage of the mixed method design has been termed data integration, and is defined as “making meaningful conclusions on the basis of consistent and inconsistent results” (Teddlie & Tashakkori, 2009, p. 305). Traditionally, consistency between the two methods is considered an indication of inferential validity, creditability, and confidence in the inferences made from both methods (Greene, 2007). However, others argue that inconsistencies between the two methods are equally important (Erzberger & Kelle, 2003; Freshwater, 2007) as these force the researcher to examine their findings more closely, and make more advanced theoretical explanations to account for the discrepant results (Teddlie & Tashakkori, 2009). Therefore, acknowledging the importance of both incongruent and congruent findings across data strands, the present investigation emphasised and reported upon both the similarities and differences evident within the results.

Credibility or trustworthiness of inferences made in mixed method research is often thought analogous with internal validity in quantitative designs (Paul, 2005). Krathwohl (2004) states that credibility can be enhanced by considering the plausibility of the explanations given, the quality of implementation (i.e. the design of the study appropriately addressed the initial aims and research questions of the research), convergence of evidence and explanations, and finally, a lack of other plausible explanations for the current findings. To ensure the credibility of the current research, relevant theory and previous empirical research was related to the current findings to ensure inferences were plausible and test the extent to which evidence was congruent with earlier research. In addition, variables in the quantitative component and the interview schedules in the qualitative component were designed specifically to address the prescribed hypotheses and research questions outlined in Chapter 4. Finally, the literature was consulted during the meta inference stage (see Teddlie & Tashakkori, 2009) to eliminate other potential explanations and ensure that the most credible conclusions were drawn.

The transferability of the results, (also known as external validity in quantitative studies) is also important in determining the quality and usefulness of
the results and subsequent conclusions. Lincoln and Guba (1985) argue it is imperative that the research context is made explicit to allow future researchers to make legitimate comparisons between samples and determine whether the findings generalise across various research settings. In order to address this, the present research detailed the specific age, gender, and demographics of the qualitative participants, and provided a thorough description of the research settings in which they were situated.

Limitations and Assumptions Relevant to Data Analysis

Whilst a mixed method approach successfully eliminates many of the problems associated with mono-method approaches, it is important to highlight the assumptions and limitations evident in the data collection and analysis process which may have had an important bearing on the results found. Firstly, the quantitative questionnaire was reasonably lengthy, and whilst it is assumed that the participants will take their task seriously and answer honestly, it was evident that this was not always the case and a number of participant surveys had to be removed from the analysis due to patterned responses, incomplete surveys, and inconsistent responding to similar items. The use of self-report measures is based on the assumption that respondents have an objective and direct awareness of the constructs under study, however, this can create potential problems with response bias (Murphy & Alexander, 2000; Pintrich, 2000) as found in the current data.

Secondly, the present study used a cross-sectional, single time wave design. Whilst SEM techniques allow the researcher to indicate the predictor variables when examining the relations between constructs, it does not allow the causal ordering among variables to be determined (Bong, 1996). This limitation could have been overcome with the use of longitudinal causal modelling to track changes in students’ levels of social capital over time, thereby further elucidating the relation between social capital and secondary students’ psychosocial and health outcomes. However, due to time restraints and limited funding this was not possible in the current research.

There were also a number of problems encountered during the collection and analysis of the qualitative data. Due to the low socio-economic status and lack of funding provided to the schools under investigation, facilities for producing optimal
qualitative data (i.e., quiet isolated areas) were extremely limited. Consequently, focus groups had to take place in areas such as staffrooms and other high traffic areas which were subject to constant interruptions and excessive noise. As a result, the qualitative data from a number of focus groups was of such a poor quality it was unable to be transcribed and important data was lost. Additionally, a number of students responded with one word answers during the focus groups and despite encouragement from the interviewer, often refused to elaborate on their responses.

Other students sometimes misinterpreted the issue under focus and researcher attempts at clarification were not always successful. Finally, due to the quantitative and qualitative data being collected simultaneously, there were a number of quantitative findings that were not addressed in the qualitative data. It would have been beneficial to have analysed the quantitative data before conducting the focus groups to ensure that all important issues were adequately addressed and clarified in the qualitative component. Despite the potential limitations describe above, the quantitative data produced a number of interesting findings elucidating the relations between social capital and student outcomes that had not been previously explored or reported upon. Furthermore, the qualitative data extended on existing social capital theory and described how social relations can be effectively used as resources to improve a range of student outcomes. Finally, the qualitative data also highlighted the strengths and challenges evident in the communities under study, providing insight on what needs addressing in future community programs and intervention strategies.

Chapter Summary

This chapter has illustrated the methodology utilised to answer the hypotheses and research questions proposed for the present research. A description of participant demographics and characteristics were provided, and the relevant research settings presented. The battery of quantitative instruments was described and the statistical procedures used to assess the psychometric properties of instrumentation and predictive relations of key constructs were detailed. More specifically, the current chapter outlined the processes of reliability and confirmatory factor analysis (CFA), factorial invariance, and multiple-indicator-multiple-indicator-cause (MIMIC) modelling that were utilised in Study 1. Also described were the
procedures involved in structural equation modelling (SEM), moderating analyses, and post hoc testing that were used in Study 2 to determine the relations between social capital and outcome measures. Finally, the procedures for collecting, recording, and analysing the qualitative data were discussed. The results of all data analyses will be presented in the following chapters. Chapter 6 provides the results of the psychometric study including the results pertaining to the reliability analyses, the CFAs, invariance testing, and MIMIC modelling. Chapter 7 presents the results of the SEMs, moderating analyses, and post hoc testing. Finally, the qualitative results are provided in Chapter 8.
CHAPTER 6

RESULTS OF STUDY 1: EXAMINING THE PSYCHOMETRIC PROPERTIES OF A NEWLY DEVELOPED MEASURE OF SOCIAL CAPITAL AND THE VALIDATION OF EXISTING MEASURES IN DISADVANTAGED COMMUNITIES

Introduction

The majority of psychological variables are hypothetical constructs, therefore, the first step in any quantitative psychological research is to validate measures using a construct validity approach (Parada, 2006). Consistent with this approach, the primary purpose of this chapter is to examine the psychometric properties of the measurement tools utilised in this research for the sample under investigation, thus addressing the significant issue of measurement validity and reliability.

In the past, the measurement of social capital has suffered from an array of simple unidimensional questionnaires (see Chapter 3). Researchers (Stone & Hughes, 2002; also see Chapter 3) contend that social capital research would benefit from the development of a consistent set of multidimensional indicators that would allow researchers to draw conclusions across different domains and research studies, and therefore further contribute to our understanding of social capital. Researchers attempting to measure and examine social capital have also often failed to include information on the development and psychometric properties of their measures. This makes it difficult to determine how accurately the observed items reflect the underlying theoretical construct that the investigator intended to measure, and thus the validity of their subsequent results. The current study attempts to address these issues by validating a newly developed measure of social capital that can be applied
across a range of domains (family, peer, neighbours, and community), and is applicable for use with individuals of varying ages, and culturally and economically diverse backgrounds.

The current chapter examines the structure and reliability of instrumentation used to measure levels of social capital, self-concept, depression, anxiety and stress, student aspirations, and perceived discrimination. Analyses are conducted for all instrumentation: the Social Capital and Cohesion Scale (SCCS, newly developed), the Self-Description Questionnaire II-Short (SDQ II-Short; Marsh et al., 2005), the Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995), the Negative Community Perceptions Scale (newly developed), and the Aspirations Index (Kasser & Ryan, 1996).

Results are presented in order of the hypotheses and research questions outlined in Chapter 4, and include construct validity evaluations of the instruments’ factor structure through confirmatory factor analyses, correlations among factors, internal consistency values, and tests of invariance across gender and region. Finally, similarities and differences between gender and regional groups for each of the scales are presented. The first construct to be presented is social capital as measured by the Social Capital and Cohesion Scale.

**The Psychometric Properties of the Social Capital and Cohesion Scale**

**SCCS**

The SCCS was specifically developed (see Chapter 5 for an overview) for the purposes of the present investigation. The SCCS was designed to assess the multiple dimensions of social capital (SC) at the family, peer, neighbourhood, and community level. The scale consists of 29 items measuring six distinct factors: Family SC, Peer SC, Neighbour SC, Community/Institutional SC, and two factors capturing School Belonging and Isolation. Presented below are the results pertaining to the SCCS’s mean scores for the total sample and gender and regional groups) a priori factor structure, reliability coefficients, invariance across gender and region, and group similarities and differences, in accordance with the order of hypotheses and research questions delineated in Chapter 4.
Factor Means for the Total Sample, Gender, and Regional Groups

Table 6.1 shows similar mean scores for Family and Peer social capital across the total sample, and gender and regional groups (range 4.30-4.47). Males reported higher levels of Family and Neighbour social capital than did females, whilst females had a stronger sense of community belonging and higher levels of Peer and Community social capital than males. Multiville residents scored slightly higher on all factors when compared to Oceanview residents, with the exception of the Community Isolation factor.

Table 6.1

Mean scores for the Social Capital and Cohesion Scale Factors for Gender, Region, and the Total Sample

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
<th>Oceanview</th>
<th>Multiville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>4.45 (.67)</td>
<td>4.47 (.64)</td>
<td>4.41 (.67)</td>
<td>4.30 (.69)</td>
<td>4.54 (.62)</td>
</tr>
<tr>
<td>Peer</td>
<td>3.99 (.65)</td>
<td>3.80 (.78)</td>
<td>4.29 (.65)</td>
<td>3.96 (.78)</td>
<td>4.00 (.76)</td>
</tr>
<tr>
<td>Neighbours</td>
<td>3.12 (1.01)</td>
<td>3.14 (.99)</td>
<td>3.10 (1.01)</td>
<td>3.08 (.96)</td>
<td>3.15 (1.02)</td>
</tr>
<tr>
<td>Community</td>
<td>2.92 (.72)</td>
<td>2.86 (.80)</td>
<td>3.00 (.72)</td>
<td>2.90 (.76)</td>
<td>2.92 (.78)</td>
</tr>
<tr>
<td>Belonging</td>
<td>3.39 (.83)</td>
<td>3.37 (.90)</td>
<td>3.41 (.83)</td>
<td>3.32 (.82)</td>
<td>3.43 (.90)</td>
</tr>
<tr>
<td>Isolation</td>
<td>2.06 (.82)</td>
<td>2.08 (.82)</td>
<td>2.03 (.81)</td>
<td>2.22 (.79)</td>
<td>1.98 (.82)</td>
</tr>
</tbody>
</table>

Note: Standard deviation values shown in parenthesis

Reliability Results of the SCCS

Overview of Hypothesis 1.1.1: The Reliability of the SCCS. Hypothesis 1.1.1 predicted that tests of reliability would demonstrate acceptable values for the total sample, and males and females separately, for each of the six subscales as measured by the SCCS (Family SC, Peer SC, Neighbour SC, Community SC, Community Belonging, and Community Isolation).

Results Hypothesis 1.1.1: The reliability of the SCCS. Internal consistency coefficients are displayed in Table 6.2. For the total sample, all scales showed acceptable Cronbach alpha values ranging from .68 to .90. As can be seen from Table 6.2, the reliability estimates for males ranged from .71 to .89, and for females ranged from .68 to .90. Reliability estimates for Multiville residents ranged from .68 to 89, and values for the Oceanview residents were all acceptable (.77 to .89).

Despite the good to excellent reliabilities for most of the scales for both genders, regions, and the total sample, the female and Multiville residents reliability
scores on the Community subscale fell just below the traditionally accepted level of \(0.70\) (.68; Hills, 2005; 2009). However, some researchers have suggested (e.g. DeVellis, 1991; Garson, 2009; 2010; Nunnally, 1978) that levels of .60 and above are acceptable, particularly in exploratory research such as this. Therefore, it was concluded that all scales of the SCCS were acceptable for use in the current investigation, although it appears that future research may benefit from further refining the community subscale and any analyses utilising this scale for gender differences in the present research should be regarded with some caution.

Table 6.2

Reliability Estimates (\(\alpha\)) for the Social Capital and Cohesion Scale: For the Total Sample and Gender and Regional Groups

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Sample (N=1371)</th>
<th>Males (n = 840)</th>
<th>Females (n = 531)</th>
<th>Oceanview (n=478)</th>
<th>Multiville (n=893)</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family SC</td>
<td>.87</td>
<td>.89</td>
<td>.86</td>
<td>.86</td>
<td>.88</td>
<td>6</td>
</tr>
<tr>
<td>Peers SC</td>
<td>.82</td>
<td>.80</td>
<td>.79</td>
<td>.85</td>
<td>.80</td>
<td>5</td>
</tr>
<tr>
<td>Neighbour SC</td>
<td>.89</td>
<td>.88</td>
<td>.90</td>
<td>.89</td>
<td>.89</td>
<td>6</td>
</tr>
<tr>
<td>Community SC</td>
<td>.70</td>
<td>.71</td>
<td>.68</td>
<td>.78</td>
<td>.68</td>
<td>6</td>
</tr>
<tr>
<td>Belonging</td>
<td>.78</td>
<td>.79</td>
<td>.75</td>
<td>.78</td>
<td>.78</td>
<td>3</td>
</tr>
<tr>
<td>Isolation</td>
<td>.74</td>
<td>.72</td>
<td>.77</td>
<td>.77</td>
<td>.72</td>
<td>3</td>
</tr>
</tbody>
</table>

Conclusions Hypothesis 1.1.1: The reliability of the SCCS. Hypothesis 1.1.1 predicted that the SCCS’s six subscales would have acceptable Cronbach alpha coefficients. As alpha levels were acceptable for males and females, Oceanview and Multiville residents, as well as the total sample, this hypothesis is accepted.

Factor Structure of the SCCS

Overview of Hypothesis 1.1.2: The Factor Structure of the SCCS. Hypothesis 1.1.2 predicted that student responses to the SCCS would support the multidimensional six factor structure of the SCCS through confirmatory factor analysis (CFA). The CFA was conducted on the data where all 29 items were
constrained to load only onto their designated factors. Consistent with current practice (Byrne, 2001; Holmes-Smith, 2000; Marsh et al., 1996), the Root-Mean Square Error of Approximation (RMSEA), the Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI) were used to evaluate the models goodness of fit to the data. The statistical procedures underpinning these analyses are outlined in more detail in Chapter 5.

**Results Hypothesis 1.1.2: The Factor Structure of the SCCS.** Results from the first-order CFA examining the six factor model are presented in Table 6.3. The hypothesised model demonstrated an excellent fit to the data with a TLI and CFI of .98, and a RMSEA of .042. In addition to examining the overall model fit, it is also important to examine the individual parameter estimates. The factor loadings (see Table 6.3.) for each individual item indicate that all six factors are well defined with acceptable values ranging from .46 to .81.

Table 6.3

**Confirmatory Factor Analysis Results for the Social Capital and Cohesion Scale**

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loadings</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family SC</td>
<td>Peer SC</td>
<td>Neighbour SC</td>
<td>Community SC</td>
<td>Belonging SC</td>
<td>Isolation SC</td>
</tr>
<tr>
<td>1</td>
<td>.63</td>
<td>.79</td>
<td>.80</td>
<td>.47</td>
<td>.77</td>
<td>.79</td>
</tr>
<tr>
<td>2</td>
<td>.81</td>
<td>.67</td>
<td>.81</td>
<td>.55</td>
<td>.71</td>
<td>.59</td>
</tr>
<tr>
<td>3</td>
<td>.81</td>
<td>.71</td>
<td>.81</td>
<td>.47</td>
<td>.73</td>
<td>.73</td>
</tr>
<tr>
<td>4</td>
<td>.76</td>
<td>.68</td>
<td>.71</td>
<td>.67</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>.77</td>
<td>.61</td>
<td>.68</td>
<td>.46</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>.67</td>
<td>-</td>
<td>.71</td>
<td>.59</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Factor Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Family</th>
<th>Peers</th>
<th>Neigh</th>
<th>Community</th>
<th>Belonging</th>
<th>Isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Peers</td>
<td>.48</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Neigh</td>
<td>.32</td>
<td>.35</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Community</td>
<td>.42</td>
<td>.47</td>
<td>.60</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Belonging</td>
<td>.33</td>
<td>.44</td>
<td>.46</td>
<td>.49</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Isolation</td>
<td>-.31</td>
<td>-.26</td>
<td>-.20</td>
<td>-.19</td>
<td>-.41</td>
<td>--</td>
</tr>
</tbody>
</table>

**Model Fit**

<table>
<thead>
<tr>
<th>N</th>
<th>$\chi^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1371</td>
<td>1231.12</td>
<td>362</td>
<td>.98</td>
<td>.98</td>
<td>.042</td>
</tr>
</tbody>
</table>

Table 6.3 also presents the correlations among the six factors of the SCCS. All correlations between factors were significant ($p < .001$) and ranged from -.41 to -.60, providing further support for the model consisting of six distinct factors. Due to
the relatively low to moderate correlations between the factors, it was not deemed necessary to conduct a higher-order CFA.

Conclusions Hypothesis 1.1.2: The Factor Structure of the SCCS. In summary, the results evaluating the a priori factor of the SCCS based on the first-order CFA, demonstrate strong evidence for the predicted multidimensional nature of social capital. Goodness of fit statistics indicated an excellent model fit, factor loadings for all 29 items were sufficient, and factor correlations clearly indicate six distinct factors, therefore, Hypothesis 1.1.2 is accepted.

Invariance Results for Gender

Overview of Hypothesis 1.2.1: Factorial invariance of the SCCS across gender. Hypothesis 1.2.1 predicted that the factorial structure of the SCCS would be similar for both males and females as demonstrated by structural equation modelling tests of invariance. To evaluate this prediction, an identical six factor model was used for both groups with an increasing number of parameters restricted over a total of five models. Further detail regarding the statistical technique is presented in Chapter 5.

Results of Hypothesis 1.2.1: Factorial invariance of the SCCS across gender. To determine whether the factor structure was equivalent across gender, invariance testing was carried out for gender on all parameters. As outlined in the methodology section, invariance testing examines the fit statistics across five increasingly constrained models. As can be seen from Table 6.4, Model 1 showed an acceptable fit to the data, with fit indices > .95 and a RMSEA of .065, supporting the hypothesis of a similar factor structure for both males and females. In Model 2, when the factor loadings were held invariant, there was no change in the CFI and TLI (.95) and a minimal change in the RMSEA (.002). Similar results were obtained in Model 3, when the factor correlations and factor variance/covariance parameters were also constrained, again producing very little change in the fit indices. When the factor uniqueness (i.e., error terms) parameters were also held invariant in Model 4, the TLI deteriorated slightly (.01), however there was no change in the CFI and RMSEA. In Model 5, full constraints were placed on all parameters and the CFI lowered by .01, but did not exceed it, therefore just meeting the criteria for a fully invariant model across gender.
Conclusions Hypothesis 1.2.1: Factorial invariance of the SCCS across gender. Support was found for the invariance of the SCCS instrument across gender in relation to factor structure, factors loadings, factor variances/covariances, and error terms. Hypothesis is 1.2.1 is therefore supported and the SCCS can be considered to be fully invariant for both males and females.

Table 6.4

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NO IN</td>
<td>2834.12</td>
<td>726</td>
<td>.95</td>
<td>.95</td>
<td>.063</td>
</tr>
<tr>
<td>2. FL</td>
<td>3020.33</td>
<td>749</td>
<td>.95</td>
<td>.95</td>
<td>.067</td>
</tr>
<tr>
<td>3. FL, FC</td>
<td>3185.48</td>
<td>770</td>
<td>.95</td>
<td>.95</td>
<td>.068</td>
</tr>
<tr>
<td>4. FL, FU</td>
<td>3238.68</td>
<td>777</td>
<td>.95</td>
<td>.94</td>
<td>.068</td>
</tr>
<tr>
<td>5. FL, FU, FC</td>
<td>3411.49</td>
<td>798</td>
<td>.94</td>
<td>.94</td>
<td>.069</td>
</tr>
</tbody>
</table>

Note. $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN= item uniquenesses.

Invariance Results for Region

Overview of Hypothesis 1.2.2: Factorial invariance of the SCCS across region. Hypothesis 1.2.2 predicted that the factor structure of the SCCS would be similar for both regions under study. As above, invariance testing was carried out to evaluate this hypothesis using a total of five nested models with increasingly restrictive parameters.

Results of Hypothesis 1.2.2: Factorial invariance of the SCCS across region. As shown in Table 6.5, Model 1 showed an acceptable fit to the data with a CFI of .95, a TLI of .95 and an RMSEA of .067, providing support for the hypothesis that a common six-factor model exists for both regional groups. In Model 2, imposing equality constraints on the factor loadings showed negligible changes in the fit indices, thereby satisfying the minimal requirement for factorial invariance across the two groups. Imposing additional constraints on the factor variances/covariances in Model 3 produced a .007 change in the TLI, a small change in the RMSEA (.003), and a change of .009 in the CFI indices. However, as the change in the CFI did not exceed the .01 criteria, the third model can also be considered invariant. In Models 4 and 5, where the factor uniquenesses were constrained, the goodness-of-fit-indices deteriorated further with the CFI exceeding a .01 change from the baseline model,
and therefore this aspect of the model cannot be considered invariant. However, as the model did meet the minimum requirement for structural invariance (invariance of factor loadings), it can be concluded that the SCCS is invariant across regional groups.

Table 6.5

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>2943.10</td>
<td>726</td>
<td>.95</td>
<td>.95</td>
<td>.067</td>
</tr>
<tr>
<td>FL</td>
<td>3088.20</td>
<td>749</td>
<td>.95</td>
<td>.95</td>
<td>.068</td>
</tr>
<tr>
<td>FL, FC</td>
<td>3495.32</td>
<td>770</td>
<td>.94</td>
<td>.94</td>
<td>.072</td>
</tr>
<tr>
<td>FL, FU</td>
<td>3371.39</td>
<td>777</td>
<td>.94</td>
<td>.94</td>
<td>.070</td>
</tr>
<tr>
<td>FL, FU, FC</td>
<td>3777.62</td>
<td>798</td>
<td>.93</td>
<td>.93</td>
<td>.074</td>
</tr>
</tbody>
</table>

Note. $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN = item uniquenesses.

Conclusions relating to Hypothesis 1.2.2: Factorial invariance of the SCCS across region. In support of Hypothesis 1.2.2, the SCCS measure was found to be invariant for regional groups in relation to factor structure, factor loadings, and factor variance/covariances. When all error parameters were also constrained, goodness of fit indices indicated a lack of invariance for this aspect of the model. However, as the first three models clearly met and exceeded the minimum requirements for invariance testing, Hypothesis 1.2.2 is accepted.

Investigating the Similarities and Differences Across Gender and Region for the SCCS

Overview of Research Question 1.3.1: Region and gender differences for the six social capital scales of the SCCS. Research question 1.3.1 asked whether there were gender and regional differences, and gender by regional interaction effects across the six subscales of the SCCS. To investigate potential group differences, MIMIC models were conducted to examine the relations between gender and region, and the gender by region interaction with the six factors of the SCCS (see Chapter 5).

Following recommendations made by Aiken and West (1991) region was zero-centred (changed to reflect deviation scores so the mean becomes zero) to avoid excessive multicollinearity between region and the corresponding interaction term.
The zero-centred interaction term was calculated by multiplying gender by the zero-centred region variable. As high levels of multicollinearity can pose potential technical difficulties in estimating the regression coefficient, centring variables often minimises these potential problems (Marsh, Dowson, Pietsch, & Walker, 2004).

**Results Research Question 1.3.1: Region and gender differences for the six social capital scales of the SCCS.** The results indicated an excellent fitting model with a CFI of .97, a TLI of .96, and a RMSEA of .049. Beta coefficients for latent factors are displayed in Table 6.6. Comparisons between males and females showed that females were significantly higher in Peer and Community social capital than were males, and males were significantly higher than females for Community Isolation. A significant main effect was also found for region, with Multiville residents reporting a significantly higher level of Family and Peer social capital, and School Belonging than did Oceanview residents. Conversely, Oceanview residents reported a significantly higher sense of School Isolation than those residing in Multiville.

Table 6.6

**Standardised Beta Coefficients and Variance Explained for Gender and Region, and Gender x Region Interactions for SCCS Factors**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Gender Variance Explained</th>
<th>Region Variance Explained</th>
<th>Gender x Region Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>-.02</td>
<td>.22***</td>
<td>-.16***</td>
</tr>
<tr>
<td>Peer</td>
<td>.35***</td>
<td>.11****</td>
<td>-.02</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.03</td>
<td>.01</td>
<td>-.06*</td>
</tr>
<tr>
<td>Community</td>
<td>.13***</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>Belonging</td>
<td>.04</td>
<td>.08*</td>
<td>-.04</td>
</tr>
<tr>
<td>Isolation</td>
<td>-.07*</td>
<td>-.21***</td>
<td>.05</td>
</tr>
</tbody>
</table>

*p <.05, ** p <.01, *** p <.001

Results also indicated two significant gender by region interactions on the Family and Neighbours social capital factors. To aid interpretation these interactions are plotted below in Figures 6.1 and 6.2. As can be seen from Figure 6.1, males living in Multiville were substantially higher in levels of Family SC than were Oceanview males, however, Multiville females were lower in Family SC than were their Oceanview counterparts.
Figure 6.2 displays the gender by region interaction for Neighbour social capital. As shown, Multiville males have higher levels of Neighbour social capital than do Oceanview males, however, in contrast, Multiville females have lower levels of Neighbour social capital when compared to Oceanview females. It is important to note that despite this interaction being statistically significant, real differences appear negligible as indicated by the minimal amount of the variance explained in the factor (.35%, see Table 6.6), and the significant result may be attributable to the large sample size rather than indicating a real difference.
Conclusions Research Question 1.3.1: Region and gender differences for the six social capital scales of the SCCS. In conclusion gender and region main effects were found as were gender by region interactions. Females were significantly higher than males for Peer and Community social capital, and Multiville residents were significantly higher than Oceanview residents on Family and Peer social capital. Multiville residents also reported a significantly higher sense of Belonging to their community, whereas Oceanview residents had a considerably higher sense of Isolation from their community. Significant gender by region interactions was also found for Family and Peer social capital. As mentioned above, the amount of variance explained in some of these significant findings was minimal and may be due to the relatively large sample size.

Section Summary

In summary, this section has evaluated the results pertaining to the newly developed Social Capital and Cohesion Scale. The six factor, 29-item measure of social capital was found to be valid and reliable as measured by confirmatory factor analysis and reliability analysis. Furthermore, the SCCS met the requirements for invariance across gender and region. Finally, significant differences were found
between males and females, and residents living in the two regions studied, in addition to significant interactions at the Family and Peer levels of social capital.

**Psychometric Properties of the Depression, Anxiety and Stress Scale (DASS-21)**

The Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995) measures mental health states. The DASS-21 defines three factors: Depression, Anxiety, and Stress with each containing seven items. The following section reports the factor means for the total sample, males and females, and regional groups. This is followed by the results of the confirmatory factor analysis, reliability analysis, invariance testing, and finally similarities and differences between gender and regional groups through multiple indicator, multiple cause modelling are presented.

**Factor Means for the Total Sample, Gender and Regional Groups**

The means and severity ratings for each subscale of DASS-21 are presented in Table 6.7. In general, participants scored within the normal range for Stress, normal to mild range for Depression, and mild to moderate range for Anxiety. For the total sample, respondents reported normal levels of Depression and Stress and mild levels of Anxiety. Examination of the scores for males and females indicate that females scored higher than males on all three mental health factors. Furthermore, whilst males reported normal levels of Depression and Stress, male Anxiety levels fell into the mild category. Females reported normal levels of Stress, normal to mild levels of Depression, and moderate levels of Anxiety. Comparisons between regional groups show that Multiville residents scored higher on Depression, Anxiety, and Stress than did their Oceanview counterparts. More specifically, Oceanview residents reported normal levels of Depression and Stress, and mild levels of Anxiety, whilst those residing in Multiville reported normal levels of Stress, normal to mild levels of Depression, and moderate levels of Anxiety.
Table 6.7
Participant Scores for Depression, Anxiety and Stress for Gender, Region and the Total Sample

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
<th>Oceanview</th>
<th>Multiville</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1371</td>
<td>840</td>
<td>531</td>
<td>478</td>
<td>893</td>
</tr>
<tr>
<td>Depression</td>
<td>8.80 (9.45)</td>
<td>8.49 (8.88)</td>
<td>9.29 (10.27)</td>
<td>7.70 (9.24)</td>
<td>9.38 (9.51)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>9.00 (8.77)</td>
<td>8.69 (8.36)</td>
<td>9.50 (9.36)</td>
<td>8.09 (8.67)</td>
<td>9.49 (8.78)</td>
</tr>
<tr>
<td>Stress</td>
<td>7.01 (7.32)</td>
<td>6.94 (7.27)</td>
<td>7.11 (7.41)</td>
<td>6.10 (7.03)</td>
<td>7.49 (7.43)</td>
</tr>
</tbody>
</table>

Scoring

<table>
<thead>
<tr>
<th>Depression</th>
<th>Normal</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extremely Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>10-13</td>
<td>14-20</td>
<td>21-27</td>
<td>28+</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>0-7</td>
<td>8-9</td>
<td>10-14</td>
<td>15-19</td>
<td>20+</td>
</tr>
<tr>
<td>Stress</td>
<td>0-14</td>
<td>15-18</td>
<td>19-25</td>
<td>26-33</td>
<td>34+</td>
</tr>
</tbody>
</table>

Note: Standard deviation values in parenthesis.

Reliability of the DASS-21

Overview of Hypothesis 1.1.3: Reliability of the DASS. Hypothesis 1.1.3 predicted that tests of reliability will demonstrate acceptable values for each of the three factors as measured by the DASS (Depression, Anxiety, and Stress). In order to test the hypothesis, Cronbach alpha values were calculated separately for the total sample, males and females, and residents living in Oceanview and Multiville.

Results Hypothesis 1.1.3: Reliability of the DASS. As presented in Table 6.8, the reliabilities for the total sample were acceptable (> .70; Hills, 2008; DeVellis, 1991) ranging from .79 to .88. When reliabilities were calculated separately for males and females, results also demonstrate acceptable values with coefficients for males ranging from .80 to .86, and females ranging from .79 to .90. Finally, reliabilities for regional groups were estimated and results indicated acceptable values for both Oceanview and Multiville (.76 to .87).
Table 6.8

*Reliability Estimates for the Depression, Anxiety and Stress Scale: Total Sample and Males and Females.*

<table>
<thead>
<tr>
<th>Cronbach’s Alpha (α)</th>
<th>Total Sample (N=1371)</th>
<th>Males (n = 840)</th>
<th>Females (n = 531)</th>
<th>Multiville (n = 893)</th>
<th>Oceanview (n= 478)</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.88</td>
<td>.86</td>
<td>.90</td>
<td>.76</td>
<td>.79</td>
<td>7</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.79</td>
<td>.80</td>
<td>.79</td>
<td>.86</td>
<td>.87</td>
<td>7</td>
</tr>
<tr>
<td>Stress</td>
<td>.85</td>
<td>.83</td>
<td>.87</td>
<td>.86</td>
<td>.84</td>
<td>7</td>
</tr>
</tbody>
</table>

**Conclusions Hypothesis 1.1.3: Reliability of the DASS.** Consistent with predictions, it was concluded that the DASS-21 is a reliable measure of Depression, Anxiety, and Stress for the total sample, males and females, and both regional groups. Therefore, Hypothesis 1.1.3 was accepted.

**Factor Structure of the DASS-21**

**Overview of Hypothesis 1.1.4: Factorial structure of the DASS-21.** Hypothesis 1.1.4 predicted that the DASS-21 would be a valid measure of the factors: Depression, Anxiety, and Stress. In order to test this hypothesis a CFA was performed on the three a priori factors to determine the validity of the model.

**Results Hypothesis 1.1.4: Factorial structure of the DASS.** As shown in Table 6.9, the results of the CFA show the model has an adequate fit to the data with an RMSEA of .077, TLI of .97, and a CFI of .98. Factor loadings for all three factors ranged from .40 to .80, thereby exceeding the minimum .30 requirement (Hills, 2009). Despite the adequate correlations (.55 to .68) reported by Lovibond and Lovibond (1996), correlations among the three factors in the current study are very high, particularly the correlations between Stress and Anxiety (.94), and Stress and Depression (.91). Ideally, with such high correlations these factors would be collapsed into a single mental health factor; however, as this is an existing scale the original factor structure will be retained. Additionally, as the DASS-21 will only be utilised in the present investigation as an outcome measure, the issues of multicollinearity usually observed when indicators have highly correlated factors are not pertinent in the current study.
Conclusion of Hypothesis 1.1.4: Factorial structure of the DASS. Consistent with Hypothesis 1.1.4, confirmatory factor analysis demonstrated acceptable goodness of fit indices and factor loadings for the three factor model, although correlations between factors indicate that the three factors may not be empirically distinguishable. It was concluded, that the DASS-21 was a valid *outcome* measure for use in the current investigation, although the poor discriminate validity indicated that Hypothesis 1.1.4 was not supported.

Table 6.9

*Confirmatory Factor Analysis Results for the DASS-21*

<table>
<thead>
<tr>
<th>Factor Loadings</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.66</td>
<td>.40</td>
<td>.58</td>
</tr>
<tr>
<td>2</td>
<td>.61</td>
<td>.54</td>
<td>.63</td>
</tr>
<tr>
<td>3</td>
<td>.67</td>
<td>.59</td>
<td>.65</td>
</tr>
<tr>
<td>4</td>
<td>.80</td>
<td>.62</td>
<td>.73</td>
</tr>
<tr>
<td>5</td>
<td>.75</td>
<td>.73</td>
<td>.75</td>
</tr>
<tr>
<td>6</td>
<td>.76</td>
<td>.67</td>
<td>.70</td>
</tr>
<tr>
<td>7</td>
<td>.75</td>
<td>.71</td>
<td>.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>Stress</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>1371</td>
</tr>
</tbody>
</table>

Examining the Similarities and Differences of the DASS-21 Factor Structure Across Gender

Overview of Hypothesis 1.2.3: Factorial invariance of the DASS across gender. Hypothesis 1.2.3 predicted that the factor structure of the DASS will be similar for both males and females, and residents living in the two different community environments being investigated. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each relevant group.
Results of Hypothesis 1.2.3: Factorial invariance of the DASS across gender. Table 6.10 displays the fit indices across the five increasingly restrictive models. The base model showed adequate fit statistics with a CFI of .97, a TLI of .97, and an RMSEA of .080, indicting a similar factor structure for both males and females. Placing further parameter restrictions in the following four models produced minimal changes in the RMSEA (.002) and no change in the CFI or the TLI demonstrating a completely invariant model.

Table 6.10  

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>1993.93</td>
<td>372</td>
<td>.97</td>
<td>.97</td>
<td>.080</td>
</tr>
<tr>
<td>FL</td>
<td>2054.39</td>
<td>390</td>
<td>.97</td>
<td>.97</td>
<td>.079</td>
</tr>
<tr>
<td>FL, FC</td>
<td>2101.76</td>
<td>396</td>
<td>.97</td>
<td>.97</td>
<td>.079</td>
</tr>
<tr>
<td>FL, FU</td>
<td>2121.38</td>
<td>411</td>
<td>.97</td>
<td>.97</td>
<td>.078</td>
</tr>
<tr>
<td>FL, FU, FC</td>
<td>2169.77</td>
<td>417</td>
<td>.97</td>
<td>.97</td>
<td>.078</td>
</tr>
</tbody>
</table>

Note. $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN= item uniquenesses.

Conclusion Hypothesis 1.2.3: Factorial invariance of the DASS across gender. Consistent with Hypothesis 1.2.3, support was found for the invariance of the DASS-21 measure across gender in relation to factor structure, factors loadings, factor variances/covariances, and error terms. Hypothesis 1.2.3 is therefore supported and the DASS-21 can be considered to be fully invariant for both males and females.

Examining the Similarities and Differences of the DASS-21 Factor Structure Across Region

Overview of Hypothesis 1.2.4: Factorial invariance of the DASS across region. Hypothesis 1.2.4 predicted that student responses to the DASS-21 would produce a consistent factor structure across regional groups. To evaluate this prediction, a total of five nested models with increasingly constrained parameters were tested and changes in the fit statistics examined.

Results of Hypothesis 1.2.4: Factorial invariance of the DASS across region. As shown in Table 6.11, the completely free model meets the requirements for an acceptable fitting model (TLI & CFI = .97, RMSEA = .080) indicating a similar
factor structure for residents in both regions. Constraining factor loadings and variance/covariances marginally improved the RMSEA and produced no change in the CFI and TLI (.97). When error terms were constrained in M4, the RMSEA exceeded what is generally accepted as an adequate fit (\(</.80\)), however, CFI and TLI fit indices remained constant throughout all five models. As the current investigation is utilising a change no greater than .01 in the CFI as indicative of invariance (see Method chapter), it can be considered that the DASS-21 is fully invariant across regional groups.

**Conclusion Hypothesis 1.2.4: Factorial invariance of the DASS across region.** In support of predictions, results demonstrated that the 21-item, three-factor DASS-21 was fully invariant across region. Therefore Hypothesis 1.2.4 was accepted.

Table 6.11

*Invariance Tests across Region for the Depression, Anxiety, and Stress Scale*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>1992.34</td>
<td>372</td>
<td>.97</td>
<td>.97</td>
<td>.080</td>
</tr>
<tr>
<td>FL</td>
<td>2011.80</td>
<td>390</td>
<td>.97</td>
<td>.97</td>
<td>.078</td>
</tr>
<tr>
<td>FL, FC</td>
<td>2020.80</td>
<td>396</td>
<td>.97</td>
<td>.97</td>
<td>.077</td>
</tr>
<tr>
<td>FL, FU</td>
<td>2381.53</td>
<td>411</td>
<td>.97</td>
<td>.97</td>
<td>.084</td>
</tr>
<tr>
<td>FL, FU, FC</td>
<td>2395.97</td>
<td>417</td>
<td>.97</td>
<td>.97</td>
<td>.083</td>
</tr>
</tbody>
</table>

*Note. $\chi^2$= Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN= item uniquenesses.*

**Evaluating Similarities and Differences in Mental Health as Measured by the Depression, Anxiety, and Stress Scale.**

**Overview of Research Question 1.3.2: Gender and regional differences for the DASS-21.** Research Question 1.3.2 asked to what extent will gender and regional differences emerge for depression, anxiety, and stress levels, and whether there are significant regional by gender interactions. In order to examine any potential differences, MIMIC models were conducted on the three mental health factors of the DASS-21. As with the MIMIC previously described above, the regional variable was zero-centred to avoid unwarranted multicollinearity between the region variable and the corresponding interaction term (Aiken & West, 1991).
Results Research Question 1.3.2: Gender and regional differences for the DASS-21. As indicated by the fit indices, the MIMIC model produced an acceptable fit to the data with a CFI of .97, a TLI of .97, and a RMSEA of .071. Examination of the Beta coefficients (see Table 6.12) specifies a number of significant main effects for region and gender, as well as significant interactions on all three factors.

Table 6.12

*Standardised Beta Coefficients and Variance Explained for Gender and Region, and Gender x Region Interactions for DASS-21 Factors*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Gender Variance explained</th>
<th>Region Variance explained</th>
<th>Gender x Region Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.08**</td>
<td>.07*</td>
<td>.09** 0.8%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.06</td>
<td>.07*</td>
<td>.08* 0.6%</td>
</tr>
<tr>
<td>Stress</td>
<td>.08**</td>
<td>.09**</td>
<td>.11*** 1.2%</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01, *** p < .001

Significant main effects were found for Depression, Anxiety, and Stress whereby females had statistically significant higher scores than males on levels of Depression and Anxiety, and residents living in Multiville had statistically significant higher scores than Oceanview residents on all three mental health factors. This is consistent with means scores reported above, with females reporting normal to mild levels of Depression and moderate levels of Anxiety, whilst males reported normal levels of Depression and mild levels of Anxiety. Also consistent with the regional main effect, mean scores for Multiville residents were higher than Oceanview on all three factors, with Oceanview reporting normal levels of Depression and Stress, and mild levels of Anxiety. In contrast, Multiville residents reported normal to mild levels of Depression and moderate levels of Anxiety. Significant interaction effects were also found across all three factors and are represented pictorially below. As shown in Figure 6.3, similar levels of Depression were reported for males living in both regions, however, there was divergence between the females, with Multiville residents reporting higher levels of Depression than their Oceanview counterparts.
Figure 6.3 Gender by region interaction effect for Depression

Figure 6.4 and Figure 6.5 exhibit the gender by region interactions for the Anxiety and Stress factors. As with the Depression factor, males were similar across regions for Anxiety and Stress, whereas female residents living in Multiville reported higher levels of both Stress and Anxiety than did Oceanview female residents.

Figure 6.4 Gender by region interaction effect for Anxiety
Conclusions Research question 1.3.2: Gender and regional differences for the DASS-21. In conclusion, significant gender and regional main effects were found. Females were significantly higher than males on Depression and Anxiety, and Multiville residents were higher than Oceanview residents on all three factors. Diminishing the importance of these main effects however, were the significant gender by region interactions on all three mental health factors. Examination of the interactions reveal that whilst males in both regions appear similar across the three factors, females living in Multiville reported higher levels of Depression, Anxiety, and Stress, than did females living in Oceanview.

Examination of the amount of variance explained by these significant interactions and main effects (as well as means scores, see Table 6.7), one may be tempted to conclude that little practical differences exist among sub-groups. However, when these small differences equate to students progressing from the category of “normal” into “mild” or “moderate” levels of these negative mental health states, these findings are of important practical interest and warrant further investigation.

Section Summary

In summary, reliability analysis indicated that the DASS-21 is a reliable measure of Depression, Anxiety, and Stress mental health factors. However, CFA analysis determined poor discriminate validity between factors. Subsequent invariance testing shows that responses by males and females, and residents living in
different areas in NSW produce a similar factor structure across groups and therefore can be considered invariant across gender and region. Multiple indicator- multiple cause-modelling highlighted a number of significant main effects and interactions. In general, the main effects indicated that females reported higher levels of Depression, Anxiety, and Stress than males and Multiville residents were higher than Oceanview residents across all three factors. Upon further examination of the significant interactions, it appears that males from both regions report similar levels across the three factors, whilst there is divergence between females in the two regions, with Multiville females scoring higher than Oceanview females across all three scales.

**Psychometric Properties of the Negative Community Perceptions Scale**

The Perceived Discrimination subscale used in the present study was drawn from the larger Personal/Group Discrepancy Scale (Bodkin-Andrews, Craven, & Martin, 2006). The single factor consists of three items measuring respondents’ perceived experiences of racial discrimination at the personal level on a scale of one to five. The Fear of Crime factor also included in this measure was drawn from the International Crime Victims Survey (ICVS, Van Kesteren, 2001). This factor consists of four items and was also measured on a scale of one to five. Finally, three items were developed to assess respondents’ perceptions of their community’s reputation and consistent with the other two factors in this instrument, were measured on a scale of one to five. For the purposes of this research this combined measure was called the Negative Community Perceptions Scale (NCPS). The following section reports the factor means for the total sample, males and females, and regional groups. This is followed by results of the confirmatory factor analysis, reliability analysis, invariance testing, and finally similarities and differences between gender and regional groups through multiple-indicator-multiple-cause modelling are presented.

**Factor Means for the Total Sample, Gender and Regional Groups**

As shown in Table 6.13, mean scores for the Perceived Discrimination factor were quite similar across all sub-groups and were relatively low, with Multiville residents reporting the lowest level of Perceived Discrimination ($M= 1.78$). Fear of crime means were also quite similar across groups, with Oceanview residents reporting the lowest mean ($M= 2.95$). Means scores for Community Reputation were
similar across the total sample and sub-groups. Males reported a slightly higher mean than females and Multiville residents perceived their community marginally better than those residing in Oceanview.

Table 6.13

<table>
<thead>
<tr>
<th>Table 6.13: Mean scores for Negative Community Perceptions Scale Factors for Gender, Region, and the Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N/n</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td><em>Discrim</em></td>
</tr>
<tr>
<td><em>FearCrime</em></td>
</tr>
<tr>
<td><em>CommRep</em></td>
</tr>
</tbody>
</table>


Reliability of the Negative Community Perceptions Scale

**Overview of Hypothesis 1.1.5: Reliability of the NCPS.** It is predicted that the three factor, 11 item scale will be a reliable measure of students’ experiences of perceived discrimination, concerns about crime, and their perceptions about how others view their community. In order to test this hypothesis reliability analyses using Cronbach’s alpha were performed for the total sample, males and females, and the two regional groups.

**Results and Conclusions of Hypothesis 1.1.5: Reliability of the NCPS.** Table 6.14 presents the results of the reliability analyses. The Perceived Discrimination factor produced acceptable reliabilities (> .70) for the total sample, and males and females and residents living in Oceanview and Multiville. The Fear of Crime factor also demonstrated accepted reliabilities which ranged from .91 to .93 across the total sample, gender, and regional groups. The Community Reputation factor also demonstrated acceptable reliabilities (.77 to .80) across the total sample and each sub-group. Therefore, the NCPD scale was deemed a reliable measure of Perceived Discrimination, Fear of Crime, and Community Reputation, and Hypothesis 1.1.5 was accepted.
Table 6.14
Reliability Estimates for the Negative Community Perceptions Scale: Total Sample and Males and Females.

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Sample (N=1371)</td>
</tr>
<tr>
<td>Discrimination</td>
<td>.78</td>
</tr>
<tr>
<td>Fear of Crime</td>
<td>.92</td>
</tr>
<tr>
<td>Community Reputation</td>
<td>.78</td>
</tr>
</tbody>
</table>

Factor Structure of the Negative Community Perceptions Scale (NCPS)

Overview of Hypothesis 1.1.6: Factor structure of the NCPS. Hypothesis 1.1.6 predicted that the NCPS would be a valid measure of students’ perceived experiences of racial Discrimination, Fear of Crime, and Community Reputation. In order to test this prediction, a confirmatory factor analysis was performed on the 10-item three factor scale.

Results of Hypothesis 1.1.6: Factor structure of the NCPS. The hypothesised model demonstrated a good fit to the data with a RMSEA of .041 and a CFI and TLI of .99. The factor loadings (see Table 6.15) for each item demonstrate that the factors are well defined with acceptable values ranging from .62 to .94. The correlations between the factors were: -0.02 for Perceived Discrimination and Fear of Crime, -.09 between Community Reputation and Perceived Discrimination, and .01 between Fear of Crime and Community Reputation, thereby providing strong support for three distinct factors.

Conclusions Hypothesis 1.1.6: Factor structure of the NCPS. In summary, the CFA results demonstrate strong support for the validity of the predicted model. Model fit and factor loadings were acceptable and the correlations between the factors were almost zero clearly indicating three well defined factors. Therefore, Hypothesis 1.1.6 is accepted.
Table 6.15

Factor Loadings for the NCPD

<table>
<thead>
<tr>
<th>Items</th>
<th>Perceived Discrimination</th>
<th>Fear of Crime</th>
<th>Community reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.74</td>
<td>.83</td>
<td>.76</td>
</tr>
<tr>
<td>2</td>
<td>.78</td>
<td>.94</td>
<td>.62</td>
</tr>
<tr>
<td>3</td>
<td>.69</td>
<td>.92</td>
<td>.85</td>
</tr>
<tr>
<td>4</td>
<td>--</td>
<td>.75</td>
<td>--</td>
</tr>
</tbody>
</table>

Examining the Similarities and Differences of the Negative Community Perceptions Scales’ Factor Structure across Gender

Overview of Hypothesis 1.2.5: Factorial invariance of the NCPS across gender. Hypothesis 1.2.5 predicted that the factor structure of the NCPS will be a consistent measure for both males and females. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each gender group. As described previously, a total of five nested models were tested with increasingly restrictive parameters.

Results Hypothesis 1.2.5: Factorial invariance of the NCPS across gender. As can be seen from Table 6.16, the base model demonstrated a good fit to the data, with fit indices >.95 and a RMSEA of .043, thereby providing support for an equivalent factor structure for both males and females. When factor loading were constrained in the second model there were minimal changes in the TLI (.001), the TLI (.002), and the RMSEA (.003), showing support for the equivalence of factor loadings across males and females. In the third model, equality of constraints on all factor loadings and variances/covariances were imposed. Again this resulted in minimal changes from the baseline model (TLI .003; RMSEA .005; CFI .005), thereby supporting the hypothesis that variances and covariances, in addition to factor loadings are invariant across gender. Models four and five imposed additional constraints on the error terms for both males and females resulting in some minor changes in the fit indices when compared to the baseline model. First, factor loadings and uniquenesses were held invariant resulting in a .003 change in the RMSEA, a .005 change in the CFI, and a .002 change in the TLI. Overall, changes in the CFI from Model one to Model five did not exceed the criteria of a .01 change and all other model fit statistics are acceptable, these aspects of the model can also be considered invariant. In the final model all parameters were constrained to be equal.
across gender groups. As a result there were only minimal changes in the fit indices (see Table 6.16) and the final model can also be considered invariant.

**Conclusions Hypothesis 1.2.5: Factorial invariance of the NCPS across gender.** In conclusion, the structure of the NCPS in relation to factor loadings, variances/covariances, and error terms were invariant across gender. Hypothesis 1.2.5 is therefore supported and the model can be considered completely invariant across all parameters.

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>143.68</td>
<td>64</td>
<td>.988</td>
<td>.984</td>
<td>.043</td>
</tr>
<tr>
<td>FL</td>
<td>147.05</td>
<td>71</td>
<td>.989</td>
<td>.986</td>
<td>.040</td>
</tr>
<tr>
<td>FL, FC</td>
<td>151.83</td>
<td>77</td>
<td>.989</td>
<td>.987</td>
<td>.038</td>
</tr>
<tr>
<td>FL, FU</td>
<td>198.96</td>
<td>81</td>
<td>.983</td>
<td>.981</td>
<td>.046</td>
</tr>
<tr>
<td>FL, FC, FU</td>
<td>205.38</td>
<td>87</td>
<td>.983</td>
<td>.982</td>
<td>.045</td>
</tr>
</tbody>
</table>

*Note. $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, FU = item uniquenesses.*

**Examining the Similarities and Differences of the Negative Community Perceptions Scales’ Factor Structure Across Region**

**Overview of Hypothesis 1.2.6: Factorial invariance of the NCPS across region.** Hypothesis 1.2.6 predicted that the factor structure of the NCPS will be a consistent measure for residents living in both Oceanview and Multiville. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each regional group. As described previously, a total of five nested models were tested with increasingly restrictive parameters.

**Results Hypothesis 1.2.6: Factorial invariance of the NCPS across region.** In support of a common factor structure across both regions, the base model showed a good fit to the data with a CFI and TLI of .99, and a RMSEA of .050 (see Table 6.17). In the second model factor loadings were constrained to be equivalent and again the model produced a good fit to the data with negligible changes to the fit indices. The addition of constraining the variances/covariances, however, resulted in a poorer fitting model and although the fit statistics were acceptable, the changes in the CFI exceeded the .01 criteria and this part of the model cannot be considered
invariant. Placing additional constraints in models four and five (uniquenesses) only served to worsen the model further and produce unacceptable fit indices.

Table 6.17

*Invariance Tests across Region for the Negative Community Perceptions Scale*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>70.22</td>
<td>26</td>
<td>.992</td>
<td>.987</td>
<td>.050</td>
</tr>
<tr>
<td>FL</td>
<td>97.97</td>
<td>31</td>
<td>.988</td>
<td>.984</td>
<td>.056</td>
</tr>
<tr>
<td>FL, FC</td>
<td>154.20</td>
<td>34</td>
<td>.977</td>
<td>.971</td>
<td>.072</td>
</tr>
<tr>
<td>FL, FU</td>
<td>502.09</td>
<td>38</td>
<td>.911</td>
<td>.902</td>
<td>.134</td>
</tr>
<tr>
<td>FL, FC, FU</td>
<td>591.66</td>
<td>41</td>
<td>.893</td>
<td>.891</td>
<td>.140</td>
</tr>
</tbody>
</table>

*Note.* $\chi^2$= Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC= factor correlations, FU= item uniquenesses.

Conclusions Hypothesis 1.2.6: Factorial invariance of the NCPS across region. In sum, the structure of the NCPS is invariant for Oceanview and Multiville residents in regard to factor structure and factor loadings, meeting the minimum requirements of invariance. Conversely, the factor variances/covariances and the error terms of the model cannot be regarded as equivalent. However, as argued in the methodology section, the minimum requirement for invariance is equal factor loadings, and further tests are considered by some to be overly restrictive (Marsh, Tracey, & Craven, 2006). Therefore, it is concluded that the NCPS has met the minimum requirement for invariance across region, and Hypothesis 1.2.6 is accepted.

Investigating Similarities and Differences across Gender and Region for the Negative Community Perceptions Scale

Overview of Research Question 1.3.3: Regional and gender differences for the NCPS. Research question 1.3.3 asked whether there were any gender and regional differences, or interaction effects evident in students’ responses to the NCPS. In order to evaluate potential groups differences, MIMIC models were performed to investigate any potential main effects or significant interactions in regard to gender and regional groups.

Results Research Question 1.3.3: Regional and gender differences for the NCPS. The proposed model provided a good fit to the data as demonstrated by a RMSEA of .048, a CFI of .98, and a TLI of .97. Examination of beta coefficients
(see Table 6.18) shows significant main effects for gender and region on both Perceived Discrimination and Fear of Crime factors. Males reported significantly higher levels of Perceived Discrimination than did females, and females had significantly higher scores than males on the Fear of Crime factor. For the region main effects, residents living in Oceanview had significantly elevated scores on Perceived Discrimination when compared to Multiville residents, although Multiville residents reported significantly stronger fear of crime levels. There were no significant interaction effects. The Community Reputation factor produced no significant main effects of interactions.

The variance explained for the gender main effects are minimal (.28% and 1.8%), as is the variance explained by region on the Fear of Crime factor (2.08%). However, a substantial 29.1 percent of variance is explained by region for the Discrimination factor with Oceanview residents reporting significantly higher levels of Perceived Discrimination.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Gender (Variance explained)</th>
<th>Region (Variance explained)</th>
<th>Gender x Region (Variance explained)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrimination</td>
<td>-.14*** (.42%)</td>
<td>-.56*** (29.1%)</td>
<td>.02 (.08%)</td>
</tr>
<tr>
<td>Fear of Crime</td>
<td>.15*** (1.8%)</td>
<td>.15*** (2.08%)</td>
<td>.06 (.04%)</td>
</tr>
<tr>
<td>Community Reputation</td>
<td>.00 (0%)</td>
<td>.03 (.09%)</td>
<td>.01 (.01%)</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001.

**Conclusion Research Question 1.3.3: Regional and gender differences for the NCPS.** In conclusion, significant main effects were found for gender and region on both the Perceived Discrimination and Fear of Crime factors. Males scored significantly higher on Perceived Discrimination and as did Oceanview residents when compared to those living in Multiville. Females were significantly higher than males on the Fear of Crime factor and Multiville residents had a significantly higher Fear of Crime than did Oceanview inhabitants. There were no significant interactions found for either factor.
Section Summary

In summary, the NCPS was found to be a valid and reliable measure of Perceived Discrimination, Fear of Crime, and Community Reputation as demonstrated through reliability and confirmatory factor analyses. Subsequent tests of invariance showed that responses from males and females, and residents living in Oceanview and Multiville produced a similar factor structure across groups and therefore the NCPS was considered valid for making group comparisons. Significant main effects for gender and region were also found. In general, males perceived higher levels of Perceived Discrimination than did females and Oceanview residents reported higher scores than Multiville residents. Females scored higher than males on Fear of Crime, and Multiville residents’ Fear of Crime scores were significantly higher than respondents living in Oceanview. There were no significant differences between gender and regional groups for the Community Reputation factor.

Psychometric Properties of the Self-Description Questionnaire II- Short

The three factor instrument utilised in the current study to measure student self-concept, was adapted from the Self-Description Questionnaire II-Short (Marsh et al., 2005). Three of the original 11 factors, math, verbal, and general school self concepts were selected and evaluated for construct validity, invariance, and reliability. All items were measured on a scale of one to five and each factor consisted of four items. The following sections presents the factor means for relevant groups, confirmatory factor analyses and reliability results, tests of invariance across groups, and finally MIMIC results investigating any potential group differences.

SDQ II-Short Factor Means for the Total Sample, Gender and Regional Groups

As shown in Table 6.19, the mean scores for the total sample and the gender and regional groups were quite similar. Oceanview residents and females reported the lowest means for the math self-concept factor. Overall, the highest means were reported for verbal self-concept, followed by general academic, and finally the math self-concept subscale produced the lowest means.
Table 6.19

Mean scores for SDQ II-Short Math, Verbal and General Academic Self-concept Factors for Gender, Region and the Total Sample

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
<th>Oceanview</th>
<th>Multiville</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1371</td>
<td>840</td>
<td>531</td>
<td>478</td>
<td>893</td>
</tr>
<tr>
<td>Math</td>
<td>3.05 (1.13)</td>
<td>3.22 (1.09)</td>
<td>2.79 (1.14)</td>
<td>2.97 (1.09)</td>
<td>3.10 (1.15)</td>
</tr>
<tr>
<td>Verbal</td>
<td>3.59 (.92)</td>
<td>3.58 (.91)</td>
<td>3.61 (.93)</td>
<td>3.52 (.89)</td>
<td>3.63 (.93)</td>
</tr>
<tr>
<td>General</td>
<td>3.56 (.93)</td>
<td>3.59 (.94)</td>
<td>3.51 (.93)</td>
<td>3.43 (.95)</td>
<td>3.62 (.92)</td>
</tr>
</tbody>
</table>

Note: Standard deviation values in parenthesis

Reliability of the SDQ II-Short

Overview of Hypothesis 1.1.7: Reliability of the SDQ II-Short. Hypothesis 1.1.7 predicted the selected three factors of the SDQ II-Short would be a reliable measure of students’ General, Verbal and Math self-concepts. In order to test this hypothesis, reliability analyses using Cronbach alphas were performed on the three subscales for the total sample, and for males and females separately.

Results Hypothesis 1.1.7: Reliability of the SDQ II-Short. Reliability results are presented in Table 6.20 below. Internal consistency reliability estimates were all acceptable ranging from .72 to .87. The General subscale had the lowest reliabilities for the total sample, and gender, and regional groups, however, they were all deemed acceptable. Reliabilities were similar for males and females on the Math and General subscales, but were somewhat lower for males on the Verbal subscale, perhaps indicating that there was less variability in the males’ responses. The internal consistency estimates for Multiville and Oceanview sub-groups were similar across all three factors.

Table 6.20

Reliability Estimates for the Self-Description Questionnaire II-Short: Total Sample and Males and Females.

<table>
<thead>
<tr>
<th>Cronbach’s Alpha (α)</th>
<th>Total Sample (N=1371)</th>
<th>Males (n = 840)</th>
<th>Females (n = 531)</th>
<th>Oceanview (n = 478)</th>
<th>Multiville (n = 893)</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>.76</td>
<td>.75</td>
<td>.77</td>
<td>.72</td>
<td>.76</td>
<td>2</td>
</tr>
<tr>
<td>Verbal</td>
<td>.78</td>
<td>.75</td>
<td>.82</td>
<td>.79</td>
<td>.78</td>
<td>3</td>
</tr>
<tr>
<td>Math</td>
<td>.86</td>
<td>.85</td>
<td>.87</td>
<td>.87</td>
<td>.86</td>
<td>3</td>
</tr>
</tbody>
</table>
Conclusion Hypothesis 1.1.7: Reliability of the SDQ II-Short. In conclusion, the SDQ II-Short was found to be a reliable measure of students’ General, Verbal, and Math self concepts. Reliability scores for the total sample, males and females, and Oceanview and Multiville residents were deemed acceptable for all three subscales and as a result Hypothesis 1.1.7 was accepted.

Factor Structure of the Self-Description Questionnaire II-Short (SDQ II-Short)

Overview of Hypothesis 1.1.8: Factor structure of the SDQ II-Short. Hypothesis 1.1.8 predicted that student responses to the SDQ II-Short would support the multidimensional three factor structure of the SDQ II-Short through confirmatory factor analysis (CFA). The CFA was conducted on the data where the eight items were constrained to load only onto their designated factors. Consistent with current practice (Byrne, 2001; Holmes-Smith, 2000; Marsh et al., 1996), and the analyses performed throughout this chapter, the Root-Mean Square Error of Approximation (RMSEA), the Tucker Lewis Index (TLI), and the Comparative Fit Index (CFI) were used to evaluate the models goodness of fit to the data.

Results Hypothesis 1.1.8: Factor structure of the SDQ II-Short. Initial results of the CFA indicated a poor fitting model with a RMSEA of .094, a CFI of .96, and a TLI of .95. Examination of the modification indices revealed that item 2 (“I get bad marks in most school subjects”) and 43 (“I learn things quickly in most school subjects”) were the most problematic and were subsequently deleted from the General academic scale.

A second CFA was then performed on the remaining items. This resulted in a better fitting model (RMSEA=.076, CFI=.98, and TLI=.98), however, item 26 from the Math subscale (“I do badly in tests in mathematics”) and item 34 from the Verbal subscale (“Work in English class is easy for me”) produced large modification indices and were removed to improve model fit. The results of the final CFA (see Table 6.21) indicate that the last hypothesised model demonstrated a good fit to the data with a CFI of .99, a TLI of .98, and a RMSEA of .057. Factor loadings loaded well above the minimum requirement of .30 (range .54 to .91, Hills, 2008) on their designated factors only, indicating that the three factors are well defined. The correlations between factors were also satisfactory, and although the General factor correlated quite highly with the Verbal and Math factors (.76 and .68 respectively), the results still provide support for the distinctive nature of the three factors. Also in
support of the multidimensional nature of self-concept, the correlation between Math and Verbal self-concept was relatively low (.34).

**Conclusion Hypothesis 1.1.8: Factor structure of the SDQ II-Short.** In conclusion, after some refinement the results of the CFA provide strong support for the hypothesised three factor structure of the SDQ II-Short. The factor loadings and factor correlations demonstrated discrimination between factors, and the fit indices indicated the data provided a good fit to the model. Therefore, Hypothesis 1.1.8 was accepted.

Table 6.21

*Confirmatory Factor Analysis Results for the SDQ II -Short*

<table>
<thead>
<tr>
<th>Factor Loadings</th>
<th>General</th>
<th>Verbal</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.78</td>
<td>.79</td>
<td>.78</td>
</tr>
<tr>
<td>2</td>
<td>.79</td>
<td>.90</td>
<td>.91</td>
</tr>
<tr>
<td>3</td>
<td>--</td>
<td>.54</td>
<td>.80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor Correlations</th>
<th>General</th>
<th>Verbal</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td>.76</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>.68</td>
<td>.35</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Fit</th>
<th>N</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1371</td>
<td>91.66</td>
<td>17</td>
<td>.99</td>
<td>.98</td>
<td>.057</td>
</tr>
</tbody>
</table>

**Examination of the Self-Description Questionnaire II-Short Factor Structure Across Gender**

**Overview of Hypothesis 1.2.7: Factorial invariance of the SDQ II-Short across gender.** Hypothesis 1.2.7 predicted that the factorial structure of the SDQ II-Short would be similar for both males and females as demonstrated by structural equation modelling tests of invariance. To evaluate this prediction, an identical three factor model was posed for both groups with an increasing number of parameters restricted over a total of five models.

**Results of Hypothesis 1.2.7: Factorial invariance of the SDQ II-Short across gender.** The results for the invariance test for gender are presented in Table 6.22. The base model with no restrictions placed on the parameters, provided a good fit to the data as indicated by a CFI of .985, a TLI of .976, and a RMSEA of .068,
indicating a consistent factor structure for both males and females. When factor loadings were constrained in the second model, only minimal changes were evident in the fit statistics and this element of the model can also be considered invariant. Further restricting the factor correlations produced no change in the RMSEA and TLI, and only a small change in the CFI (.002). When factor uniquenesses constraints were also imposed in the fourth and fifth models, only negligible changes in the fit indices resulted and it can therefore be concluded, that all parameter estimates of the proposed model are invariant.

Table 6.22

<table>
<thead>
<tr>
<th>Model</th>
<th>(\chi^2)</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>140.13</td>
<td>34</td>
<td>.985</td>
<td>.976</td>
<td>.068</td>
</tr>
<tr>
<td>FL</td>
<td>167.97</td>
<td>39</td>
<td>.982</td>
<td>.975</td>
<td>.070</td>
</tr>
<tr>
<td>FL, FC</td>
<td>196.74</td>
<td>45</td>
<td>.980</td>
<td>.975</td>
<td>.070</td>
</tr>
<tr>
<td>FL, FU</td>
<td>175.81</td>
<td>47</td>
<td>.981</td>
<td>.977</td>
<td>.063</td>
</tr>
<tr>
<td>FL, FU, FC</td>
<td>202.39</td>
<td>53</td>
<td>.979</td>
<td>.977</td>
<td>.064</td>
</tr>
</tbody>
</table>

Note. \(\chi^2\) = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN= item uniquenesses.

Conclusions Hypothesis 1.2.7: Factorial invariance of the SDQ II-Short across gender. Overall, the structure of the SDQ II-Short is invariant for males and females in relation to factor structure, patterns of factor loadings, factor variances/covariances, and error terms. For this reason, complete invariance across gender groups is said to be satisfied and Hypothesis 1.2.7 is supported.

Examination of the Self-Description Questionnaire II-Short Factor Structure Across Region

Overview of Hypothesis 1.2.8: Factorial invariance of the SDQ II-Short across region. Hypothesis 1.2.8 predicted that the factor structure of the SDQ II-Short will be a consistent measure for residents living in both Oceanview and Multiville. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each regional group. As described previously, a total of five nested models were tested with increasingly restrictive parameters.
Results Hypothesis 1.2.8: Factorial invariance of the SDQ II-Short across region. The invariance results across region are presented in Table 6.23. The goodness of fit indices for the base model provide good support for an equivalent factor structure across residents living in Oceanview and Multiville as indicated by the CFI of .980, the TLI of .968, the RMSEA of .076. In the second model, equality constraints on the pattern of factor loadings still produced an acceptable model fit with small changes in the TLI (.003) and RMSEA (.004) and no change in the CFI. Imposing additional constraints on factor variances/covariances again produced marginal changes in the fit indices and this element of the model can also be considered invariant. Models four and five, held the error terms or factor uniquenesses invariant. Again results indicated a good fitting model with only negligible changes in model fit from the previous models tested. Therefore, it is concluded that this element of the model is also invariant.

Table 6.23

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>169.83</td>
<td>34</td>
<td>.980</td>
<td>.968</td>
<td>.076</td>
</tr>
<tr>
<td>FL</td>
<td>178.20</td>
<td>39</td>
<td>.980</td>
<td>.971</td>
<td>.072</td>
</tr>
<tr>
<td>FL, FC</td>
<td>190.30</td>
<td>45</td>
<td>.979</td>
<td>.974</td>
<td>.069</td>
</tr>
<tr>
<td>FL, FU</td>
<td>197.22</td>
<td>47</td>
<td>.978</td>
<td>.974</td>
<td>.068</td>
</tr>
<tr>
<td>FL, FU, FC</td>
<td>216.07</td>
<td>53</td>
<td>.976</td>
<td>.975</td>
<td>.067</td>
</tr>
</tbody>
</table>

Note. $\chi^2$= Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC = factor correlations, UN= item uniquenesses.

Conclusions Hypothesis 1.2.8: Factorial invariance of the SDQ II-Short across region. In summary, the SDQ II-Short has been found to be invariant across region in relation to the factor structure, factor loadings, factor variance/covariances, and factor uniquenesses. Therefore, support has been found for complete invariance across all factor parameters and Hypothesis 1.2.8 is accepted.

Investigation of the Potential Similarities and Differences on Self-Description Questionnaire II-Short Factors across Regional and Gender Groups

Overview of Research Question 1.3.4: Regional and gender differences across the three factors of the SDQ II-Short. Research Question 1.3.4 asked to
what extent will gender and regional differences emerge for General, Verbal, and Math self-concept scores, and if there are any regional by gender interaction effects evident? In order to examine any potential differences, MIMIC models were run on the three self concept factors of the SDQ II-Short. As with the MIMIC previously described above, the regional variable was zero-centred to avoid unwarranted multicollinearity between the region variable and the corresponding interaction term (Aiken & West, 1991).

**Results of Research Question 1.3.4: Regional and gender differences across the three factors of the SDQ II-Short.** Model fit indices signified an excellent fitting model with a CFI of .99, a TLI of .98, and RMSEA of .044. Examination of Beta coefficients (see Table 6.24) show significant main effects for gender on the Math factor and region on the General and Verbal factors. Examination of the direction of these significant main effects indicate that males scored significantly higher than females on Math self-concept, and Multiville residents scored significantly higher in General and Verbal self-concept than did Oceanview residents.

**Table 6.24**

*Standardised Beta Coefficients and Variance Explained for Gender and Region, and Gender x Region Interactions for SDQ II-Short Factors*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Gender Variance explained</th>
<th>Region Variance explained</th>
<th>Gender x Region Variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>-.03</td>
<td>.14%</td>
<td>1.29%</td>
</tr>
<tr>
<td>Verbal</td>
<td>.03</td>
<td>.08%</td>
<td>.71%</td>
</tr>
<tr>
<td>Math</td>
<td>-.20***</td>
<td>3.92%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

* * * , ** p< .01, *** p< .001

Significant interaction effects were also found for Verbal and Maths factors and are represented visually below in Figure 6.6 and Figure 6.7. As shown in Figure 6.6, overall males scored more highly on Math self-concept than females, which is supported by the main effect findings discussed above, however, Multiville males scored higher than Oceanview males on Math self-concept, whereas Oceanview females scored more highly than Multiville females on the same factor.
Despite these interactions being statistically significant, examination of the amount of variance explained (see Table 6.24) diminishes the practical importance of these findings. It appears that the only finding with practical significance is males being statistically significantly higher on Math self-concept over females, accounting for approximately four percent of the variance. The other two significant main effects account for only one percent or less of the variance within the factors, making it difficult to provide a rationale or reason for developing a practical application to address such regional differences.

*Figure 6.6 Gender by region interaction for Math self-concept*
Figure 6.7 Gender by region interaction for Verbal self-concept

Figure 6.7 displays the significant interaction found on the Verbal self-concept factor. As shown, females from both regions had similar levels of Verbal self-concept, although Oceanview females scored marginally higher. For males, there was a more marked disparity between males living in the two different regions, with Multiville males scoring significantly higher than Oceanview males, again supported by the main effect finding described above. As with the main effects, examination of the factor means and the amount of variance explained by these significant interactions implies there is very little practical significance between the groups under study. It appears that the significant interactions found here may be a result of the large sample size rather than real group differences (Hills, 2008; Howell, 1997; Tabachnick & Fidell, 2007).

Section Summary

In summary, the revised SDQ II-Short model utilised in this study has sound psychometric properties. Confirmatory factor analysis has shown the model to be valid, and reliability analysis has indicated that all three factors are reliable for the total sample, and males and females. Invariance testing revealed that the model is completely invariant in regard to both gender and region and, MIMIC models have shown numerous group differences, however, the most noteworthy was the
significantly higher Math self-concept among males when compared to females. Now that the measures’ psychometrics properties have been established, it is concluded that the instrument can now be utilised in the examination of the relations between self-concept and other relevant variables investigated in the next chapter.

Psychometric Properties of the Aspirations Index (AI)

The Aspiration Index (AI, Kassar & Ryan, 1993) utilised in the current study was designed to measure students’ life goals. The 13-item scale consisted of three factors measuring aspirations toward: wealth, social contribution, and career goals, and was scored on a scale of one to three. The following section reports the factor means for the total sample, males and females, and regional groups. This is followed by the results of the confirmatory factor analysis, reliability analysis, invariance testing, and finally, similarities and differences between gender and regional groups through multiple indicator, multiple cause modelling are presented.

Factor Means for the Total Sample, Gender, and Regional Groups

Mean factor scores are displayed in Table 6.25. In general, means were relatively high for all three life goal types and similar scores were attained for the total sample, and males and females. Overall, career goals had the highest means, followed by social goals and wealth goals. Multiville students had slightly higher means across all three goal types. Females reported valuing social and career goals more than males, although males scored higher than females on aspirations toward monetary wealth.

Table 6.25

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
<th>Oceanview</th>
<th>Multiville</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1371</td>
<td>840</td>
<td>531</td>
<td>478</td>
<td>893</td>
</tr>
<tr>
<td>Wealth</td>
<td>2.16 (.53)</td>
<td>2.22 (.52)</td>
<td>2.06 (.53)</td>
<td>2.07 (.53)</td>
<td>2.20 (.52)</td>
</tr>
<tr>
<td>Social</td>
<td>2.39 (.48)</td>
<td>2.33 (.49)</td>
<td>2.48 (.43)</td>
<td>2.35 (.48)</td>
<td>2.41 (.47)</td>
</tr>
<tr>
<td>Career</td>
<td>2.56 (.40)</td>
<td>2.54 (.42)</td>
<td>2.58 (.37)</td>
<td>2.44 (.42)</td>
<td>2.62 (.38)</td>
</tr>
</tbody>
</table>

*Note: Standard deviation values in parenthesis*
Reliability of the Aspirations Index

Overview of Hypothesis 1.1.9: The reliability of the AI. Hypothesis 1.1.9 predicted that tests of reliability would demonstrate acceptable values for the total sample, and males and females separately, for each of the three: subscales wealth, social, and career, as measured by the AI.

Results and Conclusion of Hypothesis 1.1.9: The reliability of the AI. Internal consistency coefficients are displayed in Table 6.26. All reliabilities were greater than .70 and therefore acceptable (Hills, 2008). For the total sample, all scales showed acceptable Cronbach alpha values ranging from .75 to .81. The reliability estimates for males ranged from .77 to .82 and for females Cronbach alphas ranged from .71 to 80. Reliabilities for both regional groups were also adequate, with Oceanview ranging from .75 to .83 and Multiville ranging from .74 to .80. Overall, reliabilities for males were higher than females which may be attributed to less variability in the female responses and Oceanview reliabilities were higher than Multiville’s. It was concluded that the Aspirations Index as utilised in the present study, is a reliable measure of students’ life goals and therefore Hypothesis 1.1.9 was accepted.

<table>
<thead>
<tr>
<th>Cronbach’s Alpha (α)</th>
<th>Total Sample (N=1371)</th>
<th>Males (n = 840)</th>
<th>Females (n = 531)</th>
<th>Oceanview (n = 478)</th>
<th>Multiville (n = 893)</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth</td>
<td>.81</td>
<td>.82</td>
<td>.80</td>
<td>.83</td>
<td>.80</td>
<td>4</td>
</tr>
<tr>
<td>Social</td>
<td>.79</td>
<td>.81</td>
<td>.72</td>
<td>.81</td>
<td>.77</td>
<td>4</td>
</tr>
<tr>
<td>Career</td>
<td>.75</td>
<td>.77</td>
<td>.71</td>
<td>.75</td>
<td>.74</td>
<td>5</td>
</tr>
</tbody>
</table>

Factor Structure of the Aspirations Index

Overview of Hypothesis 1.1.10: Factor structure of the AI. Hypothesis 1.1.10 predicted that the AI would be a valid measure of students’ life goals toward wealth, social, and career as tested by confirmatory factor analysis (CFA). A CFA was performed and all 13 items were constrained to load only onto their designated factor. As previously described, the Comparative Fit Indices (CFI), the Tucker Lewis
Index (TLI), and Root-Mean Square Error of Approximation (RMSEA) fit statistics were used to assess the model fit.

**Results of Hypothesis 1.1.10: Factor structure of the AI.** Results from the first-order CFA examining the three factor model are presented in Table 6.27. The hypothesised model demonstrated an acceptable fit to the data with an RMSEA of .052, TLI of .96, and a CFI of .97. In addition to examining the overall model fit, it is also important to examine the individual parameter estimates. The factor loadings for each individual item indicate that all three factors are well defined with acceptable values ranging from .44 to .82.

Table 6.27 also presents the correlations among the six factors of the SCCS. Correlations between factors ranged from .16 to .59, providing further support for the model consisting of three distinct factors. Due to the relatively low to moderate correlations between the factors, it was not deemed necessary to conduct a higher-order CFA.

<table>
<thead>
<tr>
<th>Factor Loadings</th>
<th>Wealth</th>
<th>Social</th>
<th>Career</th>
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</thead>
<tbody>
<tr>
<td>Items</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.73</td>
<td>.64</td>
<td>.78</td>
</tr>
<tr>
<td>2</td>
<td>.66</td>
<td>.63</td>
<td>.67</td>
</tr>
<tr>
<td>3</td>
<td>.82</td>
<td>.77</td>
<td>.44</td>
</tr>
<tr>
<td>4</td>
<td>.69</td>
<td>.74</td>
<td>.55</td>
</tr>
<tr>
<td>5</td>
<td>--</td>
<td>--</td>
<td>.73</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor Correlations</th>
<th>Wealth</th>
<th>Social</th>
<th>Career</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>.16</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>.23</td>
<td>.59</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Fit</th>
<th>N</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1371</td>
<td>294.38</td>
<td>62</td>
<td>.97</td>
<td>.96</td>
<td>.052</td>
</tr>
</tbody>
</table>

**Conclusion Hypothesis 1.1.10: Factor structure of the AI.** In summary, the results evaluating the a priori factor of the AI based on the first-order CFA, demonstrate support for the predicted model. Goodness of fit statistics indicated an acceptable model fit, factor loadings for all 13 items were sufficient, and factor...
correlations clearly indicate three distinct factors. Therefore Hypothesis 1.1.10 is accepted.

Invariance Results

Overview of Hypothesis 1.2.9: Factorial Invariance of the AI across gender. Hypothesis 1.2.9 predicted that the factor structure of the AI will be a consistent measure for both males and females. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each gender group. As described previously, a total of five nested models were tested with increasingly restrictive parameters.

Results Hypothesis 1.2.9: Factorial Invariance of the AI across gender. The results for the invariance test for gender are presented in Table 6.28. The base model with no restrictions placed on the parameters, provided a good fit to the data as indicated by a CFI of .972, a TLI of .965, and a RMSEA of .054, indicating a consistent factor structure for both males and females. When factor loadings were constrained in the second model, only minimal changes were evident in the fit statistics and this element of the model can also be considered invariant. Further restricting the factor correlations produced only small changes in the RMSEA, CFI, and TLI. When factor uniquenesses constraints were also imposed in the fourth and fifth models, only negligible changes in the fit indices resulted, and did not exceed the .01 criteria. It can therefore be concluded, that all parameter estimates of the proposed model are invariant.

Table 6.28

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>371.10</td>
<td>124</td>
<td>.972</td>
<td>.965</td>
<td>.054</td>
</tr>
<tr>
<td>FL</td>
<td>384.81</td>
<td>134</td>
<td>.972</td>
<td>.967</td>
<td>.052</td>
</tr>
<tr>
<td>FL, FC</td>
<td>434.16</td>
<td>140</td>
<td>.967</td>
<td>.963</td>
<td>.055</td>
</tr>
<tr>
<td>FL, FU</td>
<td>444.97</td>
<td>147</td>
<td>.967</td>
<td>.965</td>
<td>.054</td>
</tr>
<tr>
<td>FL, FC, FU</td>
<td>494.86</td>
<td>153</td>
<td>.962</td>
<td>.961</td>
<td>.057</td>
</tr>
</tbody>
</table>

*Note.* $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC= factor correlations, FU= item uniquenesses.
Conclusions Hypothesis 1.2.9: Factorial Invariance of the AI across gender. In conclusion, the structure of the AI was found to be invariant for males and females in relation to factor structure, patterns of factor loadings, factor variances/covariances, and error terms. Therefore, complete invariance across gender groups is said to be satisfied and Hypothesis 1.2.9 is supported.

Overview of Hypothesis 1.2.10: Factorial Invariance of the AI across region. Hypothesis 1.2.10 predicted that the factor structure of the AI will be a consistent measure for residents living in both Oceanview and Multiville. To test this prediction, SEM tests of invariance were carried out with an identical factor structure and items for each regional group. As described previously, a total of five models were tested with increasingly restrictive parameters imposed upon them.

Results of Hypothesis 1.2.10: Factorial Invariance of the AI across region. In support of a common factor structure across both regions, the base model showed an acceptable fit to the data with a CFI of .963, a TLI of .954, and a RMSEA of .062 (see Table 6.29). In the second model factor loadings were constrained to be equivalent and again the model produced a good fit to the data with negligible changes to the fit indices. The addition of constraining the variances/covariances, again resulted in an acceptable fitting model, and this aspect of the model can also be considered invariant. Placing additional constraints in model four (uniquenesses) resulted in a poorer fitting model and the changes in the CFI exceeded the .01 criteria. In the final model, imposing constraints on all parameters only served to worsen the model further and produce poorer fit indices.

Table 6.29

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO IN</td>
<td>447.00</td>
<td>124</td>
<td>.963</td>
<td>.954</td>
<td>.062</td>
</tr>
<tr>
<td>FL</td>
<td>491.16</td>
<td>134</td>
<td>.960</td>
<td>.953</td>
<td>.062</td>
</tr>
<tr>
<td>FL, FC</td>
<td>514.00</td>
<td>140</td>
<td>.958</td>
<td>.953</td>
<td>.062</td>
</tr>
<tr>
<td>FL, FU</td>
<td>667.18</td>
<td>147</td>
<td>.943</td>
<td>.940</td>
<td>.072</td>
</tr>
<tr>
<td>FL, FC, FU</td>
<td>706.12</td>
<td>153</td>
<td>.940</td>
<td>.939</td>
<td>.073</td>
</tr>
</tbody>
</table>

Note. $\chi^2$ = Chi-Square, df = degrees of freedom, RMSEA = root mean square error, TLI = Tucker Lewis Index, CFI = comparative fit index, FL = factor loadings, FC= factor correlations, FU= item uniquenesses.
Conclusions Hypothesis 1.2.10: Factorial Invariance of the AI across region. In summary, the Aspirations Index is invariant across males and females. Invariance was achieved for factor structure, factor loadings, and factor variances/covariances, thereby meeting the criteria for invariance. Error terms were not invariant across groups, however, as discussed previously, tests of error terms invariance is considered to be an overly restrictive requirement (see Byrne, 2004) and it was concluded that invariance across regional groups was achieved. Therefore, Hypothesis 1.2.10 was accepted.

Evaluating Similarities and Differences in Aspirations as Measured by the Aspirations Index

Overview of Research Question 1.3.5: Gender and regional differences for the AI. Research Question 1.3.5 explored the possible similarities and differences in student aspirations across gender and region. Potential differences were explored using MIMIC models, in order to ascertain whether any significant main effects or interactions between males and females, and residents living in Oceanview and Multiville emerged for life goals concerning wealth, social contribution, and career aspirations.

Results of Research Question 1.3.5: Gender and regional differences for the AI. As shown in Table 6.30, MIMIC results indicated a good fitting model, with a CFI and TLI of .96, and a RMSEA of .051. Examination of the Beta coefficients revealed significant gender and region main effects for all three factors. No significant interactions were found. Gender main effects indicate that males held significantly higher aspirations toward wealth than females, whereas females scored significantly higher on social and career aspirations. Regional main effects show that Multiville residents scored significantly higher on all three goal types, most significant however, was Multiville students’ strong Career goal orientation accounting for almost eight percent of the variance in the factor.
Table 6.30

*Standardised Beta Coefficients and Variance Explained for Gender and Region, and Gender x Region Interactions for SDQ II-Short Factors*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Gender</th>
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<th>Region</th>
<th>Variance explained</th>
<th>Gender x Region</th>
<th>Variance explained</th>
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<td>.07%</td>
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<td>.61%</td>
<td>-.02</td>
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<tr>
<td>Career</td>
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<td>1.16%</td>
<td>.30***</td>
<td>7.95%</td>
<td>-.06</td>
<td>.15%</td>
</tr>
</tbody>
</table>

*p< .05, ** p< .01, *** p< .001.

Conclusions Research Question 1.3.5: Gender and regional differences for the AI. In summary, significant differences were found between males and females and residents living in the two communities. Main effects were found for both region and gender, showing males were more orientated toward financial goals, whilst females endorsed social and career goals more strongly. Multiville residents reported stronger goal orientations on all three goal types when compared to those living in Oceanview.

Section Summary

In summary, the Aspirations Index was found to be a valid and reliable measure as tested by confirmatory factor analyses and reliability analyses. Through tests of invariance, the instrument was also shown to be invariant across males and females, and regional groups. MIMIC modelling revealed a number of significant differences between gender and regional groups on all three factors, the most notable was Multiville students’ strong orientation towards career goals when compared to Oceanview students.

The Psychometric Properties of the Instrumentation Battery

In the final section of this chapter, the battery of instrumentation will be examined. Despite each individual measure being assessed separately, it is also necessary to test whether method effects exist when instrumentation is administered simultaneously to respondents. It is the purpose of the following section to ascertain whether or not the structural integrity of the measures is retained when all instrumentation is combined into a single CFA.
Overview of Research Question 1.1.11: Structure of Assessment Battery.

Research question 1.1.11 asked whether the factor structure of the individual measures utilised in the current research would be upheld despite all instrumentation being combined into a single assessment battery. Also of interest was the network relations (pattern of correlations) between latent factors as these are important for determining whether the factors are related in a logical and theoretically coherent manner. To examine these questions, a single multi-scale confirmatory factor analysis was performed in which all 17 factors and their collective 79 items were simultaneously examined. The model was highly restrictive, as all items were designated to load only onto their corresponding factor.

Results of Research Question 1.1.11: Structure of Assessment Battery.

Model fit indices indicate that the proposed model represented the data extremely well with a CFI of .97, a TLI of .96, and a RMSEA of .036. Factor loadings all exceeded the minimum criteria of .30 (Hills, 2008) and ranged from .40 to .94. As these loadings are very similar to those already reported in previous sections they will not be repeated here. Factor correlations between the 18 latent factors are presented in Table 6.31.

Correlations between the 18 factors ranged from .01 to .94. As discussed in the previous section, the DASS-21 factors correlated very highly but were not collapsed into a single factor due to it being an existing scale and since it will only be used as an outcome measure. With the exception of these DASS-21 factors, no correlation exceeded .80 demonstrating the distinctiveness of the remaining factors. Consistent with both theory and logic, negative factors such as Depression, Anxiety and Stress were negatively associated with all levels of social capital, with the exception Isolation. Conversely, social capital factors were positively related to student self concept and social and career aspirations. Relations between wealth goals and social capital produced only small correlations, and all social capital factors were negatively associated with discrimination.
Table 6.31

*Latent Factor Correlations between the Measures Utilised in the Current Investigation*

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<td>.27</td>
<td>.23</td>
<td>.59</td>
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*Note: Significant correlations in bold.*
Conclusion Research Question 1.1.11: Structure of Assessment Battery.
In conclusion, placing the individual instruments together in a multi-scale CFA did not alter the validity of each scale and demonstrates that each is distinct even when embedded with other measures. Each measure maintained the proposed factor structure, produced acceptable factor loadings, and overall fit indices were excellent. Therefore, concerns about method effects in simultaneous administration can be somewhat minimised.

Chapter Summary
This chapter has presented the findings of Study 1 relating to the psychometric properties of the: Social Capital and Cohesion Scale; the Depression, Anxiety, and Stress Scale; the Negative Community Perceptions Scale; The Self-Description Questionnaire II – Short; and the Aspirations Index. The results of Study 1 support the proposed hypotheses and research questions, demonstrating that all instrumentation is psychometrically sound. Validation of each measure was established through confirmatory factor analysis and invariance testing, and reliability analysis has shown that all instrumentation has strong internal consistency.

Once the validity and reliability of each measure was established further analyses investigating potential regional and gender group differences were presented. MIMIC models highlighted a number of significant gender and region main effects and interactions which were subsequently discussed. The results presented in this chapter, along with the implications emanating from them in relation to further research and practice, will be discussed in Chapter 9. Now that the within-construct relations have been explored and examined, the next chapter will investigate the between-construct associations between levels of social capital and various social, physical, and economic outcomes.
CHAPTER 7
STUDY 2 RESULTS: THE RELATIONS BETWEEN SOCIAL CAPITAL, MENTAL AND PHYSICAL HEALTH, AND OTHER ECONOMIC AND PSYCHOSOCIAL OUTCOMES

Introduction

The previous chapter demonstrated that the multi-scale instrumentation utilised in the present investigation were psychometrically sound and invariant across both region and gender. These findings provide a strong basis for the within-construct validity of the Social Capital and Cohesion Scale (SCCS), the Depression, Anxiety and Stress Scale (DASS-21), the Negative Community Perceptions Scale (NCPS), and the Self-Description Questionnaire II-Short (SDQ II-Short) with the sample under consideration in the present investigation. Now that the within-construct validity of these measures has been established and the scales are deemed appropriate for use in the current study, the between-construct analyses can be conducted with some confidence that measurement across groups is stable and any differences found are not the result of measurement error.

The current chapter will examine the relations between the different levels of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) and a variety of physical, economic, and psychosocial outcomes in order to determine which aspects of social capital most benefit the outcomes for youth living in areas of entrenched disadvantage. Through SEM path analyses, the extent to which the social capital indicator variables predicted the various outcomes under study was determined. Finally, moderating structural equation analyses was undertaken to examine similarities and differences in the predictive paths between constructs across gender and region.
Overview of Analysis

The analyses in this chapter are presented in accordance with the research questions outlined in the aims and hypotheses chapter (Chapter 4) and are split into two main sets of analyses. The first set of analyses aimed to identify the key social capital predictors important for improving student outcomes. The second main section examines similarities and differences between gender and regional groups.

In order to identify key variables and examine the predictive relations between social capital and the various outcomes under study, structural equation modelling was performed. As previously described in Chapter 5, SEM is a sophisticated statistical technique that is able to bring together the features of factor analysis, regression, and path analysis into one cohesive statistical application (Byrne, 1998).

The second main section of this chapter employs moderating analysis, considered an extension of path analysis, which allows the researcher to determine how the strength of a predictive path/s varies between the groups of interest. In the present investigation, similarities and differences across region and gender were examined in accordance with each outcome measure of interest (DASS-21, NCPS, SDQ II-Short, AI, access to resources, health, and economic outcomes). The following sections will present findings involving the relations between social capital and outcome measures including: mental health, negative community perceptions, student self-concept, future aspirations, risk-taking behaviours, access to resources, and physical health. In accordance with the previous chapter, the psychometric strength of each model was emphasised and evaluated with the Root Square Mean Approximation (RMSEA), Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI) as recommended by Marsh et al. (1996).

The Relations between Social Capital and Depression, Anxiety, and Stress

SCCS and DASS-21 SEM

Overview of Research Question 2.1.1: Relations between SCCS and the DASS-21. Research Question 2.1.1 asked what were the relations between social capital and mental health. To answer this question, a SEM was performed with the factors School Belonging, School Isolation, Family, Peer, Neighbour, and
Community social capital predicting Depression, Anxiety, and Stress mental health outcomes.

Results and conclusions of Research Question 2.1.1: Relations between SCCS and the DASS-21. The model showed an excellent fit to the data as indicated by the goodness of fit indices (RMSEA= .042, CFI = .98, TLI = .97, Chi-square= 3913.21, and df = 1139). As shown in Table 7.1, with social capital factors predicting Depression, Anxiety, and Stress, six of the 18 paths were significant. Family SC negatively predicted Depression, Anxiety, and Stress, and School Isolation positively predicted Depression, Anxiety, and Stress. The largest effect sizes were found for the Isolation factor accounting for 14.74% of the variance in the Depression factor, 13.68% of the variance in the Anxiety factor, and 12.92% of the variance in the Stress factor. In general, it can be concluded that the more isolated one feels within their school, the more likely they are to suffer from depression, anxiety, and stress, and the more social capital one has within the family the less likely they are to experience these same symptoms.

Table 7.1

<table>
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<tr>
<th></th>
<th>Dep</th>
<th>% of $\sigma^2$</th>
<th>Anx</th>
<th>% of $\sigma^2$</th>
<th>Stp</th>
<th>% of $\sigma^2$</th>
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<td>-.25***</td>
<td>8.75%</td>
<td>-.18***</td>
<td>4.25%</td>
<td>-.22***</td>
<td>5.67%</td>
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<td>Peer</td>
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<td>.01</td>
<td>.36%</td>
<td>.06</td>
<td>.70%</td>
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<tr>
<td>Neighbour</td>
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<td>.34%</td>
<td>.05</td>
<td>.09%</td>
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<td>.11%</td>
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<td>Community</td>
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<td>.09</td>
<td>.45%</td>
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<td>.27%</td>
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<tr>
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<td>.05</td>
<td>.65%</td>
<td>.06</td>
<td>.78%</td>
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<td>14.70%</td>
<td>.36***</td>
<td>13.68%</td>
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<td>12.92%</td>
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*** $p = .001$

SCCS and DASS-21 Moderating Analysis

The following set of analyses were performed to determine potential differences in the predictive power of the six factors of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) on Depression, Anxiety, and Stress across males and females, and regional groups. In order to investigate these differences, moderating path analyses were performed simultaneously estimating and comparing the strength of the beta paths across samples. As outlined in the methodology chapter, moderating analyses requires the comparison of two separate
models. In the first model, paths were free to vary between groups with no restrictions in place. In the second model, beta paths were held invariant across groups. To determine whether there are any significant differences, a Chi-square Difference test was performed, whereby chi-square and degrees of freedom values from both model one and model two are compared and tested for significance.

Overview of Research Question 2.1.2: Overall gender differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Research Question 2.1.2, investigated whether there were any overall gender differences in the predictive paths of the six social capital factors over Depression, Anxiety and Stress.

Results Research Question 2.1.2: Overall gender differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Table 7.2 presents the results of the moderating analysis, including the path coefficients for both males and females, and the goodness of fit indices for both the free (Model 1) and fixed (Model 2) models. Model one produced a good fit to the data with a CFI and TLI of .97, and a RMSEA of .045. For males and females, seven of the possible 18 paths were significant. For both genders, six of these were in the same direction, and across the same indicator and outcome variables (e.g., significant negative paths from Family to Depression). However, there were some differences observed. For males, but not for females, the negative path between Community SC and Anxiety was significant, and for females the negative path between Peer and Stress was significant; a result not found in the male sample. In addition, for the Family factor, females produced stronger paths across the three mental health factors than did males, whereas the paths between Isolation and mental health factors were stronger for males than females.

Holding the beta parameters invariant in Model two produced very little change in the fit indices (see Table 7.2). To determine whether the free and fixed models differed significantly the Chi-square ($X^2$) Difference Test was performed. The Chi-square difference between Models one and two was 18.24, with a degrees of freedom difference of 17. Based on these values, the Chi-square Difference test was not significant ($p = .37$), indicating no overall differences between males and females.

Conclusion Research Question 2.1.2: Overall gender differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. In response to Research Question 2.1.2, there were no significant differences between males and
females, suggesting that the predictive power of social capital on Depression, Anxiety, and Stress is similar across genders. There were however, some notable differences in that the path between the Peer and Stress factors which was statistically significant for females but not for males, whereas male responses produced a significant path between Community SC and Stress, which was not evident in the females’ results. Overall, the paths between Family SC and mental health were strongest for females, whereas the paths between Isolation and mental health factors were strongest for males.

Table 7.2

**Moderating Path Analysis Results for Males and Females with the SCCS Predicting Depression, Anxiety, and Stress**

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<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
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<td>-.14**</td>
<td>-.35***</td>
<td>-.10*</td>
<td>-.27***</td>
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<tr>
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<td>-.05</td>
<td>-.03</td>
<td>-.03</td>
<td>-.05</td>
<td>-.04</td>
</tr>
<tr>
<td>Community</td>
<td>.03</td>
<td>.01</td>
<td>-.13*</td>
<td>-.03</td>
<td>.06</td>
</tr>
<tr>
<td>Belonging</td>
<td>.02</td>
<td>.07</td>
<td>.05</td>
<td>.12</td>
<td>.06</td>
</tr>
<tr>
<td>Isolation</td>
<td>.39***</td>
<td>.33***</td>
<td>.40***</td>
<td>.31***</td>
<td>.40***</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

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<th>RMSEA</th>
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<td>.97</td>
<td>.045</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
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<td>2296</td>
<td>.97</td>
<td>.97</td>
<td>.044</td>
</tr>
</tbody>
</table>

*p=.05, **p=.01, ***p=.001

**Overview of Research Question 2.1.3:** Overall regional differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Research Question 2.1.3, investigated whether there were any overall regional differences in the predictive paths of the six social capital factors over Depression, Anxiety, and Stress. As with the investigation into gender differences, moderating analysis was performed to determine any potential differences.

**Results Research Question 2.1.3:** Overall regional differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. Results of the regional moderating analysis are displayed in Table 7.3. As shown, the free model produced a good fit to the data with a TLI and CFI of .97 and a RMSEA of .47. Examination of the beta coefficients shows that both the Multiville and Oceanview
samples had the same significant paths between the Family (negative paths) and Isolation (positive paths) factors and all three mental health outcomes, although the Oceanview sample produced the strongest paths overall. The other four social capital factors (Peer, Neighbour, Community, and Belonging) were not significant predictors of Depression, Anxiety, and Stress in either sample.

To determine whether significant differences existed in the predictive paths between the two regional groups, Model one (free) was compared to Model two (beta paths fixed), and differences between the Chi-square and degrees of freedom values were calculated ($X^2 = 20.43, df = 18$). The Chi-square difference test was not significant ($p = .31$), thereby indicating no overall differences between the Oceanview and Multiville responses.

Table 7.3

Regional Moderating Path Analysis Results for Oceanview and Multiville with the SCCS Predicting Depression, Anxiety, and Stress

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th></th>
<th>Anxiety</th>
<th></th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oceanview</td>
<td>Multiville</td>
<td>Oceanview</td>
<td>Multiville</td>
<td>Oceanview</td>
</tr>
<tr>
<td>Family</td>
<td>-.28***</td>
<td>-.28***</td>
<td>-.29***</td>
<td>-.19***</td>
<td>-.26***</td>
</tr>
<tr>
<td>Peer</td>
<td>-.04</td>
<td>.07</td>
<td>.04</td>
<td>.03</td>
<td>.08</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.09</td>
<td>-.03</td>
<td>-.09</td>
<td>-.03</td>
<td>.02</td>
</tr>
<tr>
<td>Community</td>
<td>.13</td>
<td>.01</td>
<td>-.17</td>
<td>.07</td>
<td>-.01</td>
</tr>
<tr>
<td>Belonging</td>
<td>.05</td>
<td>.01</td>
<td>.15</td>
<td>.02</td>
<td>.12</td>
</tr>
<tr>
<td>Isolation</td>
<td>.45***</td>
<td>.34***</td>
<td>.51***</td>
<td>.33***</td>
<td>.44***</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>5663.29</td>
<td>2278</td>
<td>.97</td>
<td>.97</td>
<td>.047</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>5683.63</td>
<td>2296</td>
<td>.97</td>
<td>.97</td>
<td>.046</td>
</tr>
</tbody>
</table>

*p = .05, **p = .01, ***p = .001

Conclusion Research Question 2.1.3: Overall regional differences in the predictive power of the SCCS on Depression, Anxiety, and Stress. In summary, the moderating analysis revealed no significant differences between Oceanview and Multiville residents on the predictive relations between social capital and mental health. Overall, both Oceanview and Multiville showed significant relations between Family and Isolation indicators and all three mental health outcomes, and the direction of these relations were the same for both groups.
Section Summary

Through SEM path analysis with the total sample it was determined that higher social capital within the family significantly predicted lower levels of Depression, Anxiety, and Stress among students. Furthermore, the strongest predictor of Depression, Anxiety, and Stress among secondary students was feeling a sense of isolation from their school. The remaining four social capital factors (Peer, Neighbour, Community, and Belonging) had no significant relations with the three mental health factors. These findings were replicated and further validated when analysing the gender and regional groups separately through moderating analysis. The moderating analysis revealed no significant differences in the predictive power of social capital on mental health across males and females, and residents living in Multiville and Oceanview.

The Relations between Social Capital and Cohesion Scale and the Negative Community Perceptions Scale (NCPS)

SCCS and NCPS SEM

Overview of Research Question 2.2.1: Relations between the SCCS and the NCPS. Research Question 2.2.1 asked what are the relations between the different factors of the SCCS, and respondents’ perceptions of their community as measured by the NCPS? A SEM was performed to examine these relations with the six factors of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) predicting the three factors of the NCPS (Perceived Discrimination, Fear of Crime, and Community Reputation).

Results Research Question 2.2.1: Relations between the SCCS and the NCPS. The model showed an excellent fit to the data as indicated by the goodness of fit indices (RMSEA = .038, CFI = .98, TLI = .97, Chi-square = 1989.18, and df = 666). As shown in Table 7.4, with social capital factors predicting Discrimination, Fear of Crime, and Community Reputation, six of the 18 paths were significant. Neighbour SC negatively predicted Discrimination and positively predicted Community Reputation. Community SC positively predicted Community Reputation and although it also has a significant positive relation with Fear of Crime, due to the way it was scored (higher scores indicate less fear) this indicated that higher
Community SC results in a significantly lower Fear of Crime. Furthermore, a higher sense of School Belonging significantly lowered residents Fear of Crime, and School Isolation was a significant positive predictor of Perceived Discrimination. The largest effect sizes were found for the Isolation factor accounting for 28.1% of the variance in the Discrimination factor, and the Community SC factor accounting for 37.4% of the variance in the Community Reputation factor. Additionally, Neighbour SC accounted for a further 6.6% of the variance in the Community Reputation factor. Despite the significant paths found between Fear of Crime and School Belonging, as well as the Neighbour SC and Discrimination, these paths accounted for very little of the variance (<1%), and hence are not considered of any practical significance (Cohen, 1988, Kirk, 1995).

Table 7.4

<table>
<thead>
<tr>
<th></th>
<th>Discrim</th>
<th>% of $\sigma^2$</th>
<th>FOC</th>
<th>% of $\sigma^2$</th>
<th>CommRep</th>
<th>% of $\sigma^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>-.06</td>
<td>1.4%</td>
<td>.02</td>
<td>0.1%</td>
<td>.06</td>
<td>2.1%</td>
</tr>
<tr>
<td>Peer</td>
<td>-.06</td>
<td>1.2%</td>
<td>.04</td>
<td>0.2%</td>
<td>-.05</td>
<td>1.65%</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.09*</td>
<td>0.5%</td>
<td>.04</td>
<td>0.1%</td>
<td>.13**</td>
<td>6.6%</td>
</tr>
<tr>
<td>Community Belonging</td>
<td>-.02</td>
<td>0.2%</td>
<td>.16**</td>
<td>1.6%</td>
<td>.55***</td>
<td>37.4%</td>
</tr>
<tr>
<td>Isolation</td>
<td>.52***</td>
<td>28.1%</td>
<td>.03</td>
<td>0.0%</td>
<td>-.05</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Note: Discrim = Discrimination, FOC = Fear of Crime, CommRep = Community Reputation. *$p = .05$, **$p = .01$, ***$p = .001$

Conclusions of Research Question 2.2.1: Relations between the SCCS and the NCPS. In general, it can be concluded that the more social capital one has with their neighbours and community institutions, the more positively they perceive their community’s reputation. Furthermore, results indicate that the more isolated one feels from their school the more racial discrimination they perceive, whereas higher levels of social capital amongst neighbours is associated with lower levels of perceived discrimination. Finally, a strong sense of Community SC significantly decreases one’s fear of crime within the local community.
SCCS and NCPS Moderating Analysis

The following set of analyses were performed to determine potential differences in the predictive power of the six factors of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) on Perceived Discrimination, Fear of Crime, and Community Reputation across both males and females, and regional groups. In order to investigate these differences, moderating path analyses were performed simultaneously estimating and comparing the strength of the beta paths across samples.

Overview of Research Question 2.2.2: Gender differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation. Research Question 2.2.2, investigated whether there were any potential gender differences in the predictive paths between the six social capital factors of the SCCS, and the three NCPS factors: Perceived Discrimination, Fear of Crime, and Community Reputation.

Results of Research Question 2.2.2: Gender differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation. The proposed model showed an excellent fit to the data as indicated by a CFI and TLI of .97 and a RMSEA of .040. Model fit values for both the free and fixed models are displayed in Table 7.5, along with the beta coefficients of all 18 paths for both the male and female samples. As shown for males, five of the potential 18 paths were significant, and for females, six of the 18 paths were significant. For males, Family SC negatively predicted Discrimination, whereas Isolation from one’s school was a strong positive predictor of Perceived Discrimination. Community SC produced a significantly lower Fear of Crime (higher scores represent lower fear), and was a positive predictor of Community Reputation. Finally, Neighbour SC positively predicted Community Reputation.

For the female sample, School Isolation and Neighbour SC were significant positive predictors of Perceived Discrimination, whereas Community SC negatively predicted Perceived Discrimination. School Belonging was a significant predictor of lower levels of Fear of Crime. Finally, both Neighbour and School Belonging were positively associated with a more favourable Community Reputation.
Table 7.5.

Gender Moderating Path Analysis Results for Males and Females: With the SCCS Predicting NCPS Factors.

<table>
<thead>
<tr>
<th></th>
<th>Discrimination</th>
<th>Fear Of Crime</th>
<th>Community Rep</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Family</td>
<td>-.16**</td>
<td>-.13</td>
<td>.09</td>
</tr>
<tr>
<td>Peer</td>
<td>-.00</td>
<td>-.10</td>
<td>-.07</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.01</td>
<td>.26***</td>
<td>-.04</td>
</tr>
<tr>
<td>Community</td>
<td>.11</td>
<td>-.33***</td>
<td>.16*</td>
</tr>
<tr>
<td>Belonging</td>
<td>-.04</td>
<td>.18</td>
<td>-.10</td>
</tr>
<tr>
<td>Isolation</td>
<td>.53***</td>
<td>.56***</td>
<td>.02</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>2807.95</td>
<td>1332</td>
<td>.97</td>
<td>.97</td>
<td>.040</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>2863.81</td>
<td>1350</td>
<td>.97</td>
<td>.97</td>
<td>.046</td>
</tr>
</tbody>
</table>

*p=.05, **p=.01, ***p=.001

To determine potential differences between males and females, an overall Chi-square difference test was conducted between the free and fixed models. This resulted in a significant Chi-square difference of 55.86 (df =18), thereby suggesting an overall significant difference in the predictive paths between males and females.

To investigate where these differences lie, a post hoc Nested Goodness-of-Fit Strategy (Jaccard & Wan, 1996) was utilised. As discussed in the methodology chapter, to avoid carrying out excessive post hoc comparisons, only paths that were significant for either sample were tested (see Table 7.5). This resulted in a total of nine comparisons with an adjusted alpha of .01.

As shown in Table 7.6, comparisons were made between the Family, Neighbour, Community, and Isolation factors of the SCCS, and Perceived Discrimination; the Community and Belonging factors of the SCCS, and Fear of Crime; and finally the Neighbour, Community, and Belonging SCCS factors, and Community Reputation.
Table 7.6.

*Post Hoc Gender Comparisons Across Beta Paths Between the SCCS and the NCPS*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family SC</td>
<td>Perceived Discrimination</td>
<td>17.87</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>2 Neighbour SC</td>
<td>Perceived Discrimination</td>
<td>1.09</td>
<td>0.297</td>
</tr>
<tr>
<td>3 Community SC</td>
<td>Perceived Discrimination</td>
<td>4.10</td>
<td>0.043</td>
</tr>
<tr>
<td>4 School Isolation</td>
<td>Perceived Discrimination</td>
<td>16.90</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>5 Community SC</td>
<td>Fear of Crime</td>
<td>17.85</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>6 School Belonging</td>
<td>Fear of Crime</td>
<td>17.66</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>7 Neighbour SC</td>
<td>Community Reputation</td>
<td>6.96</td>
<td>0.008*</td>
</tr>
<tr>
<td>8 Community SC</td>
<td>Community Reputation</td>
<td>17.59</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>9 School Belonging</td>
<td>Community Reputation</td>
<td>15.04</td>
<td>&lt;0.001*</td>
</tr>
</tbody>
</table>

*Note:* Due to multiple comparisons alpha is adjusted to .01. * Indicates significant finding.

Post hoc analyses revealed that seven of the nine paths tested showed significant differences between males and females. As shown in Table 7.6, the paths with Family SC and School Isolation, predicting Perceived Discrimination were significant. Furthermore, School Belonging, Neighbour SC, and Community SC predicting Fear of Crime differed significantly for males and females. In addition, the predictive value of Community SC and School Belonging on Community Reputation also revealed significant differences between males and females. No significant gender differences were found in the predictive power of Neighbour and Community SC on Perceived Discrimination.

**Conclusions Research Question 2.2.2:** Gender differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation. In summary, moderating analyses identified significant variations in the predictive values of the paths between the factors of the SCCS and the NCPS. Subsequent post hoc analyses revealed that for males more so than females, higher Family SC results in lower levels of perceived racial discrimination, and greater Community SC serves to decrease residents’ Fear of Crime within the community. Furthermore, with paths being significantly stronger for females when contrasted with males, it was shown that the higher Community SC and School Belonging among participants, the more positively the local community was viewed. Post hoc tests also revealed that the more isolated one is from their school the greater the perception of racial discrimination; this relationship was significantly stronger for females when compared to males, although paths were significant for both genders.
Finally, results show that for females particularly, a greater sense of Belonging to one’s school resulted in lower levels of fear toward crime within the community.

**Overview of Research Question 2.2.3: Regional differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation.** Research Question 2.2.3, investigated whether there were any potential regional differences in the predictive paths between the six social capital factors of the SCCS, and the three NCPS factors: Perceived Discrimination, Fear of Crime, and Community Reputation.

**Results of Research Question 2.2.3: Regional differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation.** The proposed model demonstrated an excellent fit to the data as indicated by an RMSEA of .043, and a CFI and TLI of .97. Examination of the beta coefficients displayed in Table 7.7 shows that for the Multiville sample five of the potential 18 paths were statistically significant, and for the Oceanview sample, three of the 18 predictive paths were significant. For Multiville, higher levels of Isolation significantly predicted increased perceptions of racial discrimination among participants, and Neighbour and Community SC were significant positive predictors of Community Reputation. Furthermore, higher levels of Community SC and School Belonging were associated with lower levels of Fear of Crime (higher scores indicate less fear) within the local community.

Results regarding the Oceanview sample (see Table 7.7) show a somewhat different pattern of findings. For Oceanview students, sense of School Belonging was a significant negative predictor of Perceived Discrimination, and like Multiville, Community SC was a significant positive predictor of Community Reputation. Curiously, Peer SC was significantly associated with a more negative view of one’s Community’s Reputation.

To determine whether these observed differences in the predictive paths discussed above were significantly different between regional samples, an overall Chi-square difference test was conducted between the free and fixed models. This resulted in a significant Chi-square difference of 79.26 (df 18), thereby suggesting an overall significant difference in the predictive paths between Oceanview and Multiville residents. To investigate where these differences lie, a post hoc Nested Goodness-of-Fit Strategy (Jaccard & Wan, 1996) was utilised. To avoid carrying out excessive post hoc comparisons, only paths that were significant for either sample
were tested (see Table 7.7). This resulted in a total of seven comparisons as shown in Table 7.8, with an adjusted alpha level of .01.

Table 7.7.

**Regional Moderating Path Analysis Results for Multiville and Oceanview: With the SCCS Predicting Discrimination, Fear of Crime, and Community Reputation.**

<table>
<thead>
<tr>
<th></th>
<th>Discrimination</th>
<th>Fear Of Crime</th>
<th>Community Rep</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiville</td>
<td>Ocean</td>
<td>Multiville</td>
</tr>
<tr>
<td>Family</td>
<td>.06</td>
<td>.03</td>
<td>.01</td>
</tr>
<tr>
<td>Peer</td>
<td>-.12</td>
<td>-.16</td>
<td>.05</td>
</tr>
<tr>
<td>Neighbour</td>
<td>.05</td>
<td>.16</td>
<td>-.06</td>
</tr>
<tr>
<td>Community</td>
<td>.02</td>
<td>-.04</td>
<td>.21***</td>
</tr>
<tr>
<td>Belonging</td>
<td>.09</td>
<td>.41***</td>
<td>.16**</td>
</tr>
<tr>
<td>Isolation</td>
<td>.75***</td>
<td>-.02</td>
<td>-.01</td>
</tr>
</tbody>
</table>

**Goodness of Fit Indices**

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>2992.70</td>
<td>1332</td>
<td>.97</td>
<td>.97</td>
<td>.043</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>3071.96</td>
<td>1350</td>
<td>.97</td>
<td>.97</td>
<td>.043</td>
</tr>
</tbody>
</table>

*Note. Ocean = Oceanview. *p=.05, **p=.01, ***p=.001.*

Table 7.8

**Post Hoc Regional Comparisons Across Beta Paths Between the SCCS and the NCPS**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>$X^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Belonging</td>
<td>Perceived Discrimination</td>
<td>16.55</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>2 Isolation</td>
<td>Perceived Discrimination</td>
<td>28.52</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>3 Community SC</td>
<td>Fear of Crime</td>
<td>5.67</td>
<td>0.017</td>
</tr>
<tr>
<td>4 School Belonging</td>
<td>Fear of Crime</td>
<td>0.55</td>
<td>0.317</td>
</tr>
<tr>
<td>5 Peer SC</td>
<td>Community Reputation</td>
<td>3.34</td>
<td>0.068</td>
</tr>
<tr>
<td>6 Neighbour SC</td>
<td>Community Reputation</td>
<td>26.86</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>7 Community SC</td>
<td>Community Reputation</td>
<td>5.15</td>
<td>0.023</td>
</tr>
</tbody>
</table>

*Note: Due to multiple comparisons alpha is adjusted to .01. * Indicates significant finding.*

Post hoc comparisons revealed three significant differences in the predictive paths of Oceanview and Multiville residents. Firstly, Oceanview residents perceived significantly less racial discrimination than their Multiville counterparts, when having a high sense of School Belonging. Conversely, Multiville residents reported significantly more racial discrimination when they felt isolated from their school, in comparison to those residing in Oceanview. The final significant difference found
between the two regions was the predictive path between Neighbour SC and the Community Reputation factor. For Multiville residents, having high levels of Neighbour SC enhanced their view of the local community’s reputation, whereas for Oceanview residents, social capital among neighbours reinforced negative perceptions of the local community. The remaining four post hoc tests (see Table 7.8) did not produce any significant differences between the two regional samples.

**Conclusions Research Question 2.2.3: Regional differences in the predictive power of the SCCS on Perceived Discrimination, Fear of Crime, and Community Reputation.** In summary, moderating analyses revealed that there were significant differences in the responses made by those living in Oceanview and Multiville. Further investigation through post hoc comparisons indicated the significant differences between the two groups could be found on the paths between the predictors School Belonging and Isolation, and the outcome Perceived Discrimination. Analyses showed that a strong sense of School Belonging significantly reduced Perceived Discrimination for those living in Oceanview but not in Multiville, whereas a higher sense of Isolation from the community significantly increased feelings of Perceived Discrimination for Multiville residents but not for Oceanview residents. An additional significant difference was identified in the predictive path from Neighbour SC to Community Reputation. It was found that increased relations among neighbours resulted in a more positive view of the local community for Multiville residents; however, this same association for Oceanview students led to a detrimental on their view of their community’s reputation. There were no regional differences found for the Fear of Crime factor.

**Section Summary**

In general, it was found that social capital exerted a positive influence on negative outcomes such as Perceived Discrimination and Fear of Crime, and enhanced positive outcomes such as adopting a desirable view of one’s community. More specifically, for the total sample all types of social capital predicted lower levels of Perceived Discrimination, however, only Neighbour social capital was a significant predictor. In addition, greater levels of Family, Peer, Neighbour, and Community social capital resulted in residents having less Fear of Crime within their local community. The most substantial findings within this section however, was that
feelings of isolation among students resulted in them reporting an elevated perception of racial discrimination toward their cultural group. Also of importance was the finding that a sense of trust and reciprocity toward community institutions (i.e., schools, police) was a substantial positive predictor of the way respondents viewed the reputation of their local community and how attractive they believed it to be to others living outside of it.

Through Chi-square difference testing, moderating analyses revealed significant variations in the strength of the predictive paths for both gender and regional groups. Subsequent post hoc investigations indicated that there were significant gender differences in the predictive strength of the negative relations between Family social capital and Perceived Discrimination, and Community social capital and Fear of Crime which were significantly stronger for males when compared to females. Furthermore, for females particularly, higher levels of Community social capital and sense of School Belonging were associated with a more positive view of the local community’s reputation. Finally, School Isolation heightened respondents’ perception of racial discrimination toward their cultural group for both genders although this association being particularly strong within the female sample when contrasted with the male sample.

Post hoc comparisons were also carried out for regional groups to identify which paths showed significant differences between Oceanview and Multiville students. Findings revealed that a strong sense of School Belonging significantly reduced Perceived Discrimination for those living in Oceanview but not in Multiville, whereas a higher sense of Isolation from the community significantly increased feelings of Perceived Discrimination for Multiville residents but not for Oceanview residents. An additional significant difference was identified in the predictive path from Neighbour social capital to Community Reputation. It was found that increased relations among neighbours resulted in a more positive view of the local community for Multiville residents; however, this same association for Oceanview students had a detrimental effect on how they perceived their community’s reputation. There were no significant regional differences found for the Fear of Crime factor.
The Relations between Social Capital Cohesion Scale and the Self-Description Questionnaire II – Short

SCCS and SDQ II-Short SEM

**Overview of Research Question 2.3.1: Predictive relations between the SCCS and the SDQ II-Short.** Research Question 2.3.1 examined the predictive value of SCCS’s social capital factors on participants’ academic self-concept. In order to investigate these relations, a SEM was performed with all six factors of the SCCS predicting the SDQ II-Short’s Math, English, and General self-concept factors.

**Results Research Question 2.3.1: Predictive relations between the SCCS and the SDQ II-Short.** Model goodness-of-fit indices demonstrate that the proposed model showed an excellent fit to the data with a CFI and TLI of .97, and an RMSEA of .042 ($x^2 = 2030.90$, $df = 593$). Examination of the beta coefficients (see Table 7.9) showed that 13 of the 18 predictive paths were statistically significant. Explaining the most substantial amount of variance (9.6% to 22.1%) was the Belonging factor which positively predicted higher self-concept in Math, Verbal, and General academic tasks. Family and Community SC were also significant positive predictors of the three self-concept factors, explaining between 1.5 and 5.9 percent of the variance within the aforementioned factors.

<table>
<thead>
<tr>
<th></th>
<th>General</th>
<th>% of $\sigma^2$</th>
<th>Verbal</th>
<th>% of $\sigma^2$</th>
<th>Math</th>
<th>% of $\sigma^2$</th>
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<tr>
<td>Family</td>
<td>.19***</td>
<td>5.9%</td>
<td>.10*</td>
<td>2.1%</td>
<td>.18***</td>
<td>4.0%</td>
</tr>
<tr>
<td>Peer</td>
<td>-.10*</td>
<td>2.2%</td>
<td>-.02</td>
<td>0.4%</td>
<td>-.17***</td>
<td>3.4%</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.09*</td>
<td>2.0%</td>
<td>-.03</td>
<td>0.6%</td>
<td>-.06</td>
<td>1.1%</td>
</tr>
<tr>
<td>Community</td>
<td>.16**</td>
<td>5.6%</td>
<td>.06</td>
<td>1.5%</td>
<td>.19***</td>
<td>5.3%</td>
</tr>
<tr>
<td>Belonging</td>
<td>.46***</td>
<td>22.1%</td>
<td>.37***</td>
<td>17.8%</td>
<td>.32***</td>
<td>9.6%</td>
</tr>
<tr>
<td>Isolation</td>
<td>.09*</td>
<td>1.4%</td>
<td>.03</td>
<td>0.5%</td>
<td>.18***</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

*Note: * $p = .05$, ** $p = .01$, *** $p = .001$

Interestingly, both Peer and Neighbour SC were associated with a lower self-concept across all three factors. This negative prediction was significant on the General factor for both Peer and Neighbour SC, and also significant was the negative
association between Peer SC and Math self-concept. Also, School Isolation positively predicted a higher self-concept in Math.

Conclusions Research Question 2.3.1: Predictive relations between the SCCS and the SDQ II-Short. In conclusion, it was found that Family and Community SC, as well as Belonging and Isolation, were all positive predictors of students’ self-concept in Math, Verbal, and General academic areas. Peer and Neighbour SC appear to have a negative effect on students’ self concept across the math and general factors of the SDQ II-Short.

SCCS and SDQ II-Short Moderating Analysis

The following set of analyses were performed to determine potential differences in the predictive power of the six factors of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) on General, Verbal, and Math self-concepts across males and females, and regional groups. In order to investigate these differences, moderating path analyses were performed simultaneously estimating and comparing the strength of the beta paths across samples.

Overview of Research Question 2.3.2: Predictive relations between the SCCS and the SDQ II-Short across gender. Research Question 7.6.1 investigated whether there were any overall gender differences in the predictive paths between the six social capital factors (Family, Peer, Neighbour, Community, Belonging, & Isolation) and General, Verbal, and Math self-concept factors. In order to examine any potential gender variations in the strength of the model’s predictive paths, a SEM moderating analysis was performed.

Results of Research Question 2.3.2: Predictive relations between the SCCS and the SDQ II-Short across gender. The proposed model showed an acceptable fit to the data, as indicated by the model fit indices presented in Table 7.10. Inspection of the beta coefficients (also displayed in Table 7.10) for males and females shows that for males, 11 of the potential 18 beta paths were statistically significant. For females, 7 of the 18 paths were statistically significant. For both gender groups, School Belonging was the strongest predictor of a positive self-concept in General, Verbal, and Math academic tasks. For males, Family SC significantly predicted higher self-concept across all three factors, whereas for females, Family SC was related to a higher General self-concept only. Community SC was a significant positive predictor across all three factors for females; however,
for males only Math self-concept was enhanced by this factor. Math self-concept was also positively predicted by the Peer, Neighbour, and Isolation factors of the SCCS for males but not for females. Finally, for males, Neighbour SC positively and significantly predicted an elevated self-concept toward school in General.

To ascertain whether or not there were any significant differences between genders, a chi-square difference test was conducted between the free model (Model 1) and the fixed model in which the predictive paths were constrained to be equal across both gender groups (Model 2). Results revealed a non-significant ($p = .806$) chi-square difference of $12.76$ (df = 2), thereby indicating that there were no overall significant variations between the predictive power of male and female responses.

**Conclusions of Research Question 2.3.2: Predictive relations between the SCCS and the SDQ II-Short across gender.** In response to research question 2.3.2, moderating analyses revealed no overall significant differences between males and females on the predicative relations between factors of the SCCS and the SDQ II – Short. Despite the absence of overall significant differences there were some variations in the pattern of responses produced by the male and female samples, with 11 of the 18 paths being significant for males, and 7 significant paths for females (refer to Table 7.10).

**Table 7.10**

*Gender Moderating Path Analysis Results: With the SCCS Predicting General, Verbal, and Math Self-Concept.*

<table>
<thead>
<tr>
<th></th>
<th>General</th>
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<th>Verbal</th>
<th></th>
<th>Math</th>
<th></th>
</tr>
</thead>
<tbody>
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<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
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<td>.04</td>
</tr>
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<td>-.05</td>
<td>-.04</td>
<td>.14*</td>
<td>.01</td>
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<tr>
<td>Neighbour</td>
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<td>.01</td>
<td>-.09</td>
<td>.13*</td>
<td>.01</td>
</tr>
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<td>Community</td>
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<td>.54***</td>
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<td>.34***</td>
<td>.23***</td>
<td>.37***</td>
</tr>
<tr>
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<td>.33***</td>
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<td>.37***</td>
<td>.19***</td>
</tr>
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<td>.03</td>
<td>.07</td>
<td>-.09</td>
<td>.21***</td>
<td>.08</td>
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<table>
<thead>
<tr>
<th>Goodness of Fit Indices</th>
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<th></th>
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<td>.95</td>
<td>.058</td>
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<tr>
<td>RMSEA</td>
<td>.058</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p=.05, **p=.01, ***p=.001*
Overview of Research Question 2.3.3: Predictive relations between the SCCS and the SDQ II-Short across region. Research Question 2.3.3 investigated whether there were any overall regional differences in the predictive paths between the six social capital factors (Family, Peer, Neighbour, Community, Belonging, & Isolation) and General, Verbal, and Math self-concept factors. In order to examine any potential gender variations in the strength of the model’s predictive paths, a SEM moderating analysis was performed.

Results of Research Question 2.3.3: Predictive relations between the SCCS and the SDQ II-Short across region. Model fit indices show that the proposed model produced an adequate fit to the data as indicated by a CFI and TLI of .94, and a RMSEA of .062. As displayed in Table 7.11, 13 of the 18 predictive paths were significant in the Oceanview sample, and 9 of the 18 were statistically significant for Multiville respondents. More specifically, examination of the beta paths shows that as with the total sample, and males and females, sense of Belonging was the strongest predictor of a positive self-concept across all three factors for both Oceanview and Multiville residents. Five of the six SCCS factors also had a significant association with Math self-concept with the exception being Neighbour SC. Whilst these relations were mostly positive, there were two unanticipated findings: 1) peer SC significantly and negatively predicted Math SC and; 2) sense of Isolation was significantly associated with a higher self-concept in both Math and General academic tasks. These findings were evident in both the Oceanview and Multiville samples.

For Oceanview students only, Peer SC was a significant negative predictor of General self-concept. Furthermore, for the Oceanview sample, Community SC significantly and positively predicted a higher self-concept in General and Verbal tasks, however, Neighbour SC was significantly associated with a lower self-concept in Verbal tasks. In order to determine whether the pattern of responses discussed above indicate significant differences between the two regional groups a Chi-square difference test was conducted. Comparing the free and fix models resulted in a Chi-square difference of 15.63 (df = 18), however this difference did not reach significance ($p = .618$).

Conclusion Research Question 2.3.3: Predictive relations between the SCCS and the SDQ II-Short across region. In conclusion, despite a number of observed variations between the regional groups, there were no statistically
significant regional differences found. In general, it can be concluded that a sense of Belonging, and high levels of Family and Community social capital enhance students’ self-concepts, whilst high levels of Peer SC are detrimental to students’ self-concept, particularly in Maths.

Table 7.11.
Regional Moderating Path Analysis Results for Multiville and Oceanview: With the SCCS Predicting General, Verbal, and Math Self-Concept.

<table>
<thead>
<tr>
<th></th>
<th>General</th>
<th></th>
<th>Verbal</th>
<th></th>
<th>Math</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multi</td>
<td>Ocean</td>
<td>Multi</td>
<td>Ocean</td>
<td>Multi</td>
<td>Ocean</td>
</tr>
<tr>
<td>Family</td>
<td>.15**</td>
<td>.22***</td>
<td>.07</td>
<td>.09</td>
<td>.16**</td>
<td>.18***</td>
</tr>
<tr>
<td>Peer</td>
<td>-.05</td>
<td>-.13**</td>
<td>-.07</td>
<td>.10</td>
<td>-.17***</td>
<td>-.14**</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.09</td>
<td>-.06</td>
<td>.04</td>
<td>-.19***</td>
<td>-.04</td>
<td>-.06</td>
</tr>
<tr>
<td>Community</td>
<td>.10</td>
<td>.29***</td>
<td>.04</td>
<td>.15**</td>
<td>.16**</td>
<td>.26***</td>
</tr>
<tr>
<td>Belonging</td>
<td>.48***</td>
<td>.50***</td>
<td>.44***</td>
<td>.32***</td>
<td>.35***</td>
<td>.30***</td>
</tr>
<tr>
<td>Isolation</td>
<td>.10**</td>
<td>.12**</td>
<td>.03</td>
<td>.06</td>
<td>.18***</td>
<td>.17***</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>4422.97</td>
<td>1204</td>
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<td>.94</td>
<td>.062</td>
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<tr>
<td>Fixed (Model 2)</td>
<td>4438.60</td>
<td>1222</td>
<td>.97</td>
<td>.97</td>
<td>.062</td>
</tr>
</tbody>
</table>

Note. Ocean = Ocean view, Multi = Multiville. *p=.05, **p=.01, ***p=.001

Section Summary

In summary, the above section has demonstrated a number of interesting findings relating to social capital and academic self-concept. Through SEM analyses, it was shown above and beyond the close proximal relationships among family and peers, the strongest predictor of a positive self-concept was the more distal relation of a sense of belonging at school and to one’s local community. This relationship was evident regardless of gender or where the respondents lived. Additionally, it was found that Family and Community SC were positive predictors of General, Verbal, and Math self-concepts, whereas social capital amongst neighbours and peers exerted a negligible or negative influence, respectively, on those same self-concept factors. Subsequent moderating analyses across region and gender revealed no significant differences between males and females, or between residents living in Oceanview and Multiville.
The Relations between Social Capital and Students’ Future Aspirations

SCCS and the Aspirations Index (AI) SEM

Overview of Research Question 2.4.1: Predictive relations between the SCCS and the AI. Research question 2.4.1 investigated the relations between the six factors of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) and the three factors of the AI (Financial, Social, Career). A SEM was performed in order to determine the relations between social capital and students’ future aspirations, with all SCCS factors predicting Financial, Social, and Career goals.

Results of Research Question 2.4.1: Predictive relations between the SCCS and the AI. The proposed model provided a good fit to the data with a RMSEA of .42, and a CFI and TLI of .96 (χ² = 2990.39, df = 866) and 11 of the 18 predictive paths were statistically significant (see Table 7.12). Family and School Belonging were significant positive predictors of higher Financial or wealth goals, whereas Community SC was a significant negative predictor. Peer and Community SC along with Belonging, significantly predicted stronger Social aspirations, and Family, Peer, Neighbour, and Community SC were significant positive predictors of stronger Career goals. Sense of Isolation was a negative predictor of all goal types, significantly so for Career goals. Despite these numerous significant predictive paths, as shown in Table 7.12, most of them accounted for very little of the variance in the outcome measures and it appears that only Peer and Community SC have any practical predictive power over the endorsement of Social goals (9.8% and 10.7%, respectively) and the impact of Community SC on Career goals (5.8%).

Table 7.12

<table>
<thead>
<tr>
<th></th>
<th>Financial</th>
<th>% of σ²</th>
<th>Social</th>
<th>% of σ²</th>
<th>Career</th>
<th>% of σ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>.12**</td>
<td>1.1%</td>
<td>.01</td>
<td>.03%</td>
<td>.13***</td>
<td>3.8%</td>
</tr>
<tr>
<td>Peer</td>
<td>.03</td>
<td>0.1%</td>
<td>.24***</td>
<td>9.8%</td>
<td>.11**</td>
<td>3.2%</td>
</tr>
<tr>
<td>Neighbour</td>
<td>-.06</td>
<td>0.3%</td>
<td>.04</td>
<td>1.0%</td>
<td>.14**</td>
<td>1.7%</td>
</tr>
<tr>
<td>Community</td>
<td>-.12**</td>
<td>0.1%</td>
<td>.26***</td>
<td>10.7%</td>
<td>.20***</td>
<td>5.8%</td>
</tr>
<tr>
<td>Belonging</td>
<td>.14***</td>
<td>1.3%</td>
<td>.12**</td>
<td>4.1%</td>
<td>.08</td>
<td>2.2%</td>
</tr>
<tr>
<td>Isolation</td>
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<td>.01%</td>
<td>-.03</td>
<td>0.5%</td>
<td>-.15***</td>
<td>3.9%</td>
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</table>
Conclusion Research Question 2.4.1: Predictive relations between the SCCS and the AI. In conclusion, it can be said that, with the exception of Community SC on Financial goals (negative relation), all levels of social capital and a sense of Belonging exerted a positive influence over students Financial, Social, and Career future aspirations. In contrast, feelings of Isolation lead to lower future ambitions across all three goal types, most notably Career goals. Finally, although the SEM resulted in 11 of 18 significant predictive paths, it appears that only Peer and Community SC predicting Social goals and Community SC predicting Career goals, account for any practical significance as other significant paths accounted for very little of the total variance within the factors of interest.

SCCS and the Aspiration Index Moderating Analysis

The following set of analyses were performed to determine potential differences in the predictive power of the six factors of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) on Financial, Social, and Career future aspirations across males and females, and regional groups. In order to investigate these differences, moderating path analyses were performed simultaneously estimating and comparing the strength of the beta paths across samples.

Overview of Research Question 2.4.2: Gender differences in the predictive relations between the SCCS and the AI. Research question 2.4.2 investigated whether any significant gender differences were evident between males and females, with levels of social capital predicting students’ future aspirations. To explore this question, a SEM moderating analysis was performed with the six factors of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) predicting the three factors of the AI (Financial, Social, and Career).

Results of Research Question 2.4.2: Gender differences in the predictive relations between the SCCS and the AI. The first SEM moderating analysis with no parameter restrictions imposed (Model 1) produced a good fitting model as demonstrated by the Goodness of fit indices displayed in Table 7.13. Examination of the beta paths displayed in Table 7.13 highlights a number of similarities and differences between males and females.
Table 7.13

**Gender Moderating Path Analysis Results: With the SCCS Predicting Financial, Social, and Career Goals**

<table>
<thead>
<tr>
<th></th>
<th>Financial</th>
<th></th>
<th>Social</th>
<th></th>
<th>Career</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>Family</td>
<td>.07</td>
<td>.13</td>
<td>.11**</td>
<td>.15**</td>
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<td>.06</td>
<td>.01</td>
<td>.22***</td>
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<td>.11</td>
</tr>
<tr>
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<td>-.15*</td>
<td>.01</td>
<td>.10</td>
<td>.18***</td>
</tr>
<tr>
<td>Community</td>
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<td>-.37***</td>
<td>.20**</td>
<td>.39***</td>
<td>.19**</td>
</tr>
<tr>
<td>Belonging</td>
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<td>Isolation</td>
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<td>-.07</td>
<td>-.18***</td>
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</table>

**Goodness of Fit Indices**

<table>
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<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
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<tr>
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<td>.96</td>
<td>.043</td>
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<td>Fixed (Model 2)</td>
<td>4063.21</td>
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<td>.96</td>
<td>.96</td>
<td>.044</td>
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</table>

For males, none of the six SCCS significantly predicted Financial goals, whereas for females, both Neighbour and Community SC were significant negative predictors, and School Belonging was a significant positive predictor of Financial aspirations. For both males and females, Family, Peer, and Community SC were significant positive predictors of the endorsement of Social goals. Finally, for males, Career goals were significantly and positively predicted by Family, Peer, and Community SC, and negatively predicted by School Isolation, whereas for females there were no significant paths evident between the SCCS factors and Career aspirations.

In order to determine whether or not the observed differences discussed above were significant, a chi-square difference test was performed. Comparing the Chi-square values between the first model where all parameters were free to vary, and the second model where all beta paths were constrained to be equal, resulted in a significant chi-square difference of 89.61 ($df = 18$). To identify where the significant differences between the two gender groups were, post hoc testing was carried out.
only on paths that were significant for one or both groups. This resulted in a total of 10 comparisons with an adjusted alpha of .01 (see Table 7.14).

Post hoc comparison revealed that significant gender differences are evident on three of the 10 paths. Results show that the path from Community SC to Financial goals results in a significant negative relationship for females; however, this same path for males results in a value of almost zero. Furthermore, significant differences between males and females were also identified on the predictive paths between Family SC and Social goals. Whilst this resulted in a significant positive association for both genders, the path was significantly stronger for females when compared to males. The final significant gender difference was between Family SC and Career goals. For males, there was a strong positive relation between the two factors, however, no such relation was evident for females.

Table 7.14.

Post Hoc Gender Comparisons of the Beta Paths Between the SCCS and the AI

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<th>$\alpha$</th>
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</thead>
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</tr>
<tr>
<td>2 Community SC</td>
<td>Financial goals</td>
<td>10.97</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>3 Belonging</td>
<td>Financial goals</td>
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<td>0.025</td>
</tr>
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<td>Social goals</td>
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<td>Social goals</td>
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</tr>
<tr>
<td>7 Family SC</td>
<td>Career goals</td>
<td>15.41</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>8 Neighbour SC</td>
<td>Career goals</td>
<td>1.85</td>
<td>0.174</td>
</tr>
<tr>
<td>9 Community SC</td>
<td>Career goals</td>
<td>0.08</td>
<td>0.317</td>
</tr>
<tr>
<td>10 Isolation</td>
<td>Career goals</td>
<td>2.31</td>
<td>0.129</td>
</tr>
</tbody>
</table>

Note: Due to multiple comparisons alpha is adjusted to .01. * Indicates significant finding.

Conclusions Research Question 2.4.2: Gender differences in the predictive relations between the SCCS and the AI. In conclusion, moderating analyses revealed a significant gender difference in the relations between levels of social capital and students’ future aspirations toward wealth, society, and career ambitions. Further post hoc testing revealed that for females, high levels of trust and reciprocity in community institutions resulted in lower Financial orientated goals, however, for males no such relation was apparent. For both genders, social capital within the family was associated with higher Social goals, however, this association
was significantly stronger for females. The final marked difference was between levels of social capital and Career goals. For males, four of the six social capital factors were significantly related to their endorsement of Career goals, however, for females, there were no significant relations found between the social capital factors and Career goals.

**Overview of Research Question 2.4.3: Regional differences in the predictive relations between the SCCS and the AI.** Research question 2.4.3 investigated whether any significant regional differences were evident between residents residing in Oceanview and Multiville, with levels of social capital predicting students’ future aspirations. To explore this question, and to identify any potential regional differences, a SEM moderating analysis was performed with the six factors of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) predicting the three factors of the AI (Financial, Social, and Career). Significant findings were further scrutinised through post hoc testing on significant beta paths.

**Results of Research Question 2.4.3: Regional differences in the predictive relations between the SCCS and the AI.** As shown in Table 7.13, the free model (Model 1) produced a good fit to the data as demonstrated by acceptable fit indices: CFI and TLI of .95, and a RMSEA of .051. When constraints were imposed on the beta paths (Model 2), the model fit indices deteriorated slightly although the values were still deemed acceptable. Examination of the beta paths presented in Table 7.15 illustrates numerous response differences between the two communities.

For Oceanview, both Family SC and Belonging significantly and positively predicted higher Financial goals, whereas Community SC was a significant negative predictor of Financial goals. There were no significant relations evident between the SCCS factors and Financial goals for Multiville students. Both Peer and Community SC were significant positive predictors of Social goals for Multiville students, whereas for Oceanview respondents only sense of Belonging significantly predicted stronger Social goals. Family and Neighbour SC, and feelings of Isolation had no significant predictive power over Social goals for either region. Finally, Career goals were positively and significantly associated with Peer, Neighbour, and Community SC for Multiville students, whereas for Oceanview respondents Family SC was the only significant positive predictor of stronger Career goals. Finally, a sense of
Isolation from one’s school was a significant negative predictor of Career goals for the Multiville sample only.

Table 7.15

Regional Moderating Path Analysis Results for Multiville and Oceanview: With the SCCS Predicting Financial, Social, and Career Goals

<table>
<thead>
<tr>
<th></th>
<th>Financial</th>
<th>Social</th>
<th>Career</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multi</td>
<td>Ocean</td>
<td>Multi</td>
</tr>
<tr>
<td>Family</td>
<td>.03</td>
<td>.26**</td>
<td>.01</td>
</tr>
<tr>
<td>Peer</td>
<td>.02</td>
<td>-.13</td>
<td>.29***</td>
</tr>
<tr>
<td>Neighbour</td>
<td>.01</td>
<td>-.12</td>
<td>.01</td>
</tr>
<tr>
<td>Community</td>
<td>.04</td>
<td>-.26**</td>
<td>.27***</td>
</tr>
<tr>
<td>Belonging</td>
<td>.09</td>
<td>.25**</td>
<td>.08</td>
</tr>
<tr>
<td>Isolation</td>
<td>-.01</td>
<td>-.01</td>
<td>-.01</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>(X^2)</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>4768.80</td>
<td>1735</td>
<td>.95</td>
<td>.95</td>
<td>.051</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>4824.58</td>
<td>1750</td>
<td>.94</td>
<td>.95</td>
<td>.051</td>
</tr>
</tbody>
</table>

Note. Ocean = Ocean view, Multi = Multiville. *\(p=.05\), **\(p=.01\), ***\(p=.001\)

In order to investigate these differences further, a Chi-square difference test was performed whereby the Chi-square and degrees of freedom values in Model 1 are subtracted from those in Model 2. This resulted in a significant Chi-square difference of 55.78 (\(p < .0001\)), suggesting that there are significant variations in responses obtained from the two regions of interest. To determine which paths differed significantly between regions, post hoc comparisons were conducted. To avoid excessive post hoc testing, only paths that produced significant findings for either one or both of the regional groups were examined. As shown in Table 7.16, this resulted in a total of 11 post hoc comparisons with an adjusted alpha of .01.
Table 7.16

*Post Hoc Gender Comparisons of the Beta Paths Between the SCCS and the AI*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family SC</td>
<td>Financial goals</td>
<td>3.98</td>
<td>.046</td>
</tr>
<tr>
<td>2 Community SC</td>
<td>Financial goals</td>
<td>1.35</td>
<td>.245</td>
</tr>
<tr>
<td>3 Belonging</td>
<td>Financial goals</td>
<td>2.58</td>
<td>.108</td>
</tr>
<tr>
<td>4 Peer SC</td>
<td>Social goals</td>
<td>0.31</td>
<td>.317</td>
</tr>
<tr>
<td>5 Community SC</td>
<td>Social goals</td>
<td>1.89</td>
<td>.169</td>
</tr>
<tr>
<td>6 Belonging</td>
<td>Social goals</td>
<td>5.52</td>
<td>.019</td>
</tr>
<tr>
<td>7 Family SC</td>
<td>Career goals</td>
<td>5.96</td>
<td>.015</td>
</tr>
<tr>
<td>8 Peer SC</td>
<td>Career goals</td>
<td>0.18</td>
<td>.315</td>
</tr>
<tr>
<td>9 Neighbour SC</td>
<td>Career goals</td>
<td>0.32</td>
<td>.317</td>
</tr>
<tr>
<td>10 Community SC</td>
<td>Career goals</td>
<td>3.37</td>
<td>.066</td>
</tr>
<tr>
<td>11 Isolation</td>
<td>Career goals</td>
<td>0.08</td>
<td>.469</td>
</tr>
</tbody>
</table>

*Note:* Due to multiple comparisons alpha is adjusted to .01. * Indicates significant finding.

Despite a significant result in the moderating analysis, post hoc testing revealed no significant differences on individual paths. This disparity appears to be due to the adjusted alpha level (.01) for multiple comparisons. As shown in Table 7.16, using the traditional alpha level of .05 would have produced three significant paths: Family SC and Financial goals; Belonging and Social goals; and Family SC and Career goals. Therefore, although significant differences between regional groups were not found, it is important to note that Oceanview residents with high social capital within the Family endorsed Financial and Career goals more strongly than Multiville residents. Furthermore, Oceanview residents with a strong sense of School Belonging were also more likely than Multiville residents to have higher Social aspirations.

**Conclusions of Research Question 2.4.3: Regional differences in the predictive relations between the SCCS and the AI.** In summary, the initial moderating model represented the data well and 11 significant paths were identified between the two regional groups. Interestingly, despite the Multiville and Oceanview samples having a comparable number of significant predictive paths (6 and 5, respectively), not one set of matching paths were significant for both regions (see Table 7.15), thereby suggesting that the latent social capital factors are operating differently according to region. However, follow-up post hoc analyses failed to identify any significant individual paths using the more stringent alpha level of .01. It can therefore be concluded that there are no significant regional differences in the
association between social capital and students’ future aspirations toward Financial, Social, and Career goals.

**Section Summary**

In summary, the above section has shown that with the exception of Community social capital, all levels of social capital, and a sense of belonging, are positively associated with students’ future aspirations towards their future wealth, career, and social aspirations. More specifically, it was found that higher levels of social capital within the family and a strong sense of belonging were positively associated with students’ desire to gain financial security, whilst higher Community social capital was negatively associated with financial ambitions. All levels of social capital positively predicted career goals, whilst lower career aspirations were reported by respondents that were feeling isolated at school. Perhaps the most important findings however, were the strong positive associations between Peer and Community social capital, and the endorsement of future social aspirations, both of which accounted for approximately ten percent of the total variance in each factor.

Gender differences were also found through moderating analyses. Higher levels of trust and reciprocity in one’s local community were associated with less desire to be rich amongst females; however, no such relation was evident for males. Additionally, for males, Career goals were significantly related to four of the six social capital factors [Family, Neighbour, Community SC (+); Isolation (-)], however, for females, levels of social capital or feelings of isolation had no significant relations to their endorsement or rejection of future career ambitions. For regional differences, despite a significant moderating model, post hoc analyses revealed no significant regional differences due to the more stringent adjusted alpha level applied for multiple comparisons.

**Relations between Social Capital and Physical Health Outcomes**

The following section examines how levels of social capital predict participants’ health behaviours; frequency of symptoms relating to illness; ratings of general health; reports of life satisfaction, and levels of physical inactivity. As outlined in Chapter 5, general health ratings and life satisfaction were calculated using a single item measure, and health behaviours, symptoms of ill-health, and
inactivity were measured using composite factors. The below section will first address the predictive relations between social capital and health outcomes through SEM modelling, the remainder of the section will present findings from the moderating analyses examining gender and regional group differences.

SCCS and Health SEMs

Overview of Research Question 2.5.1: Predictive relations between the SCCS and health outcomes. Research question 2.5.1 explored the association between levels of social capital and health outcomes. In the present investigation five outcome measures of health were utilised: General health, Life Satisfaction, Health Behaviours, Symptoms of Ill Health, and Sedentary Behaviours. Levels of social capital predicting these outcomes were Family SC, Peer SC, Neighbour SC, and Community SC. In addition, respondents’ sense of Belonging and Isolation were also used as predictive measures.

Results of Research Question 2.5.1: Predictive relations between the SCCS and health outcomes. The proposed model demonstrated an excellent fit to the data (RMSEA = .035, Chi-square = 2175.50, df = 807, CFI = .97, TLI = .97) and 10 of the 30 beta paths estimated were significant. As shown in Table 7.17, Family SC was significantly and positively related to Health Behaviours, General Health, and Life Satisfaction. Peer SC and sense of Isolation were significantly related to a higher incidence of Symptoms relating to poor health (higher scores indicate less symptoms) and lack of engagement in Health promoting behaviours, however in contrast, Community SC significantly predicted fewer ill-health symptoms among respondents and a greater involvement in healthy behaviours. Sense of Belonging was a significant positive predictor of respondents reported Life Satisfaction, and Community SC was a significant negative predictor of inactivity among participants. Examination of the variance explained shows that despite the numerous significant paths it appears that few of them have much practical significance. Family SC predicting Health Behaviours and Life Satisfaction appear to be the only paths that account for a useful amount of variance (13.26% and 9.52%, respectively). In addition, paths between Community SC predicting Healthy Behaviours, and sense of Belonging predicting Life Satisfaction also explained close to five percent of the variance in each factor.
Table 7.17

Beta Coefficients for the SCCS Predicting Symptoms, Health Behaviours, Sedentary Behaviours, General Health, and Life Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Sym</th>
<th>σ²exp</th>
<th>HB</th>
<th>σ²exp</th>
<th>SB</th>
<th>σ²exp</th>
<th>GH</th>
<th>σ²exp</th>
<th>LS</th>
<th>σ²exp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>.03</td>
<td>.12</td>
<td></td>
<td>.34***</td>
<td></td>
<td>13.26</td>
<td>.10</td>
<td>.20***</td>
<td>5.0</td>
<td>.28***</td>
</tr>
<tr>
<td>Peer</td>
<td>-.16**</td>
<td>1.0</td>
<td>-.11*</td>
<td>2.0</td>
<td>-.01</td>
<td>.06</td>
<td>.05</td>
<td>.65</td>
<td>.07</td>
<td>1.33</td>
</tr>
<tr>
<td>Neigh</td>
<td>.06</td>
<td>.06</td>
<td>.07</td>
<td>1.82</td>
<td>-.01</td>
<td>.06</td>
<td>.04</td>
<td>.68</td>
<td>.01</td>
<td>.19</td>
</tr>
<tr>
<td>Institut</td>
<td>.18**</td>
<td>1.62</td>
<td>.14*</td>
<td>4.48</td>
<td>-.18**</td>
<td>2.16</td>
<td>.07</td>
<td>1.19</td>
<td>.07</td>
<td>1.33</td>
</tr>
<tr>
<td>Belong</td>
<td>.03</td>
<td>.11</td>
<td>.11</td>
<td>2.75</td>
<td>-.10</td>
<td>.10</td>
<td>.07</td>
<td>1.26</td>
<td>.17**</td>
<td>4.93</td>
</tr>
<tr>
<td>Isolat</td>
<td>-.12*</td>
<td>1.08</td>
<td>-.05</td>
<td>.55</td>
<td>.09</td>
<td>.54</td>
<td>-.04</td>
<td>.56</td>
<td>-.05</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Note: * p = .05, ** p = .01, *** p = .001. Sym = Symptoms, HB = Health Behaviours, SB = Sedentary Behaviours, GH = General Health, LS = Life Satisfaction, σ²exp = percentage of variance explained.

Conclusions of Research Question 2.5.1: Predictive relations between the SCCS and health outcomes. In summary, higher levels of Family and Community social capital predict positive health practices, improve life satisfaction, and act as a buffer against inactivity amongst the adolescents in the current sample. In contrast, greater social capital within the peer group appears to promote unhealthy behaviours amongst teens, and a higher incidence of symptoms associated with illness.

SCCS and Health Moderating Analysis

The following set of analyses were performed to determine potential differences in the predictive power of the six factors of social capital (Family, Peer, Neighbour, Community, Belonging, and Isolation) on Symptoms of illness, Health Behaviours, Sedentary Behaviours, General Health, and Life Satisfaction across gender and regional groups. In order to investigate these differences, moderating path analyses were performed simultaneously estimating and comparing the strength of the beta paths across samples (see earlier discussion).

Overview of Research Question 2.5.2: Gender differences in the predictive relations between the SCCS and health outcomes. Research question 2.5.2 explored how responses relating to social capital and health varied as a function of gender. In order to investigate gender differences, a SEM moderating analysis was performed with the six factors of the SCCS (Family SC, Peer SC, Neighbour SC, Community SC, Belonging, and Isolation) predicting the five measured health outcomes (Symptoms, Health Behaviours, Sedentary Behaviours, General Health, and Life Satisfaction). Results are presented below.
Results of Research Question 2.5.2: Gender differences in the predictive relations between the SCCS and health outcomes. Results are presented in Table 7.18. As shown, both Model 1 (free) and Model 2 (beta fixed) demonstrated an excellent fit to the data and imposing constraints on the predictive paths in Model 2 produced no change in the CFI, TLI, and RMSEA fit indices. Examination of the beta paths (see Table 7.18) indicates that 10 of the 30 paths were significant for males, whereas only four significant paths were evident for females. For both males and females, Family social capital positively and significantly predicted Health Behaviours, General Health, and Life Satisfaction. For the female sample, the only other significant path was the positive association between sense of Belonging and Sedentary Behaviour. For males, Community SC had significant positive relationship with fewer ill-health symptoms, and health promoting behaviours. A further positive association was found between sense of Belonging and improved Life Satisfaction. In contrast, significant negative associations were apparent between Neighbour SC and Symptoms, Community SC and Sedentary Behaviours, and finally, a sense of Isolation was related to more Symptoms of ill-health and lower Life Satisfaction.

Table 7.18

<table>
<thead>
<tr>
<th></th>
<th>Symptoms</th>
<th>HealthBehave</th>
<th>SedentBehave</th>
<th>GenHealth</th>
<th>LifeSat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Family</td>
<td>-.08</td>
<td>.09</td>
<td>.30***</td>
<td>-.01</td>
<td>-.06</td>
</tr>
<tr>
<td>Peer</td>
<td>-.04</td>
<td>.04</td>
<td>.07</td>
<td>.06</td>
<td>.10</td>
</tr>
<tr>
<td>Neigh</td>
<td>-.15*</td>
<td>.02</td>
<td>.02</td>
<td>.04</td>
<td>-.04</td>
</tr>
<tr>
<td>Comm</td>
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<td>.07</td>
<td>.20*</td>
<td>.11</td>
<td>-.18*</td>
</tr>
<tr>
<td>Belong</td>
<td>-.11</td>
<td>.14</td>
<td>.01</td>
<td>.21</td>
<td>-.02</td>
</tr>
<tr>
<td>Isolat</td>
<td>-.11*</td>
<td>-.10</td>
<td>-.01</td>
<td>-.09</td>
<td>.07</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>X²</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>2997.35</td>
<td>1614</td>
<td>.97</td>
<td>.97</td>
<td>.035</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>3052.95</td>
<td>1644</td>
<td>.97</td>
<td>.97</td>
<td>.035</td>
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</tbody>
</table>

Note: * p = .05, ** p = .01, *** p = .001. HealthBehav = Health Behaviours, SedentBehav = Sedentary Behaviours, GenHealth = General Health, LifeSat = Life Satisfaction.

With the purpose of testing whether the gender differences discussed above were significant, comparisons of the Chi-square and degrees of freedom values between Model 1 and Model 2 were examined. This resulted in a significant Chi-
square difference of 55.60 (df = 30, \( p = .003 \)), thereby indicating that there are significant gender differences in the strength of the predictive pathways between social capital and health outcomes. In order to determine where these significant differences lie, post hoc comparisons were carried out. To avoid unnecessary tests, comparisons were only conducted on beta paths that were statistically significant and with differences greater than .10 between groups. This resulted in six post hoc tests (see Table 7.19) and alpha was adjusted to .01 to control for error.

Table 7.19

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>( \chi^2 ) Difference</th>
<th>( \alpha )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Family SC</td>
<td>Symptoms</td>
<td>4.59</td>
<td>.032</td>
</tr>
<tr>
<td>2 Community SC</td>
<td>Symptoms</td>
<td>7.26</td>
<td>.007*</td>
</tr>
<tr>
<td>3 Belonging</td>
<td>Sedentary Behaviours</td>
<td>3.57</td>
<td>.059</td>
</tr>
<tr>
<td>4 Family SC</td>
<td>General Health</td>
<td>1.36</td>
<td>.244</td>
</tr>
<tr>
<td>5 Family SC</td>
<td>Life Satisfaction</td>
<td>10.34</td>
<td>.001*</td>
</tr>
<tr>
<td>6 Isolation</td>
<td>Life Satisfaction</td>
<td>5.94</td>
<td>.015</td>
</tr>
</tbody>
</table>

*Note: Due to multiple comparisons alpha is adjusted to .01. * Indicates a significant finding.

As shown in Table 7.19, of the six post hoc tests performed, only two produced significant differences between male and female responses. Females high in Community SC reported significantly lower levels of symptoms relating to poor health when compared to males, and the positive relation between Family SC and Life Satisfaction was significantly stronger for females than for males.

**Conclusion of Research Question 2.5.2: Gender differences in the predictive relations between the SCCS and health outcomes.** To summarise, the gender moderating analysis was significant and represented the data well as indicated by the excellent goodness-of-fit indices. A total of 14 significant paths between the two groups were identified with far more significant paths found for males than for females. Post hoc comparisons revealed that females higher in Community SC reported significantly less symptoms related to poor health than did males whereas females high in Family SC reported significantly higher levels of Life Satisfaction when compared to their male counterparts.

**Overview of Research Question 2.5.3: Regional differences in the predictive relations between the SCCS and health outcomes.** Research question
2.5.3 explored how responses relating to social capital and health varied as a function of region. In order to investigate potential regional differences, a SEM moderating analysis was performed with the six factors of the SCCS (Family SC, Peer SC, Neighbour SC, Community SC, Belonging, and Isolation) predicting the five measured health outcomes (Symptoms, Health Behaviours, Sedentary Behaviours, General Health, and Life Satisfaction). Results are presented below.

**Results of Research Question 2.5.3: Regional differences in the predictive relations between the SCCS and health outcomes.** As shown in Table 7.20, the free model (Model 1) fit the data well as indicated by the model fit indices: CFI and TLI = .96, RMSEA = .041. Constraining beta paths to be equal in Model 2 resulted in an increased Chi-square statistic (+ 65.75), although produced no change in the RMSEA, CFI, or TLI. Examination of the beta coefficients revealed seven significant paths for the Multiville sample and 11 significant paths for Oceanview residents.

For both regions, Family SC significantly and positively predicted Health Behaviours, General Health ratings, and Life Satisfaction. Peer SC was a significant predictor of fewer ill-health Symptoms for Oceanview residents, and greater Health promoting behaviours and Life Satisfaction for Multiville respondents. Community SC was a significant positive predictor of Health Behaviours and fewer symptoms of ill-health for Oceanview residents, however, these associations were not evident among Multiville respondents. Sense of Belonging was a significant positive predictor of Life Satisfaction for both samples, and positive Health Behaviours were also significantly related to a sense of Belonging in Oceanview residents. Interestingly, a sense of Belonging was also significantly associated with higher levels of inactivity among Oceanview participants. Finally, sense of Isolation significantly predicted increases in Sedentary Behaviours in both regions and lower General Health ratings for the Oceanview respondents only.

To determine whether the above regional differences were significant, a chi-square difference test was performed. Comparisons of Model 1 and 2 resulted in a significant Chi-square difference of 65.75 (df = 30, $p < .001$), therefore post hoc testing was deemed necessary to ascertain which of the predictive paths varied significantly between regional groups.
Table 7.20

Region Beta Coefficients for the SCCS Predicting Symptoms, Health Behaviours, Sedentary Behaviours, General Health, and Life Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Symptoms</th>
<th>HealthBehave</th>
<th>SedentBehave</th>
<th>GenHealth</th>
<th>LifeSat</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Multi</td>
<td>Ocean</td>
<td>Multi</td>
<td>Ocean</td>
<td>Multi</td>
</tr>
<tr>
<td>Family</td>
<td>.02</td>
<td>.09</td>
<td>.40***</td>
<td>.23*</td>
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<td>.24*</td>
<td>.10*</td>
<td>.09</td>
<td>-.06</td>
</tr>
<tr>
<td>Neigh</td>
<td>-.05</td>
<td>.11</td>
<td>.10</td>
<td>.04</td>
<td>-.04</td>
</tr>
<tr>
<td>Comm</td>
<td>.10</td>
<td>.40**</td>
<td>.01</td>
<td>.35**</td>
<td>-.15</td>
</tr>
<tr>
<td>Belong</td>
<td>-.01</td>
<td>.18</td>
<td>.09</td>
<td>.22*</td>
<td>-.03</td>
</tr>
<tr>
<td>Isolat</td>
<td>-.07</td>
<td>-.31***</td>
<td>-.01</td>
<td>-.16</td>
<td>.12*</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>$X^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>3430.12</td>
<td>1614</td>
<td>.96</td>
<td>.96</td>
<td>.041</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>3495.87</td>
<td>1644</td>
<td>.96</td>
<td>.96</td>
<td>.041</td>
</tr>
</tbody>
</table>

Note: * $p = .05$, ** $p = .01$, *** $p = .001$. HealthBehav = Health Behaviours, SedentBehav = Sedentary Behaviours, GenHealth = General Health, LifeSat = Life Satisfaction, Multi = Multiville, Ocean = Oceanview.

As with the previous section analysing gender differences, post hoc tests were only conducted on beta paths that were statistically significant, and with differences greater than .10 between groups. This resulted in a total of eight post hoc tests (see Table 7.21) and alpha was adjusted to .01 to control for error. The results show that despite a number of group differences reaching the traditional .05 alpha level for significance, only two of the post hoc tests performed can be deemed significant attributable to the adjusted alpha level of .01 used for multiple comparisons. Significant regional differences were found on the predictive path between Community SC and Symptoms associated with ill-health, as Community SC predicted significantly fewer poor-health symptoms for Oceanview residents but not Multiville residents. Finally, there was a significant difference in the predictive value of the path between Community SC and Health Behaviours, with Oceanview residents showing a strong positive relation between the two variables whereas this relation was almost zero in the Multiville sample.
Table 7.21

Post Hoc regional Comparisons of the Beta Paths Between the SCCS and Health

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Isolation</td>
<td>Symptoms</td>
<td>5.68</td>
<td>.017</td>
</tr>
<tr>
<td>2 Community SC</td>
<td>Symptoms</td>
<td>6.62</td>
<td>.010*</td>
</tr>
<tr>
<td>3 Isolation</td>
<td>General Health</td>
<td>1.85</td>
<td>.174</td>
</tr>
<tr>
<td>4 Family SC</td>
<td>Health Behaviours</td>
<td>3.40</td>
<td>.065</td>
</tr>
<tr>
<td>5 Community SC</td>
<td>Health Behaviours</td>
<td>6.76</td>
<td>.009*</td>
</tr>
<tr>
<td>6 Belonging</td>
<td>Health Behaviours</td>
<td>2.60</td>
<td>.017</td>
</tr>
<tr>
<td>7 Family</td>
<td>Life Satisfaction</td>
<td>2.60</td>
<td>.107</td>
</tr>
<tr>
<td>8 Belonging</td>
<td>Sedentary Behaviour</td>
<td>5.80</td>
<td>.016</td>
</tr>
</tbody>
</table>

*Note: Due to multiple comparisons alpha is adjusted to .01.

Conclusion Research Question 2.5.3: Regional differences in the predictive relations between the SCCS and health outcomes. In summary, the initial significant moderating analysis revealed a number of similarities and differences between the two regional groups. Subsequent post hoc testing found that Community SC was associated significantly less symptoms of ill-health and more health promoting behaviours for Oceanview residents; however, these same relations were not evident in the Multiville sample. Other post hoc comparisons failed to produce any significant individual paths due to the more stringent alpha level used.

Section Summary

In summary, SEM analyses revealed that higher levels of Family and Community social capital significantly predict positive health practices, improve life satisfaction, and act as a buffer against inactivity amongst the adolescents in the current sample. In contrast, greater social capital within the peer group appears to promote unhealthy behaviours amongst teens, and a higher incidence of symptoms associated with illness. Furthermore, exploration of gender differences resulted in a significant moderating analysis indicating that important differences were present in the predictive strength of individual paths between social capital indicators and health outcomes for males and females.

Subsequent post hoc testing showed that females higher in Community social capital reported significantly less symptoms related to poor health than did males, and females high in Family social capital reported significantly higher levels of Life Satisfaction when compared to their male counterparts. The only significant
difference apparent in the associations between social capital and health outcomes among Oceanview and Multiville respondents was the association between Community social capital and symptoms of poor health which was evident in the Oceanview sample only.

Relations between Social Capital and Risk Behaviours in Adolescence

The following component of the chapter explores the relations between social capital and risk behaviours among adolescents surveyed in the present study. A total of seven risk factors were measured: frequency of alcohol use, cigarette smoking, frequency of inebriation, cannabis use, engaging in sexual intercourse, condom use, and involvement in physical conflict. With the exception of frequency of alcohol use, all risk factors were measured on single item indicators. Alcohol frequency was measured using a latent factor whereby participants were asked how frequently they consumed various alcoholic substances (beer, wine, spirits, other).

The following section firstly explores the relations between social capital and risk behaviours through structural equation modelling (SEM) for the total sample. This will be followed by SEM moderating analyses in order to investigate whether the associations between social capital and engagement in risk behaviours vary as a function of gender and/or region. It is important to note that the sample size used in this set of analyses is smaller than the sample used in the above sections due to one school Principal’s reluctance to have his students answer questions of such a sensitive nature (see Chapter 5 for further details). As a result the sample was reduced from 1371 to 1084 in the following set of analyses.

SCCS and Risk Behaviours SEM

Overview of Research Question 2.6.1: Predictive relations between the SCCS and risk behaviours. Research question 2.6.1 investigated the predictive relations between social capital and risk behaviours in adolescents. To determine these relations, a SEM analysis was performed with the six factors of the SCCS predicting the frequency of alcohol use and inebriation, cigarette smoking, cannabis use, sexual activity, condom use, and involvement in physical conflicts. The results are presented below.

Results of Research Question 2.6.1: Predictive relations between the SCCS and risk behaviours. The proposed model provided a good fit to the data as
indicated by a CFI of .97, a TLI of .96, and a RMSEA of .043 ($\chi^2 = 1894.45$, df = 630). An examination of the predictive paths indicated that 23 of the potential 40 paths were statistically significant (see Table 7.22). Results show that with few exceptions, all forms of social capital and a sense of Belonging, negatively predict all types of risk behaviours, whilst a sense of Isolation from the community positively predicted an increase in risk behaviours. An exception to this pattern of results however, was that Family SC significantly and positively predicted a decrease in condom use during intercourse, and a sense of Isolation from the community resulted in a significant increase in condom use.

Table 7.22

<table>
<thead>
<tr>
<th></th>
<th>Family $\sigma^{exp}$</th>
<th>Peer $\sigma^{exp}$</th>
<th>Neigh $\sigma^{exp}$</th>
<th>Comm $\sigma^{exp}$</th>
<th>Belong $\sigma^{exp}$</th>
<th>Isolat $\sigma^{exp}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alco</td>
<td>-1.3**</td>
<td>2.6</td>
<td>-1.1*</td>
<td>1.2</td>
<td>-1.3*</td>
<td>1.4</td>
</tr>
<tr>
<td>Smok</td>
<td>-1.1**</td>
<td>1.3</td>
<td>-0.06</td>
<td>0.3</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Ineb</td>
<td>-0.9</td>
<td>1.1</td>
<td>-1.2**</td>
<td>0.4</td>
<td>-1.3**</td>
<td>0.4</td>
</tr>
<tr>
<td>Cann</td>
<td>-1.5***</td>
<td>2.7</td>
<td>-0.09</td>
<td>0.7</td>
<td>-0.07</td>
<td>0.7</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.8</td>
<td>1.0</td>
<td>-0.08</td>
<td>0.4</td>
<td>-0.07</td>
<td>0.5</td>
</tr>
<tr>
<td>Con</td>
<td>0.1*</td>
<td>0.7</td>
<td>-1.3**</td>
<td>0.5</td>
<td>-0.08</td>
<td>0.3</td>
</tr>
<tr>
<td>Phy</td>
<td>0.07</td>
<td>0.4</td>
<td>-0.01</td>
<td>0.1</td>
<td>-0.09</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: * $p = .05$, ** $p = .01$, *** $p = .001$. % of $\sigma^{exp}$ = percentage of variance explained. Alco = Alcohol use, Smok = Smoking, Ineb = Inebriation, Cann = Cannabis, Sex = Sexual Activity, Con = Condom use, Phy = Physical conflict, Neigh = Neighbour SC, Comm = Community SC, Belong = School Belonging, Isolat = School Isolation.

Despite 23 of these paths being significant, it appears that only Community SC accounts for any useful portion of the variance contributing to risk-taking behaviours in adolescence. Community SC was a strong negative predictor of all forms of risk-taking behaviour, and accounted for a considerable amount of the factor variance for Alcohol and Cannabis use, as well as lower involvement in Physical violence (12.6%, 7.7%, and 7.3% respectively). The largest amount of variance accounted for by any of the other factors’ predictive paths was 2.7%, and therefore holds little practical use for research purposes.

Conclusion Research Question 2.6.1: Predictive relations between the SCCS and risk behaviours. In general, with few exceptions, social capital and sense of School Belonging was associated with decreased levels of risk-taking behaviours in adolescents. In contrast, a sense of Isolation from the community resulted in increased risk-taking activities among teenagers. However, despite these positive
results with social capital reducing risk behaviours, few of the SCCS factors accounted for any practical amount of variance. Therefore, most importantly, it was revealed that students with higher levels of Community SC, were far less likely to be involved in sexual activity, physical conflict, alcohol, tobacco, and cannabis use, and those that were engaging in sexual intercourse were more likely to use a condom.

**SCCS and Risk-Taking Behaviour Moderating Analysis**

**Overview of Research Question 2.6.2: Gender differences in the predictive relations between the SCCS and risk behaviours.** The purpose of the current research question was to determine whether the relations between social capital and risk behaviours varied as a function of gender. To investigate this possibility, a SEM moderating analysis was performed whereby male and female predictive paths were estimated simultaneously and potential differences highlighted.

**Results of Research Question 2.6.2: Gender differences in the predictive relations between the SCCS and risk behaviours.** As shown in Table 7.23, the free model (Model 1) provided a good fit to the data with a CFI and TLI of .96 and RMSEA of .046. Placing equality constraints on the beta paths produced no change in the CFI and TLI statistics and a negligible change in the RMSEA (.001). Also shown in Table 7.23, examination of the beta paths for males and females highlighted a number of gender similarities and differences.

For both males and females higher levels of Community SC were significantly associated with less involvement in all types of risk behaviours with the exception of condom use for females. An increased sense of Belonging significantly predicted lower levels of alcohol consumption and inebriation, increased condom use and less involvement in physical conflict for females, but not for males. A sense of Isolation significantly and positively predicted a higher frequency of alcohol consumption, and increased condom use for both males and females. Additionally Isolation was a significant positive predictor of inebriation and physical violence for females; however, this relation was not evident for males.

For females, Neighbour SC had significant relations with less frequent drinking, smoking, and unsafe sex practices, although it positively predicted higher incidences of inebriation. Interestingly, with the exception of smoking, these same relations were evident in the male sample with Peer SC rather than Neighbour SC. Finally, higher levels Family SC predicted less frequent alcohol consumption,
cannabis use, and inebriation for males, and lower levels of cigarette smoking amongst females.

Table 7.23

Gender Beta Coefficients for the SCCS Predicting Risk-taking Behaviours

<table>
<thead>
<tr>
<th></th>
<th>Family</th>
<th>M</th>
<th>F</th>
<th>Peer</th>
<th>M</th>
<th>F</th>
<th>Neighbour</th>
<th>M</th>
<th>F</th>
<th>Community</th>
<th>M</th>
<th>F</th>
<th>Belonging</th>
<th>M</th>
<th>F</th>
<th>Isolation</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alco</td>
<td>-.22**</td>
<td>-.01</td>
<td>-.01</td>
<td>-.20**</td>
<td>-.01</td>
<td>-.23**</td>
<td>-.27**</td>
<td>-.61***</td>
<td>-.10</td>
<td>-.26*</td>
<td>.14*</td>
<td>.16*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smo</td>
<td>-.01</td>
<td>-.14*</td>
<td>.05</td>
<td>-.05</td>
<td>.14</td>
<td>-.19**</td>
<td>-.23**</td>
<td>-.37***</td>
<td>.07</td>
<td>-.11</td>
<td>.01</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ineb</td>
<td>-.19**</td>
<td>-.02</td>
<td>.20**</td>
<td>-.08</td>
<td>-.01</td>
<td>.25**</td>
<td>-.25**</td>
<td>-.59***</td>
<td>-.05</td>
<td>-.25*</td>
<td>.11</td>
<td>.18*</td>
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<td></td>
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<td></td>
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<tr>
<td>Can</td>
<td>-.26**</td>
<td>-.03</td>
<td>-.18*</td>
<td>-.02</td>
<td>-.01</td>
<td>-.11</td>
<td>-.25**</td>
<td>-.41***</td>
<td>.11</td>
<td>.18</td>
<td>.01</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.10</td>
<td>-.06</td>
<td>-.13</td>
<td>-.04</td>
<td>-.11</td>
<td>-.02</td>
<td>-.25**</td>
<td>-.25*</td>
<td>-.03</td>
<td>-.11</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con</td>
<td>.14*</td>
<td>.03</td>
<td>-.14*</td>
<td>-.11</td>
<td>.03</td>
<td>-.18**</td>
<td>-.06</td>
<td>.28**</td>
<td>-.05</td>
<td>-.22*</td>
<td>-.21**</td>
<td>-.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phy</td>
<td>.10</td>
<td>-.06</td>
<td>.10</td>
<td>-.06</td>
<td>-.13</td>
<td>-.01</td>
<td>-.34***</td>
<td>-.34**</td>
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<td>.26**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note: * p = .05, ** p = .01, *** p = .001. Alco = Alcohol use, Smo = Smoking, Ineb = Inebriation, Can = Cannabis, Sex = Sexual Activity, Con = Condom use, Phy = Physical conflict.

In order to determine whether these differences described above were significant, a chi-square difference test was performed. The discrepancy between the free and fixed model resulted in a significant chi-square difference of 120.68 (df = 42; p < .0001). To establish which beta paths differed significantly between males and females, post hoc testing was performed on all significant paths with a disparity greater than .10 between gender groups. As presented in Table 7.24, this resulted in a total of 20 post hoc comparisons with an adjusted alpha of .01 to control for error.

Subsequent post hoc tests revealed that 10 of the 20 individual paths tested were statistically significant (see Table 7.24). Specifically, significant gender differences were identified on the paths with Family and Peer SC predicting frequency of alcohol consumption and the paths between Family, Neighbour, and Community SC predicting Inebriation. Post hoc tests also highlighted significant gender differences in the strength of the beta coefficient between Family SC and Cannabis use. Furthermore, males and females differed significantly in the relations between Family, Neighbour, and Community SC and condom use. Finally, the path between sense of Belonging and Physical Conflict indicated a significant gender difference.
Table 7.24

Post Hoc Gender Comparisons of the Beta Paths Between the SCCS and Risk-taking Behaviours

<table>
<thead>
<tr>
<th>No.</th>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
<th>No.</th>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Family</td>
<td>Alcohol</td>
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<td>.001</td>
<td>11</td>
<td>Comm</td>
<td>Inebriation</td>
<td>20.13</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>2</td>
<td>Peer</td>
<td>Alcohol</td>
<td>8.41</td>
<td>.004</td>
<td>12</td>
<td>Belong</td>
<td>Inebriation</td>
<td>4.81</td>
<td>.028</td>
</tr>
<tr>
<td>3</td>
<td>Neigh</td>
<td>Alcohol</td>
<td>2.74</td>
<td>.098</td>
<td>13</td>
<td>Family</td>
<td>Cannabis</td>
<td>13.77</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>4</td>
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<td>1.72</td>
<td>.189</td>
<td>14</td>
<td>Peer</td>
<td>Cannabis</td>
<td>3.15</td>
<td>.076</td>
</tr>
<tr>
<td>5</td>
<td>Belong</td>
<td>Alcohol</td>
<td>.59</td>
<td>.317</td>
<td>15</td>
<td>Comm</td>
<td>Cannabis</td>
<td>2.81</td>
<td>.094</td>
</tr>
<tr>
<td>6</td>
<td>Family</td>
<td>Smoking</td>
<td>1.53</td>
<td>.216</td>
<td>16</td>
<td>Family</td>
<td>Condom</td>
<td>6.21</td>
<td>.012</td>
</tr>
<tr>
<td>7</td>
<td>Comm</td>
<td>Smoking</td>
<td>5.13</td>
<td>.024</td>
<td>17</td>
<td>Neigh</td>
<td>Condom</td>
<td>8.21</td>
<td>.004</td>
</tr>
<tr>
<td>8</td>
<td>Family</td>
<td>Inebriation</td>
<td>10.84</td>
<td>.001</td>
<td>18</td>
<td>Comm</td>
<td>Condom</td>
<td>9.15</td>
<td>.003</td>
</tr>
<tr>
<td>9</td>
<td>Peer</td>
<td>Inebriation</td>
<td>3.39</td>
<td>.066</td>
<td>19</td>
<td>Belong</td>
<td>Condom</td>
<td>2.42</td>
<td>.120</td>
</tr>
<tr>
<td>10</td>
<td>Neigh</td>
<td>Inebriation</td>
<td>6.85</td>
<td>.009</td>
<td>20</td>
<td>Belong</td>
<td>Physical</td>
<td>8.59</td>
<td>.003</td>
</tr>
</tbody>
</table>

Note: Neigh = Neighbour SC, Comm = Community SC, Belong = School Belonging, Physical = Physical conflict.

Conclusions of Research Question 2.6.2: Gender differences in the predictive relations between the SCCS and risk behaviours. In summary, the initial SEM moderating analysis resulted in a good fitting model and when equality constraints were imposed on the beta paths there were negligible changes in model fit evident. The chi-square difference test was significant indicating significant gender differences in the relations between social capital and risk-taking behaviours.

Subsequent post hoc testing revealed that when high in Family and Peer SC, males drank alcohol significantly less frequently than did females and were also less likely to become inebriated when they did drink. Additionally, females high in Neighbour SC were significantly more likely to become intoxicated than their male counterparts. Comparisons between males and females high in Community SC revealed that both genders are less likely to become intoxicated, although this relation was significantly stronger for females.

Post hoc results also revealed that males were significantly more likely than females to practice unsafe sex when high in Family SC, whilst females high in Community SC were significantly more likely than males to have unsafe sex. In contrast higher levels of Neighbour SC were significantly associated with increased condom use in females but not in males. Finally, females were significantly less likely than males to engage in physical violence when they felt they belonged.
Overview of Research Question 2.6.3: Regional differences in the predictive relations between the SCCS and risk behaviours. The purpose of this research question was to determine whether the relations between social capital and risk behaviours varied as a function of region. To investigate this research question, a SEM moderating analysis was performed whereby Multiville and Oceanview samples’ predictive paths were estimated simultaneously and potential differences highlighted.

Results of Research Question 2.6.3: Regional differences in the predictive relations between the SCCS and risk behaviours. The initial free model (Model 1) produced a good fit to the data with a CFI of .96, a TLI of .95 and a RMSEA of .049. Placing equality constraints on the predictive paths resulted in no changes to the CFI and TLI, but a slightly improved RMSEA of .048.

As shown in Table 7.25, for Multiville residents, 18 of the potential 42 paths were statistically significant, and of these 13 significant paths were identified for Oceanview residents. Results indicate that higher levels of Family SC significantly and negatively predicted Alcohol and Cannabis use, and frequency of inebriation among Oceanview residents. For Multiville residents, Family SC was associated with significantly less use of tobacco. Peer SC was a significant negative predictor of Inebriation for those living in Oceanview. Peer SC also negatively predicted practising safe sex among Multiville residents. Additionally, a higher level of Peer SC was significantly associated with increased Cannabis use in the Multiville sample. Whilst Neighbour SC was a negative predictor of frequent use of alcohol in the Oceanview sample, results indicate that when these residents do consume alcohol they are significantly more likely to become drunk.

Amongst Multiville residents, Community SC was a significant negative predictor of all forms of risk-taking behaviours with the exception of Condom use, and negatively predicted Alcohol consumption, Inebriation, and Involvement in sexual activity in the Oceanview sample. Interestingly, whilst a sense of Belonging was a significant negative predictor of Alcohol consumption for both samples, it was significantly associated with increased Physical Conflict, Smoking, and Cannabis use among Multiville residents. Finally, for both samples a Sense of Isolation was a significant positive predictor of engaging in Physical conflict and significantly predicted an increase in Condom use. Sense of Isolation also significantly predicted a higher frequency of Alcohol consumption amongst Oceanview residents.
Table 7.25
Regional Beta Coefficients for the SCCS Predicting Risk-taking Behaviours

<table>
<thead>
<tr>
<th></th>
<th>Family SC</th>
<th>Peer SC</th>
<th>Neighbour SC</th>
<th>Community SC</th>
<th>Belonging</th>
<th>Isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>O</td>
<td>M</td>
<td>O</td>
<td>M</td>
<td>O</td>
</tr>
<tr>
<td>Alco</td>
<td>.01</td>
<td>-.18*</td>
<td>-.10</td>
<td>-.16</td>
<td>-.03</td>
<td>-.21**</td>
</tr>
<tr>
<td>Smo</td>
<td>-.18**</td>
<td>-.08</td>
<td>-.03</td>
<td>-.04</td>
<td>-.15*</td>
<td>-.15</td>
</tr>
<tr>
<td>Ineb</td>
<td>-.01</td>
<td>-.14</td>
<td>-.05</td>
<td>-.18*</td>
<td>-.01</td>
<td>.24***</td>
</tr>
<tr>
<td>Can</td>
<td>-.07</td>
<td>-.22**</td>
<td>-.01</td>
<td>-.02</td>
<td>-.09</td>
<td>-.45***</td>
</tr>
<tr>
<td>Sex</td>
<td>-.02</td>
<td>-.21**</td>
<td>-.06</td>
<td>-.13</td>
<td>-.05</td>
<td>-.06</td>
</tr>
<tr>
<td>Con</td>
<td>.03</td>
<td>-.06</td>
<td>-.12*</td>
<td>-.15</td>
<td>-.12*</td>
<td>-.01</td>
</tr>
<tr>
<td>Phy</td>
<td>-.09</td>
<td>-.08</td>
<td>-.01</td>
<td>-.01</td>
<td>-.06</td>
<td>-.10</td>
</tr>
</tbody>
</table>

Note: * p = .05, ** p =.01, *** p = .001. Alco = Alcohol use, Smo = Smoking, Ineb = Inebriation, Can = Cannabis, Sex = Sexual Activity, Con = Condom use, Phy = Physical conflict.

To determine whether there were any significant differences between the samples, Model 1 and 2 chi-square and degrees of freedom values were compared. This resulted in a significant chi-square difference of 80.69 (df = 42, p = .003), thereby indicating a significant difference in the predictive strength of one or more beta paths between regional groups. To establish which beta paths differed significantly between Multiville and Oceanview residents, post hoc testing was performed on all significant paths with a disparity greater than .10 between regional groups. This resulted in a total of 16 comparisons using an adjusted alpha of .01 to limit error (see Table 7.26).

Of the 16 post hoc comparisons performed, three significant differences between the two regions were found. The predictive strength of the path between Neighbour SC and Inebriation differed significantly between the Multiville and Oceanview samples, indicating that Oceanview residents are significantly more likely than Multiville residents to become inebriated when high in Neighbour SC. The path between Family SC and Cannabis use also differed significantly by region. Whilst there was a negative relation for both groups, this association was significantly stronger for the Oceanview sample when compared to Multiville residents. Finally, post hoc tests revealed that Oceanview residents are significantly less likely than Multiville inhabitants to engage in sexual intercourse during adolescence when they have higher levels of Family SC.
Table 7.26

*Post Hoc Gender Comparisons of the Beta Paths Between the SCCS and Risk-taking Behaviours*

<table>
<thead>
<tr>
<th>No.</th>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
<th>No.</th>
<th>Predictor</th>
<th>Outcome</th>
<th>$\chi^2$ Difference</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Family</td>
<td>Alcohol</td>
<td>4.45</td>
<td>.035</td>
<td>9</td>
<td>Family</td>
<td>Cannabis</td>
<td>7.56</td>
<td>.006</td>
</tr>
<tr>
<td>2</td>
<td>Neigh</td>
<td>Alcohol</td>
<td>3.27</td>
<td>.071</td>
<td>10</td>
<td>Peer</td>
<td>Cannabis</td>
<td>3.68</td>
<td>.055</td>
</tr>
<tr>
<td>3</td>
<td>Comm</td>
<td>Alcohol</td>
<td>0.21</td>
<td>.317</td>
<td>11</td>
<td>Comm</td>
<td>Cannabis</td>
<td>4.19</td>
<td>.041</td>
</tr>
<tr>
<td>4</td>
<td>Comm</td>
<td>Smoking</td>
<td>3.06</td>
<td>.080</td>
<td>12</td>
<td>Belong</td>
<td>Cannabis</td>
<td>0.46</td>
<td>.317</td>
</tr>
<tr>
<td>5</td>
<td>Belong</td>
<td>Smoking</td>
<td>5.38</td>
<td>.020</td>
<td>13</td>
<td>Family</td>
<td>Sex</td>
<td>6.05</td>
<td>.013</td>
</tr>
<tr>
<td>6</td>
<td>Peer</td>
<td>Inebriation</td>
<td>0.88</td>
<td>.317</td>
<td>14</td>
<td>Comm</td>
<td>Condom</td>
<td>2.97</td>
<td>.085</td>
</tr>
<tr>
<td>7</td>
<td>Neigh</td>
<td>Inebriation</td>
<td>8.98</td>
<td>.003</td>
<td>15</td>
<td>Comm</td>
<td>Physical</td>
<td>3.14</td>
<td>.076</td>
</tr>
<tr>
<td>8</td>
<td>Comm</td>
<td>Inebriation</td>
<td>3.28</td>
<td>.070</td>
<td>16</td>
<td>Belong</td>
<td>Physical</td>
<td>0.40</td>
<td>.317</td>
</tr>
</tbody>
</table>

*Note.* Neigh = Neighbour SC, Comm = Community SC, Belong = School Belonging, Physical = Physical conflict.

**Conclusion Research Question 2.6.3:** Regional differences in the predictive relations between the SCCS and risk behaviours. In summary, both the free and fixed models in the moderating analysis provided an excellent fit to the data when parameters from both regions were estimated simultaneously. The chi-square difference test reached significance suggesting differences in the responses made by Oceanview and Multiville residents. Subsequent post hoc testing of individual paths showed that the paths with Family SC predicting Sexual activity and Cannabis use were significantly different between regions. More specifically, results indicated that Oceanview residents high in Family SC were more likely than Multiville residents to be engaged in Sexual activity, however, they were less likely to use Cannabis. Finally, Neighbour SC among Oceanview residents heightened the incidence of Inebriation, although this same relation was not evident among adolescents living in Multiville.

**Section Summary**

The previous section has presented the results examining the relations between social capital and risk-taking behaviours among secondary students. The SEM analysis revealed that in general, with few exceptions, social capital and School Belonging were associated with decreased levels of risk-taking behaviours in adolescents. In contrast, Isolation from the school community resulted in increased risk taking activities among teenagers. However, despite these positive results with
social capital reducing risk behaviours, few of the SCCS factors accounted for any practical amount of variance. The most important finding which accounted for a significant portion of the variance was that students with higher levels of Community social capital were far less likely to be involved in sexual activity, physical conflict, alcohol, tobacco, and cannabis use, and those that were engaging in sexual intercourse were more likely to use a condom.

The moderating analyses examining gender and regional differences highlighted a number of significant differences between groups. The chi-square difference test was statistically significant suggesting significant gender differences in the relations between social capital and risk-taking behaviours. Subsequent post hoc testing revealed that when high in Family and Peer social capital, males drank alcohol significantly less frequently than did females, and were also less likely to become inebriated when they did drink. Additionally, females high in Neighbour social capital were significantly more likely to get drunk than their male counterparts. Comparisons between males and females high in Community social capital revealed that both genders are less likely to become drunk, although this relation was significantly stronger for females. Interestingly, results also revealed that males were significantly more likely than females to practice unsafe sex when high in Family social capital, and females high in Community social capital were significantly more likely than males to have unsafe sex. In contrast higher levels of Neighbour social capital were significantly associated with increased condom use in females but not in males. Finally, females were significantly less likely than males to engage in physical violence when they felt a sense of Belonging.

Examination of regional differences revealed a significant chi-square difference test indicating a disparity in the responses made by Oceanview and Multiville residents. Subsequent post hoc testing showed that the individual paths with Family social capital predicting Sexual activity and Cannabis use differed significantly between regions. Specifically, Oceanview residents high in Family social capital were more likely than Multiville residents to be engaged in Sexual activity, however, they were less likely to use Cannabis. Finally, Neighbour social capital among Oceanview residents heightened the incidence of Inebriation, although this same relation was not evident among adolescents living in Multiville.
Relations between Social Capital and Access to Resources

The following section explores the relations between the multiple levels of social capital and a range of economic outcomes. Three outcome factors were included in the model consisting of: Participation (participation in activities that require monetary funds), living conditions (SES), and Internet access. With the exception of Internet access, outcomes were measured using composite factors.

This section firstly explores the relations between social capital and access to resources through structural equation modelling (SEM) employing the total sample. This will be then be followed by SEM moderating analyses in order to investigate whether the associations between social capital and socio-economic outcomes vary as a function of gender and/or region.

SCCS and Access to Resources SEM

Overview of Research Question 2.7.1: Relations between social capital and access to resources. Employing structural equation modelling, research question 2.7.1 aimed to determine the relation between each factor of the SCCS (Family, Peer, Neighbour, Community, Belonging, and Isolation) and participants access to resources (Participation, Living Conditions, and Internet access).

Results of Research Question 2.7.1: Relations between social capital and access to resources. As indicated by the goodness-of-fit indices, the proposed model demonstrated an excellent fit to the data (CFI & TLI = .96, RMSEA = .042, Chi-square = .2376.65, df = 705). As presented in Table 7.27, inspection of the beta coefficients revealed seven significant paths. Both accounting for 2.4 % of the variance, Participation was significantly and positively related to Neighbour SC and Belonging, and SES had significant positive relations with Family SC and Belonging accounting for 4.83% and 3.80% of the variance respectively.

The model also produced significant negative relations between Family SC and Participation, and SES and Community SC, however, both of these findings appear to be the result of suppression effects. As explained by Maassen and Bakker (2001), these suppression effects occur when the predictor variable/s (in this case Family and Community SC) have a minimal relation with the outcome variable (Participation and SES), but there is a correlation between two or more predictor variables. In support of this proposition, examination of the correlations between the predictors (Family and Community SC) and the outcomes (Participation and SES)
show a near zero relation (r = .04 and .02), whereas the predictors are correlated at .42. Furthermore, the variance explained by each of these relations was less than half a percent. Therefore, under the advice of Maassen and Bakker, these latter findings will be disregarded not only due to their largely superfluous nature and minimal effect size. Additionally, it may be further argued that the overall model seems unaffected by such effects (thus the two identified suppression effects are more of an anomaly with regard to the majority of predictive paths).

Table 7.27

<table>
<thead>
<tr>
<th></th>
<th>Participation</th>
<th>% of $\sigma^2$</th>
<th>SES</th>
<th>% of $\sigma^2$</th>
<th>Internet</th>
<th>% of $\sigma^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>-.10*</td>
<td>.40%</td>
<td>.23***</td>
<td>4.83%</td>
<td>.04</td>
<td>.24%</td>
</tr>
<tr>
<td>Peer</td>
<td>.01</td>
<td>.04%</td>
<td>.04</td>
<td>.36%</td>
<td>.01</td>
<td>.04%</td>
</tr>
<tr>
<td>Neighbour</td>
<td>.15**</td>
<td>2.4%</td>
<td>.11</td>
<td>1.32%</td>
<td>.02</td>
<td>.08%</td>
</tr>
<tr>
<td>Community</td>
<td>-.04</td>
<td>.32%</td>
<td>-.22**</td>
<td>.44%</td>
<td>-.06</td>
<td>.06%</td>
</tr>
<tr>
<td>Belonging</td>
<td>.16**</td>
<td>2.4%</td>
<td>.20**</td>
<td>3.8%</td>
<td>.10*</td>
<td>1%</td>
</tr>
<tr>
<td>Isolation</td>
<td>.06</td>
<td>.06%</td>
<td>.02</td>
<td>.20%</td>
<td>.04</td>
<td>.32%</td>
</tr>
</tbody>
</table>

Note: * p = .05, ** p = .01.

Conclusion of Research Question 2.7.1: Relations between social capital and access to resources. In summary, participants that had a strong sense of Belonging participated in more activities, experienced better living conditions, and were more likely to have access to the internet. Furthermore, a higher level of Family SC was associated with improved living conditions, and greater social capital amongst neighbours resulted in greater participation in community activities.

SCCS and Access to Resources Moderating Analysis

Overview of Research Question 2.7.2: Gender differences in the predictive relations between the SCCS and access to resources. The purpose of the current research question was to determine whether the relations between social capital and access to resources varied as a function of gender. To investigate this possibility, a SEM moderating analysis was performed whereby both male and female samples’ predictive paths were estimated simultaneously, and potential differences highlighted.

Results of Research Question 2.7.2: Gender differences in the predictive relations between the SCCS and access to resources. The initial free model
(Model 1) provided a good fit to the data with a RMSEA of .044, and a CFI and TLI of .96. Imposing constraints on the beta paths in the second model resulted in no changes in the fit indices (see Table 7.28). As shown in Table 7.28, seven of the 18 paths were significant for males, and four significant paths were found for females. For both males and females, Neighbour SC was significantly and positively related to Participation. For males, Family and Neighbour SC, along with a sense of Belonging significantly predicted higher SES. Additionally, a sense of Belonging amongst males was a positive predictor of Internet access.

For females, Neighbour SC and a sense of Belonging positively predicted Participation, whereas Isolation was a significant negative predictor of participation in community activity. As with the previous SEM analysis, suppression effects appear to be operating in the paths between Family SC and Participation for males, and Community SC and Participation for females. As with the prior analysis these paths will be disregarded.

Table 7.28

<table>
<thead>
<tr>
<th>Gender</th>
<th>Beta Coefficients and Fit Indices for the SCCS Predicting Participation, SES, and Internet Access</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Participation</strong></td>
</tr>
<tr>
<td></td>
<td>Males</td>
</tr>
<tr>
<td>Family</td>
<td>-.19**</td>
</tr>
<tr>
<td>Peer</td>
<td>.02</td>
</tr>
<tr>
<td>Neighbour</td>
<td>.13*</td>
</tr>
<tr>
<td>Community</td>
<td>.06</td>
</tr>
<tr>
<td>Belonging</td>
<td>.10</td>
</tr>
<tr>
<td>Isolation</td>
<td>.02</td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>X²</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free (Model 1)</td>
<td>3259.30</td>
<td>1410</td>
<td>.96</td>
<td>.96</td>
<td>.044</td>
</tr>
<tr>
<td>Fixed (Model 2)</td>
<td>3300.78</td>
<td>1428</td>
<td>.96</td>
<td>.96</td>
<td>.044</td>
</tr>
</tbody>
</table>

Note: * p = .05, ** p = .01.

To ascertain whether or not there were significant differences in the predictive paths between males and females, a comparison between the Chi-square and degrees of freedom values was made. This resulted in a significant chi-square difference of 44.70 (df= 18, p = .0005). To determine which paths were significantly different between males and females, post hoc comparisons were performed on all
significant paths (discounting suppressed paths) with a disparity greater than .10 between gender groups. This resulted in a total of 3 comparisons using an adjusted alpha of .01 to limit error. Comparison one (C1) examined the path between Neighbour SC and SES, Comparison 2 (C2) assessed School Belonging and Participation, and Comparison 3 (C3) examined Isolation and Participation. Of the three post hoc tests conducted, a significant gender difference was found only on the path between Neighbour SC and SES \((p = .001)\). Comparisons between Belonging and Participation, and Isolation and Participation were not significant (C2: \(p = .048\), C3: \(p = .019\)) utilising an adjusted alpha of .01.

Conclusions of Research Question 2.7.2: Gender differences in the predictive relations between the SCCS and access to resources. In summary, both the free and the fixed models provided a good fit to the data. A significant chi-square difference was found indicating significant differences in the predictive relations between males and females. Post hoc testing revealed that the only significant gender difference was on the path between Neighbour SC and SES, whereby females higher in Neighbour SC experienced significantly better living conditions than did males.

Overview of Research Question 2.7.3: Regional differences in the predictive relations between the SCCS and access to resources. The purpose of the current research question was to determine whether the relations between social capital and access to resources varied as a function of region. To investigate this possibility, a SEM moderating analysis was performed whereby the Oceanview and Multiville samples’ predictive paths were estimated simultaneously, and potential differences highlighted.

Results Research Question 2.7.3: Gender differences in the predictive relations between the SCCS and access to resources. The proposed free model (Model 1) demonstrated a good fit with the data resulting in a RMSEA of .039, a CFI of .97, and a TLI of .96. When beta paths were constrained in Model 2, there was no change in the model fit. Examination of the beta coefficients (see Table 7.29) revealed six significant paths for the Multiville sample and only one significant path for Oceanview residents. For Multiville residents, School Belonging significantly and positively predicted Participation, SES, and Internet access, and Neighbour SC was a significant positive predictor of Participation. Again suppression effects were evident in the paths between Community SC predicting both Participation and SES in the Multiville sample, and as such these findings were disregarded. The only
significant path identified for Oceanview residents was the path between Family SC and SES. A chi-square difference test was performed in order to ascertain whether or not there were significant regional differences in the predictive strength of the beta paths. This resulted in a non-significant chi-square difference of 24.33 (df= 18, \( p = .145 \)), thereby indicating that the predictive relations between social capital factors and access to resources was similar across region.

Table 7.29
Regional Beta Coefficients and Fit Indices for the SCCS Predicting Participation, SES, and Internet Access.

<table>
<thead>
<tr>
<th>Family</th>
<th>Multiville</th>
<th>Oceanview</th>
<th>Participaion</th>
<th>Multiville</th>
<th>Oceanview</th>
<th>SES</th>
<th>Multiville</th>
<th>Oceanview</th>
<th>SES</th>
<th>Multiville</th>
<th>Oceanview</th>
<th>Internet</th>
<th>Multiville</th>
<th>Oceanview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer</td>
<td>.06</td>
<td>.04</td>
<td>.02</td>
<td>.07</td>
<td>.01</td>
<td>.02</td>
<td>.05</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbour</td>
<td>.23**</td>
<td>.03</td>
<td>.11</td>
<td>.06</td>
<td>.01</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>-.15*</td>
<td>.20</td>
<td>-.24**</td>
<td>.04</td>
<td>.08</td>
<td>.05</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belonging</td>
<td>.19**</td>
<td>.08</td>
<td>.27***</td>
<td>.05</td>
<td>.12*</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation</td>
<td>.01</td>
<td>-.10</td>
<td>.04</td>
<td>.09</td>
<td>-.07</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Goodness of Fit Indices

| Free (Model 1) | 3259.30 | 1410 | .96 | .96 | .044 |
| Fixed (Model 2) | 3300.78 | 1428 | .96 | .96 | .044 |

Note: * \( p = .05 \), ** \( p = .01 \)

Conclusion Research Question 2.7.3: Regional differences in the predictive relations between the SCCS and access to resources. In summary, both the free and the fixed models provided a good fit to the data. For Multiville residents, School Belonging was associated with significantly higher participation in community activities, improved standard of living, and internet access. Furthermore, for those residing in Multiville, higher levels of Neighbour SC was related to significantly greater participation in community activities. For Oceanview residents, greater capital within the family resulted in a better standard of living. Finally, a non-significant chi-square difference was found, thereby indicating the predictive relations between social capital and access to resources were similar for Multiville and Oceanview residents.
Section Summary

In summary, participants with a greater sense of Belonging at school participated in more activities, experienced better living conditions, and were more likely to have access to the internet. Furthermore, a higher level of Family social capital was associated with improved living conditions, and greater social capital amongst neighbours resulted in greater participation in community activities. A significant chi-square difference was found indicating significant differences in the predictive relations between males and females. Post hoc testing revealed that the only significant gender difference was on the path between Neighbour social capital and SES, whereby females higher in Neighbour social capital experienced significantly better living conditions than did males. Examination of regional differences revealed for Multiville residents, School Belonging was associated with significantly higher participation in community activities, improved standard of living, and internet access. Furthermore, for those residing in Multiville, higher levels of Neighbour SC was related to significantly greater participation in community activities. For Oceanview residents, greater capital within the family resulted in a better standard of living. Finally, a non-significant chi-square difference was found, thereby indicating the predictive relations between social capital and access to resources were similar for Multiville and Oceanview residents.

Chapter Summary

The current chapter has investigated the relations between social capital and mental and physical health, academic self concept, student aspirations, risk-taking behaviours, community perceptions, and access to resources. For mental health outcomes, in general, it can be concluded that the more isolated one feels from their community, the more likely they are to suffer from depression, anxiety, and stress, and the more social capital one has within the family the less likely they are to experience these same symptoms. These findings were consistent across males and females, and for residents living in Oceanview and Multiville.

The next set of analysis examined relations between social capital and ones’ perceptions of their community (including Discrimination, Community Reputation, and Fear of Crime). It was found that the more social capital one has with their
neighbours and community institutions, the more positively they perceive their community’s reputation. Furthermore, results indicated that the greater isolation one feels from their community the more racial discrimination they perceive, whereas higher levels of social capital amongst neighbours acts as a buffer and results in lower levels of perceived discrimination. Finally, a strong sense of School Belonging and Community social capital significantly decreased one’s fear of crime within the local community. The moderating analyses also identified significant variations in the predictive values of the paths between the factors of the SCCS and the NCPS. Most notably, higher Family social capital resulted in lower levels of perceived racial discrimination, and greater Community social capital serves to decrease residents Fear of Crime within the community. Both of these relations were significantly stronger for males than for females.

Furthermore, with paths being significantly stronger for females when contrasted with males, it was shown that the higher Community social capital and sense of belonging among female participants, the more positively the local community was viewed. Post hoc tests also revealed that the more isolated one is from their community the greater the perception of racial discrimination; this relation was significantly stronger for females when compared to males. Finally, results show that for females particularly, a greater sense of Belonging to one’s school resulted in higher levels of fear toward crime within the community.

Significant regional differences were also identified between Oceanview and Multiville residents. Findings revealed that a strong sense of School Belonging significantly reduced Perceived Discrimination for those living in Oceanview but not for those residing in Multiville, whereas a higher sense of Isolation within the school significantly increased feelings of Perceived Discrimination for Multiville residents but not for Oceanview residents. It was also found that increased relations among neighbours resulted in a more positive view of the local community for Oceanview residents; however, this same association for Multiville students had a detrimental effect on how they perceived their community’s reputation. There were no significant regional differences found for the Fear of Crime factor.

Examination of the relations between social capital and academic self-concept revealed that above and beyond the close proximal relationships among family and peers, the strongest predictor of a positive self-concept were the more distal relations of a sense of belonging at school and to one’s local community. These relations were
evident regardless of gender or where the respondents lived. Additionally, it was found that Family and Community social capital were positive predictors of General, Verbal and Math self-concepts, whereas social capital amongst neighbours and peers exerted a negligible or negative influence, respectively, on those same self-concept factors.

Investigation of the associations between social capital and future aspirations has shown that with the exception of Community social capital, all levels of social capital, and a sense of belonging, are positively associated with students’ future aspirations towards their future wealth, career, and social aspirations. Perhaps the most important findings however, were the strong positive associations between Peer and Community social capital, and the endorsement of future social aspirations, both of which accounted for approximately ten percent of the total variance in each factor. Whilst significant gender differences were found in the moderating analysis no significant regional differences were identified.

Analyses of physical health outcomes revealed that higher levels of Family and Community social capital significantly predict positive health practices, improve life satisfaction, and act as a buffer against inactivity amongst the adolescents in the current sample. In contrast, greater social capital within the peer group appears to promote unhealthy behaviours amongst teens, and a higher incidence of symptoms associated with illness. Furthermore, exploration of gender differences indicated that important differences were present in the predictive strength of individual paths between social capital indicators and health outcomes for males and females. It was shown that females higher in Community social capital reported significantly less symptoms related to poor health than did males, and females high in Family SC reported significantly higher levels of Life Satisfaction when compared to their male counterparts. The only significant difference among Oceanview and Multiville respondents was the association between Community social capital and fewer symptoms of poor health which was evident in the Oceanview sample only.

Examination of social capital and risk-taking behaviours revealed, with few exceptions, social capital and a sense of belonging were associated with decreased levels of risk-taking behaviours in adolescents. In contrast, a sense of Isolation from the community resulted in increased risk-taking activities among teenagers. The most important finding which accounted for a significant portion of the variance was that students with higher levels of Community social capital, were far less likely to be
involved in sexual activity, physical conflict, alcohol, tobacco, and cannabis use, and those that were engaging in sexual intercourse were more likely to practice safe sex. Also highlighted within that set of analyses were a number of significant differences between gender and regional groups.

Finally the associations between social capital and access to resources were investigated. It was shown that participants with a greater sense of belonging participated in more activities, experienced better living conditions, and were more likely to have access to the internet. Furthermore, a higher level of Family social capital was associated with improved living conditions, and greater social capital amongst neighbours resulted in greater participation in community activities. A significant difference between males and females were identified, however, there were no significant regional differences evident.
CHAPTER 8
RESULTS OF STUDY 3: A QUALITATIVE INVESTIGATION INTO SOCIAL CAPITAL AND THE STRENGTHS AND CHALLENGES EVIDENT IN DISADVANTAGED COMMUNITIES

Introduction

The primary purpose of this chapter is to present the responses from the qualitative interviews across the two communities under study. The following discussion is presented in four overarching themes. The first section describes the real and/or imagined barriers to social and economic success encountered by students living in these geographically disadvantaged areas. The second section highlights the lack of community cohesion amongst residents in living in these areas, whereby religious and racial tensions often erupt into violence and aggression. The third section presents the strategies in which the community residents, council, schools, and non-government organisations have used in trying to address the difficulties evident in these communities. The final section examines the contradictions found within the data, and explores prospective intervention ideas and programs proposed by respondents. The secondary purpose of the chapter is to demonstrate the complexities in addressing both the problems and the potential solutions for people living in disadvantaged settings.

“We’re up against it”

“A modern democracy is a tyranny whose borders are undefined; one discovers how far one can go only by travelling in a straight line until one is stopped”. (Norman Mailer, 1960, p. 148)
Interview data revealed that there was a widespread belief that social disadvantage is exacerbated by being “up against the system” (the school, the law, the media), and being given access to the poorest of resources and services.

**The Teachers Are Against Us**

It is commonly believed that one of the best ways to escape a life of disadvantage is to get a good education. It was apparent that the students interviewed valued education and did see it as an important way of overcoming disadvantage. “They [parents] didn’t have the opportunity we have ... if they had the education we had, then maybe there would be a different story.” This view was particularly apparent among immigrant families.

**Teacher discrimination.** Despite many of the students understanding the value of education to their future success, the majority reported a number of barriers to doing well in school. The most prominent of these was the perceived attitude of teachers toward them. The students reported that some of the teachers in their school were “racist” and students were disciplined differently depending on their cultural background:

> When we’re in class, or like in assembly, the Lebos will full talk ... and nobody pays attention and then a Lebo teacher will understand what they’re saying ... they’re all swearing in Lebo and he wouldn’t care but when we say something in English he told us to get out.

On the other hand, Lebanese students believed they were “picked on” by teachers because of their race and stated that teachers overtly displayed their dislike of them. They talked about, “if you’re Muslim they pick on you,” and teachers calling them “stupid Muslims.” The Oceanview students also reported incidences of racism and harsh discipline.

**Harsh Treatment.** Although a number of Multiville students acknowledged that they do misbehave (“we’re a bit bad, but we don’t go overboard”), they felt they received excessively harsh punishment without explanation: “It’s all unfair. I got suspended three times last year and I never knew what happened.” Interestingly, the students felt that some of the teachers were instrumental in their lack of educational
attainment, as punishments were handed out too swiftly with little thought to the consequences for the student:

> It’s like the board of studies made this scheme or whatever that if you don’t participate in a couple of outcomes you’re given a N award letter and if you have three of them for the subject you can’t sit the HSC for it. Teachers are handing them out like they’re nothing. They don’t get that they’re changing someone’s future.

What is clear is that current disciplinary code is ineffective in changing student behaviours and attitudes. They continue to believe that their underprivileged situation is due to external sources beyond their control (discrimination and victimisation by others), all of which compound their feelings of disadvantage and vulnerability.

**Low teacher expectations.** Many students described low teacher expectations as another barrier to school success. Instead of trying to engage students and encourage them, they believed that the teachers gave up on them too easily and lacked persistence:

> If you don’t show interest in the subject they just give up on you ... the troublemakers make trouble in the class ... they’ll just give up on the whole class ... they’ll tend to stop teaching that class all together, and the people that do want to learn, they have no hopes, no nothing.

As a result, those who were interested in learning felt that it was pointless, “they reckon the teacher’s given up on them, there’s no point.” Others reported that if they are having trouble in a subject, the teacher simply gave up on them rather than trying to help them understand the concept. Low teacher expectations were also reflected in teacher statements that seemed to blame parents and students for poor aspirations and outcomes, contradicting students’ earlier statements about the importance of a good education:

> Their parents have high expectations. They want their children to go to school to be doctors, lawyers, engineers, but the reality is a lot of
them do okay but they don’t do that well because they are not being influenced enough by education. A lot of them see education as nothing.

Teachers complained that, “Well we can only do so much, if they aren’t interested in learning, there is little we can do about” and “a lot of kids are very hard to motivate. They don’t want to be at school.”

**No Second Chances.** Many students claimed that when trying to change their poor behaviour in class the teachers were unwilling to give them a chance to improve. Students felt that they were labelled and expected to behave poorly before they had actually done anything wrong:

*The teachers just blame us for something that we might do, then they blame us for something else, so in the end we just do something bad to wreck it, and act like we used to before trying to be good.*

Another student saw teacher pre-judgement as a barrier to improving his behaviour at school:

*Every time we go to class and try to be good ... the teacher tells you to get out and then you’re going to start swearing so it’s pretty much the teacher’s fault cause even when we were gonna be good they just assume we’re gonna be bad. I just wish they would let us change and stuff.*

**Teacher and school quality.** Students also reported that they “sometimes get crap teachers” and the conditions in their school were “outdated” and under resourced. This further exacerbated their belief that they are hard done by and more disadvantaged than students living in more affluent areas. They felt that affluent schools encountered few of the day to day difficulties that they were experiencing: “They don’t have the problems we do. They try and look down on us, they’re not racist, they’re just a better school then ours.”

Additionally, students felt that a number of their teachers were not qualified in the subjects they were teaching, resulting in poor lesson quality:
Half of them are on the wrong subjects; they don’t know what they’re talking about. They just give sheets. It would be okay if they actually taught their own subject, but here a PE teacher does science, they’re not meant to do that and they don’t know what they’re doing.

Teachers’ lack of commitment was also brought up. Some stated that many of the teachers were, “Just giving stuff out and not really caring about what they’re teaching,” or “teachers that don’t really care, they just come in, they do their day to day teaching, then they just go home and start real life. What they’re saying is they just don’t care about us.”

The physical deterioration of the schools and the poor quality and quantity of resources was discussed as well. Students reported a lack of computing resources (“we only have one computer in the room”), outdated and insufficient text books, physical deterioration within the schools of both communities (“half broken chairs”, “cracked and peeling walls” “tables the size of laptops”, “smashed equipment”). Students felt disheartened by the appearance of the school, believing this further prevented them from learning. A common complaint was that when school equipment breaks down nothing gets done for long periods of time. For example, students complained that “the computers in the library have been down for weeks” and “we were promised the back area would be fixed up when I was in year nine, they bought this big truck to fix it up. They dumped the dirt and just left it like that. Now it looks even worse”. The poor condition of toilet blocks was reported by the majority of students. When asked why the toilet facilities were in such a bad state, the students freely acknowledged that it was because the students vandalised them, but again felt that everyone had to suffer because of a few students behaviour.

Interestingly, when the school does purchase, or repairs the existing equipment, students state that, “everything the school fixes...is wrecked straight away.” As a result, they are unable to use it because the staff did not trust them to utilise it appropriately. This lack of trust between students and staff was a continual source of frustration for many of the respondents:

She goes “no way, you kids are always stealing.” They get all this new, good equipment and they don’t let us use it ... they got new
keyboards and new drums, they won’t let us near them. We have this cool recording studio with drums and we’ve never even got in there!”

Lack of power. Students felt they had little or no power to change things (“if we do anything, it’s not going to change anything”). They felt that the staff didn’t listen to them and that they are powerless to change the situation (“they all just say ‘yep, yep’ ... yeah but they’re not really listening ... nothing happens”). Many believed that if they did try and do something it could make it even worse:

I want to be safe in school but I reckon that they don’t do anything about it at this school ... maybe if you were at another school, because I know a lot of people from other schools, if they’ve got a bad teacher they complain and a lot of things happen. Here if we complain it doesn’t get heard. Like it’s going to be like a lot worse if you complain, so you’re not going to do anything.

This reiterates the previous subtheme whereby the students believe that they are worse off than students attending other more affluent schools as their needs are largely ignored or considered unimportant. Another student recalls a lack of response from the teaching staff when he was being bullied by an older group of students:

When I was getting picked on and I was like saying, “Miss, miss help me out here” and a whole lot of kids chased after me but the teacher was there and she didn’t do anything about it. I was chased by a lot of kids, running for my life and I had to jump into a staff room until finally they realised I was in trouble. That’s how difficult it is to get them to listen.

Numerous students believed that their teachers acted as though they were superior to them, treating them poorly and putting them down as a result. “The way she talks to me, it’s just like she is talking to a ten year old. I’m 18 years old, talk to me like an adult you know what I mean? Don’t put me down”. Students from both schools reported that “some teachers use their power against us” by limiting their
choices and pressuring them into discontinuing their education when they are lacking engagement or performing poorly:

Yeah I’m intimidated by some of the teachers here to leave school. They go “Leave school and go, you’re not doing anything ... you just don’t have any faith in school anymore, so go ... a lot of teachers telling you to go. The teacher said, “You’re either getting expelled or you’re leaving. Those are your only two options here.”

In summary, this section has highlighted the students’ perceptions of difficulties encountered within the schooling context surrounding negative teacher attitudes, teacher discrimination, and a lack of commitment and competence of the school staff. Students felt that their teachers failed to listen to them and used their power to intimidate and limit their choices regarding their schooling. As a result, students believe that the problems they encounter and their underprivileged position is largely due to external sources beyond their control and this further exacerbates their feelings of helplessness. However, as the next section demonstrates, these feelings of discrimination, victimisation, and the lack of power is not contained to the schooling context but also extends to the wider community.

**The Police Are Against Us**

Participants were questioned about their experiences with, and attitudes toward, the police in their area. In response, a number of issues arose. These included respondents’ perception of police competence, a general disrespect and distrust of the police, power relations, and differential treatment and racism.

**Police competence.** Many respondents reported that the police in their area needed “to be more dedicated” to their jobs, and were often “lazy”. As one respondent commented “they don’t really care about the area. They just want to do their nine to five job and go home”. Participants also felt that the police were slow to respond to calls from the community as one participant recalls:

I was on my street ... and there was an Islander in a car accident. There was an argument and he called all these people down. There was this big brawl. I called the police as soon as this car accident
happened and the police didn’t turn up until half an hour after all of that happened.

The implication here is that the lack of response from the police is deliberate and that they choose to turn up “whenever they feel like it”. This perception of the police often led to a general distrust of the police and a lack of respect for them as shown in the following subsection.

**Lack of trust and disrespect toward the police.** In most cases, interviewees described their attitude toward the police in negative terms. One principal describes his view of how the community feels about law enforcement in the local area:

*Very disrespectful. There have been lots of incidences of parties getting out of control and then the police are copping a barrage of abuse when they turn up to try and break up the party. And that’s from underage kids these days as well.*

It is important to note that this also reveals that “kids” are willing to overtly voice their disrespect by giving the police “a barrage of abuse”. Also of concern was the young ages of the offenders described by the respondent, who claimed that this behaviour is common among young teens aged “14 and 15 years old”.

There was also a lack of trust of police evident in the focus groups with a number of students claiming that you “can’t trust the cops” usually because they believe the police dislike them and/or have had some kind of negative experience with law enforcement. A student relates an experience he had with the police that resulted in a lack of trust of all police:

*Basically there was a house fire and I was tackled by the police for doing nothing. I was trying to help my mate put out the fire...the police interviewed us and they separated me from the group for no reason. So I have a lot of respect for some of the police officers, but after that night I can’t really trust them as much.*
Adolescents also felt that they were singled out by officers and treated differently to other groups in the community, and this is described in the next section.

**Targeted by police.** Respondents related numerous experiences in which they believed the police targeted them unnecessarily. They stated that they were “picked on” by the police for no reason, “Like after school we go to Punchbowl station and we’ll eat. Some of them will come and they’ll look at ya and say what are you doing here? Like straight away assume bad”.

There were many who expressed their frustration at being treated unfairly, particularly when the police “get in our faces” and prevent them from whatever they were doing without providing a valid reason. They also claimed that the police “go harder on” them than other groups in the area. “The other day people came into our area and had a fight with us and we fought back, they called the coppers and the coppers take us for fighting back, even though they were the ones who started the fuckin’ thing”.

Students distrust of the police coupled with the perceptions that they were being specifically targeted resulted in the perception that police were on a “power trip” and often abused that power to victimise those with less authority.

**Abuse of power.** Respondents perceived the police to “take advantage of their power” and use their position of authority to intimidate and harass the local youth. As explained by a Year 10 student, “you’ve got police who are there to do their job and you’ve got police who the power went to their head like they can do what they want. They would literally harass and intimidate me”. Other students claimed that it was the aim of some officers to also humiliate them:

*No they don’t just intimidate. They will literally go to the group and laugh at you. So that’s when I just knew I couldn’t do anything right because they were police and they could like manipulate the law.*

The claim that this student “couldn’t do anything right” because police officers “can manipulate the law” implies a feeling of powerlessness that was also described in the schooling context, indicating that their poor relations with authority figures is pervasive in many facets of their everyday lives. Respondents expressed
their displeasure at having the police look down on them and believing they were better just because they held a badge:

But they tend to feel that they have a lot of power because they’ve got a badge. Let’s be honest without the badge, you’re another person. They tend to think that they’re bigger than us. Even with the badge they’re just another person.

In addition to reports of distrust, unfair treatment, intimidation, and harassment, participants also reported their experiences of overt police discrimination and racism.

Police racism. Respondents stated that police treated them differently specifically because of their cultural background:

The police force is mostly Anglos and when we walk around in the streets, we sometimes get bullied by them. But if they see someone doing the same thing as us but a different culture they’d be it’s alright. But once they see us different story. They go hard on us.

Other students gave specific examples of incidences where the police deliberately taunted them, and made specific comments regarding their race:

So we were just walking and then he [the police officer] pulled up me and my mate Jabara and then he was like, listen to what I say because I’m going to be hard on youse, and I’m like why? He said because it’s target Arab’s day. We honestly thought he was joking and then he started laughing and he’s like no I’m serious, so watch out.

The initial section of this first theme focused on respondents’ perceptions of what they are up against in schooling context. The current sub-theme broadened this out to the problematic relations experienced within the local community, whereas the next two sub-themes examine perceptions of victimisation emanating from society in general, most specifically the media and the government.
The Media Are Against Us

Numerous respondents felt that the media were responsible for the poor public view of the community and its residents. They felt that the media specifically targeted them and increased “outsider’s” negative perception of them:

The media has a lot to do with our problems, the media says Muslims don’t like Christmas decorations, but you speak to the ladies here and they love it; like during the Cronulla riots, the media kept bringing it up, it was so in your face, which implies that it was the media that stirred things up.

These overgeneralisations were also reported by Oceanview students. “The newspapers say that there is a massive teenage alcohol problem in our area, but that is only a minority of us. They make out like it’s, like all of us always drinking”. Participants also claimed that it is “the bad things that make the news, not the good things” where their community was concerned. This was supported by a parent in relation to the reputation of youth in the area “I think it is the media that publicises the bad. They [teenagers] are easy targets of the media”. Participants believed that it is difficult to change the public perception of the area because the negative media dissuade those living outside the area to coming there. As stated by a parent in the Multiville area, “the media report that Multiville* is not a good place to live any more...Multiville* is a great place but you hear negative things in the media and people say ‘oh don’t go there’”.

Whilst both communities reported the media portrayed them negatively, Multiville respondents argued that they “seem to get the worst rap” out of all the suburbs in Sydney:

The media has a lot to answer for in a lot of different areas. So that’s probably more of an aspect in our community especially. You’ve got no money to have a court case and the government and the media keep on giving us a bad name.

This passage also indicated that the interviewee believed that they are given such a hard time in the media because they are from a disadvantaged area, and do not
have the funds to defend themselves, therefore, are deliberately taken advantage of. The respondent also incorporates the government into the quote, believing that they too contribute to their poor reputation.

*Original name in quote changed to maintain community anonymity

**The Government Are Against Us**

Distrust of the government and associated government policy was a recurring theme throughout the focus groups. Within the school context the students believed that the government made promises they would not keep with their schools because they were the lowest priority. For example, one student stated “we need the laptops they [the government] promised us. All the bloody rich schools have got theirs and as usual we got nothing”. They also believed the government to be racist using Pauline Hanson as an example, stating, “I’d kick Pauline Hanson out of the government because her racism shouldn’t be tolerated”. When it was explained to the interviewees that Pauline Hanson no longer held a seat in government, a student stated, “it doesn’t matter because there are so many more other racist ones” suggesting that once they have the mindset of a racist government, it is difficult to shift their thinking.

Respondents also perceived that race played a role in receiving government benefits, claiming that they didn’t have access to the same government resources as others:

*Youth Allowance isn’t fair either. It’s supposed to be for all the Youth, money like every two weeks. I think I can go to Centrelink and get $650 like the other boys, so I went there and they said you can’t have it. The government just keeps on screwing us because we are Muslims. They rip people off. Youth allowance handout is $650 and I didn’t get it.*

Further evidence for the lack of faith in government at all levels was evident with a number of students. For example, one respondent stated that “even though they’re saying the prime minister is putting a billion dollars into the timetable to make it more scheduled, it’s like, yeah that’s bullshit. It’s just lies to shut people up
so they’ll stop complaining”. Consistency in responses such as these demonstrate the disillusionment among some of the participants regarding current governmental practices, particularly when it concerns funding of vital importance for those living in disadvantaged communities.

In sum, this section has discussed the way in which the respondents perceive the government and the belief that the media play a pivotal role in establishing a negative view of the community among the general public. This poor reputation, and the difficulties in trying to overcome it, will be addressed in the next section.

Our Reputation Is Against Us

Respondents suggested that one of the biggest challenges they were up against was “getting past our bad reputation”. This was reported as a problem within the schools and also within the communities themselves.

School reputation. Within the schooling context, it was made clear that whilst they were making a concerted effort to improve the reputation of the school and had had some success within the Department of Education, translating that change to the community was far more difficult:

_We’ve picked up our reputation in the Department but within the community we just can’t shake it. We just cannot shake it. People just assume there is something bad going on because of our past problems._

Students believed that it was “just a handful of kids” that reflected badly on the school and that the antisocial behaviours of the minority led to the public perception that the entire school was bad:

_The people that smoke, and people see them smoking, they just are like it’s the whole school. Even if they are not actually in school or during school hours, if they are in a school uniform they represent our school._

In addition to smoking, other antisocial behaviours carried out by the minority also contributed to the poor reputation of the schools in the two
communities. “Our school has a bad image of kids causing trouble, fights, fires, all of that but it’s really only a few idiots, although we’re probably voted the worst school in Australia”. It appears that the persistently negative reputation of the school is having a detrimental effect on some of the students’ attitudes within the school. This view was supported by a teacher speaking about when he first arrived at the school:

_The first thing said to me when I came into the school playground, some kid at recess said to me, ‘why would you come to this shit school?’ He just couldn’t understand why anyone would want to teach here. And you really got the feeling that the kids thought it really was a shit place to be._

Interviewees also believed that once somebody in the community formed a bad opinion of their school, the word spread throughout the community to those who had no knowledge of the school. They claimed that this had the potential to threaten the future of the school because it prevented the parents of younger children from wanting to send their children there:

_From the people that have seen or heard about our reputation, their opinions of our school are bad and they tell everyone else. And so they are giving us a bad name and you get a bad name in the community. So parents won’t send their kids here because they think no, we can’t, it’s a bad school._

Finally, students in all schools studied recognised that in order to dispel the negative view of the school and ensure greater enrolment numbers in the future, they needed to work hard at improving their reputation within the community. These preconceived views of the area and the difficulties in overcoming them were not contained to the schooling context, as they were also widely reported in relation to the general community.

**Community reputation.** As in the schooling context, respondents frequently referred to the negative perception people held of their local community and how difficult it was to change that perception, even though they believed that there has improvement in the area. “The area might be better but our reputation like sticks to
us”. The negative reputation of the Multiville community particularly is far reaching. When outside their local area, residents reported receiving responses from others such as, “oh god, you’re from Multiville*!" It’s as if they feel sorry for you”.

In addition, many respondents believed that problems in the past continued to tarnish the reputation of the suburb, despite the incident occurring years before:

*The Bavadia boys were very involved in criminality and gave the area a bad name but they’re wiped out now, all in jail, but the association of crime with Multiville* lingers on. Also there was a major news story about the rape of the girls in Multiville* like 10 years ago. Still it stays in the memory of many people and that it happened here. It’s constantly on the news that these guys are trying to get their sentences shortened and it always mentions that it happened in Multiville*.

This view that people outside of the community have a skewed perception of what a particular suburb is like was reiterated by a number of students, claiming the their suburb is nothing like the way other “outsiders” portray it:

*A lot of the bad things about communities, it is more about other people, people from outside. People who don’t even live here or even been here, they give it a bad name by always badmouthing it, like no don’t go there, it’s horrible, it’s disgusting, but it’s not, it’s not like that.*

Most acknowledged that there were problems in the past such as those named above, however, they argued that the typical view of their community was no longer relevant. Despite this, the negative reputation persisted. In support of this viewpoint one respondent voiced his frustration of the persistent stereotypical views plaguing his community:

*We need for people to stop having a stereotypical view of the south-western Sydney area, as being like a place where there’s a specific culture that’s all about violence and racism. Because it’s just not like*
that. They all see the south-western suburbs as a violent place, like with all the Arabs and all of that. It’s so exaggerated.

A number of other people living within these suburbs identified ignorance and racism as a catalyst to the poor reputation of their communities. Despite the residents defending the reputation of these communities, they do acknowledge that certain areas within the community can be “rough” and “intimidating.”

It is possible that these particular areas contribute to the poor reputation of the whole community. Regardless of the reasons for the poor reputation of these communities, it is clear that many of the residents living there were keenly aware of how others view their neighbourhoods. This potentially compounds their feelings of disadvantage and their perceptions that they treated unfairly by the rest of society, and its institutions, which has been a recurring topic throughout material presented thus far.

To conclude, it is apparent that residents in both communities believe they are victimised and disadvantaged by most of the formal intuitions they encounter. Respondents displayed a clear lack of trust and respect for teachers, government and the other authority figures in their lives, believing they are targeted and treated unjustly by those who are put in place to support them. They felt further disadvantaged by others negative perceptions of them and the attitudes toward their place of residence. Under these circumstances one would assume that the residents in these communities would bond together in trying to overcome these adversities, however, as we will see in the next main theme, this was not necessarily the case.

“We’re not in it together”

Social capital calls attention to the fact that civic virtue is most powerful when embedded in a dense network of reciprocal social relations. A society of many virtuous but isolated individuals is not necessarily rich in social capital (Putnam 2000, p. 19).

The previous section described the real and/or imagined barriers to social and educational, and economic success encountered by residents living in these geographically disadvantaged areas. The current section focuses on the lack of community cohesion amongst residents living in these areas. While it was apparent
that both communities experienced inter-group divisions, the reasons for this varied across the two regions. Multiville students reported fragmentation whereby the cultural values between religions and races often clashed. In contrast, the data suggests that the fragmentation in the Oceanview area was the result of an economic disparity among residents and the high residential mobility rates in the area. Data about these differences are now presented separately below.

**Multiville**

Analyses of the data revealed that community groups tended to compete with each other to gain access to the limited resources available, thereby aiming to improve the lives of their particular group rather than the community as a whole:

*The community itself is a bit fragmented...there’s not really a united community. Not really a united community all rowing in the same direction. It’s a great place to live. But it’s also a very difficult place to live because it’s a little bit of dog eat dog, every person for themselves attitude.*

There were a number of contributing factors suggested to account for this fragmentation, one of which was profound identity confusion among the youth living in the Multiville area.

**Identity confusion.** Respondents were asked what they felt were the biggest problems currently facing the community. In the Multiville area particularly, loss of identity was mentioned by the majority of participants. As explained by a community liaison employee working in Multiville:

*I think one of the biggest inherent problems that I see at the moment is they’re not sure exactly where they fit in. You know, they’re not quite Australian, they feel, not quite Australian. They don’t feel quite whatever it is their cultural background is. For the Muslim kids in particular I get the feeling that - and when I say kids, the community - there’s a perceived clash between the Islamic faith and the Australian national character and ethos so they are lost.*
The respondent continued to describe how this believed loss of identity resulted in the youth exaggerating their allegiance to a culture they knew very little about. To compensate he argued that they “actually go over the top” and start drawing flags and Arabic symbols in order to show that they belong somewhere. This difficulty in finding where they “fit in” and creating cohesion amongst diverse groups was further complicated by parental expectations and traditions. The data suggests, whilst the adolescents within the community have come to believe this is their home, previous generations “still had the idea of going back to their homeland, even if they were born in Australia”. As a result, parents appear to continue to uphold the values and traditions of their homeland and expected that their children follow them, even when they clashed with Australian cultural practices. An example of this was discussed by a young woman working in a childcare centre:

A Muslim staff member at the child care centre was sent over to Lebanon and she had an arranged marriage, she grew up here and is quite Australianised and doesn’t agree with it, she is Australianised and her parents aren’t. She is not allowed to be friends with anybody who is not Muslim. I also have a lot of Lebanese Christian parents come into the centre and say they don’t want their children to hang around with the Lebanese Muslims in the centre and vice-versa.

A number of other respondents held the view that parents were unwilling to allow their children to interact with those of different race and/or religion, “around here it’s the Aussies with the Aussies, the Asians with the Asians, the Lebanese with the Lebanese. It is not because of the kids, the parents do not want the kids to mix in this area”. This imposed separation by parents and a loss of identity among adolescents resulted in racial and religious tensions throughout the community.

**Racial and religious tension.** Tension between different cultural and religious groups surfaced strongly in the data. Numerous respondents described the clash between religious and cultural beliefs, practices, and even the different ways of thinking between cultures. A resident describes the perceived differences in thinking between the Caucasian and the Muslim populace, stating, “There’s a difference in logic between them and us. Europeans follow through everything step by step and come to a conclusion. They don’t, it’s always, ‘what does the religion say?’ and
that’s all that counts”. The perception that Muslim people disregarded the Australian laws deferring to the laws of their religion instead was also a recurring theme across the focus groups. These perceived differences were further supported by other respondents, although there was also an element of fear interwoven in these later comments:

*Yeah, their logic (Middle Eastern) and the European logic are virtually incompatible. They just don’t think the same way. There’s not much one can do about it but something has to be done at Government level otherwise my grandchildren will be going around carrying guns for protection. There will be anarchy in Australia and civil war.*

In addition to the differences in thinking, there was also a lot of tension surrounding the exclusion of some cultural groups. Asian and Caucasian residents being the minority claimed that they were often made to feel excluded and unwelcome in the community:

*In the supermarket, a Lebanese woman was handing out balloons to the kids, a Muslim mother was given balloons to take for her children, but not me, I put my hand out for a balloon and she just turned away and ignored me.*

Similar examples were given by others, with an Asian woman claiming that, “I go into a Halal butcher and ask for some mince, they are very hesitant to serve me, they are like why don’t you go to the butcher down the road”. As discussed in the following subsection, this sense of exclusion and the ongoing tensions and hostilities bred resentment between cultural and religious groups and often escalated into overt aggression, intimidation, and even violence.

**Racial and Religious Conflict**

Ongoing conflict between different groups in the area was discussed in the majority of focus groups. Numerous residents recounted experiences when they felt intergroup tension escalated and they felt intimidated and unsafe in their community.
Australian born Caucasian residents felt that they were particularly targeted by other ethnic groups. “If they don’t like you they’ll try and force you out no matter what, even if you complain, they will intimidate you. In the end you don’t feel safe walking down the street”. One woman claimed that her mother was harassed so badly that she had to leave her home and move to another area:

> My mother used to live down Punchbowl and the Eastern Meds came in and wanted to buy her house; she said “no, I’ve been here for so many years, it’s my home and I want to stay here”. Well all of a sudden the garbage was spread all over her lawn, windows were smashed and she was physically threatened and intimidated until she got out.

Others claimed that they had been screamed at and abused by different groups because they had offended another culture by the clothes they wore, “I might go for a walk with my dog in my shorts and T-shirt on, and people call out from their windows, ‘you fucking Aussie slut’, and I don’t think that is very acceptable. This is Australia”. A number of respondents stated that they had changed their behaviours to be more respectful of other cultures in the area:

> We moved here in June, I haven’t really had any problem getting along with people in the area where we live...but I have noticed that I have changed things I have done, like I don’t have problems breast feeding anywhere, I don’t care, but now when I go to the shops, like Multiville Centro, I am more conservative, I cover up when I am breast feeding, or I run to the parents room and I try to hide away. Only in Multiville, when I go to other shops I don’t really care. And I notice that I have become a bit more conservative in what I wear. I don’t know why that is, but I am aware that there are other cultures – maybe it’s a bit of respect, maybe it’s a bit of fear, maybe it’s a bit of everything, I don’t know, but I have noticed that in myself.

In addition to “a bit of fear” motivating behaviour change, the quote above reveals that respect for other cultural conventions was also an important factor. In
contrast, a number of Lebanese interviewees claimed that non-Lebanese people in the community continually disrespected their culture. “The Aussies have loud parties late at night when we are trying to sleep. If we have a church member over to our house, they swear in front of us, swear at us, right in front of an elder. They have no respect”.

Respect was a reoccurring theme throughout the focus groups, and the youth in the area felt that the best way to earn respect was through violence or “punch-ups”. As explained by one student:

*Yeah you fight otherwise no one would respect you. I guess what parents don’t know is they go, oh if you study hard you’ll get respect. But the truth is if your two fists aren’t been used you’re not going to get any respect in school. I’ve been here since Year 7 and that’s what I had to do to get respect, 70% of it was to fight.*

This culture of violence was evident in both the school and community context. Within the school, students reported frequent episodes of physical conflict and bullying, claiming that “there are lots of fights, pretty much at least one a day”. Respondents claimed that a motivator for fighting was to ensure that “other races fear their culture” and often organised fights to “prove themselves”. It was also commonly stated that large groups from a particular culture tend to pick on a single student from a minority culture:

*This is a multicultural school but the thing is we don’t have a lot of Aussies. We had one Aussie kid that came from another school and he is bullied by the Lebos. If anything happens you see 10 boys on that one kid.*

The students also reported that if they, or someone their group, were involved in a fight, then they believed it was their duty to join in and “back up their brother”, stating that “if another group wants to have a fight with us, we’ll all get together and we’ll all fight together...no matter what”. Group physical violence between races was also a common theme in the community context: “In my park I used to live next to, there was a guy and at least 50 Lebanese, and they all started fighting. All the 50
Lebos started to kick into the guy, and they got beer bottles and hit him across the head...” Interviewees also reported numerous incidents where individuals were involved in minor disputes with a single person, and then found themselves surrounded by others. For example, “if there’s an car accident involving one of them (Middle Eastern) there’s about 40 of them around in no time all screaming out you’re in the wrong and trying to intimidate the police into believing you’re in the wrong”.

Highlighting the significance of cultural background in this community, each participant relaying a violent or aggressive act, whether in the school or community context, used racial identifiers to describe the group involved. For example “there was a big fight between the Vietnamese and the Indians” or “the Lebanese and the Indians are having a punch up at Harris Park tonight”. Even on the rare occasion when the dispute involved only two individuals, racial descriptors were nearly always used such as “a Chinese man stabbed a little Lebo” and “I saw a Lebo smashing a guy straight in the gob. He was Indian”. In the latter quote, the racial identifier was used as an afterthought, as if the story was not quite complete without it. This heightened awareness toward racial difference, rather than similarity, appears to maintain the existing tensions within the community, subsequently preventing the possibility of unification among its culturally diverse residents.

In summary, this section has discussed the lack of group cohesion in the Multiville community. The reasons given for this fragmentation were the loss of cultural identity among the younger generation, racial and religious tensions and subsequent aggression and violence. The following subsection focuses on the Oceanview community. As discussed in the introduction to this theme, community fragmentation was evident in the Oceanview area, but for a different set of reasons.

Oceanview

Despite both areas experiencing long-term disadvantage, the fragmentation within them occurred for entirely different reasons. In the Oceanview area the data suggests that the most prominent reasons for community division were high rates of residential mobility and the large economic disparity between the residents living in this area.

Mobility. Oceanview and its surrounding suburbs have an extremely high mobility rate in and out of the area. One of the local Principals affirmed “there have been years when we’ve had a turnover rate of students almost as high as 20%”. Some
residents moved within the surrounding suburbs, “I lived in Budgewoi for two years, before that I was in Blue Haven, and then Buff Point a year before that. We have just moved back to Budgewoi again”. Others moved from state to state, “I live in Oceanview now, but I was born in Nowra and then moved to Queensland”. Regardless of where they have moved from, these students and their parents found it difficult to integrate into the school community and the local area. As one student stated, “I only came here this year and for the first few terms it was hell for me, and I had no friends here. Either did my parents, we didn’t know anyone. It was hard”.

The high rates of mobility in the area resulted in some residents feeling that there was little basis for getting to know people within the community because most of them would only be living there for a short time:

> I used to be really close to my neighbours, but as the years went on and people moved in and moved away so often, nobody really makes the effort to get to know each other anymore. It is just a lot more individual these days. There isn’t much of a community basis really. I don’t know my neighbours now...Basically everyone just keeps to themselves.

As stated above, spending so little time in a place prevents the individual from forming bonds with their neighbours and other community members. This view was reiterated by a number of students. For example, “I have never really known my neighbours because I have moved around so much”. The constant moving resulted in poor social cohesion within the community, however, when interviewees expected to stay in the area, they appeared to be more optimistic about making community connections:

> I think I might make some really good friends here. I have only been here a few weeks but I think we are going to stay here a lot longer because we actually bought this house. This is the first time since I’ve been born that we have bought so I think my family and me could make some friends here and maybe stay.
The most common reasons for the frequent moves in the area were parental separation, parental employment or search for employment, and affordability of housing, all of which are commonly associated with poverty. As discussed in the next section, the economic disparity between residents in the area further contributed to fragmentation of the community.

**Economic division.** Whilst the Multiville area experienced fragmentation based on race and religious membership, Oceanview residents were often divided on the basis of economic position. A community member explains the economic makeup of the area:

*To the east of the school there are people that would be regarded as being quite wealthy. There are million dollar houses around here. These are the people that have their overseas holidays... their boat...car...caravan. So they’re well to do. And the kids reflect that. They come to school, have multiple clean uniforms, and plenty of spending money if there’s an excursion, they’re always paid for. At the other extreme of the area, we have a number of people who live in the local caravan parks or come from the refuge. Money is particularly tight. And, again, the children will reflect that. We quite often have to organise uniforms for the kids, organise food. Excursions have to be subsidised. The cash is not around. They are the two extremes in terms of money in the area. It does reflect upon the children.*

These two economic “extremes” in the area are reflected in the social relations between the “haves” and the “have nots”. The data suggests that there was very little mutual trust between high SES and low SES groups in the community:

*There’s not a lot of trust between them and us, but there can be interactions between people, like, they can maybe friends but they don’t really trust each other. If someone loaned a poor guy money, next day you’ll see he has probably moved out.*
It appears that those that were better off economically suspected that the poorer residents in the community would “rip them off” if they were to try and assist them financially. Numerous participants did acknowledge that they perceived those coming from a low SES background as untrustworthy stating, “their different people and you can tell by talking to them that you know that you just can’t trust them”. As a result of this distrust, more affluent residents tended to avoid the underprivileged claiming, “they're like all Department of Housing people so they're like freaks. They're like all young and poor and I don’t tend to talk to them”. Others stated that they were not the sort of people they would socialise with, particularly if they were new to the area:

_They are different from people who have lived there all their lives and they are a lower class people as well who I guess aren’t that trustworthy and wouldn’t be the sort of person you’d approach in the street or whatever._

In both of the previous statements, the high SES respondents perceived residents with a low SES as different from themselves, thereby justifying their lack of contact with them. Many interviewees recognised that the low SES residents were often socially isolated (“they’re called Nigels, and they sit by themselves”), but when questioned about who is responsible for that isolation, most believed that the individual was accountable rather than the social structure of the community. For example, some believed that the disadvantaged have to “have a more positive attitude. They’ve got to be able to approach someone or have a conversation with someone, be friendly”. Others claimed that excluded individuals “don’t seem to really mind being by themselves”. Further explanations by students found fault in the personal characteristics of the person blaming their “personality” or “their antisocial behaviour” or their poor upbringing and lack of appropriate role models:

_Basically their parents aren’t really setting a good example. Like, they learn from their parents and if their parents are ‘deros’ (short for derelicts) their children are bound to be. Maybe their parents might have done the things that they’re doing now and that influenced them to do that too._
Whilst the more affluent youth perceived poor role models as an explanation for exclusion and antisocial behaviour in low SES teens, there were a number of alternative explanations offered. Many of the homes these teenagers come from are characterised by “single parent families”, “long-term unemployment”, “domestic violence issues” or “substance abuse”. As a result “their social networks tend to be a lot smaller in that sort of environment and they don’t have that larger family group to rely on so they go to the caravan park” or similar affordable housing, further compounding their isolation. In these circumstances, parental supervision can be limited:

_You know the parents who do work, a lot of them have to commute to Sydney to work so therefore the kids are left unsupervised until parents come home. A lot of time it’s a single parent family, so the only parent that is home has to work and so it makes it very difficult. Then the older siblings are charge who might only be 13 or 14 and then they’ve got three and four years olds that they’re in charge of. It’s very, very difficult._

For these adolescents, not only do they lack the material belongings that would help them fit in at school, they are also time poor outside of school hours because they are at home caring for their younger siblings thereby limiting peer connections. For parents, travelling long distances for work limits their opportunities to forge social networks within the community. As one parent states, “I leave in the dark, I get home in the dark. I don’t see anyone during the week.

Financial difficulties also limited the opportunities to form networks between groups, as lack of money prevented the poorer youth from engaging in sporting and other extracurricular activities:

_Certainly after school and weekends those who have more do more. Those who have less clearly do less. And that’s evident when you talk to the kids in terms of who goes to what sporting organisations. Again, more affluent people tend to have more of those activities. Those where money is an issue tend to have less of those activities._
Weekend sporting activities for children also provide a social context in which working parents can interact with others. However, as stated above, a lack of funds and the expense of playing sport prevent them from participating and becoming involved in these activities. The limited funds and community networks, in addition to lack of parental presence, resulted in a number of the disadvantaged youth experiencing problems and a growing tendency to engage in antisocial behaviours. Residents reported increasing problems regarding “vandalism”, “theft”, “underage drinking”, “drug taking”, and “physical conflicts between inebriated teens”. The low SES members of the community being associated with these antisocial behaviours further alienated them from other members of the community by restricting the probability of positive interactions between those that are well off and those that are not.

In summary, this main theme has discussed the lack of community cohesion in these two disadvantaged communities. For Multiville, the data suggested that much of the fragmentation revolved around race and religion, whereby different cultural groups continued to emphasis difference rather than similarity. This led to racial and religious tensions, aggression, and often violence between large groups. In the Oceanview community, division was based mainly on economic position, although inhabitants who had lived in the community longer tended to exclude newer residents. Financial disparity within the area led many more affluent members of the community to avoid low SES families preventing them from forming useful social networks. The long working hours of parents, lack of parental supervision, and few social networks within the community led to youth engaging in antisocial behaviours, which further perpetuated their social isolation. Whilst the two main themes discussed so far have concentrated on the problems currently affecting the two communities, the next theme will focus on the positive steps the community and its intuitions are taking in order to try and overcome them.

“What We’re Doing About It”

The challenges outlined in the previous two sections are well known throughout the community. As a result there has been a concerted effort made by schools, local council, and other non-government organisations in the area in developing strategies to address these challenges.
Within the school

**Disciplinary methods.** As discussed in the first major theme, students felt that their teachers failed to listen to them and they were treated unfairly and often overly harshly when punishments were handed out. In order to address this, students discussed new strategies being utilised in the school:

*When two boys have a fight, instead of suspensions and time-outs straightaway, now some teachers will sit you down in the office and just have a chat with you. They want to know now what actually happened and whose fault it was. And whoever fault it was gets the bigger punishment.*

Most students agreed that this strategy was “much more fair” and indicated that other disciplinary policies were also effective for those students who continually received suspensions. The principal expressed the difficulty in simply handing out multiple suspensions such as “lack of parental supervision during school hours” but also that “the students return and then immediately engage in the same behaviours” only to receive yet another suspension. More recently, the school has made use of behavioural contracts to facilitate positive behaviour:

*They make you sign contracts now. Like for boys that have been suspended multiple times, they’ll get them to sign a contract, and they’ll set it up for the term. It says what will happen when you do different stuff. If you have a fight, you’re expelled. If you burn something, you’ll be expelled. If you bring stuff to school that is prohibited, you’ll get expelled. So it’s like straight forward you know where you stand and the consequences like straightaway.*

The implementation of these contracts gave students an element of choice and responsibility over their own behaviour, and the principal claimed that, “although there was still a long way to go, there have been big improvements in a number of students receiving suspensions”.


Teacher/Student relations. Another complaint the students often made about the school was the lack of commitment of the staff. One principal insisted that there were “some of our teachers, a few teachers...who are willing to put in that extra effort to keep things going and to bring new things in. They just sort of have an enthusiasm and a drive”. It was clear that the students appreciated and respected these teachers who were willing to give up their free time to assist them:

*He (a teacher) came up to us and said here’s my number if you ever need help in life, if you ever need like help in homework, anything, anything at all you call me. He has done a very, very good thing here honestly. He takes us in his own free time on Saturdays. He takes us fishing to the rock, a bunch of us on the school bus. He pays for everything. Just to like let us have a good time...*

Student engagement. The engagement and retention of students was also an ongoing difficulty reported by both teaching staff and students. To tackle this, the school has tried to cater for all students by providing opportunities for them to continue at school even if they are not academically motivated. This has resulted in improved retention:

*With some kids what we do is if they find that they’re not really suitable for year 11 or 12 so we just call and say look mate, we need to try and get you into TAFE or we’ll try and find you a job. Retention’s really good. It didn’t used to be, but it is now. And we’ve changed our curriculums to enable that with things like vocational education passes. So that every kid can do something. You know, there’s something for everyone.*

The promotion of charitable behaviour. The schools also facilitated civic mindedness among their students by encouraging them to volunteer their time and assist in fundraising activities. This enabled students to see that “other people were also going through hard times and are often worse off than them” and “helped to give them a more realistic view of the world around them”. One school “sponsors a child in Bangladesh through student donations” and “involves the students by having them
send and receive letters from the child”. In addition, some of the schools organised excursions to promote charitable behaviours in their students whereby “every month or so we go down to Central and there’s this homeless people thing where people are like absolutely homeless no food no nothing and we give like canned food, we take money with us”. They also encouraged their students to work with the younger age groups and the students appeared to find this extremely satisfying:

_We did a mentoring program for Year 6s, we go over to all the different public schools and we do games and write books and stuff with the Year 6s to get them ready for the transition to high school. We really enjoyed helping out with that it made us feel pretty good._

Finally, schools encouraged the students to work together and utilise sanctioned methods to instigate change, rather than feel powerless and ineffective. Under guidance of one of the school staff, one student talked about how he successfully changed what he believed was an unfair decision:

_I do regular Youth Music gigs and the venue that we had was going to be taken away for some weird reason, so Mr **** and everyone that was involved with that made a petition and signed it and gave it to council to try and get it approved. We all got together and did that and it got approved! We couldn’t believe it._

**Financial Assistance**

As noted previously, a number of families within the communities are struggling financially. To ease the burden on families and to ensure that students have a nutritious meal at least once a day, local businesses in partnership with the school offered free meals to students throughout the week:

_They come and give cereal and toast and that in the morning on Wednesdays because we normally have sports and they want us to be healthy in sport. They bring juice and that too and we’re allowed to have it all for free. We also get a free piece of fruit everyday that the fruit shop gives to the school every day._
In addition to donations by local businesses, the Department of Education also provides “student assistance money” to help with the cost of schooling for underprivileged students. Other resources are often donated by community members or other parents at the school. “When we get things like that we put it into a separate account so that we can help the kids out”. The executive staff in all of the schools insisted that “we do it on the quiet” in order to maintain the pride of the students requiring assistance. One Principal stated, “The last thing a kid or a parent wants in an assembly is me saying, ‘oh look I’d like to call up such and such, now can you come and see me so I can give you a free uniform?’ You just do it on the quiet. They’re proud people as well”. Some of the staff claimed that students often refused their help and they had to be creative in the way they assisted students in order to maintain their sense of pride:

This kid was really proud. One day he wanted to go home and get some money because he didn’t have any lunch. And I wouldn’t let him go home and I said look, I’ll give you the money. But he wouldn’t take the money. So his parents sell some honey. And I said, okay, we’ll do it a different way. I’ll give you five bucks for honey. Bring me the honey tomorrow, and take the five bucks now. So that’s how he was able to go to the canteen, get his lunch and maintain his pride. And the next day he gave me the honey. The funny thing is I don’t even like honey.

Community Building

The social separation of racial, religious, and economically disparate groups was one of the largest problems affecting these two communities. In response to this enduring community fragmentation, the schools, local council and other community organisations have designed a number of events and programs in order to improve the cohesion amongst their local residents.

Within the schools. Aiming to improve the link between the school, the students, and the broader community, school staff organised a number of incursions and excursions in which students were required to interact with the local business owners. For example, to develop students’ social skills, one school held “Year 9 interviews where the local employers were coming into the school and working with
Year 9 and practising their interview techniques”. Another school tried to provide the students with positive role models for the local area:

> We do a lot of bringing people in to do motivational speeches and all that sort of stuff. And we try and get local people as much as we can. And just try and make them see that there is something better. There’s always something to aspire to.

In addition to forging links with local business and other community members, schools continually encouraged parents to be part of the school community. As one Principal explained, “Our parents want to be part of the school. We want them to be part of the school. They’d like to help but don’t know how to help sometimes”. To inform parents on ways to help and urge them to come to the school, they ran a number of programs such as “coffee club”, “social skills classes”, “English classes for ESL parents”, and “parenting classes”.

As explained earlier in the chapter, interaction between different groups was concern in both communities. The schools in both areas have invested substantial resources in trying to address this. One school opened up their gates to the whole of the community regardless of race or religion and invited them to share their customs and recipes with everyone and celebrate what they termed ‘International Day’. The event was a huge success as stated by one of the participating students:

> It was really great because our parents are allowed to come. Usually when there is something at our school, parents will just say I’ll give you $20, just go buy what you want. But on international day we got heaps of parents. Usually the school’s a little bit empty because all the kids around here are so different but when it’s international day it’s packed the whole day.

Another innovative and successful part of the curriculum was demonstrating to students that “although people look different they are still the same.” This was done by encouraging interaction, and having students experience different cultures and environments:
We get the Saint Joseph Boarding School from Newcastle to come down and they experience like our culture, our school environment, and how the area is here and then the girls go up to their school and do the same. They come here, they come down and they go to our mosques and churches that are here and then we go up to theirs.

One of the Principals acknowledged that “there is a big diversity in the community but it’s not very easy to interact with other people”. In response, he has organised activities and outings with his students and those attending a nearby Jewish school which he considered “a big risk but was ultimately successful”. He continues to see the challenges in the community but believes what they are doing in the school can really make a difference across the community:

There are a lot of initiatives. Sometimes I get really heavily involved in interfaith type stuff and intercommunity stuff. And sometimes I step back and I think, look, where are we going with all this? It’s just a get together to look at each other and say ‘hi, I don’t have two heads’. And in some ways it’s a patronising sort of a thing to say, but you know, I’m right. It makes a difference.

**Within the Community.** Outside of the school context others are also trying to address the challenges facing their community. To encourage interaction and cultural tolerance, the local council hosts a large celebration at the local park on Christmas Eve and they “have a fireworks demonstration. Even though it’s Christmas and only the Christians celebrate it, they’re trying to get all religions and all backgrounds to go down…” The council also supports a number of other events throughout the year, the most successful of those is “Harmony Day”. As a community worker describes:

Harmony Day is a national imitative which aims to eliminate racial discrimination and celebrate our cultural diversity. Obviously this is particularly relevant in our community and the council gets behind it 100%. They put up signs and stickers on the walls, organise bands and things and urge everyone to join in.
The local council also hosts the “Multiville Food Fair every year which is fantastic, you can walk down that lane way and there’s 10-15 different sorts of foods, it’s fantastic”, they also hold a festival for Eid. As with the Christmas Eve celebrations, the celebration is open to all religions:

*After Ramadan we have Eid, which is like a festival for Muslims. They open this huge kind of circus down at Perry Park. Everyone goes there, not only Muslims but Aussies, Africans. Everyone just goes down there.*

Other community organisations are also heavily involved in trying to improve cohesion in the community, such as the “Lions Club who did Australia day for the council. The number of Muslims there was phenomenal, we reckon there were 50,000 people there and I reckon 30,000 of them were Muslims with their kids”. There is also Homebase that helps people form social networks and links in order to find jobs and help with other needs. The Lebanese Muslim Association runs a number of programs for both adults and youth:

*Lebanese Muslim Association, they do some things for the youth. So they do lessons in terms of trying to teach the religion as well as life type skills. They run camps, offer free tutoring. Like the education aspect for kids. Then they run things for women in terms of religious stuff, in terms of social groups, in terms of childcare.*

A second Muslim organisation, the United Muslims Australia (UMA), aims to address attitudes of victimisation and low future aspirations in youth. They encourage loitering youth to “hang out at the UMA to bring them off the street”. They also run camps for adolescents and will just approach troubled youth on the street and say “look, we’re going on this camp to get away from all the technology there’s no reception, there’s no TV”. One adolescent boy who attended the camp felt that this made a huge impact on his life:
As well the religion they try to reform you and ask you what you’re doing on the streets or what are you going to do with your future in your life? Think of it because you’ve got heaps of opportunities and don’t give into waste. That’s what they try to teach you. Once you come back you feel the urge that they taught you a lot and you think about it and you tend to give up what you used to do in your old days and look for the new path.

The community also perceives them to be making a difference, as stated by an elderly resident “when I used to go Lakemba I used to see everyone on the streets and always being like searched by the police. Now most everyone goes like to the UMA which keeps them out of trouble”.

In summary this theme has explored the different approaches and programs implemented by the schools, the council, and other non-government organisations in order to try and address the challenges evident in these disadvantaged communities. Within the schooling context, curriculum and disciplinary policy was revised to suit the needs of the students whilst providing them with a sense of justice and worth. Staff also encouraged parental participation in the school’s social events and parental courses to facilitate social interaction among other community members. Within the community context the council organised a wide range of events and urged all residents to participate regardless of culture or religion. Other organisations within the community assisted local residents in finding employment, provided help and guidance to neighbourhood youth and community residents, businesses, and educational institutions offered financial assistance and subsidised educational costs for those in need. Whilst all of these initiatives have shown some promise, it is clear that there is still a long way to go in achieving a strongly united community in these two areas. Additionally, as discussed in the next section many of these programs are exclusive to specific groups, thereby intrinsically excluding others, thus maintaining the most inherent problem across both of these communities.

“We’re Winning and We’re Losing”

The aim of this final theme is to highlight the contradictions and inconsistencies found in the data and take an analytic view of the themes discussed thus far. The data indicated contradictions surrounding community safety and inter-
group social interaction. This section also draws attentions to some of the challenges surrounding the solutions put in place by the schools and community organisations to address the current problems in these two areas.

Safe Versus Unsafe

One interesting aspect of the data was the contradiction of participants’ thoughts on community safety. Numerous participants made statements such as, “the community is a safe place to live”, and “I think my community is kind of safe because like everybody knows each other”. However, these statements were regularly in direct contrast to the descriptions of the community given later, often by these very same interviewees. Participant after participant spoke of frequent “stabbings”, “shootings”, “bashings” and “robbery” in their areas and still maintained that it was a reasonably safe place to live. One participant even described safety as “the best thing about the community”, and then only minutes later went on to say:

*I would not even let my kids out the front yard to play. Personally I would not go out at night. Teenagers, late teens, hang around in groups, and it’s not just Lebanese, I’ve seen other cultures. It’s intimidating and you don’t know what to do. Things are like this in any suburb though*

The idea that “not going out at night” and not having the children play outside as typical of all suburbs, may provide an explanation for the inconsistencies in the data. If residents believe that all suburbs have the same problems and experiences that they do, then it is feasible that they view it as safe as anywhere else. This normalisation of crime (and fear of crime) was supported by the data (“it happens everywhere”). Furthermore, it is also possible that residents in these communities were so accustomed to the physical violence and other crimes occurring around them that they became desensitised and as a result, often minimised the severity of transgressions. When discussing his friend one person stated, “Oh he just got busted selling drugs, nothing bad, like not a problem”. Others ranked the severity of the problem based on whether or not it affected everyone or just the people involved as described here:
This fighting is not really a crime, it is just gangs getting together and just being territorial...Culture, it’s the kids’ culture. Gang violence and stuff shouldn’t really be up to the police...unless it’s affecting your neighbours, then they could complain about it, but if they’re not hurting them or doing anything but hurting each other they shouldn’t have the right to call and complain about them.

Other potential explanations may be that residents have simply adapted to their local environment by changing their behaviours. Statements such as, “we have learned to lock our doors” and “as long as we avoid certain areas” indicate that a sense of safety can be maintained despite the frequency of violence and crime in these underprivileged areas. This viewpoint is supported by an Oceanview resident:

You don’t go near the caravan parks because you know, just yesterday I saw a police car and two ambulances there and there was a rough looking guy that was all beaten up, so you know to avoid those areas because they have a bad name and can be dangerous. So if you stay away from there you will be fine.

Avoiding particular parts of the community to ensure safety was also evident in the Multiville area:

“At the park, we need protection man. At the park usually they [drug dealers and gangs] sit and drink up there. Walk past that park or around there and you’re screwed. You have to stay away; don’t even think about going near there at night”.

It appears that this adjustment to the local community has been successful for many of the residents who appear to be well aware of the problems within the community but have grown used to the area and can feel a sense of safety within it: “No, I don’t get afraid walking around. Because I’ve been there my whole life”. Although they did acknowledge that “outsiders” may not feel so comfortable:
I think people who live in the area would feel comfortable around here. It just depends what you’re used to. Some people might come from out of the area and think it’s a bit of a rough area, a bit intimidating to walk around. But the kids from around here seem like they really enjoy it. It’s quite safe.

It was clear throughout the focus groups however, that some residents felt safer than others. The most prominent reason for this was that those with strong social ties within the community felt the safest:

I’m comfortable on my street. Everyone is nice to each other. My brother can stay outside until 10 at night and nothing will happen because everyone is out there playing with each other. Family and friends are outside watching. We can trust each other”.

Others felt more protected when they formed bonds within the community with those of a similar cultural background, or as one participant stated, he felt most comfortable in his neighbourhood because there “are people from our religion there as well, so I feel safer”.

Whilst social ties with family, neighbours, religious institutions, and interaction with similar racial groups produced a positive protected feeling among residents, there were also negative associations that produced the same protective effect. One young student explained that he doesn’t need to feel frightened in the community because “my dad is connected to notorious Rebels bikies. So no one will touch me there. They’re more scared of me”. Others spoke freely about older brothers and other family members “bashing” or threatening “anyone who is disrespectful to me, they don’t come near me cos they know they’ll get it from my bro’s”. This idea of “always backing up ya bro’s no matter what” was particularly evident in the schooling context. This tactic appeared to be successful in providing an element of protection, as some students stated that they were motivated to avoid conflict with a peer in order to evade the wrath of his entire group.
Positive Versus Negative Inter group interaction

Another inconsistency within the data was participant perceptions of group interaction throughout the two communities. As discussed comprehensively in previous sections of this chapter, religious, racial, and socio-economic tensions were clearly evident in the data. Despite this, many of the respondents perceived there to be no discrimination or inter group tensions within their school or community. Whilst students reported frequent fighting inside schools, staff perceived their rules and disciplinary policies to be effective and there to be very little violence within their schools as evident in the following passage:

_I think that the way the kids interact with each other is fairly good though. They come from totally different backgrounds...I’ve only just come here this year from a different school with very similar clientele in terms of economic backgrounds and that sort of stuff and the amount of fights we used to have at that school compared to this school, we have hardly any here compared to that, we used to have a fight at least once a day._

Furthermore, despite frequent reports of discrimination and racism, both students and staff agreed that “there’s no racism in the school. We’ve got Greeks, Vietnamese and Lebos, and they all get along”. These views were also reiterated by one of the schools principals who commented:

_“We don’t accept racism and we would have minimal racism here. We have a large percentage now of Muslims coming into the school because it’s kind of like a little security area where we’ve had a group of Muslims who all come one year and now they’re seeing in the community that this is a place where we’ll let them wear their traditional clothing, we let them, and they feel that bit of security. But they have never to my knowledge or very rarely anyway faced any racism and that’s kind of I think an ongoing effect of the Aboriginal policy, so that’s a positive.”_
This statement is in direct contrast to the many examples of discrimination given by majority of respondents. Again, and despite the evidence presented previously in this chapter, many participants also reported there to be very little racism within the community, proposing that because the “community is so multicultural so there’s not much racism going around here”, and “you don’t get teased about your religion, it doesn’t matter what religion you are, we all get along”. These same inconsistencies were evident when economically diverse groups were discussed, with participants claiming that low SES groups are not excluded and “we treat everyone the same here, it doesn’t matter if you’re rich or poor”.

In relation to the reported fighting, most believed that “they were not that serious” or “no big deal” and they were usually very brief, so they did not really count as violence but rather “a small attitude adjustment”. In way of explanation for the school staff believing that there were very few fights may be because students claimed they were good at concealing them from the teachers. They went on to explain that “we do it where the teachers can’t see” or “we organise them for after school”. Fights after school were usually planned late at night “like midnight, when no one is around to see, then it doesn’t get back to school or Mr***”.

The incongruity in the prevalence of racism is more difficult to explain. It may be that some of the participants had difficulty in identifying exactly what constitutes racism and discrimination. For example, one student stated “there are some races I just don’t like, doesn’t mean I’m a racist, we don’t have to like everyone”. Some participants tended to believe that it is not really discrimination because those that are excluded choose to be:

*It’s not about anyone being excluded. I think they choose to exclude themselves from society. The ones that come here [the school] they just don’t stay the whole day. They’ll just want to go home and hang out with their kind, like Africans, because when they hang out it’s good. They want to be different than us because races have got too many traditions and all those things. They only hang around those with that same thing, not our fault.*

There are numerous other potential explanations as to why there were inconsistencies in the responses of participants. It could be that minority group
respondents (African, Australian, Asian) most often reported racism in the school and the community, whereas the bulk of participants interviewed had Arabic backgrounds. As they are the majority in both the school and the community, they may not perceive there to be any racism or discrimination against them.

It may also be that racism and discrimination are so prevalent in their everyday lives they have become desensitised and are no longer attentive to it. It is also possible that some respondents simply wanted to portray themselves, their school, and their community positively and gave inaccurate responses as a result. The motivation behind these inconsistencies could include any, all, or none of the potential reasons suggested above. The apparent inconsistencies and contradictions in qualitative data are not presented here to challenge the important views that these residents hold about their lives. Rather they highlight the complexity of their lived experiences as they daily confront, negotiate and work through imagined and real responses, to their shifting and marginalised social, economic and physical environments. With this in mind, it is not surprising that they vacillate in their perceptions of, and responses to, the tumultuous context in which they are positioned and are positioning themselves.

**The Problems within the Solutions**

As presented previously, there are numerous programs and initiatives being run throughout the schools and communities in an effort to address the challenges presented throughout this chapter. Although there has been some success, there are a number of problems hampering these potential solutions, including a lack of parental involvement and trust, and the poor integration of services, that resulted in an ongoing division of community groups.

**Lack of parental involvement.** Whilst schools have successfully identified many student problems, and have been proactive in developing programs and initiatives to tackle them, they are continually hampered by a lack of parental attendance and involvement with these programs. School staff continually expressed their frustration at the poor response from parents to school run programs:

> See we’ve tried to run things here like parental awareness nights. A couple of years ago we had funding to run something in the school, well parents don’t come. You might get a tenth of the parents. The
teacher welfare did run an afternoon session where they had a lot of welfare agencies and groups in the community for parents to come. That was quite successful but again when you consider the size of the area ..... compared to the number of people who actually came....Nobody came.

This difficulty in engaging parents highlights the complexities in developing solutions to ongoing problems. The school had the funds, and the support of community welfare, but as the Principal acknowledged, they did not anticipate that the parents would not attend. “We were doing a good thing here, something that would really benefit both the students and their families. We never gave much thought to nobody turning up”. He suggested a number of reasons for this lack of attendance such as the long working hours of the parents in this area as discussed previously in the chapter. This was particularly the case for the families they most wanted to target:

We had a lot of Asians this year as well and this program would have helped out a lot of those families. A lot of the families that you want to target for that sort of thing didn’t come because parents were working or unavailable for whatever reason.

Further compounding the problem, a number of teachers believed that there was a lack of parental trust in the school and its staff. For families that have problematic students, any association with the school tends to have a negative connotation and their child tends to criticise the school. As a result “the parents we hear from frequently are the ones that don’t trust us, who have an axe to grind or a complaint to make and probably get a slightly skewed view of things”. This poses an additional difficulty as these are the parents the school most wants to help. The school needs to acknowledge these commonly reported problems and design their programs in accordance with some well thought out solutions for surmounting them. A final issue in getting the parents into the school is the reluctance of adolescents having their parents involved in the school. This is supported by the following quote:
I think that in a high school setting it’s much more difficult to get the parents engaged in the school because the kids don’t want them engaged in the school. I had a parent come in the other day who said oh I had to wait in the car for five minutes so that I wouldn’t be walking next to him through the playground.

It is apparent from the information presented in this subsection that simply developing and funding a well intentioned program is not enough to facilitate successful change within the schooling context. It appears that the first step in this process is to ensure that parents are willing to attend school run programs, and if not, develop strategies to promote parental participation. Furthermore, it would be beneficial to formulate a way that encourages students to want their parents involved in their schooling activities, rather than deterring them.

**Poor integration of community services.** It was shown earlier in the chapter that a number of community organisations were successfully working with disadvantaged youth in the area by providing positive role models and improving their future aspirations. However, the data also revealed that these efforts, although well intentioned, continue to maintain racial, religious and economic division thereby impeding cohesion. The financial community services and programs presented in the previous theme are naturally designed for those living with economic disadvantage, and therefore do not involve the more affluent members of the community. As a result, interaction between high and low SES groups is minimal within these initiatives. In addition to what is already been done, residents felt that “more situations need to be created whereby the very poor interact with the well to do” so some kind of sustainable relationship can be formed and cohesion improved.

In addition, the racial and religious division particularly evident in the Multiville area was further preserved by the structure of community organisations. As stated by a community worker in the area, “Even though there are heaps of youth centres and things like that. It’s hard to just find somewhere that you like. You can’t just go to one particular place and know that they understand the whole community”. In support of this statement it was clear throughout the data that all of these organisations have racial and religious partitioning. As a consequence it was difficult for residents to find a centre that appealed to, and welcomed, all community groups:
There’s no shortage of youth centres or places where the kids can go to. But they’re not, my perception, run very well. And they’re not really getting out to everyone. I don’t like seeing a Muslim youth group or an Islander youth group. I just want to see a youth group. You know you’ve got about eight or nine different organisations just on that one street that are all representing Muslim Australians. But you wouldn’t, or can’t, go there if you’re Asian.

The racial separation of community organisations and between groups also thwarted attempts to provide mentors and role models for all at risk youth in the area, as described by a Year 11 student:

Like you can never get an Asian guy to say to an Arab don’t do this, he’s not going to listen. And you’ll never get an Arab...to listen to an Asian guy. Yeah, there’re never going to listen. I think you’re pretty respectful of your own culture you know what I mean. You meet an older Arab you do this. So if I’m Asian and some Arab is telling me to do something, I’m not going to listen, I’m like what’s this Arab telling me this for? These are Arabs they’re terrorists. Yeah and no Arab is going to listen to an Asian cos these Asians, they’re just rice eaters.

In conclusion, it is clear from the data that there is an acute awareness of the challenges present in both of these communities and an abundance of school initiatives and community organisations trying to address them. However, it is also apparent that these efforts may benefit from taking a whole of community approach rather than group specific one. The ultimate goal of taking this suggested approach within these areas is to overcome the fragmentation within the community so they can move forward together and address their other ongoing difficulties as a unified and cohesive whole.

Chapter Summary

The current chapter has explored four main themes emerging from the qualitative data. The first demonstrated that residents in both communities believe
they are victimised and disadvantaged by most of the formal intuitions they encounter. Student respondents felt that their teachers presented barriers to their educational success, discriminated against them, and dealt out overly harsh punishments. They also perceived that when compared to more affluent areas they were given the poorest of resources and lazy teachers with little competence. Community members also reported that the police in the area lacked commitment, had little interest in the community, and were overtly discriminatory to particular racial groups. As a result, residents had a clear lack of trust and respect for the police and the other authority figures in their lives believing they are targeted and treated unjustly by those that are put in place to support them. They felt further disadvantaged by others negative perceptions of them and the attitudes toward their schools and their place of residence.

The second main theme discussed the lack of community cohesion and fragmentation revolving around financial, racial, and religious disparity, whereby different community groups continued to emphasise difference rather than similarity. This often led to racial and religious tensions, aggression, and often violence between groups. The third main focus explored the different approaches and programs implemented by the schools, the council, and other non-government organisations in order to try and address the challenges evident in these disadvantaged communities. Within the schooling context, curriculum and disciplinary policy were revised to suit the needs of the students whilst providing them with a sense of justice and worth. Staff also encouraged parental participation in the school’s social events and parental courses to facilitate social interaction among other community members. Within the community context the council organised community wide events and urged all residents to participate regardless of culture or religion. Other organisations within the community assisted local residents in finding employment, provided help and guidance to neighbourhood youth. Community residents, businesses, and educational institutions offered financial assistance to subsidise educational costs for those in need.

The final theme drew attention to the often contradictory nature of participant responses and the ongoing challenges in the community despite the concerted effort of many school and community organisations. Inconsistencies were evident in respondents’ perceptions of community safety and their views of social interactions among groups. The validity of these perceptions is not in question as they serve to
emphasise the intricacies of living in these marginalised contexts. The complexities of navigating these environments is further highlighted in the final subsection in which it was shown that the solutions to problems can often serve to maintain them rather than resolve them. In conclusion, it has been demonstrated that school and community groups are working hard to improve the social relations of residents with some success, however, there is still a lot of work to be done before a strong and integrated community can be formed.

Now that all quantitative and qualitative results have been presented (Chapters 6 to 8), the following chapter attempts to draw all of these results together into a meaningful and coherent discussion. The chapter also demonstrates how these findings relate to past research and theory, and how this synthesis can be used in the future to best assist those experiencing enduring social and economic disadvantage.
CHAPTER 9
DISCUSSION AND IMPLICATIONS FOR THEORY, RESEARCH, AND PRACTICE

Introduction

A key goal of this research was to develop and test the psychometric properties of a new enriched, theoretically-derived, and psychometrically sound measure of social capital as a basis for advancing social capital theory, research, and practice. In order to address this goal, Study 1 examined whether the measurement instrument designed for the present investigation, along with other measures utilised, were psychometrically robust and invariant indicators of the constructs they purported to measure for the sample under consideration. Study 2 investigated the impact of social capital on each of the psychosocial and economic outcomes under consideration, and determined whether the strength and direction of these relations were influenced by gender and/or regional differences.

Finally, Study 3 was designed to illuminate and enrich the quantitative findings by analysing student, teacher, and parent qualitative data to examine stakeholders’ conceptions of the value of social relationships and identify the issues, needs, and strengths within the disadvantaged geographical locations under study. Firstly, this chapter briefly reviews and discusses each of the key research findings across all three studies in relation to previous theory and research. Secondly, the strengths and limitations of the present investigation are discussed. Finally, the significance and implications of the findings for theory, research, and practice are discussed.
Study 1 Discussion: Psychometric Assessment of Instrumentation and Group Similarities and Differences

Introduction

Research into social capital has predominantly focused on how social capital impacts on different health, economic, and psychosocial outcomes. In the haste to determine how social capital relates to these outcomes (a between-construct approach), social capital research has largely neglected adequately defining and empirically testing the structural nature of the social capital construct (a within-construct approach). As a consequence of proceeding to between-construct issues prior to resolving within-construct issues, a plurality of measurement scales and methods have been used, which has resulted in inconsistent and often contradictory findings bringing into question the value of the social capital construct. In order to contribute to the rigour of social capital research, this study aimed to address the within-construct issues associated with the measurement of social capital prior to addressing the between-construct relations. As such, this component of the research assessed the structural validity, reliability, and invariance of the newly developed Social Capital and Cohesion Scale (SCCS). In addition, the psychometric properties of the Depression, Anxiety, and Stress Scale (DASS-21), Negative Community Perceptions Scale (NCPS), Self-Description Questionnaire II (SDQ-II Short), and the Aspirations Index (AI) were also assessed. Each is discussed in turn in the following sections.

The Social Capital and Cohesion Scale (SCCS)

Psychometric properties. The SCCS was specifically developed for the purposes of the present investigation and the aspects of its development are outlined in Chapter 5. The SCCS was designed to assess the multiple dimensions of social capital at the family, peer, neighbourhood, and community level, and the quality of these associations was measured by the community belonging and isolation factors. Consistent with predictions, the reliabilities for the total sample and critical subgroups were deemed acceptable for all SCCS factors. Also consistent with predictions, the proposed a priori factor structure of the SCCS was supported by Confirmatory Factor Analysis (CFA) as the model provided a good fit to the data. These findings are consistent with suggestions put forth by previous researchers that
social capital is a multidimensional construct (Stone & Hughes, 2002; Van Deth, 2003) consisting of: bonding, bridging, and linking capital. The correlations among the SCCS factors suggest that while each type of social capital assessed in the model are related, the size of the correlations between factors indicated their distinctiveness.

Taken together these findings also support social capital theory as put forth by Putnam (2000), as consisting of trust and norms of reciprocity. In contrast to Fukuyama’s (1995; 1997) belief that trust can be used as a single item measure of social capital, both trust and reciprocity items within each factor produced an excellent fitting model supporting the validity of utilising both of Putnam’s constructs in the measurement of social capital. The strong psychometric properties of the instrument was further demonstrated through tests of invariance which indicated measurement equivalence across males and females, and residents living in Oceanview and Multiview. Hence these results offer empirical support for a multidimensional conceptualisation of the social capital construct comprising of discrete factors based upon bonding, bridging, and linking capital at the family, peer, neighbourhood, and community level.

**Gender and regional differences - Key findings.** Comparisons made between critical sub-groups showed significant main effects for gender and regional differences, as well as gender by region interactions. Whilst many of these differences explained a minimal amount of variance, of note was the gender main effect for peer social capital and the significant gender by region interaction for family social capital. Results of the gender main effect indicated that females possessed significantly higher levels of peer social capital than males. The gender by region interaction demonstrated that males living in Multiville had significantly higher levels of family social capital than males from Oceanview. In contrast, Multiville females had significantly lower levels of social capital when compared to Oceanview females.

Although there are few empirical studies assessing gender differences in levels of social capital (Kilby 2002), it is generally thought that women have greater family social capital than men (Griffin, 2009; Moore, 1990). While this was supported in the Oceanview sample, the opposite was found among the Multiville respondents. This finding may reflect the cultural differences apparent in the two regions. While Oceanview is predominately Caucasian and secular, Multiville has a large Arabic population with strong religious affiliations (72% Islamic; ABS, 2011d)
which tend to reinforce gender traditionalism. In this culture, families are traditionally patriarchal and women’s primary responsibility is the home and providing support for the family (Cainkar, 1994; Haddad & Smith, 1996; Read, 2003). In this environment, males may perceive high levels of family social capital whereas females may rely more heavily on relations outside of the family to gain information and socio-emotive support. These results imply that social capital can vary for gender and geographical location and support Vinson’s (1999; 2007) identification of locationally disadvantaged communities.

**The Depression, Anxiety, and Stress Scale (DASS-21)**

**Psychometric properties.** The DASS-21 measures mental health states defined by three factors: Depression, Anxiety, and Stress. As hypothesised, reliability estimates for the total sample, and gender and regional sub-groups were all acceptable. Contrary to predictions, the proposed three factor structure of the DASS-21 was not supported. Whilst the model produced a good model fit to the data, the high correlations between the factors (.87 to .94) indicated poor discriminate validity. This finding is inconsistent with a large body of literature that has shown the DASS-21 to be a valid measure with a clear three factor structure in both clinical and non-clinical adult samples (e.g., Antony et al., 1999; Crawford & Henry, 2003; Lovibond & Lovibond, 1995), and across different cultural and ethnic groups (e.g., Daza, Novy, Stanley, & Averill, 2002; Norton, 2007).

This conflicting finding may be due to the age of the sample tested in the present investigation. The original development sample consisted of adults with a lower age limit of 17 years (Lovibond & Lovibond, 1995), whilst the present sample surveyed were adolescents aged between 12 and 18 years. There has been some evidence to suggest that depression, anxiety, and stress symptoms are more difficult to distinguish in adolescents than in adults (Cole, Truglio & Peeke, 1997; Lahey, Applegate & Waldman, 2004) which may account for the high factor correlations found in the current research. In support of this suggestion, recent research conducted by Szabo (2010) examined the factor structure of the DASS-21 with an adolescent sample and also reported very high correlations among the three factors. Szabo concluded that whilst the symptoms for depression, anxiety, and stress appear to be similar in adults and adolescents, distinguishing between these symptoms in young people is much more difficult. As such, the conceptualisation and
measurement of these negative affective states in adolescents appears to require further development. Despite the difficulties with the discriminate validity of the instrument, tests of invariance demonstrated that the items were interpreted similarly for males and females, and Oceanview and Multiville students.

**Gender and regional differences - Key findings.** Analyses of group differences highlighted a number of significant main effects and interactions. Males reported similar levels of depression, anxiety, and stress in both locations, however, females living in Multiville reported higher levels of these negative affect states than did their Oceanview counterparts. Whilst a greater level of negative affect in females is consistent with prior research (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Roberts, Lewinsohn, & Seeley, 1995), these results also indicate that place of residence can have an impact on adolescent girls’ negative affective states. Whilst beyond the scope of this study, what particular aspects of the community contribute to such an increase would be an interesting avenue for future research.

**The Negative Community Perceptions Scale (NCPS)**

**Psychometric properties.** The NCPS was found to be a valid and reliable measure of perceived discrimination, fear of crime, and community reputation as demonstrated through tests of reliability and confirmatory factor analyses. Subsequent tests of invariance showed that responses from males and females, and residents living in Oceanview and Multiville produced a similar factor structure across groups and therefore the NCPS was considered valid for making group comparisons.

**Gender and regional differences - Key findings.** Examination of group differences revealed that males perceived more discrimination than did females, although the effect size was relatively small thereby diminishing the practical significance of the result. The finding that females had higher levels of fear of crime than males is consistent with a large body of previous research (e.g., Madriz, 1997; Pain, 1997; Starkweather, 2007; Warr, 1984; 1994) which explains these differences in relation to females believing that they are more vulnerable to becoming a victim of crime than are males. In contrast to the current findings, other research has failed to find any gender differences in perceived fear levels (Gainey et al., 2011; McGarrell et al., 2007). However, in these studies, the lack of gender difference was only
evident in neighbourhoods characterised by extremely high rates of crime which was not an attribute of the two communities sampled in the present research.

Finally, a substantial amount of variance (29%) was explained by the differences in perceived discrimination across the two communities with Oceanview residents reporting much higher levels of perceived discrimination than Multiville residents. This is unusual as Multiville is far more ethnically diverse than Oceanview. A potential explanation for this finding may be due to the large number of Indigenous students sampled in the Oceanview area, and as previous research has found that more than 70% of Indigenous people report experiencing racial discrimination (Paradies & Cunningham, 2009).

The Self-Description Questionnaire II – Short (SDQ II-Short)

Psychometric properties. The SDQ II-Short was found to be a reliable measure of students’ General, Verbal, and Math self concepts. Reliability scores for the total sample, males and females, and Oceanview and Multiville residents were deemed acceptable for all three subscales. In support of the multidimensional nature of self-concept (Marsh et al., 2005), the results, after some refinement (see Chapter 6), provided support for the hypothesised three factor structure. Additional tests of invariance showed that the SDQ II-Short parameters were fully invariant across gender and region sub-groups, and was therefore considered valid for making between group comparisons.

Gender and regional differences - Key findings. Whilst there were a number of significant main effects and interactions identified in the analysis, the only finding which appears to have any practical significance based on effect size, was that males reported much higher Math self concept when compared to females. This finding lends creditability to the validity of the instrument as previous research has consistently shown that males have a much higher math self concept than do females (Creamer, Lee, & Meszaros, 2006; Eccles, 2007). Accounting for less than one percent of the variance, it appears that all other significant main effects and interactions found may be due to the large sample size rather than being a true reflection of any real group differences (Hills, 2008; Tabachnick & Fidell, 2007).
The Aspirations Index (AI).

Psychometric Properties. Reliability estimates for the AI were deemed acceptable for the total sample and all sub-groups and it was concluded that the AI as utilised in the present study, is a reliable measure of students’ financial, social, and career goals. Evaluation of the a priori factor structure of the AI demonstrated support for the predicted model. Goodness of fit statistics indicated an acceptable model fit, factor loadings were sufficient, and factor correlations clearly indicated three distinct factors. Tests of invariance further confirmed the validity of the measure as measurement equivalence was achieved across both gender and regional sub-groups.

Gender and regional differences - Key findings. Analyses of group differences showed significant main effects on all three factors and no significant interactions. Gender main effects indicate that males held significantly higher aspirations toward wealth than females, whereas females scored significantly higher on social and career aspirations. Regional main effects show that Multiville residents scored significantly higher on all three goal types, most significant however, was Multiville students’ strong career goal orientation. The lack of career goals in the Oceanview sample may reflect the economic deprivation evident in this community and the limited educational and job opportunities found in rural areas. The closest university is more than an hour away by car and much longer by public transport. Opportunities to secure well paid employment usually require commuting to, or relocating to, the closest major city which may be met with reluctance.

Summary

Study 1 demonstrated that all instrumentation employed in the present investigation was valid and salient for the sample under consideration. Importantly social capital was demonstrated to be a multidimensional construct comprising bonding, bridging, and linking at multiple levels. As such, Study 1 provided the foundation to examine social capital and its prospective positive externalities which was the focus of the Study 2.
Study 2 Discussion: The Relations Between Social Capital and Psycho-Socio-economic Outcomes: Can Social Capital Help Alleviate Place-Based Disadvantage?

Introduction

The literature presented on disadvantage throughout Chapter 3 highlighted that despite numerous efforts to reduce disadvantage in this country, some geographical pockets have endured persistent socio-economic disadvantage for over three decades. The research reported in this thesis adopted the view that social capital may offer a possible solution, and when mobilised effectively, may reduce poverty and disadvantage where more traditional welfare models have failed. However, before policy makers can be persuaded to invest the substantial funding required for the systematic implementation of social capital interventions and initiatives, it is important for research to determine whether or not social capital can produce positive externalities within these communities. Study 2 sought to contribute to this research base by examining the outcomes which have been empirically associated with social capital but have continued to produce ambiguous, inconsistent, and contradictory findings. This has left advocates of the construct frustrated, and the critics and policy makers even more sceptical of its worth. As suggested in Chapter 3, part of the reason for these inconsistencies may be due to the varied and often inadequate measurement tools used to assess these relations. Utilising instruments with strong theoretical and empirical rigour as developed in Study 1, Study 2 reassessed these associations in an attempt to disentangle the relations between social capital and various important outcomes. More specifically, the following section discusses the impact of social capital on: mental health, community perceptions, academic self concept, student aspirations, physical health, risk-taking behaviours, and access to resources through SEM analyses. It also discusses whether the pattern of these relations varied as a function of gender and/or region through moderating analyses. Each will be discussed in turn throughout the following sections.

The Relations Between Social Capital and Depression, Anxiety, and Stress

In response to the research question testing the relations between social capital and mental health, the findings of this investigation revealed that higher social capital within the family predicted lower levels of: depression, anxiety, and stress.
among adolescents. Hence the results of the present investigation imply that maintaining high levels of social capital specifically within the family contributes positively to mental well-being and serves as a buffer against mental health issues associated with adolescence. Therefore families that strive to enrich family social capital by creating a strong sense of familial trust, and provide adequate socio-emotive support are likely to enhance the mental well-being of adolescents and contribute to their emotional stability during adulthood.

Whilst in the present investigation family social capital had a statistically significant effect on adaptive mental health outcomes, no significant effects were present between mental health and peer, neighbour, and community social capital. These results are consistent with Aldridge et al. (2002) who concluded that bonding social capital at the individual level is the most important determinant of reducing stress reactions in participants (see Chapter 2) and Stevenson’s (1998) results which showed that when teens had high levels of family social and emotional support, there was no significant differences in depressive symptoms between low and high social capital neighbourhoods. However, Stevenson also found that neighbourhood social capital significantly lowered levels of depression among students although this effect was only evident in participants with low socio-emotive support within the family. This suggests that while neighbourhood social capital can compensate for poor familial support, when social capital within the family is high, it takes precedence over the influence of neighbour social capital on mental health which is ultimately consistent with the results of the current investigation. Therefore, adding concurrent validity to the present results, the findings of the present investigation support prior research in relation to the importance of bonding capital for the healthy emotional functioning of disadvantaged youth.

Explaining the greatest amount of the variance was the result that the more isolated one feels in their school the more likely they are to suffer from depression, anxiety, and stress. These results demonstrate that social connectedness in the schooling context is a powerful facilitator of adolescent mental health. The results imply that ensuring students have a secure sense of school belonging is important for facilitating adaptive mental health, and students experiencing feelings of isolation from their school may benefit from interventions that aim to reduce this. These findings are also consistent with a larger body of research which has found that high levels of social integration resulted in improved emotional health among participants,
whereas poor social connections with teachers and fellow students have resulted in increased levels of mental illness during adolescence and later life (Bond et al., 2007; Resnick, Bearman, & Plum, 1997; Rose, 2000; see Chapter 2). The detrimental effect of isolation at school found in the present study is also consistent with Bond et al.’s (2007) results which demonstrated that becoming isolated and socially excluded from peers and teachers at school resulted in higher levels of depressive symptoms among secondary students regardless of the extent of their social relationships outside of school. Therefore the findings of the present investigation contribute to this rich body of evidence in explicating the importance of social connections in the schooling context for contributing to emotional well-being.

In contrast to the current findings, some other studies have failed to find evidence for the positive benefits of social capital on mental health (e.g., Carlson & Chamberlain, 2003; Almedom, 2005). For example, Caughy et al. (2003) found that children of parents living in disadvantaged communities who knew few of their neighbours produced better mental health outcomes than those whose parents knew many of their neighbours. The opposite was found in more affluent communities. Even though these findings appear to support Bourdieu’s view of social capital as benefitting only the wealthy, there are two potential reasons for the discrepancy between Caughy et al.’s results and those found in the current investigation. Firstly, Caughy et al. measured the relations between social capital and mental health at the neighbourhood level only, and as demonstrated by the present results, social capital within the family and the schooling context appear to be the most important determinants of positive mental health outcomes among disadvantaged youth. This suggestion is also supported by Stevenson’s (1998) findings, which indicated that neighbourhood social capital is only important for mental health when it is lacking within the family. Secondly, as pointed out in Chapter 3, Caughy et al.’s measure of social capital within the neighbourhood simply addressed the number of residents participants recognised or the quantity of people they knew, giving no indication of the quality of those relations or whether or not they could be accessed as a resource when needed. As previous research has continually stressed the importance of network quality over quantity in relation to the benefits of social capital (Antonucci et al., 1997; Boon & Farnsworth, 2011; Ryan & Willits, 2007; Stephens et al., 2011), both of these suggestions provide a plausible explanation for the discrepant findings reported here.
Gender and regional differences - Key findings. Examination of whether the association between social capital and mental health varies as a function of gender and region revealed no significant differences. Replicating and further validating the results found in the total sample, both males and females, and residents living in both communities, showed statistically significant relations between the family and isolation indicators on all three mental health outcomes. Additionally, the direction of these associations was the same for all critical sub-groups demonstrating that the findings of the present investigation are generalisable across gender and geographic region.

In summary, the relation between social capital and mental health as examined in the current study shows that family social capital in the most potent determinant of emotional-well being in disadvantaged youth, whilst isolation from school peers and teachers functions as the most detrimental factor in facilitating poor socio-emotive adjustment. Regional and gender comparisons reinforced these findings as the pattern of relations did not vary as a function of region or gender.

The Relations Between Social Capital and Perceived Discrimination, Fear of Crime, and Community Reputation

Perceived Discrimination. Examination of the relations between perceived discrimination and social capital revealed that while all types of social capital lowered perceptions of discrimination, only neighbourhood social capital exerted a significant influence. This suggests that when one forms positive associations with their neighbours, they perceive greater levels of racial tolerance and feel that their neighbourhood is more accepting of their ethnic origin. Moreover, again highlighting the importance of student social integration, was the finding that feeling isolated within the schooling context was by far the largest predictor of students’ increased perceptions of racial discrimination. To date, there has been insufficient research examining the influence of social capital on discrimination to compare to the current result, however, more recently there has been a growing interest in the way racism and discrimination undermine the formation of social capital (Brondolo, Libretti, Rivera, & Walsemann, 2012; Hampton, 2010; Prado, 2008). For example, Brondolo et al. (2012) has argued that discrimination is detrimental to peer relations and leads to the social distancing and isolation of some students thereby reducing their ability to form strong social ties with the other students and staff. The current results suggest
that this association also works in the opposite direction as those feeling ostracised at school also perceive greater levels of discrimination. While these findings add to the literature linking social capital and discrimination, future research employing a longitudinal design may provide more definitive answers on the causal relations between these variables in order to better inform initiatives aimed at increasing levels of social integration among the student population.

**Gender and regional differences - Key findings.** Exploration of potential gender and regional differences revealed a number of significant variations. Social capital within the community and neighbourhood context was associated with significantly diminished perceptions of discrimination for females but not for males. In contrast, social capital within the family was associated with significantly decreased male perceptions of discrimination but had little influence on female perceptions. Finally, consistent with the results found in the total sample school isolation was a negative predictor of perceived discrimination for males and females, although it was significantly stronger in the male sample. These findings indicate that for both males and females, directing intervention based on forming strong social networks within the school environment would be most beneficial, however, the results also indicate that intervention outside of the schooling context needs to target males and females differently. For males, perhaps initiatives need to centre on enhancing positive familial relations, whereas for females, building strong social ties with neighbours and community members would appear to be more useful.

These relations were further complicated when conducting regional comparisons. While feeling socially distanced and isolated at school was identified as the strongest positive predictor of perceived discrimination for the total sample and for males, when separated into community groups, it appears that the results were mostly influenced by the Multiville sample. Comparisons across region demonstrated that this strong association was only evident in the Multiville sample, with school isolation exerting little if any effect over Oceanview students’ perceptions of racial discrimination. In contrast, having a strong sense of belonging and feeling socially integrated within the school significantly reduced perceptions of discrimination in Oceanview students but had no influence on Multiville students’ perceptions.

A potential explanation for these regional differences may be the different cultural compositions of the two communities. Oceanview residents predominantly
come from an English speaking background. Within this ethnically homogenous context, students who are ostracised or become isolated tend to believe it is due to anti-social personality traits or economical disparities rather than being attributed to race, as cultural difference is not a salient feature of their school environment. This view was well supported by the data presented in Chapter 8 (one exception to this generalisation is the growing Indigenous population in this area). Conversely, Multiville is characterised by extreme cultural diversity, and race and religion play a dominant role in people’s lives. In this highly heterogenous context, cultural difference is often emphasised over similarly, and as illustrated in Chapter 8, often results in a clash of values and the exclusion of certain racial groups. Therefore in Multiville, when a student is socially distanced within the school they are more likely to attribute it to external causes such as discrimination rather than personal characteristics.

This finding may also reflect Putnam’s (2007, p. 149) claim that ethnic diversity undermines social solidarity by causing people to “hunker down” with those similar to them (affinity grouping; Hampton, 2010), withdraw from civic life, and trust less which may result in feelings of social isolation due to cultural/racial difference. While Putnam’s work was focused at the neighbourhood level, he recognised the need to determine whether ethnic diversity has these same effects in different institutional contexts such as schools and churches. The current research builds upon Putnam’s research by demonstrating that the influence of social capital and solidarity on perceived discrimination does indeed operate differently in high and low ethnically diverse schools.

**Fear of Crime.** Investigation into the relations between social capital and fear of crime demonstrated that increased social capital at the community level significantly decreased residents’ fear of crime in their local area. This finding is consistent with Shaw and McKay’s (1942) “Broken Window’s” theory which states that more cohesive communities are better able to control anti-social behaviours through informal monitoring mechanisms. The results are also supported by previous research which showed that communities with high levels of trust and strong social ties among residents have lower levels of crime, and hence less fear of victimisation (Berkman & Kawachi, 2000; Sampson et al., 1997).

As discussed in Chapter 3, previous studies examining the links between fear of crime and social capital have often produced mixed findings, and it was suggested
that the reason for this may be the type of social capital being utilised to measure the association. Past research supporting the positive effects of social capital on reducing fear (Hunter & Baumer, 1982; Lewis & Salem, 1986; Sampson, 2001; Taylor et al, 1984) used measures at the community and neighbourhood level or as what has been previously described as bridging and linking capital, whereas studies which were unsuccessful in finding such an association (Sacco, 1993; Thompson & Krause, 1998) focused their level of analysis within family and friend networks, also described as bonding capital. The current research built on these initial findings by assessing all three types of social capital in the one study and determined that whilst social capital within the school and community (bridging and linking capital) was beneficial in reducing participants’ fear of calamity, more proximal types of social capital (i.e. bonding capital) exerted little to no influence. Taking together both past and present results, it can be concluded that the best way to reduce fear of crime among residents is to take a whole of community approach and focus on building bridging and linking social capital at the community level rather than focusing on bonding capital strategies.

A second significant finding was that students who felt a strong sense of belonging within the school also reported significantly lower levels of fear. This is also consistent with previous research. Gainey et al (2011) found that individuals who felt they belonged to their community had lowered levels of fear of victimisation. Similarly, McGarrell et al’s (1997) finding that residents high on belongingness and connectedness to their community, perceived more informal social control and social support, which increased their perceptions of safety. Although the present research was constrained to school belongingness, most students in this age group would consider their schooling environment to be their current community. Therefore, the importance of these findings should not be diminished but rather extended in future research to include adults and applied to the local community outside of the schooling context to confirm the present result.

The importance of connectedness and belonging demonstrated in the current research is noteworthy as other research has demonstrated that in disadvantaged and highly disordered neighbourhoods, the social context of the community in which one feels like they belong has a greater impact on fear of crime than demographic variables and other personal vulnerabilities (Delone, 2008; Ferguson & Mindel, 2007; McGarrell et al, 1997). These findings are significant as most current efforts to
reduce fear of crime in disadvantaged communities tends to focus on regenerating the dilapidated physical infrastructure (and other visible incivilities) of the area instead of promoting social connections between residents, when both previous and current research suggest that the latter is more effective (Ferguson & Mindel, 2007; Rosenbaum, 1987).

**Gender and regional differences - Key findings.** Analysis of gender differences revealed that males’ perceptions of safety were significantly greater than females when they had high levels of social capital within the community and its institutions. In contrast, belongingness was the strongest predictor for reducing fear of crime for females. While there is very little research examining gender differences in regard to social capital and fear of crime, the current results suggest that males place their trust in the police and other government institutions to protect them from crime. Whereas females’ rely more strongly on informal social control mechanisms based on the emotional attachment they have to their community to enhance their perceptions of safety. Examination of potential regional differences produced no significant differences in the associations between social capital and fear of crime.

This section has demonstrated that social capital can play an important role in reducing fear of crime through perceived social vigilance mechanisms within the community and a strong sense of belongingness. Whereas community disadvantage has been shown to exacerbate fear in residents and lead to a general sense of disorder (McGarrell, 2007, p. 494), the results presented within this section show that social capital can mediate this association when residents have strong community ties and feel connected to others thereby enhancing their perceptions of community safety.

**Community Reputation.** Analyses to determine which type/s of social capital serve to enhance one’s view of their local community indicated, unsurprisingly, that neighbour and community social capital were the most beneficial. These results suggest strong ties with community members and trust in its institutions, as well as forming good relations with neighbours appears to be the best way of enhancing one’s perception of their local community. Research has shown that when residents view their community negatively and perceive it to be disordered, they tend to withdraw from social life and are less likely to engage in civic activities, thus preventing the creation of trust and shared values among residents (Gainey et al, 2011; Sampson & Laub, 1993). Therefore, it is probable that if one perceives their community in a positive light they are more likely to contribute
to that community by forming relationships with others and getting involved in local events which in turn would elevate their community level social capital.

**Gender and regional differences - Key findings.** Examination of gender and regional differences indicated a number of significant variations between sub-groups. Gender differences showed that social capital among neighbours significantly influenced male’s perceptions of the community reputation but had no influence on female perceptions. In addition, a sense of belonging enhanced female’s view of their community, but had no effect on how males perceived it. Finally, whilst community social capital had the strongest positive influence on community reputation views, this association was significantly stronger in females. These results suggest that when considering the reputation of the community in which they live, females tend to judge it in more emotional and overall terms, whereas males are most strongly influenced by the more proximal relations they have with their immediate neighbours. Regional comparisons revealed only one significant difference between the two communities. In the Multiville sample, neighbour social capital had a significant positive impact on residents’ perceptions of their community, however, no such association was evident in the Oceanview sample. For both samples, community level social capital was the strongest positive predictor of a favourable view of one’s community.

**The Relation Between Social Capital and Student Academic Self-Concept**

The results concerning the influence of social capital on students’ academic self-concept showed that school belongingness was the most powerful predictor of a higher self-concept in math, English, and general academic tasks. Family and community social capital also exerted a significant positive influence on these outcomes. The association between family social capital and student self-concept is consistent with Coleman’s (1988) theory which highlighted the importance of the parent/child relationship in ensuring students’ future educational success. The link between family social capital and positive educational externalities is also consistent with the prior research of Aldridge et al. (2002) who found that the greater the interest, support, and encouragement shown by parents in relation to their child’s education, the higher their educational achievement.

The positive impact of community social capital found in the present research also lends credence to Putnam’s (2000) theory, that extending on Coleman’s work,
stresses the importance and potential benefits of social relations outside of the family context. The current findings are also concurrent with Sun’s (1999) research which demonstrated that over and above the effects of family social capital and demographic variables, social capital accumulated within the community exerted an additional effect on all school performance measures. Sun’s research also attempted to measure students ‘stock’ of social capital and found that low SES communities possessed the lowest levels of social capital. However, after controlling for economic deprivation and other low SES factors which provide barriers to the formation of interpersonal ties within the community, Sun found that the positive effects of community level social capital remained. Therefore, both the current findings and Sun’s results suggest that if intervention attempts focus on assisting residents living in these communities to overcome the barriers preventing them from building social capital, community social ties could help compensate for the negative effects of economic deprivation and their children would encounter fewer educational disadvantages.

The significance of school belongingness for enhancing students’ academic self-concept in the current study is consistent with research which has shown that a large network base is particularly important as children enter secondary school (Sun, 1999). During this time, parental influence tends to decrease and ties to the school community can serve as an alternative source of: informational, psychological, and educational assistance (Coleman & Hoffer, 1987). The magnitude of the relation between school belonging and student self-concept represented by the current results clearly suggests that ensuring that all students possess a strong sense of belonging toward their school, and connectedness to those within it, is vital for improving students perceptions of academic competence and subsequent achievement.

Additional findings revealed that peer and neighbourhood social capital had a detrimental association with student academic self-concept. In the disadvantaged communities studied, many of the students are surrounded by others that are unemployed, and those that do work, do so in low paying, physically demanding jobs that require little or no formal education. So whilst individual families may want more for their child and encourage them at school, associations with neighbours whom have limited occupational opportunities may perhaps cause students to question the future rewards of academic efforts and therefore devalue educational pursuits (Cooper & Crosnoe, 2007). This suggestion is supported by the Alexander et
al. (2001) who argued that for students living in disadvantaged neighbourhoods, the context outside the school plays an important role in the way students view school and their attitudes toward educational success. These negative attitudes may be further reinforced by the sense of helplessness based on the well recognised achievement gap between socio-economically advantaged and disadvantaged students (Alexander et al., 2001) that emerged in the qualitative component of the current research. However, when students have good relations with the community’s formal institutions, and have high levels of trust in other community members, the detrimental effect of neighbour influence can be overcome as shown by the much larger effect sizes found in the present investigation in relation to community social capital and school belonging.

The negative association between peer social capital and particularly math self-concept is more difficult to explicate. Perhaps math is not considered a particularly socially interactive subject and therefore peer associations serve to disrupt rather than to benefit. Although, research has shown that social capital among peers can be detrimental or beneficial depending on the nature of peer norms (McNeely & Falci, 2004; Portes, 1998). It is possible that the majority of the cohort sampled in the current investigation held negative attitudes toward their mathematics ability and as such produced similar attitudes throughout their peer group. This suggestion remains to be tested by future research. Encouragingly, previous studies have shown that existing family values can moderate the effects of negative peer norms (Watts & Nagy, 2000), and adding to this literature, the results of the current study also indicate that in addition to positive family influences, social capital created among community members also serves to override negative peer influence.

**Gender and regional differences - Key findings.** Examination of gender differences revealed no significant variations, suggesting that the elements of social capital which enhance students’ perceptions of academic competence are equally effective for both males and females. In addition, despite a number of observed variations between the regional groups, there were no statistically significant regional differences found suggesting that the relations between social capital and self-concept do not vary as a function of region.
Summary

In conclusion, this component of the research has demonstrated how stronger social networks within the family, school, and community can effectively improve students’ self-concept in math, verbal, and general academic tasks regardless of their gender or geographical location. The findings also support the theoretical views of both Coleman (1988), who stressed the importance of familial relations for boosting educational outcomes, and Putnam (2000), whom saw the additional value in developing community and school ties to enhance educational success. These results are also empirically significant. To date, most social capital and educational research has being confined to familial relations as stressed in Coleman’s work and very few studies have looked at the importance of relations outside of the family as suggested by Putnam’s (2000) theoretical framework. By assessing both of these models empirically, it was shown that intervention should be targeted both within the family and the community in order to maximise disadvantaged student’s perceptions of their educational competence.

The Relations between Social Capital and Student’s Future Aspirations

Exploration of the impact of social capital on students’ future aspirations revealed that overall all types of social capital enhance student’s ambitions toward: financial, social, and career goals, whereas feelings of isolation led to lower future ambitions across all three goal types. Most notable were the strong relations between community and peer social capital, and the future desire to contribute to the community, develop meaningful relationships with others, and experience ongoing personal growth throughout adulthood. Results also showed that community social capital exerted a significant and positive influence over students’ future career goals, demonstrating that the more linking capital a student accumulated the more likely they were to want to enter tertiary education, and pursue a career they found both challenging and satisfying.

The positive influence of social capital on students’ future ambitions established in the current research is consistent with a well established body of previous research (Coleman, 1988; Coleman & Hoffer, 1987; De Graaf et al., 2000; Stanton-Salazar, 2001; Stanton-Salazar & Dornbush, 1995; Israel et al., 2001; Teachman et al., 1996). However, as with the educational research, much of the empirical work in this area followed Coleman’s (1988) model, focusing on the
benefits of family social capital and largely neglecting the role of other types of social capital on adolescents’ future aspirations. This propensity to concentrate the measurement of social capital at the family level may have lead to some misleading findings. For example, in one of the few longitudinal studies examining the effect of social capital throughout adolescence and adulthood, White and Glick (1999) claimed that social capital is only beneficial during the schooling years and that levels of social capital beyond those years have no impact on the pursuit of tertiary study or labour force entry levels. However, White and Glick only examined the effects of family social capital, thereby neglecting the other types of social capital (peer, neighbour, community) which may play an important role in students’ future social, career, and financial goals after they leave school.

Building upon this literature, the findings of the current study demonstrated the importance of accumulating community social capital, which was found to have a greater impact on students’ social and career goals than did family social capital. This finding is consistent with the work of Sun (1999) who found that community social capital has a more positive impact on students’ future educational aspirations than does family social capital or demographic variables. More recently, studies researching minority and disadvantaged youth have also highlighted the significance of building social capital outside of the family to improve students’ future aspirations. That research has consistently shown that school settings and staff that encourage the development of social capital and create a culture of expectation around their students attending college in the future. It has also been shown to improve immediate academic outcomes and increased college enrolment figures for both disadvantaged and minority youth (Allen et al., 2009; Stanton-Salazar, 2011). Therefore, it can be concluded that whilst family social capital can have a positive influence on students’ ambitions, community social capital is a far more powerful predictor of students’ financial, career, and social aspirations beyond the schooling years.

**Gender and regional differences - Key findings.** Gender comparisons revealed a significant gender difference in the relations between levels of social capital and students’ future aspirations toward wealth, society, and career ambitions. It was determined that high levels of trust and reciprocity in community institutions resulted in lower wealth orientated goals for females, however, for males, no such relation was apparent. It is possible that when females have positive relations with,
and trust in, society’s formal institutions and services, the importance of being rich or wealthy diminishes as there may be an underlying assumption that if they run into difficulty that they will be looked after. In contrast, traditional gender roles may dictate that males are responsible for providing financial security for themselves and their families and therefore their relationships with formal institutions has little influence on their future financial aspirations. The other marked gender difference was between levels of social capital and career goals. For males, four of the six social capital factors were significantly related to career goals, however, for females, there were no significant relations found between any of the social capital factors and career goals. Further investigation into why social capital influences the career ambitions of males but not females is needed, particularly since there has been so little research in the social capital field concerning gender differences. This preliminary finding provides an interesting opportunity for developing social capital research, as examination of gender differences in social capital is largely under-studied (Fox & Gershman, 2000; Kilby, 2002). Comparisons across regional groups showed that there were no significant differences detected between Oceanview and Multiview residents concerning the relations between social capital and future aspirations.

Summary

The current findings clearly showed that social capital can exert a positive influence on student’s future social, financial, and career goals. Overall linking capital was shown to have the most powerful influence over career and educational aspirations, whilst peer and community social capital appears to be the most beneficial for facilitating social goals toward forming satisfying and meaningful relations with others. Finally, higher levels of community or linking social capital resulted in less concern about future wealth for females only. In contrast, all types of social capital increased orientations toward future career goals in males but not females.

The Relations Between Social Capital and Physical Health

The next variables examined in relation to social capital were adolescent physical health and well-being. Results demonstrated that higher levels of family social capital particularly, and community level social capital, predicted positive
health practices, improved life satisfaction, and acted as a buffer against inactivity amongst the adolescents in the current sample. This finding is consistent with previous research which has also identified the health benefits of social integration among individuals (e.g., Stephens et al., 2011; Veenstra, 2000). Adding to the validity of the current findings, there is also a considerable body of research supporting the health benefits of strong family ties (e.g., Kennedy et al., 1990; Wilkinson, 2002). In contrast, the value of community social capital on individual health has attracted little attention and limited empirical study, although there are some recent exceptions. Consistent with the current research, Mohnen et al. (2011) demonstrated that higher levels of social capital within the community resulted in more positive health outcomes in individual health scores, when compared to those with low social capital.

These findings were further supported by Ross (2002) who found that sense of community belonging and integration were powerful positive predictors of good health even after controlling for existing health conditions (e.g., chronic illness, stress), health risks (e.g., smoking, mobility), and socio-economic factors (e.g., income). In contrast to the results presented above, the current study showed greater social capital within the peer group appeared to promote unhealthy behaviours amongst teens, and a higher incidence of symptoms associated with illness. While this finding explained very little of the variance within these factors to stimulate any practical intervention at this time, further research is needed to elucidate this issue.

**Gender and regional differences - Key findings.** Analyses of gender and regional group comparisons produced a number of significant differences across critical sub-groups. Of interest was the finding that most relations between all types of social capital and health were stronger for males than for females. Viable explanations for this finding are not evident in either the quantitative or qualitative data collected, or in the paucity of research examining gender differences in social capital, therefore future research is necessary to explore this issue further.

There were two exceptions to this general finding. Firstly, females investing in stocks of community social capital were significantly less likely to report symptoms of ill-health than were males. This result is significant as it is well documented that in general, women consistently report a worse health status and more acute symptomology than do men (e.g., Juel & Christensen, 2008). Based on the current findings, it appears that females’ investment in community social capital
can reverse this general trend. It is also commonly recognised that females are more likely to seek help from medical personnel at times of illness (Dunnell, Fitzpatrick, & Bunting, 1999; Macintyre, Ford, & Hunt, 2000). This increased contact facilitates doctor-patient rapport which also helps explain the stronger relation for females between community social capital and the reporting of fewer symptoms. The second exception was the finding that females high in family social capital reported significantly higher levels of life satisfaction when compared to their male counterparts. This may be a reflection of the norms that ascribe different roles to males and females in the family unit and the consistent finding that during adolescence perceptions of life satisfaction are most strongly influenced by family relationships (Gohm, Oishi, Darlington, & Diener, 1998; Rask, Astedt-Kurki, Paavilainen, & Laippala 2003).

The only significant difference found between regional groups was that for the Oceanview sample, community social capital was significantly related to fewer symptoms associated with illness, and more health promoting behaviours. No such relation was evident in the Multiville sample. There are a number of potential explanations for this finding. Perhaps being a small town, Oceanview residents are more likely know their physician well (i.e., family doctor since childhood) and are able relate to them in both a professional and non-professional environment. This may increase levels of mutual trust and enable residents to feel comfortable in making regular visits to their doctor for health advice. Additionally, in small communities knowledge is communicated more easily, which more readily leads to the transfer of medical information and advice.

In contrast, Multiville is a busy urban area with multiple doctor’s surgeries and medical centres, making it more unlikely to encounter the same doctor regularly, thereby preventing the formation of quality relationships with health care professionals. A second possibility is a lack of parental linguistic skill which may also limit access to, and communication with, appropriate health services through community social capital in Multiville as the majority of residents are immigrants from a non-English speaking background. Finally, this regional difference may be a reflection of the distrust in formal institutions that was expressed by Multiville residents in the qualitative focus groups (see Chapter 8). It could be beneficial to explore these possibilities in future research to explicate these regional differences.
The Relations Between Social Capital and Adolescent Risk-taking

In exploring the link between social capital and risk-taking behaviour, results indicated, with few exceptions, all types of social capital and a sense of belonging were associated with decreased levels of risk-taking behaviours, whilst being socially isolated resulted in an increase of risk-taking behaviour. However, the most important and potent predictor of reduced youth risk-taking behaviours in adolescents was community social capital or what has been described theoretically as linking capital. Additionally, the negative relation identified in the current study between alcohol and cannabis consumption, and family social capital is consistent with previous studies that reported that supportive parent/child relationships with open lines of communication results in lower levels of drug use during adolescence (e.g., Stronski et al., 2000).

In the present investigation, higher levels of peer social capital was significantly related to less alcohol use and inebriation, but it was also significantly associated with reduced condom use during sexual intercourse. Although the latter result did not account for enough of variance to warrant immediate concern, these findings do appear to support the suggestion that peer relations as a source of social capital can be used to encourage or discourage risk-taking practices depending on the nature of peer norms (McNeely & Falci, 2004; Portes, 1998). Prior research has also suggested that the influence of peer relations can be moderated by family social capital (Watts & Nagy, 2000), which appears to be the case in the present investigation. As mentioned above, our results show that both family and peer social capital reduced alcohol and drug use, therefore even if the current sample’s peer norms advocated the use of these substances, it can be assumed from the results that existing family values overrode this potential negative influence.

The importance of community social capital and school integration established in the current study was supported by McNeely and Falci (2004) who demonstrated that a strong attachment to school and positive student-teacher relations resulted in fewer physical altercations, safer sexual practices, and reduced consumption of drugs and alcohol. The current quantitative and qualitative results also support McNeely and Falci’s finding that involving adolescents in institutions and community groups that frown upon risk-taking practices (e.g., churches, sporting teams) can act as an effective deterrent for engaging in risky and dangerous activities (Anteghini et al., 2001; Merrill et al., 2001). Interestingly, they found that if a teen’s
parent/s is also involved in the community group or institution this negative association is even stronger, again suggesting there is a moderating effect occurring between family relationships and other forms of social capital.

**Gender and regional differences - Key findings.** Exploration of gender differences revealed that to prevent smoking, alcohol use, physical violence, and inebriation in females it is most important to ensure that adolescent girls have strong ties with the community or quality stocks of linking capital. While community social capital was also effective in deterring boys from the same behaviours, family and peer social capital were also associated with significant decreases suggesting that the ability of young males to restrain from engaging in these behaviours is influenced by multiple facets of social capital. The strong positive influence of community social capital on female risk-taking, and the additional impact of peer and family social capital on male risk-taking behaviours, is consistent with one of the few previous studies examining these relations (Smylie et al., 2006). Interestingly, gender differences regarding safe sexual practices revealed some unusual and atheoretical results. In females, peer social capital, neighbour social capital, and belonging were shown to significantly increase the likelihood of females practicing safe sex whereas community social capital was associated with less condom use. In contrast, few of these relations were significant in the male sample, and family social capital was significantly related to unsafe sexual practices in males. The reasons for these atypical findings are unclear, and while the effect sizes were generally quite small the results are still concerning and warrant further investigation in future research.

The regional differences identified in the current research demonstrated that whilst the relations between family social capital, and sexual activity and cannabis use were negative for both gender groups, the associations were significantly stronger in the Oceanview subsample. Additionally, and somewhat surprisingly, it was shown that neighbour social capital heightened the risk of inebriation in Oceanview only. This latter regional disparity may be a reflection of the marked cultural and religious differences between the two communities. As outlined in Chapter 5, almost three quarters of the Multiville sample reported Islam as their religion. Islam law forbids the consumption of alcohol (Michalak & Trocki, 2006) so it is logical to assume that with such a large Islam following in the area, in addition to family and friends, Islamic neighbours would also frown on drunkenness and the use of alcohol. Furthermore, as the qualitative data revealed (see Chapter 8) teen and
adult drinking was seen as a growing problem in the Oceanview area, with high unemployment, few religious restraints, and little else to do in such a small town, many of the students’ interviewed reported the consumption of alcohol and getting drunk as a socially acceptable past time in this area.

Summary

To summarise the key findings, the research showed that linking capital and feeling like one belonged at school were the most potent predictors of reduced risk-taking behaviours. Furthermore, supportive parent/child relations and positive peer associations were also shown to decrease alcohol and drug use amongst teens. The gender differences identified in the current research suggest that in order to lessen substance abuse and violence in females, initiatives need to ensure that females have good stocks of linking capital, whereas males risk-taking was significantly influenced by both linking and bonding social capital. Finally, and somewhat unusually, close ties with neighbours in Oceanview resulted in higher levels of drunkenness which may be a reflection of the acceptable community norms in this area.

The Relations Between Social Capital and Poverty Alleviation

The final outcome examined in the current research was the relation between social capital and poverty reduction. Analyses showed that family level social capital (bonding capital) was the most important for improving the socio-economic position of adolescents and families experiencing disadvantage. Consistent with this result, Marr (2012) successfully demonstrated that having strong ties with family members was the most effective component in ensuring the successful exit from homelessness and extreme poverty. Sabatini’s (2005) study also determined that bonding capital was the most valuable for gaining assistance in entering the labour market and improving one’s economic position. However, these findings may be limited to disadvantaged settings as others have stressed the importance of bridging and linking capital in order to gain information about, and access to, quality employment opportunities (Field, 2008; Granvotter, 1973; Robison et al., 2002). For example, it has been repeatedly shown that disadvantaged groups do not have access to the same informal networks that more affluent groups do (e.g., Boon & Fransworth, 2011; Buck, 2001), therefore it may be that the disadvantaged rely more heavily on close
social ties to overcome this barrier. However, in disadvantaged communities many close associates are also disadvantaged, tend to occupy low paying jobs, or are unemployed, all of which seriously limit prospective employment options (Boon & Fransworth, 2011). So whilst the current results do show that bonding capital is beneficial, prior research tells us that it is equally important to form social ties across different socio-economic groups to gain access to higher income employment.

One way to ensure that those of different socio-economic status are given the opportunity to socialise is through participation in organised community activities. Consistent with this suggestion, the current research findings demonstrated that high levels of neighbour social capital, and community environments which promote a strong sense of belonging among residents, not only successfully encourage community co-operation, but also significantly contribute to improved living conditions, and increased access to technology among disadvantaged students. Therefore, councils and governments could focus on providing these opportunities through social planning and events to promote positive socio-economic outcomes for all community members.

**Gender and regional differences- Key findings.** Assessment of gender differences revealed that the only significant disparity between males and females in the relation between social capital and access to resources was that females higher in neighbour social capital experienced significantly better living conditions than did males. This may be due to the greater amount of time females spend in the home raising children, which may allow them to form stronger bonds with their neighbours. It is also possible that having strong social ties with neighbours allows females particularly, to access informal child care, ask for assistance with household maintenance, and the sharing of mutual resources, all of which enables them to save money and have more funds to spend on improving quality of life. There were no significant regional differences identified indicating that the relations between social capital and poverty reduction measures were similar for both Multiville and Oceanview residents.

**Summary**

In sum, the current results show that the most beneficial type of social capital for alleviating financial hardship and improving the socio-economic position of disadvantaged families is bonding capital. However, it has been noted that this
finding may be applicable only in disadvantaged settings as bonding capital is particularly salient in these contexts. It is recommended that this association be reassessed following any intervention aimed at increasing bridging and linking ties among the poor. Finally, the associations reported within this section were not influenced by community of residences.

**Study 3 Discussion: Qualitative Investigation into Social Capital and the Strengths and Challenges Evident in Disadvantaged Communities.**

**Introduction**

The qualitative component of the study had three main purposes. Firstly, the study aimed to enrich the quantitative findings by tapping into the lived experiences of the participants using their own words. A second aim was to identify the current strengths and challenges evident in the communities studied to help inform future intervention initiatives. Finally, the data was interrogated to access any additional themes that may have been overlooked in Studies 1 and 2. Subsequent to these aims, the following section discusses the key findings from the qualitative study in the order of the four main themes identified throughout the analysis of the qualitative data. These themes were: a) “We’re up against it” – which describes the real and/or imagined barriers preventing social and economic success in disadvantaged groups; b) “We’re not in it together”- which describes the lack of cohesion amongst residents; c) “what we’re doing about it” – which presents the positive strategies used in the community to address disadvantage; and d) “We’re winning and we’re losing” – which is an exploration of the contradictory nature of the data collected. These four themes will also be discussed in relation to the quantitative results where applicable in each of the following sections.

**We’re Up Against It**

As outlined in Chapter 8, the strongest theme to emerge from the qualitative data was the widespread belief among participants that there were structural discriminatory mechanisms operating in all of the formal institutions encountered and these served only to exacerbate their disadvantage rather than alleviate it. This perception consequently resulted in a pervasive mistrust of many of the organisations
and services designed to assist them. The perceived targeting and victimisation of disadvantaged students by: teachers, schools, media, police, and government is particularly problematic when placed into a social capital theoretical framework. Social capital theory as explained by Putnam (2000) and his successors (e.g., Bowen, 2009; Woolcock, 2001) states that it is the linking relations with society’s formal institutions, and the forging of relations and alliances with the people that have power within them, that allows underprivileged individuals and their families to gain access to the resources and opportunities required for improving their financial and social position (Stanton-Salazar, 2011).

The continued lack of trust and low levels of linking capital described throughout the focus groups may also help to explain why some communities experiencing disadvantage fail to prosper over long periods of time despite the proliferation of welfare based interventions implemented throughout the community and its schools. The quantitative data in the current study provided support for this viewpoint by showing that linking capital and belongingness were generally the most effective facilitators of all positive externalities measured in the present study. Additionally, participant perceptions of discriminatory treatment occurring within these formal institutions may also provide an additional explanation for the much lower levels of community social capital found in disadvantaged communities when compared to their more affluent counterparts. Until now it has been commonly believed that this discrepancy in social capital levels was due to disadvantaged individuals’ lack of opportunity to meet and form relations with powerful or influential people because of factors beyond their control, such as residential instability and/or socio-economic class division (Aneshensel & Sucoff, 1996; Beyer et al., 2003; Drukker et al., 2003; Kawachi, Kennedy, & Wilkinson, 1999). However, the present qualitative findings add to the current literature by demonstrating that it may not be only the lack of opportunity that prevents the formation of these important ties in poor communities, but may also stem from residents’ reluctance to do so due to their ingrained distrust of both the schooling system, and government organisations and services. In fact, poor student/teacher trust and social interaction was one of the most prominent sub-themes to emerge from the qualitative data.

Calling attention to the importance of student/teacher ties, many researchers, governments, and non-profit organisations in both developing and developed nations (e.g., World Bank, United Nations, International Monetary Fund), have emphasised
increasing education levels in their attempts to reduce poverty in poor households and in poor countries (Mshoro, 2010; Oxaal, 1997). It is believed that increased academic skills and qualifications will increase future productivity (i.e., human and physical capital) and help secure well paid employment. However, the educational experiences reported by the disadvantaged young people in the present study highlighted the perceived difficulties in accessing quality education as a means to overcome poverty. This finding provided an important extension to the quantitative results. Whilst the quantitative data demonstrated that school belongingness and positive social ties with teachers and other key community individuals enhanced student’s sense of academic competence and future aspirations, it did not reveal the complexities or obstacles involved in this process.

In regard to perceived obstacles, students repeatedly stated that poor student/teacher relations presented an often impenetrable barrier to doing well in school, with some claiming that particular teachers were actively thwarting their educational progression and success. This negative perception of school staff is particularly problematic for poverty reduction because, as stated by Stanton-Salazar (2010), academic success for disadvantaged students is largely reliant on them forming positive social relations with institutional agents (e.g., teachers, student services, school counsellors; see Chapter 2), as it is these agents who are able to access and distribute the limited and valuable educational resources required for educational success. It is also the teaching and counselling staff that are most often aware of institutional inequalities and therefore the ones seeking to empower disadvantaged youth (Stanton-Salazar, 2010).

In addition, the view held by numerous students that nobody cared about them and that the school, police, media, and the government in general were unwilling to help them, engaged in favouritism and discrimination, and believed the students to “be a lost cause”, also has repercussions for mental and physical health. The sense of hopelessness that emanated from so many of these young students is concerning, particularly as hopelessness is both a precursor and a dominant symptom of long-term depression (Lynd-Stevenson, 1996; Nekanda-Trepka, Bishop, & Blackburn, 1983), a risk factor for suicide, substance abuse, and other hazardous behaviours in adolescents (Carvajal, Claire, Nash, & Evans, 1998; Salter & Platt, 1990; Wilson, Syme, Boyce, Battistich, & Selvin, 2005).
Furthermore, the present study’s quantitative results showed that social capital can enhance one’s health, aspirations, and academic competence, as well as reducing financial stress, the occurrence of mental health disorders, risk-taking, violence, and injury. However, the qualitative data indicates that the vital social interactions needed to build social capital are not happening with enough regularity at the institutional/community level, and as a consequence, there is an overreliance on the peer and family support systems (bonding social capital) in these disadvantaged areas. This presents a double bind as they are strongly relying on those with the least social and cultural capital and as both theory (Putnam, 2000; Woolcock, 1999; 2001) and prior research (Field, 2008; Granvotter, 1973; Robison et al., 2002; Schneider, 2004) have demonstrated, bonding capital alone is not enough to enhance one’s economic position and improve social mobility.

Therefore, it would be useful to enhance linking ties in these poor communities as a central component of intervention. A starting point for such an initiative could centre on the importance of addressing social capital within the school environment by establishing genuine and effective teacher and student relationships characterised by care. There is a dire need for educators to increase their efforts in high quality teaching, emotionally engaging and connecting students to teachers, and with each other, enhancing school belonging and culturally appropriate practice, and finally, help them connect with other institutions that can help students attain their full potential. For example, a potential strategy for doing so could be to assign each secondary teacher a number of students to develop rapport with, communicate that they care about the students’ lives and aspirations, and mentor these students in building linking capital with other institutions. Such a strategy would ensure that teachers made their willingness to socially and emotionally connect and assist students far more overt, would help convince students that there is hope, and eliminate their current defeatist and pessimistic future outlook. Such a strategy could also assist in changing student perceptions towards school staff and other bureaucratised institutions within the broader community.

In summary, this section has highlighted the problems and barriers associated with the formation of linking ties. The following section discusses the profound fragmentation occurring within these communities and the detrimental impact this has on community cohesion.
“We’re Not in This together”

The literature continually emphasises that social capital can only be created through strong social connections between people (e.g., Dekker & Uslaner, 2001). However, interrogation of the current data suggests that rather than bonding together to overcome the adversities faced, individuals living in geographically disadvantaged areas tend to maximise difference, and create unnecessary social, economic, and cultural boundaries that result in community division rather than cohesion. From a theoretical viewpoint, this community fragmentation not only prevents the creation of social capital and residents from reaping the potential benefits of it, but it also diminishes the quality of civic life and the cultivation of collective action that is particularly important for promoting change (Halpern, 2010; Putnam, 2000; Woolcock, 2001).

The inter-group partitioning of community members may also contribute to our understanding of why disadvantaged communities tend to be rich in bonding capital but have very little bridging and linking capital (Boon & Fransworth, 2011; Buck, 2001). The qualitative data suggests that whilst the lack of linking capital may be partly attributed to the trust issues the underprivileged have with society’s formal institutions (as discussed above), the lack of bridging capital appears to be due, in part, to the unwillingness of residents to reach out to people across different social divides. This finding provides an additional layer of complexity to Stanton-Salazar’s (2011) suggestion that the low level of bridging and linking social capital in these poor communities is beyond the residents’ control as they lack the opportunity to form such ties. The implicit assumption being that people tend to only know others that resemble themselves (Reingold, 1999). While this may be partially accurate, the present results also suggest that the economic and cultural fragmentation in these communities is often a deliberate and active process rather than a passive one. In other words, the data shows that residents tend to “close ranks” and go out of their way to avoid (or even exclude) those who are culturally, racially, or socio-economically different even when the opportunity to interact does arise. This leads to an overreliance on bonding ties, at the expense of building those equally important bridging ties.

This is problematic as relying exclusively on social connections among homogenous groups promotes narrow mindedness and prevents individuals from testing the veracity of their views and beliefs (Putnam, 2000). The lack of cultural
tolerance which firmly emerged from the data in the Multiville community may be a
direct reflection of this overreliance on bonding capital and the disinclination to seek
out bridging ties. This reluctance to connect with “unlike people” presents somewhat
of a challenge for poverty reduction initiatives, for although theory and the current
 quantitative findings indicate that relations formed across socio-cultural and
economic divides can improve one’s standard of living, ease financial stress, reduce
discrimination, and improve perceptions of educational competence, the qualitative
data implies that this is not occurring with any regularity in the two communities
studied, albeit for different reasons (see Chapter 8). Therefore, within poor
communities, creating interactions which emphasise similarity rather than difference
is of vital importance. Future interventions will need to jointly focus on creating
more opportunities for building social capital across heterogeneous groups, as well as
simultaneously addressing the existing insecurities, prejudices and stereotypical
thinking evident within homogenous groups.

In the Multiville area particularly, one of the main reasons for avoiding inter-
group contact amongst the adolescents was the “us against them” mentality which
was reported often during the focus groups. Within the schooling context,
participants argued that different racial groups were favoured by teaching staff and
received extra privileges that other groups did not. In a school perceived to have so
few resources, this was interpreted by students as a barrier to their own educational
success. The psychological and sometimes physical battle over seemingly scarce
resources and staff attention resulted in a climate of animosity between cultural
groups. Furthermore, students’ belief that they were being “treated unfairly” was
used to justify their pessimistic view of the future and their negative attitudes toward
culturally different students. Interestingly, all cultural groups interviewed believed
that it was their group that was picked on the most and treated most unfairly,
suggesting that feelings of victimisation transcend culture and seem to be a pervasive
symptom of living in entrenched disadvantage. In contrast, our quantitative results
show that if students feel like that they belong at school and possess high levels of all
types of social capital, they can work together to overcome what Putnam describes as
“collective problems” (2000, p. 288) and all groups will ultimately benefit.
Therefore, the results of the quantitative and qualitative results suggest that schools
could ensure that all cultural groups understand that there is no special treatment
given to a particular group, encourage students to develop genuine relationships with
other groups, and clearly communicate that teaching staff are there to ensure that all students succeed. Once the competitive element between groups has been removed, students and staff can be encouraged to work together to resolve ongoing problems whilst simultaneously building valuable bridging ties across culture and power hierarchies (i.e., student/teacher).

Within the community, there were two main causes of fragmentation. Firstly, in the Multiville sample particularly, interviewees talked frequently about racial and religious tensions erupting into violence which caused residents to fear for their safety. As stated by Rosenfeld et al., (2001) communities where trust is low and residents feel unsafe are even more susceptible to crime because fearful community members are reluctant to engage in the kind of monitoring and surveillance needed to deter potential offenders. This was clearly evident throughout the focus groups as residents often reported avoiding particular areas and groups in the community rather than intervening and risk getting involved or even hurt. As previous research has shown, this persistent fear of victimisation can potentially undermine the quality of community life as fearful people are less likely to engage in civic activities, are more likely to stay at home, avoid public places, and generally withdraw from social life (Gainey et al., 2009) which opens space for further illegal activity. This has important implications for the stock of social capital within these communities because as residents withdraw from social life the opportunity to form ties with other residents and create neighbourhood social capital is substantially reduced. While the direction of causality cannot truly be determined by the current research, the associations between the social capital and fear of crime appears to run both ways; as the quantitative data demonstrated, social capital can reduce fear of crime, but fear of crime also appears to diminish social capital as evidenced by the qualitative results.

The second main cause of poor levels of bridging capital, predominantly effecting Oceanview residents, was the high mobility rates in and out of the area. Whilst this is common in geographically disadvantaged communities (Darcy, 2007; Jordon, 2008), students reported how difficult it was for them and their families to make connections within their new school and to integrate into their community. Participants talked about parental separation, or having to move around in order for their parents to either maintain employment or search for it, and as a result spent very little time in any one place. This constant relocating appears to have severely undermined their ability to build social capital, and as the long-term residents readily
admitted, they saw so many people come and go over the years they stopped making an effort to get to know new people moving into their neighbourhood. This finding is consistent with Jordon’s (2008) suggestion that the high levels of mobility in and out of disadvantaged areas undermines sense of community, belonging, and collective action. In support of Jordon’s argument and the current findings, Forest and Kearns (2001) also found that the higher the rate of mobility, the lower the levels of mutual trust and shared expectations among neighbourhood residents. Similarly, Stone (2000) reported a link between communities with high residential mobility, low home ownership, and low SES, with reduced levels of neighbourhood trust and cooperation (see also Sampson et al., 1999).

These findings are significant as past and current policy interventions focusing on dispersal have forged ahead without considering the experiences and views of those most directly affected. Additionally, little attempt has been made by policymakers to determine the effects of dispersal on those individuals who are moved to and from the area, or the quality of life for those who remain (Darcy, 2007). The current findings suggest that government dispersal strategies designed to ensure a “social mix” of residents from different socio-economic backgrounds aimed at enhancing levels of social capital, may well only serve to reduce them. As a consequence, such a strategy may not help to alleviate the long-term disadvantage cycle of a particular area but rather serve to exacerbate it by undermining residents’ ability to accumulate community level social capital. These findings suggest that rather than promoting initiatives aimed at relocating residents away from their existing socially supportive environment, it may be time to focus on new strategies designed to retain residents (i.e. building industry in locationally disadvantaged communities) and find ways to increase the connections between them.

Whilst this section has discussed the continued fragmentation between racial, religious, and socio-economic groups residing in the communities studied, the following subsection discusses some of the positive initiatives the schools and the communities are undertaking to surmount these problems. In addition, strategies for overcoming the barriers preventing residents from accessing all types of social capital are also discussed, along with other initiatives designed to deal with the enduring challenges faced by individuals living in disadvantaged communities.
“What We’re Doing About It”

Some of the greatest challenges identified in the qualitative data were students’ general sense of victimisation, the belief that they were treated unfairly by teaching staff and punished overly harshly in comparison to others. Harbouring such an ‘us against them’ attitude is hardly conducive of a good teacher/student relationship, and was most certainly a barrier to succeeding at school. To address this problem, teachers within the schools introduced new disciplinary strategies such as behavioural contracts that seemed to appeal to the students and certainly improved staff and student relations. Staff claimed that such a method made students take responsibility for their own behaviour and the consequences of it, rather than redirecting the blame to others. Such an approach was seen to be beneficial for two reasons. Firstly, it required students to communicate with staff in a non-hostile environment, thereby increasing the likelihood of more positive interactions and the subsequent accumulation of linking capital that resulted from them. Secondly, it also seemed to empower students as it gave them an element of choice over their own behaviour and the consequences of it.

In addition to trying to improve student and teacher relations and build linking capital, the schools also facilitated the creation of bridging capital in a number of ways. Firstly, schools promoted civic mindedness in their students by encouraging them to volunteer their time and help raise funds for others in their community who needed assistance. Staff believed this initiative gave students a more balanced perspective of the world and made them realise there were others far worse off than they were. Secondly, one of the schools began a mentoring program in which the older students assisted the younger ones. This gave the students a strong sense of worth and purpose, and provided the younger group with established social connections when they began secondary school the following year. Finally, under the guidance of staff, schools encouraged co-operative action among students and directed them on ways to instigate change through sanctioned methods. The joint allegiance forged between the students and staff on those chosen projects not only promoted the formation of linking capital, it also taught the students that rather than being powerless and ineffectual, they can work together and create change. This is arguably a very valuable lesson for individuals who have been raised in, and surrounded by entrenched disadvantage. Facilitating change in this manner can
conceivably give these students a sense of hope, where there was very little before as evidenced by the first major sub-theme ("we’re up against it") of the qualitative data.

It is also clear from both the qualitative and the quantitative findings that schools can and do serve as an important link between students and the broader community, and are therefore a rich source and driver of community level social capital. For example, recognising that a number of families in their community were struggling financially local businesses partnered up with neighbouring schools to ensure that each student had enough food and resources (e.g., uniforms, books etc.) to get through the school day. Schools also promoted student and community ties through other school-based initiatives such as inviting successful local residents in to perform motivational speeches and having businessmen come in and perform mock job interviews with soon to be school leavers. Furthermore, the schools surveyed were also responsible for helping parents create social ties outside of their immediate social circle. For instance, to encourage the formation of much needed bridging associations within the community, schools in the Multiville area opened up their gates and invited all community members regardless of age, gender, race, or religion to come and celebrate ‘International Day” to facilitate social interaction across racial and religious divides.

Outside of the schooling context local councils, recognising the need to build cohesive communities, hosted large-scale local events to encourage interaction and tolerance among all community members. The students and parents referred to these events positively and believed them to be highly successful. There were numerous other examples given throughout the focus groups of different organisations becoming involved in helping people form social networks whether for: friendship, employment, guidance, information gathering, or accessing basic needs. Although it has been shown that poor neighbourhoods have lower social capital (Stanton-Salazar, 2011) the qualitative data implies that social capital is indeed operating in these disadvantaged communities and there are numerous organisations working to improve the lives of those living in the neighbourhood by addressing the most pressing issues. Whilst all of these efforts have a theoretical link to social capital and have achieved some success, these communities are still presenting with problems associated with inter-group division and underlying tensions. Possible explanations for this continued lack of solidarity and other contradictions which emerged from the data form the basis for the final section of the qualitative discussion.
“We’re Winning and We’re Losing”

The last major theme apparent in the qualitative data involved participants inconsistent perceptions surrounding community safety and group interaction, and the ongoing challenges facing the initiatives and organisations trying to address disadvantage in these communities. Firstly, the contradictory nature of participant references about community safety was the most incongruent theme to emerge from the data whereby participants’ claimed that their communities were safe but then readily admitted that they did not feel it was safe to walk around at night or allow their children to play in the front yard. It appears that the most plausible explanation for these paradoxical findings is that residents have become accustomed to the threat of violence by adjusting their everyday behaviours (e.g., locking car/house doors, made sure they were home before dark etc.) thereby creating the perception of safety despite the frequency in which they reported violence and crime in their local area. Furthermore, the data showed that the residents had become skilled at recognising and avoiding particular areas of the suburb that were considered ‘dangerous’ which further maintained their sense of safety. Consequently, it can be concluded that despite the relatively high rates of crime and delinquency in these neighbourhoods, residents’ ability to adapt both behaviourally and psychologically lessened their fear and increased their sense of safety. This conclusion not only provides an explanation for the contradictions evident in the data, but it can also be supported by some of the previous literature which has shown that fear levels (or perceptions of safety) are only marginally related to actual crime rates (Dammert & Malone, 2003) and prior victimisation (McGarrell et al., 1997).

It was also apparent throughout the focus groups that some residents felt safer than others and the most prominent reason for these enhanced perceptions of safety among some residents was having positive relations with neighbours and other community members. This finding is consistent with the quantitative results which clearly showed that the most important types of social capital for reducing fear levels were neighbour and community social capital. Moreover, it appears that the qualitative data extends on the quantitative finding that a strong sense of school belonging effectively decreases student’s fear levels by demonstrating that a sense of community belonging is equally effective for reducing fear in adults outside of the schooling environment. As research has previously shown, minimising fear within
poor communities is important for the mobilisation of informal social control mechanisms such as resident monitoring and surveillance (Rosenfeld et al., 2001). Therefore, both the quantitative and qualitative findings emanating from this research imply that interventions to reduce fear should be aimed at fostering a strong sense of belonging in both the school and community simultaneously, and ensuring that strong social bonds are formed between neighbours and other community members.

An additional contradictory element of the data was the disparity regarding inter-group interactions. As explained in Chapter 8 (and discussed above), religious, racial, and socio-economic tensions and violence were described frequently by respondents and yet when asked if there was any racism or discrimination in the schools and out in the community, most respondents believed that there were no problems. There are a number of potential explanations for this discrepancy. Some of the data suggests that inter-group teasing, tension, and violence is so commonplace in these communities that residents became desensitised to it over time and no longer viewed it as a problem. It is also possible that due to the frequency of incidents, residents no longer saw race or socio-economic position as the reason behind the violence, but rather saw it as part of everyday life. Others minimised the severity of inter-group clashes by claiming that the fighting was not too serious and it was sometimes necessary for particular groups to assert themselves over others. Which of these accounts best explains the contradictory nature of this theme will need to be clarified by future research. However, it is apparent from the current findings that students and residents in both of these communities would benefit from a program aimed at helping them recognise, identify, and address racism and other types of discrimination, as well as educating community members on alternative non-violent methods for dealing with it when it does arise.

The final discussion point within this chapter concerns the ongoing challenges faced by the school and community organisations in their attempts to help disadvantaged students and residents. The most prominent problems hampering the success of these programs and initiatives were lack of parental involvement and trust within the schools, and the poor integration of services within the community which appeared to unwittingly maintain group division, rather than eliminate it. Within the schooling context, problems affecting both students and their parents have been identified, and in response, school staff have developed a number of potentially successful programs to tackle them. However, the lack of parental interest and
participation in these programs has been a continued source of frustration for the staff running these programs. Previous research (e.g., Coleman, 1988; Stanton-Salazar, 2010) and the current quantitative data showed that parents becoming involved in the school can provide an excellent opportunity to build relationships with teaching staff (i.e., linking capital) and allows them to access valuable resources and information, which in turn serves to improve student outcomes. However, findings emanating from the qualitative component of this research show that until we can increase parental attendance and engagement in schools, then the benefit of these programs will be minimal despite having the appropriate funding and levels of support from the welfare community. Developing strategies for drawing parents into the school to take part in these potentially beneficial initiatives, whilst also taking into account their long working hours, and ongoing trust issues with educational institutions (see Chapter 8), presents a challenge for schools and future research in this area. Potentially, if parents are inaccessible for reasons such as long working hours, maybe they can be engaged through alternative means of communication such as electronic media and other more free flowing information channels, assuming of course, they have the electronic resources to do so.

As highlighted in Chapter 8 and above, there are a number of community organisations successfully working with disadvantaged youth in the area by providing positive role models and improving future aspirations among adolescents from poor backgrounds. However, the data also revealed that these efforts, although well intentioned, continue to maintain racial, religious, and economic division thereby impeding cohesion. For example, many of these services are explicitly designed for those living with economic disadvantage, and therefore do not involve the more affluent members of the community. As a result, interaction between high and low SES groups is minimal within these initiatives. To address this ongoing problem perhaps these services could consider inviting the more affluent members of their communities to join in and help assist the poor in their area. The latter would enable disadvantaged groups to interact with middle and high income earners and ultimately enhance community cohesion.

In addition, the racial and religious division, particularly evident in the Multiville area, was also inadvertently preserved by the structure of community organisations. It was clear throughout the focus groups that there was little if any communication between the different organisations and that most, if not all, were
partitioned according to race and religion. Furthermore, the data showed that there were also numerous organisations serving the same religious or racial demographic but there was no pooling of resources or members between them. Therefore, despite many of them working for the same cause, these organisations are potentially competing with each other for both members and resources. As a consequence it was difficult for residents to find a centre that appealed to, and welcomed, all racial and/or religious groups further preventing the accumulation of bridging capital that is so desperately needed in these communities. Perhaps a more beneficial approach in eliminating group division would be to form a whole-community approach rather than a group specific one whereby services can pool and integrate their joint knowledge and resources to benefit all community members.

Finally, the racial separation of community organisations also thwarts attempts to provide mentors and role models for all at risk youth in the area. Due to the widespread emphasis on difference throughout this community, adolescents readily admitted in the focus groups that they would only listen to, and respect, someone from their own culture which adds yet another layer of complexity to the formation of linking capital among poor minority groups. This also poses further problems for intervention attempts because it means that any intervention would have to dually address the lack of linking ties evident in the community, along with, at least initially, matching potential “institutional agents” (Stanton-Salazar, 2011) according to racial and/or religious groupings. Such an approach may be counter-intuitive in that it may result in thwarting the creation of bridging capital between racial groups However, it may be possible to capitalise upon institutional agents from matched backgrounds who have successfully created linking capital to communicate and engage students in establishing such linkages. Overall, in order to be successful, future intervention would benefit from addressing, all three of these issues simultaneously to attain a fully integrated and cohesive community.

**Summary**

In conclusion, it is clear from the data that there is an acute awareness of the challenges present in both of these communities and an abundance of school initiatives and community organisations trying to address them. However, it is also apparent that these efforts may benefit from taking a whole-community approach rather than a group specific one which can further exacerbate division rather than
promoting community cohesion. The ultimate goal of taking such an approach is having community residents address their other ongoing difficulties together as a unified and cohesive whole. To conclude, this section has presented the key findings of Study 3 and integrated the results of Studies 1 and 2 into the discussion where relevant. The next section of this chapter presents the strengths and limitations of the research.

**Strengths and Limitations of the Present Research**

**Potential Strengths of the Research**

A particular strength of this research was the development of the new SCCS which has addressed many of the criticisms aimed at previous attempts to theoretically conceptualise, define, and measure social capital. A well-established issue in the literature is the difficulty in defining social capital consistently (Sabatini, 2009; Wall et al., 1998) and the failure of most previous research to include all theorised elements of social capital into their definitions (Paxton, 1999; Pope, 2003; Portes, 1995; Van Deth, 2003). To address these concerns, this research reconciled the three most commonly cited components in the theoretical and empirical literature defining and successfully measuring social capital as consisting of social relations or networks based on trust, and the values and norms of reciprocity. The study also demonstrated empirically that social capital operates independently at different levels (family, peer, neighbour, community) within the social structure.

Other commonly cited problems in the literature were the difficulties in separating the indicators of social capital from potential outcomes resulting in reverse causation estimates (Edwards & Foley, 1997; Macinko & Starfield, 2001), the use of single item indicators (Paxton, 1999), the continued reliance on secondary data sources not originally designed to measure social capital (Stone, 2001), and the poor links between theory and measurement (Paxton, 1999; Van Deth, 2003). This research has made an important contribution to effectively addressing these issues by developing a unified theoretical and definitional primary measurement tool which consists of multiple item factors, measured in multiple contexts. The development of this social capital instrument also enabled within-construct issues to be clarified before addressing between-construct issues. Importantly, the development of the new theoretically-derived measure of social capital demonstrates that theory, research,
and practice are inextricably intertwined whereby weaknesses in any one area impact upon the others. As such, the development of a new instrument has also enabled advances in theory whereby social capital has been demonstrated to be a multidimensional construct comprising trust and norms of reciprocity (as stated by Putnam, 2000) at the family, peer, neighbour, and community level. Hence, the instrument development enabled tests of theory and further refinement based upon a dynamic interactive process.

An additional strength of the research was that all existing instrumentation used was shown to be valid, reliable, and equally applicable across gender and regional groups as evidenced by the results presented in Chapter 6. In regard to the relations between social capital and various outcomes, another strength of this study was that it was unique in that it examined the influence of multiple types of social capital on multiple outcomes rather than simply measuring it on the singular level (e.g., family). By doing so, this research has identified which levels of social capital are most beneficial for improving each of the outcomes measured, allowing for targeted intervention across the areas of: health, education, future aspirations, community perceptions, mental health, risk-taking, and poverty reduction.

This research has also contributed to the literature by providing a plausible explanation as to why previous empirical studies have produced inconsistent findings when examining the relation between social capital and desirable outcomes for adolescents living in disadvantage. It appears that the inconsistencies found in prior research may be due to limitations in: measuring the impact of social capital at different levels, including all theorised elements of social capital (e.g., trust & norms of reciprocity), and not incorporating measures of the quality of individuals’ social networks into the research design. By addressing these issues the current research provides clear empirical evidence that social capital is a valuable resource for improving outcomes in the lives of adolescents experiencing social and economic disadvantage. The results of the present investigation also clearly indicate that social capital cannot be understood adequately if its multidimensional nature is ignored. Therefore, to increase the validity and consistency of future research examining the associations between social capital and life outcomes, researchers need to incorporate the multifaceted nature of social capital into their prospective measurement tools and research designs.
A further strength of the research was the implementation of a mixed method research design combining both quantitative and qualitative data collection and analyses techniques. The mixed method design employed in the current research allowed the researcher to fully explore and explicate the influences of social capital on secondary students’ biopsychosocial outcomes. The quantitative data determined the validity and reliability of instrumentation, and provided information on the relations between levels of social capital and students’ social and psychological outcomes utilising state-of-the-art statistical analyses which provide confidence in the findings. As stated above, the purpose of the qualitative data was threefold. It served to enrich and extend on the findings emanating from the quantitative data, enabled the researcher to gain a deeper and more nuanced understanding of the social capital construct, and was used to elucidate the strengths and challenges within each of the key communities in order to inform future intervention strategies. The findings from both the qualitative and quantitative studies were also examined simultaneously in order to validate the findings from each method and build upon social capital theory.

An additional strength of this research is that it examined whether levels of social capital vary between gender groups, and whether the pattern of relations between social capital and different outcomes also vary as a function of gender. As argued by Fox and Gershman (2000), gender research in the area of social capital is largely underdeveloped. Silvey and Elmhirst (2003) also contend that social capital research is “gender-blind” and suggest that until these differences are investigated and recognised, our understanding of social capital will remain incomplete. This research contributes to that aim by conducting a rare social capital study that examines gender differences in order to better inform future public policy and intervention strategies.

In the past, the lack of cross-cultural social capital research has also been identified as a problem. It has been argued that the promotion of social capital is seen as an effective tool by policy makers who seek to heighten the levels of assimilation or integration of immigrant families into existing dominant social structures (Cheong, Edwards, Goulbourne, & Solomos, 2007). However, there is too little empirical research examining differences in levels of social capital and its impact amongst ethnic groups to justify public spending on such initiatives. Addressing this research gap, both the quantitative and qualitative results produced in the present
research suggest that culture can play a moderating role in the influence of social capital on key life outcomes. It is important to note however, that despite the clear cultural divide between the two communities studied, this research did not specifically compare cultural groups and therefore these initial findings can only be considered preliminary. This is an essential area of investigation for such an ethnically diverse nation, and it is recommended that more consideration be given to varying dimensions of social capital and how such dimensions apply across varying cultural and ethnic settings.

Potential Limitations of the Research

In addition to the strengths outlined above, there were some limitations of the current study which need to be considered when interpreting results and designing future research and intervention. A potential limitation of the SCCS was the low reliabilities found in the community factor for the female and Multiville sub-samples which fell just below the traditionally accepted level. Whilst deemed acceptable for the current sample (see Chapter 6), caution should be taken when drawing inferences to the wider population. The community factor also had the lowest reliability of the six factors when using the total sample. These low reliabilities may be due to the diversity of the items within the subscale. That is, items in the community factor ask about trust and reciprocity within the community in general, and the institutions within the community. The lack of cohesion in this scale may therefore reflect the varying views the participants have of the different institutions.

A second measurement limitation was the highly correlated factors of the DASS-21 making it difficult to distinguish between stress, anxiety, and depression amongst the adolescents surveyed in this research. In order to disentangle the different types of social capital and how they relate to the separate dimensions of depression, anxiety, and stress, future research may benefit from utilising an alternative mental health measure, although as recent studies have shown, it is extremely difficult to achieve good discriminate validity and distinguish between these sets of symptoms in an adolescent sample (Cole et al., 1997; Lahey et al., 2004; Szabo, 2010).

A further limitation may be the sample used to validate these measures. Students were intentionally recruited from areas where residents were experiencing economic and/or social disadvantage which may be difficult to generalise to the
general population. Whilst the existing instrumentation utilised in the present research has been validated across a number of different populations and contexts, further research is required to explore and address the generalisability of the new SCCS instrument. However, as noted in Chapter 5, the sample was socially and culturally diverse and can therefore be presumed to be representative of some of the different types of disadvantaged communities that would most benefit from increases in social capital.

Another potential issue is that some of the outcome measures utilised in the present research were limited and may not represent the true nature of the construct being assessed. For example, the living conditions factor comprised of four composite items only (see Chapter 5) and may not have been a true representation of participants’ true level of disadvantage. However, one of the purposes of this research was to try and unify the literature dedicated to the study of social capital across a wide array disciplines. As such, there were a large number of outcomes assessed making the use of comprehensive measures unfeasible. Future research could consider employing matrix sampling approaches to address this problem.

An additional limitation of the current study was that the data presented was reliant on student self-report. The use of self-report measures is based on the assumption that respondents have an objective and direct awareness of the constructs under study, however, this can create potential problems with response bias (Murphy & Alexander, 2000; Pintrich, 2000). Such problems may have occurred in the present research as it is possible that a social desirability bias was operating. Therefore, future research examining social capital and life outcomes may be strengthened from developing alternative methods of inquiry. Additionally, due to time, financial, and other practical constraints, this research was cross-sectional in nature, which did not allow the causal ordering among variables to be determined (Bong, 1996). Future research could employ the use of longitudinal causal modelling to track students’ levels of social capital over time, and determine the direction of the relations between social capital and the outcomes measured in the present investigation in order to determine its full causal impact.

In sum, the strengths and contributions of the present investigation have been highlighted throughout this section, and the potential limitations and suggested ways of addressing them have been outlined. The final section of this chapter discusses the
implications of the current results and presents a number of suggestions for theory, research, and practice.

**Implications for Research, Theory, and Practice**

**Implications for Future Measurement**

Given the paucity of reported reliable and valid instrumentation utilised in social capital research, the findings of Study 1 make a significant and vital contribution to advancing future social capital research from a theoretically-derived measurement perspective. Until the present investigation, few studies have tried to develop a multi-item social capital measure that incorporates both theory and all conceptualised dimensions of the social capital construct. Fewer still have utilised statistical methods which control for error variance, relying instead on reliability analyses and Exploratory Factor Analysis. Therefore, the SCCS presents as one of the strongest multidimensional measures of social capital to date. In addition, Study 1 also validated a significant suite of existing instruments for use with Australian adolescents living in disadvantaged settings. This is particularly important for Australian research as there tends to be an overreliance on the use of measures that have been developed and validated in populations quite different from our own. The validation of these additional instruments locally will assist future research and practice into social capital, and help determine what impact it has on these important life outcomes which in the past have continued to perplex researchers. The current findings also have significant implications for intervention initiatives aimed at enhancing the psychosocial and economic outcomes examined within this thesis which are discussed in the following sections.

**Implications for Mental Health**

Over the last 20 years there has been increasing concern about the future burden of mental illness which has led to a paradigm shift away from a focus on treatment, to ways in which it can be prevented (Australian Health Ministers, 2003). The findings of the present study contribute to this current focus by demonstrating that students with high levels of social capital within the family and school context are less likely to experience mental illness, therefore indicating, enhancing social capital is an effective agent for fostering mental health resilience in teens. To inform
intervention strategies, the current results also demonstrate the importance of recognising the social context of the school environment and indicate that school-based initiatives could benefit from being strongly focused on encouraging strong relationships among students, and between teachers and students. However, the qualitative data clearly shows that before relations between students and teachers can be forged there is a dire need for educators to rethink their efforts in emotionally engaging and helping students develop a strong sense of school belonging and encourage students to connect and place more trust in societies other formal institutions.

Furthermore, the stable and controlled nature of the school site can create an optimal environment for which to promote adolescent connectedness both within the school and the family, as it is assumed that families can be readily accessed through their children’s ties with the educational institution. However, the qualitative data clearly shows that the lack of parental engagement and attendance continually prevents the success of most school initiatives. Therefore, it is recommended that schools firstly aim to connect with parents prior to the implementation of any school-based programs aimed at increasing linking capital between schools, students, and student families.

**Implications for Discrimination, Community Perception, and Fear of Crime**

 Discrimination and fear of crime are both considered major social concerns and have proven difficult to eliminate in Australia’s multicultural and financially inequitable climate (Box et al., 1988). The results of the current study have demonstrated that social capital has the potential to reduce both of these undesirable experiences through the formation of positive social connections. The present results indicated that a potentially useful starting point for intervention to lower adolescent perceptions of discrimination should be focused on students who are isolated within the schooling context. Encouraging socially inclusive relationships among students and teachers appears to be a promising strategy to reduce perceptions of racial discrimination among this age group. However, it is apparent from the current findings that students and residents in both of these communities would benefit from a program aimed at helping them recognise racism and other types of discrimination, as well as educating community members on alternative non-violent methods for dealing with it when it does arise.
While school-based intervention seems a priority, the current results also indicated that promoting positive associations among close neighbours could also serve to decrease perceptions of discrimination. However, this relation is further complicated by racial division as the qualitative data shows that adolescents are only willing to take counsel and guidance from members of their own cultural background. Designing interventions aimed at increasing linking social capital and decreasing racial division and discrimination would need to firstly build bridging capital amongst diverse racial/religious groups by emphasising similarity rather than difference. Once trust of different cultural groups is established through new bridging ties, the focus can shift to create linking ties across diverse groups in order to advocate change in the lives of those experiencing long-term disadvantage. Designing and evaluating such intervention strategies would be a beneficial avenue for future research.

The findings presented in this section also demonstrated that social capital can play an important role in reducing fear of crime through perceived social vigilance mechanisms within the community and a strong sense of belongingness. It has been well recognised throughout the literature that the empirical precedent to date has produced some contradictory findings regarding the relations between social capital and fear of crime (Field, 2008; Sacco, 1993; Smith, 1995). However, the current study adds to the existing literature by showing that these inconsistencies appear to be due to the type and level at which social capital has been measured. Based on the current results, it appears that social capital arising from the family and close friendships is not the most valuable for reducing one’s fear of calamity, whereas community level social capital and feeling as though one belongs to that community, tend to be more effective at reducing fear and perceived risk of victimisation. Therefore, it can be concluded that the discrepancies identified in previous crime research is most likely due to methodological differences, and the value of social capital in reducing fear of crime should be clearly recognised in future proposed initiatives. Both types of data utilised in the current investigation suggest interventions to reduce fear should be aimed at fostering a strong sense of belonging in both the school and the community, and ensuring that strong social bonds are formed between neighbours and other community members. Hence, future intervention would benefit from accounting for the multidimensional nature of the social capital construct.
Finally, social capital created throughout the community among neighbours and other community members was shown to be effective in improving residents’ perceptions of their local community. Key community leaders promoting such relations in future endeavours would be beneficial in improving community solidarity, promoting shared values, and encouraging civic participation, all of which have been shown to be vital elements of both social capital, and a well functioning community. In addition to these positive community outcomes, the current research also demonstrated that social capital can exert a positive impact on adolescent educational outcomes as is discussed in the next section.

Implications for Education

The current findings relating to students’ educational outcomes have important theoretical and policy implications. Firstly, with few exceptions, there has been an almost exclusive reliance on Coleman’s (1988) theoretical conceptualisation that family is the source of social capital for getting ahead in educational pursuits and largely ignored was the prospective benefits of other types of social relationships. Addressing this deficiency by examining multiple types of social capital accrued by disadvantaged youth, the present findings add to the current literature by demonstrating the value of social relationships outside of the family which can be used as an additional resource for facilitating educational success. These results support Putnam’s (2000) more societal theoretical viewpoint, and hold promise for understanding how social capital can be accessed by both privileged and underprivileged youth to improve educational outcomes.

In terms of social policy, the results indicate that if local councils and community leaders could provide more opportunities for residents to interact within and between the school and the community, not only would disadvantaged communities benefit from the strong social ties amongst its members, but such strategies may also assist communities in attaining their educational goals. This view is well supported by Henderson & Mapp (2002; see also Smyth, Angus, Down, & McInerney, 2009) who increasingly advocate the importance of school-community relations in creating a community characterised by fairness and social justice for all those within it regardless of their social or economic position. Furthermore, international research conducted with poor immigrant families has successfully shown that if these opportunities are created, it is possible for poor families to
overcome their financial barriers and attain high levels of social capital (Caplan et al., 1992; Duran & Weffer, 1992), a strategy that could be effectively applied to some of our most disadvantaged Australian communities.

The present findings clearly demonstrated that the social environment within the school can play a crucial role in the health and well-being of their students across a range of important outcomes. It is also commonly believed that increased academic skills and qualifications can increase social progress and upward mobility later in life (Connell, 2011). Whilst the quantitative results supported this assumption, the educational experiences reported by the disadvantaged youth in the focus groups highlighted numerous perceived difficulties in accessing quality education as a means to overcome poverty. These divergent findings clearly reflect the words of Connell (2011, p. xi) who stated that schools have the potential to “lift some out of poverty but destroy others’ hopes, and without conscious intention, lock out many of the rising generations from advanced education, professions, and many of the riches of our culture”.

Schools having such a powerful influence over their students’ futures means that policy makers and educators are obliged to do all they can to create a socially inclusive environment in which all students have the opportunity to thrive. The current findings suggest that one of the best ways to do that is to create a sense of school belonging amongst all students and have educators increase their efforts in emotionally engaging, and connecting students to both the school environment and each other. Whilst these results suggest that this should be at the forefront of current initiatives to improve education, Australian schools continue to face significant pressure to focus predominately on student academic performance. As a consequence, discussion on how to make schools more open, welcoming, and nurturing remains largely absent from the ongoing dialogue on improving student, teacher, and school performance (Sulkowski, Demaray, & Lazarus, 2012).

Addressing this deficiency, Bottrell (2011) argues that in addition to the technical and managerial aspects of teaching there is a need to promote the ‘engaged teacher’ who is committed to recognising and terminating inequality within the school, and taking proactive steps in overcoming the social division and marginalisation evident within the system. Incorporating such training into pre-service teacher curriculum may assist in avoiding many of the negative teaching experiences reported by students in the current study and instead facilitate more
positive relationships, leading to greater stocks of much needed linking capital among disadvantaged students (Munns, Sawyer, & Cole, 2013).

Considering the overreliance on bonding capital reported in both the current and previous research, enhancing linking ties in disadvantaged areas should therefore be viewed as a central component of any intervention. A starting point for such an initiative could centre on the importance of addressing social capital within the school environment by establishing genuine and effective teacher and student relationships characterised by care. As stated above, there a dire need for educators in these communities to increase their efforts not only in high quality teaching, but also in their ability to recognise inequality, and emotionally engage and connect with students. By doing so, students’ sense of school belonging may increase, which, as shown throughout this research, is a strong predictor of mental, physical, and social wellbeing. Developing strong and trusting relations with teachers may also assist in minimising the mistrust students reportedly feel toward other formal institutions and enable them to alter their current defeatist and often pessimistic future outlook governed by what many believe to be a corrupt system which is beyond their ability to change.

In conclusion, the current research suggests that students who are provided with a large network base, form strong familial and non-familial social ties (e.g., teacher relations), and feel they belong at school are at an advantage because they have access to a wide variety of learning experiences and opportunities for mentoring in academic tasks. The current results also have implications for student future goal setting as discussed in the next section.

**Implications for Future Aspirations**

As discussed in Chapter 2, there has been ongoing concern that the educational achievement gap between high and low SES students is growing (Alexander et al., 2001), and as a consequence, disadvantaged students are more likely to leave school early, thereby increasing their chances of lifelong poverty (Stanovich, 1986). The current findings provide a potential strategy for increasing student engagement by indicating that disadvantaged student’s aspirations toward education and career goals can be successfully enhanced by building social capital at the peer and community level. The finding that increases in student’s social capital also leads to the endorsement of social goals (community contribution and
meaningful relationships) is significant as it can lead to the creation of linking capital among individuals which increases their chances of securing desirable employment once leaving school, thus decreasing their risk of long-term poverty.

The results also highlight the importance of examining social capital from a multidimensional perspective. The present research shows that simply examining social capital at a single level (e.g., White & Glick, 1999) fails to encapsulate the complexity of the concept, can lead to misleading conclusions, and fails to demonstrate how different types of social capital can have a differential impact depending on the outcome being measured. Furthermore, these results also reiterate the importance of moving beyond Coleman’s theoretical framework with such a strong focus on the family and move toward Putnam’s (2000) socially holistic approach to incorporate the importance of weak social ties for enhancing adolescents’ aspirations toward education, career, and social ambitions.

**Implications for Adolescent Health**

Past studies have consistently shown that youth living in poor communities report lower levels of health than their more affluent counterparts (Boyce et al., 2008; Currie et al., 2008; Morgan & Hagland, 2009). Despite this clear inequality, the research examining the link between social capital and health has focused predominately on adult health (see De Cerq, 2012 for an exception) and empirical evidence pertaining to adolescent health and social capital remains limited. Additionally, even fewer studies have examined this relation in disadvantaged settings. The present investigation addressed both of these research gaps by successfully demonstrating that social capital can, and does promote physical health in youth residing in poor communities, therefore adding to the existing literature in the field. Furthermore, the results of present investigation can be used to inform health promotion strategies aimed at disadvantaged youth as it effectively identified the types of social capital (family and community) most beneficial in improving health outcomes in adolescents which can lead to effective and targeted intervention. Whilst the implications for both mental and physical health have been now been addressed, another variable that can have a detrimental impact on both of these outcomes in risk-taking behaviours among teens. Youth risk-taking behaviour has become a growing concern among parents, teachers, and public health employees, and forms the basis of the following discussion.
Implications for Adolescent Risk-taking

Youth risk-taking behaviours detrimentally impact on an adolescent’s physical and emotional well-being, and can result in criminal charges, injury, hospitalisation, and even death. The current research is significant in that it has identified potential sources of social capital that can ameliorate risk-taking in youth, and subsequently assist in the reduction of these potentially severe consequences. The current findings are particularly important for informing policy as existing prevention strategies to reduce adolescent risk-taking behaviours are based primarily on demographic and socio-economic factors and tend to neglect the impact of the social environment. The present research results indicate that the same attention should be given to strengthening adolescents’ stores of social capital and creating places where youth feel like they belong (e.g., sports teams, youth centres, and church groups). Building and participating in these positive networks not only gives adolescents less time to engage in risk behaviours, but also creates an influence by encouraging youth to engage in low risk behaviours and adopt values that discourage risk-taking during adolescents.

Additionally, past research has consistently demonstrated that adolescents living in poor communities are at the greatest risk of poor physical and mental health outcomes, have the lowest levels of social capital, and are more prone to taking risks with their lives (e.g., Smylie et al., 2006). However, what this study indicates is that increased levels of social capital can potentially narrow the gap on levels of risk-taking between disadvantaged and non-disadvantaged youth.

Implications for Poverty Alleviation

The current findings have the potential to make significant contribution to the government’s ongoing interest in long-term poverty reduction across Australia. Until recently, most policy development regarding poverty reduction has focused on economic, physical, and human capital, and the role of the social environment has been largely neglected (Abdul-Hakim et al., 2010). However, the current results demonstrate that social capital can play an important role in the economic prosperity of the disadvantaged, and support Field’s (2008) suggestion that “economic behaviour is always embedded in social structures and shaped by cultural values” (p. 56). Therefore, the current findings indicate that the value of social capital cannot be
ignored which may help to explain why previous attempts to reduce long-term poverty have been unsuccessful. These findings also have implications for the welfare models that continue to dominate poverty alleviation efforts by governments and associated services. Simply, giving the poor minimal financial assistance week in, week out, does little to try and elevate their socio-economic position. Furthermore, it does not include initiatives to improve their social ties and the social context in which they are embedded which has been shown here to be an important element in improving one’s social mobility. Hence, it is suggested that whilst other types of capital (e.g., human) are important for economic success, future long-term interventions designed to address disadvantage would benefit from strategies that also aim to build social capital.

Chapter Summary

This chapter has outlined the key findings of the three studies that comprise the present investigation. In general, the results show that the aim of developing a reliable and psychometrically sound and theoretically-derived instrument for measuring social capital was achieved. New insights into social capital were gained as a result of this measure which further advanced the knowledge base of the nature of social capital and its value in facilitating improved outcomes for those living in disadvantaged settings. Findings from the three studies were drawn together, and strengths and limitations of the investigation’s research design were presented. Finally, suggestions for theory, research, and practice were reported. The pivotal findings and recommendations of the overall investigation are summarised in the following concluding chapter.
CHAPTER 10
EXECUTIVE SUMMARY, CONCLUSIONS, AND GENERAL RECOMMENDATIONS

Introduction
The research reported throughout this thesis adopted the view that enhancing social capital can be a potentially potent strategy for addressing issues of entrenched disadvantage within this country particularly in areas of locational disadvantage. This research is timely and significant because the vast literature on disadvantage within Australia has highlighted that despite numerous efforts to reduce disadvantage in this country, the gap between the rich and the poor is increasing (Australian Bureau of Statistics, 2011a), there are more people sleeping on our streets than ever before (Homelessness Australia, 2009), and that there are over one million Australian children living in extreme poverty and deprivation (McCarthy, 2004; McClelland, 2000). To date, interventions designed to address these problems have had little success as areas identified as extremely disadvantaged in the 1970s are still experiencing the same levels of disadvantage today (Vinson, 2007; Vinson & Homel, 1976).

Before governments and other NGOs can be persuaded to invest the substantial funding required for the systematic implementation of social capital interventions and initiatives, there are a number of barriers evident in the literature that need to be overcome. In an effort to assist in surmounting those barriers the current research had three overarching aims. The first was to develop a psychometrically sound measure of social capital and socio-economic outcomes in communities characterised by place-disadvantage. The second aim was to elucidate the relations between social capital and a range of outcomes including: physical and mental health, future aspirations, student self-concept, risk-taking behaviours, and fear of crime within the community. The final aim of the study was to determine the influence of social relationships in disadvantaged settings and identify the needs and
strengths of the community in order to inform community and school-based intervention.

In relation to the first aim, the results demonstrated that the newly developed social capital measure and all existing instrumentation used in the research were psychometrically sound. Validation of each measure was established through confirmatory factor analysis, and tests of invariance confirmed the equivalence of each measure across critical sub-groups. MIMIC models were performed for each instrument which highlighted a number of significant gender and regional main effects and interactions which were subsequently discussed in Chapter 9. Overall the findings supported the multi-dimensional nature of the social capital construct and social capital theory as put forth by Putnam (2000), as consisting of trust and norms of reciprocity operating at multiple levels within the social sphere. Given the paucity of reported reliable and valid instrumentation utilised in social capital research, the fulfilment of this aim has made a significant and vital contribution to advancing future social capital research from a measurement perspective. This is because prior to the present investigation, few studies had developed a multi-item social capital measure that incorporated both theory and all conceptualised dimensions of the social capital construct. Therefore, the SCCS presents as one of the strongest multi-dimensional measures of social capital to date and can be used to create research consistency across investigative studies. In addition, the validation of existing instrumentation using an Australian sample is also important for Australian research as there tends to be an overreliance on the use of measures that have been developed and validated in overseas populations.

In relation to the second aim regarding the impact of social capital on various life outcomes, the quantitative research findings presented in Chapter 7 can be generally summarised as demonstrating that social capital exerts a positive influence in the lives of disadvantaged Australian youth and their families. Importantly, it was found that the magnitude of that influence is determined by the type of social capital been utilised. For mental health outcomes, social capital within the family was the most important factor for protecting against mental disorder, whereas social isolation within the school environment was the most powerful predictor of depression, anxiety, and stress. Therefore, intervention attempts aimed at increasing family social capital and decreasing feeling of isolation at school have the most potential for improving adolescent mental health outcomes.
Furthermore, it was also found that the more social capital and sense of belonging people have with their neighbours and community members the more favourably they perceive their community’s reputation, and the less they perceive racial discrimination and experience fear of crime. Hence, attempts to reduce perceptions of fear and discrimination in disadvantaged settings could endeavour to increase levels of social capital and belongingness amongst neighbours and other community members. Examination of the relations between social capital and academic self-concept revealed yet another pattern of findings which showed that above and beyond the close relationships among family and peers, the strongest predictor of a student’s positive self-concept was a sense of belonging at school and to one’s local community. Consequently, to increase students’ perceptions of academic competence, programs that focus on building school connectedness among students and teachers, and ensuring that adolescents feel they belong to their local community, are likely to be of most benefit.

The investigation of the associations between social capital and future aspirations revealed that community and peer social capital had the strongest impact on students’ social goals, and community social capital was the strongest predictor of future educational and career aspirations. Hence, to encourage civic mindedness and the desire to form meaningful relationships later in life, adolescents should be encouraged to increase their stocks of community and peer level social capital. Moreover, initiatives designed to increase community level capital are also likely to promote school engagement and student ambitions toward finding challenging and fulfilling employment during adulthood. Analyses of physical health outcomes revealed that higher levels of family and community social capital significantly predict positive health practices, improve life satisfaction, and act as a buffer against inactivity amongst the adolescents in the current sample. In contrast, greater social capital within the peer group appears to promote unhealthy behaviours amongst teens, and a higher incidence of symptoms associated with illness. Targeting levels of family social capital and ensuring that families are socially connected to their community should arguably then contribute to enhancing physical health in disadvantaged youth. Additionally, developing strategies for encouraging health behaviours within the peer group may successfully reduce poor health practices among youth and decrease symptoms of ill-health.
Examination of social capital and risk-taking behaviours revealed, with few exceptions, social capital, particularly community social capital, and a sense of school belonging were associated with decreased levels of risk-taking behaviours in adolescents. In contrast, a sense of isolation from the school community resulted in increased risk-taking activities among teenagers. These findings highlighting the importance of community ties and school belongingness can be used to inform alternative intervention models as existing prevention strategies aimed at reducing adolescent risk-taking tend to neglect the importance of the social environment and are primarily based on demographic and socio-economic factors. Finally the associations between social capital and access to resources demonstrated that participants with a greater sense of belonging, and high levels of family and neighbour social capital, participated in more activities, experienced better living conditions, and were more likely to have access to internet and computer technology. These results clearly show that social relationships can be successfully used as a resource to influence socio-economic factors. As such, rather than relying predominantly on financial incentives to assist those living in entrenched disadvantaged, new policy approaches might also benefit from focusing on strengthening ties between family members and neighbours.

Finally, in relation to the third aim, analyses of the qualitative data revealed four main themes. The first demonstrated that many of the residents in both communities believed they are victimised and disadvantaged by most of the formal intuitions they encounter. Student respondents also felt that their teachers presented barriers to their educational success, discriminated against them, and dealt out overly harsh punishments. They also perceived that when compared to more affluent areas they were given the poorest of resources and “lazy” teachers with little competence. The second main theme discussed the lack of community cohesion and fragmentation revolving around financial, racial, and religious disparity, whereby different community groups continued to emphasise difference rather than similarity. This often led to tension, aggression, and often violence between groups.

The third main focus explored the different approaches and programs implemented by the schools, the council, and other non-government organisations in order to try and address the challenges evident in these disadvantaged communities. The final theme drew attention to the often contradictory nature of participants’ responses, and the ongoing challenges in the community despite the concerted effort
of many school and community organisations. Inconsistencies were evident in participants’ perceptions of community safety and their views of social interactions among groups. The validity of these perceptions is not in question as they serve to emphasise the intricacies of living in these marginalised contexts. The complexities of navigating these environments were further highlighted when it was shown that the solutions to these problems can ironically often serve to maintain them rather than resolve them.

The qualitative data also highlighted a complexity to the lived experiences of disadvantaged groups that remained concealed in the quantitative analyses. For example, the quantitative data repeatedly demonstrated that high levels of community social capital (or linking capital) were extremely beneficial for improving a number of desirable outcomes (e.g., physical health, academic competence). However, the qualitative data revealed that these linking relations are the most difficult to form among disadvantaged groups because they tend to have an ingrained mistrust of community and government institutions and of those that work within them. As a consequence, there appears to be an overreliance on bonding capital within disadvantaged areas which has the potential to reinforce the antagonism between dissimilar groups. For example, the lack of tolerance toward cultural and socio-economic difference which firmly emerged from the qualitative data may be a direct reflection of an overreliance on bonding capital and as a result there was a disinclination to seek out bridging ties in these communities. This reluctance to connect with “unlike people” in order to create bridging social capital, and the unwillingness to trust in public institutions and services which are integral to the creation of linking capital, effectively prevents disadvantaged individuals from accessing much needed information, external assets, and shared resources. Designing ways to address these paradoxical findings presents a genuine challenge for future research as a myriad of competing issues will need to be addressed simultaneously. In other words, strategists need to ensure that whilst aiming to improve one outcome, they do not do so at the detriment of another.

This research has also made a potentially significant contribution toward the methodological study of social capital, the advancement of relevant theory, and the development of effective intervention. For instance, given the paucity of reported reliable and valid instrumentation utilised in social capital research (see Chapter 3), the findings of Study 1 make a significant and vital contribution to advancing future
social capital research from a measurement perspective by addressing many of the criticisms aimed at previous attempts to define and measure social capital. In addition, the findings demonstrate that the social capital construct is multi-dimensional in nature and therefore cannot be considered if its multi-dimensionality is ignored. The latter findings make an important contribution to theory building and demonstrate that theory, research, and practice are inextricably intertwined.

This study is also unique in that it examined the influence of multiple types of social capital on different externalities rather than simply measuring it on the singular level (i.e., family). By doing so, this research has contributed to the literature by providing a possible explanation as to why previous studies have failed to produce consistent findings and has demonstrated the importance of determining which type of social capital is most beneficial for improving which outcomes in the lives of disadvantaged adolescents. This new knowledge will be fundamental to advancing social policy and practice in key areas of national endeavour including: education, industry, the economy, and social inclusion. This research also has the potential to make a significant contribution to the research integrity and consistency of the study of social capital, which once achieved, may assist in placing social capital firmly on the social policy agenda as a valuable resource for improving outcomes for disadvantaged Australians in the midst of Australia's new social inclusion agenda.

To summarise, this thesis consisted of 10 chapters. The first chapter provided a context for the current study, and presented a summary of the research aims and thesis structure. Chapters 2 and 3 presented a review of the theoretical, empirical, and social policy literature most relevant to the current study’s aims. Chapter 4 stated the specific aims, hypotheses, and research questions of the present investigation, whilst Chapter 5 outlined the methods employed to achieve these aims and the particular steps involved in completing the quantitative and qualitative elements of the study. Chapter 6 outlined the results pertaining to the psychometric testing of all quantitative instrumentation and highlighted any sub-group differences (gender and regional) found across the variables tested and levels of social capital. Chapter 7 presented the results pertaining to the impact of social capital on a number of desirable biopsychosocial and economical outcomes, and tested which form of social capital was the most beneficial for which outcome. Chapter 8 provided the results of the qualitative focus groups with students, parents, and teachers, by presenting each
of the key themes that emerged from the data during analysis. Chapter 9 discussed and synthesised the information presented in the previous chapters and provided suggestions for future research and intervention strategies. Finally, the current chapter summarised the previous chapters, and provided a synopsis of the key findings, recommendations, and conclusions.

To conclude, the overarching aim of the research investigation was to create knowledge about the role served by social capital and the processes that underpin the relations between social capital, and social and economic outcomes in two disadvantaged communities within Australian. In response to this all encompassing aim, it was concluded that social capital, as promised and fully realised by its proponents, can act as both a “sociological super glue” and “a sociological WD-40” to improve the quality of people’s lives. The analogy here is that social capital is both a ‘glue’ that connects, binds, and links within and between communities, while at the same time it is a “lubricant” that allows choice and freedom of movement within the complex social and cultural relationships that constitute the fabric of contemporary societies across the developed world.
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Appendices

Appendix A: Quantitative Instrument

Survey

<table>
<thead>
<tr>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this survey is to help to find out your thoughts about school, home, and your community. Your participation in the study is voluntary and you can withdraw from the study at any time. Not participating in the study will not affect your relationship with your school.</td>
</tr>
</tbody>
</table>

This is not a test. **There are no right or wrong answers and everybody will have different answers.** Just make sure that your answers show what you really think about yourself. I will read the questions aloud to you and explain how to answer each one. There are some questions that seem the same. This is not a trick. **It is just that this type of survey needs to ask questions in slightly different ways.** Just answer them in a way that shows what you really think about yourself.

Your answers will only be seen by the researcher and will not be shown to anyone in your school or your community. The researcher will remove the consent form you sign below and store this separately. The researcher will not report the names of students or schools that participate in the study.

<table>
<thead>
<tr>
<th>Student Consent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Consent Form to Participate in Research Study</strong></td>
</tr>
</tbody>
</table>

Student’s Name: ______________________

Year Level: ______________________

Date of birth: _____/_____/_______

Suburb you live in ______________________

I agree to participate in the study

Signature: _________________________________________

Today’s date: ______________________________________
### Section 1 - About You

1. **Are you a boy or a girl?**  
   *Please tick one box.*  
   - [ ] Boy  
   - [ ] Girl

2. **Have you lived your current address for at least one year?**  
   - [ ] Yes  
   - [ ] No  
   If No, what suburb did you live in before? *Please write below*  
   ____________________________

3. **In which country were you born?**  
   - [ ] Australia  
   - [ ] Other (please specify) ____________

4. **In what country was your father born?**  
   - [ ] Australia  
   - [ ] Other (please specify) ____________

5. **In what country was your mother born?**  
   - [ ] Australia  
   - [ ] Other (please specify) ____________

6. **Do you speak a language other than English at home?**  
   - [ ] No, English only  
   - [ ] Yes, Italian  
   - [ ] Yes, Greek  
   - [ ] Yes, Cantonese  
   - [ ] Yes, Arabic  
   - [ ] Yes, Vietnamese  
   - [ ] Yes, Mandarin  
   - [ ] Yes, Other (please specify) ____________

7. **Are you of Aboriginal or Torres Strait Islander origin?**  
   - [ ] No  
   - [ ] Yes, Aboriginal  
   - [ ] Yes, Torres Strait Islander
8  What is your religion?

1  ☐ No Religion
2  ☐ Christianity (including Catholic, Orthodox, Protestant, Church of England, Baptist, Uniting, and all other Christian denominations)
3  ☐ Islam (including Sunni, Shia, and all other Islamic denominations)
4  ☐ Hinduism
5  ☐ Buddhism
6  ☐ Judaism
7  ☐ Other (please specify) _____________

9  How would you describe your cultural background? (I.e. when someone asks you what culture you are from, what do you say? E.g. Australian, Chinese-Australian, Lebanese etc)

__________________________________________________________________________
In this section we are interested in finding out about the type of home you live in and who you live with. Please read each of the questions below and mark the answer/s that best describe your situation.

1. **This question is about the adults you live with.** Some young people live in more than one home so there are two columns below:
   - If you only live in one home, please just fill in Column A
   - If you live in two homes (not including holiday houses), **please fill in Columns A and B**

   Please tick all of the adults who live in your home(s).

<table>
<thead>
<tr>
<th>Column A: Only / first home</th>
<th>Column B: Second home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>Mother</td>
</tr>
<tr>
<td>Father</td>
<td>Father</td>
</tr>
<tr>
<td>Stepmother</td>
<td>Stepmother</td>
</tr>
<tr>
<td>Stepfather</td>
<td>Stepfather</td>
</tr>
<tr>
<td>Grandmother</td>
<td>Grandmother</td>
</tr>
<tr>
<td>Grandfather</td>
<td>Grandfather</td>
</tr>
<tr>
<td>Other adult</td>
<td>Other adult</td>
</tr>
<tr>
<td>I live in a foster home</td>
<td>I live in a foster home</td>
</tr>
<tr>
<td>I live in a children’s home</td>
<td>I live in a children’s home</td>
</tr>
</tbody>
</table>

2. **Please say how many brothers and sisters you live with** (including half, step or foster brothers and sisters). Please use both columns if you live in two different homes.

<table>
<thead>
<tr>
<th>Column A: Only / first home</th>
<th>Column B: Second home</th>
</tr>
</thead>
<tbody>
<tr>
<td>No brothers/sisters</td>
<td>No brothers/sisters</td>
</tr>
<tr>
<td>One brother/sister</td>
<td>One brother/sister</td>
</tr>
<tr>
<td>Two</td>
<td>Two</td>
</tr>
<tr>
<td>Three or more</td>
<td>Three or more</td>
</tr>
</tbody>
</table>
3 Which words best describe your family's money situation (*pick one only*):

1. [ ] We don't have enough money
2. [ ] We have just enough money to get us through
3. [ ] There’s some money left over each week but we just spend it
4. [ ] We can save a bit every now and again
5. [ ] We can save a lot
6. [ ] Don’t know

4 How often do you do the following activities? (Please circle the number that best describes you)

<table>
<thead>
<tr>
<th></th>
<th>Every Day</th>
<th>Once a week</th>
<th>Once a fortnight</th>
<th>Once a month</th>
<th>Twice a year</th>
<th>Once a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Go to the movies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>b</td>
<td>Go out for dinner at a restaurant</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>c</td>
<td>Get takeaway</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>d</td>
<td>Go on holidays</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>e</td>
<td>Go to the football</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>f</td>
<td>Play a sport (e.g. football, soccer, dance, netball)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>g</td>
<td>Go on school excursions/camps</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>h</td>
<td>Go to the beach</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
5  How many bedrooms are there in your household?
   1  [ ] One  
   2  [ ] Two  
   3  [ ] Three  
   4  [ ] Four  
   5  [ ] Five or more

6  Do you have a bedroom to yourself?  
   1  [ ] No  
   2  [ ] Yes

7  How many working cars do you have at home?
   1  [ ] None  
   2  [ ] One  
   3  [ ] Two  
   4  [ ] Three  
   5  [ ] Four or more

8  Do you have the internet at home?  
   1  [ ] No  
   2  [ ] Yes

9  Do you have a job (part time or casual work)?  
   1  [ ] No  
   2  [ ] Yes
## Section 3 – People in Your Life

We would now like to know about the people in your life and type of relationships you have with your friends, family, neighbours and your local community. Please write your answers on the line provided. If there is more than one answer to chose from, please circle the option that most closely indicates your situation.

1. **Including yourself, how many members in your immediate family?**
   (E.g. your Parents, Brothers & Sisters)
   
   Please write here __________

2. **Would you have contact with one or more of these immediate family members:**
   - 1 □ Every Day
   - 2 □ Weekly
   - 3 □ Fortnightly
   - 4 □ Every 3 weeks
   - 5 □ Monthly
   - 6 □ Less than monthly

3. **Approximately how many close male friends do you have:**
   - 1 □ None
   - 2 □ 1
   - 3 □ 2
   - 4 □ 3 or more

4. **Approximately how many close female friends do you have:**
   - 1 □ None
   - 2 □ 1
   - 3 □ 2
   - 4 □ 3 or more

5. **Would you see one or more of these close friends (male or female):**
   - 1 □ Every Day
   - 2 □ Weekly
   - 3 □ Fortnightly
   - 4 □ Every 3 weeks
   - 5 □ Monthly
   - 6 □ Less than monthly
6  Approximately how many of your **neighbours** do you know:

1  ☐ All of them  
2  ☐ Most of them  
3  ☐ Not many of them  
4  ☐ None of them  

7  Would you speak with one or more of these **neighbours**:

1  ☐ Every Day  
2  ☐ Weekly  
3  ☐ Fortnightly  
4  ☐ Every 3 weeks  
5  ☐ Monthly  
6  ☐ Less than monthly
Section 4 – Social Trust

In the following section, we would like to know how much trust you have in your family, friends and neighbours, and how willing you are to help each other out if the need arises. The following questions ask how much you agree or disagree with the each of the statements below. Please show your answer by circling the number that best reflects how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I always trust my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>I believe my friends always look out for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>I attend school/community events (school fete, fair)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>If I see rubbish in my community I pick it up</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>I trust my family to look after me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>My friends are always happy to help me when I need it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>I can ask my neighbours for a favour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>People in my school work together to improve the school/community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>My neighbours come over and spend time with me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>I am always available to help my friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>I believe my neighbours would comfort me if I was upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>My neighbours are trustworthy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>I like to help my family anyway I can</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>If I dropped my purse or wallet in my neighbourhood, someone will return it to me with nothing missing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>People living outside of my community think it is a nice place to live</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>--------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>16</td>
<td>I can trust the police in my area</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>Most people in my school are honest</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>My neighbours could depend on me if they are in trouble</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>I can depend on my family when I am upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>When a family member is sick, I always try to help out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21</td>
<td>I trust my family to do what is best for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22</td>
<td>My family always try to help me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>I do things to help my local community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>I comfort my family members when they are upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>I believe my neighbours always look out for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26</td>
<td>When I am sick, my family helps me out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27</td>
<td>I am always happy to help my family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28</td>
<td>I trust my school to do what is best for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29</td>
<td>People who live elsewhere think it would be nice to live in my community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>My neighbourhood has a good reputation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35</td>
<td>I trust my neighbours enough to tell them my private thoughts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36</td>
<td>My friends can depend on me when they are upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37</td>
<td>When me or a family member is sick, my neighbours help out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38</td>
<td>I trust my friends with my secrets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39</td>
<td>I depend on my friends when I am upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40</td>
<td>I can tell my family anything</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>41</td>
<td>I trust the teachers at my school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>42</td>
<td>I support my friends whenever they need it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>43</td>
<td>I can tell my best friend anything</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>44</td>
<td>My neighbours would help us in an emergency</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>45</td>
<td>I feel most people in my community can be trusted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### Section 5 – Social Involvement

Listed below are a number of things you may or may not have done in the past 6 months. Then, in the following section we are interested if any of those things have been done for you over that same time period. Please read each of the sentences carefully, and circle the number that reflects your circumstances.

**In the past 6 months, how often have you done the following?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shared a secret with a family member</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Done a favour for a family member</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Told a secret to a neighbour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Given emotional support to a family member</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Given a friend a favour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Lent a family member money</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Given money to a friend</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Helped a friend when they were down</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Loaned money to a neighbour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Supported a neighbour when they were upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Shared a secret with a friend</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Given my neighbour a favour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**In the past 6 months, how often have you had the following done for you:**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Had a family member loan you money</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>A neighbour did a favour for you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Had a family member share a secret with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>A friend did you a favour</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>A neighbour told you a secret</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>6</td>
<td>Had a neighbour loan you money</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>A friend helped you when you were down</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Received emotional support from a family member</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>A friend shared a secret with you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Been comforted by a neighbour when you were upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Had a family member do a favour for you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Had a friend loan you money</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
This section asks for your views about your health. This will provide us with information about how you feel and how well you are able to do your usual activities. Answer every question by writing in or selecting the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.

1. Would you say your health is:
   - 1 □ Poor
   - 2 □ Fair
   - 3 □ Good
   - 4 □ Excellent

2. Here is a picture of a ladder.

The top of the ladder ‘10’ is the best possible life for you and the bottom ‘0’ is the worst possible life for you. In general, where on the ladder do you feel you stand at the moment?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Best possible life

Worst possible life
3. How often in the last 6 months have you experienced the following symptoms?

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Rarely</th>
<th>Once every few months</th>
<th>Monthly</th>
<th>Fortnightly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Stomach Pain</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Feeling Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Irritable or Bad Tempered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Feeling Nervous</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Difficulties in getting to sleep</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Feeling Dizzy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

4. How many times in the last 12 months have you been injured and had to be treated by a doctor or nurse?

   1 ☐ I have not been injured in the last 12 months
   2 ☐ Once
   3 ☐ Twice
   4 ☐ Three times
   5 ☐ Four times or more

5. What is your height (without shoes)? ___________ Centimetres

6. How much do you currently weigh? ___________ Kilograms

7. What do you think of your body?

   1 ☐ Much too thin
   2 ☐ A bit too thin
   3 ☐ Neither too thin or too fat
   4 ☐ A bit too fat
   5 ☐ Much too fat
8. How often do you eat breakfast (more than a glass of milk or juice) on school days?

1 □ Rarely or never
2 □ Once or twice a week
3 □ About every second day
4 □ Most days
5 □ Everyday

9. How often do you eat breakfast (more than a glass of milk or juice) on weekends?

1 □ Rarely or never
2 □ Once or twice a week
3 □ About every second day
4 □ Most days
5 □ Everyday

10. How often do you eat fruit?

1 □ Rarely or never
2 □ Once or twice a week
3 □ About every second day
4 □ At least every day
5 □ More than once a day

11. How often do you drink soft drink (e.g. Coke, Sprite)?

1 □ Rarely or never
2 □ Once or twice a week
3 □ About every second day
4 □ At least every day
5 □ More than once a day

12. How often do you brush your teeth?

1 □ Rarely or never
2 □ Once or twice a week
3 □ About every second day
4 □ At least every day
5 □ More than once a day
13. Are you currently on a diet or doing something to try and lose weight?
1  ☐ No, my weight is fine
2  ☐ No, but I should lose some weight
3  ☐ No, I need to put on weight
4  ☐ Yes

In the next question, we are interested in only those physical activities that increase your heart rate and sometimes make you get out of breath such as jogging, playing sport, bike riding etc.

14. How many days over the past week have you been physically active for a total of at least 60 minutes?

1  ☐ None  5  ☐ 4 days
2  ☐ 1 day  6  ☐ 5 days
3  ☐ 2 days  7  ☐ 6 days
4  ☐ 3 days  8  ☐ Everyday

15. In your spare time on weekdays, how many hours per day do you do the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch Television</td>
<td>0   1   2   3   4   5   6</td>
</tr>
<tr>
<td>Play computer games</td>
<td>0   1   2   3   4   5   6</td>
</tr>
<tr>
<td>Use the Internet</td>
<td>0   1   2   3   4   5   6</td>
</tr>
<tr>
<td>Reading</td>
<td>0   1   2   3   4   5   6</td>
</tr>
<tr>
<td>Doing homework</td>
<td>0   1   2   3   4   5   6</td>
</tr>
</tbody>
</table>
16. In your spare time on **weekends**, how many hours **per day** do you do the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch Television</td>
<td>0  1  2  3  4  5  6</td>
</tr>
<tr>
<td>Play computer games</td>
<td>0  1  2  3  4  5  6</td>
</tr>
<tr>
<td>Use the Internet</td>
<td>0  1  2  3  4  5  6</td>
</tr>
<tr>
<td>Reading</td>
<td>0  1  2  3  4  5  6</td>
</tr>
<tr>
<td>Doing homework</td>
<td>0  1  2  3  4  5  6</td>
</tr>
</tbody>
</table>

17. How old were you when you first tried a cigarette?

   _______ Years
   
   OR
   
   1 □ I have never tried a cigarette (go to q. 20)

18. How old were you when you first smoked a cigarette (more than a puff)?

   _______ Years
   
   OR
   
   1 □ I haven't smoked a cigarette (go to question 20)

19. How often do you smoke cigarettes now?

   1 □ I do not smoke
   2 □ Once a month
   3 □ Once a fortnight
   4 □ At least once a week
   5 □ Everyday

20. How old were you when you first tried alcohol?

   _______ Years
   
   OR
   
   1 □ I have never tried a alcohol (go to q. 23)
20. How often do you drink the following alcoholic drinks?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once every few months</th>
<th>Monthly</th>
<th>Fortnightly</th>
<th>Weekly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Wine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Spirits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Other alcoholic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. How old were you when you first got drunk?

_______ Years

OR

1 [Box] I have never been drunk (go to question 23)

22. Have you ever had so much alcohol that you were “really drunk”?

1 [Box] No, never
2 [Box] Yes, once or twice
3 [Box] Yes, 3 to 5 times
4 [Box] Yes, 6 to 9 times
5 [Box] Yes, 10 times or more

23. Have you ever had cannabis (marijuana, grass, pot etc)?

1 [Box] No, never (go to question 25)
2 [Box] Yes, once or twice
3 [Box] Yes, more than 10 times
4 [Box] Yes, more than 20 times

24. Have you had cannabis in the last 30 days?

1 [Box] No
2 [Box] Yes, once or twice
3 [Box] Yes, more than 10 times
4 [Box] Yes, more than 20 times
25. Have you ever had sexual intercourse (had sex or “gone all the way")?  
   1 ☐ No (go to question 28)  
   2 ☐ Yes  

26. What method of contraception did you use to prevent pregnancy?  
   1 ☐ A condom  
   2 ☐ Birth control pill  
   3 ☐ Withdrawal  
   4 ☐ The morning after pill  
   5 ☐ Other method ______________  
   6 ☐ I did not use any method to try and prevent pregnancy  

27. Did you or your partner use a condom the last time you have sexual intercourse?  
   1 ☐ No  
   2 ☐ Yes  

28. How many times in the last 12 months have you been involved in a physical fight?  
   1 ☐ I have not been in a physical fight in the last 12 months  
   2 ☐ Once  
   3 ☐ Twice  
   4 ☐ Three times  
   5 ☐ Four times or more
The following section asks you how you have felt over the past WEEK. Please circle the one that is closest to your answer about how you have felt over the past week.

<table>
<thead>
<tr>
<th>Over the past week…</th>
<th>Did not apply to me at all</th>
<th>Applied to me to some degree or some of the time</th>
<th>Applied to me a considerable degree or a good part of the time</th>
<th>Applied to me very much or most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 I found it hard to wind down</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30 I was aware of dryness in my mouth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31 I couldn’t seem to experience any positive feeling at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32 I experienced breathing difficulty, e.g., excessively rapid breathing, breathlessness in the absence of physical exertion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33 I found it difficult to work up the initiative to do things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34 I tended to overreact to situations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35 I experienced trembling, e.g., in the hands</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>36 I felt that I was using a lot of nervous energy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Over the past week…</td>
<td>Did not apply to me at all</td>
<td>Applied to me to some degree or some of the time</td>
<td>Applied to me a considerable degree or a good part of the time</td>
</tr>
<tr>
<td>---</td>
<td>---------------------</td>
<td>---------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>37</td>
<td>I was worried about situations in which I might panic and make a fool of myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>38</td>
<td>I felt I had nothing to look forward to</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>39</td>
<td>I found myself getting agitated</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40</td>
<td>I found it difficult to relax</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41</td>
<td>I felt downhearted and blue</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42</td>
<td>I was intolerant of anything that kept me from getting on with what I was doing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43</td>
<td>I felt I was close to panic</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>I was unable to become enthusiastic about anything</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45</td>
<td>I felt I wasn’t worth much as a person</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46</td>
<td>I felt that I was rather touchy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47</td>
<td>I was aware of the action of my heart in the absence of physical exertion</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>I felt scared without any good reason</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>49</td>
<td>I felt that life was meaningless</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
### Section 7 – How You Feel About Yourself, Community, and Your School

The following section asks about how you feel about yourself, your abilities at school and what experiences you have had with other people. Please choose the answer that best reflects how strongly you agree and disagree with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My school is a place where I feel left out of things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>I get bad marks in most SCHOOL SUBJECTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>My community is a place where other people seem to like me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>I am hopeless in ENGLISH classes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>My community is a place where I feel awkward and out of place</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>MATHEMATICS is one of my best subjects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>I have been physically threatened because of my cultural background</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>My school is a place where I make friends easily</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>I do well in tests in most SCHOOL SUBJECTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>My community is a place where I feel like I belong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>My community is a place where I feel lonely</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>I learn things quickly in ENGLISH classes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>I get good marks in MATHEMATICS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>People treat me as if I’m strange because of the culture I come from</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>My school is a place where I feel like I belong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------</td>
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<td>----------</td>
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<td>-------</td>
</tr>
<tr>
<td>16</td>
<td>My community is a place where I make friends easily</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>I learn things quickly in most <strong>SCHOOL SUBJECTS</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>My community is a place where I feel like an outsider</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>I get good marks in <strong>ENGLISH</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>I do badly in tests in <strong>MATHEMATICS</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>People call me nasty names because of the culture I come from</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>My school is a place where I feel awkward and out of place</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>I am good at most <strong>SCHOOL SUBJECTS</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>Work in <strong>ENGLISH</strong> classes is easy for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>I have always done well in <strong>MATHEMATICS</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26</td>
<td>I’ve overheard people speak in a nasty way about me because of my culture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>My school is a place where other students seem to like me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>People stare rudely at me because of my culture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>My school is a place where I feel lonely</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>Most of the students in my class are kind and helpful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
In the next section we would like to know what you think is important for your future. Listed below are a number of life goals, for each life goal please indicate how important this is to you, and how likely is it that this will happen in your future?

<table>
<thead>
<tr>
<th>Life Goal</th>
<th>How important is this to you?</th>
<th>How likely is it that this will happen in your future?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
<td>Moderately</td>
</tr>
<tr>
<td>To be a very wealthy person</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To work on improving society</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To have many expensive possessions</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To assist people who need it, asking nothing in return</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To be financially successful</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To work to make the world a better place</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To be rich</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To help others improve their lives</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To have enough money to buy everything I want</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To complete Year 12</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To go to university</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To have a job I find challenging</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To have a job I enjoy</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To do well in all my school subjects</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>To help people in need</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Section 9 – Security Your Local Area

The following questions ask about how safe you feel in your local area, your experience with crime, your worries about crime and who you think should be responsible for taking care of crime in your local area. If you have any concerns or worries about the following questions please talk to one of the research team or your teacher. If you feel at all uncomfortable answering a question, please skip over it and continue to the next question.

1. How safe do you feel walking alone in this area after dark?
   - Very safe
   - Fairly safe
   - A bit unsafe
   - Very unsafe

2. How safe do you feel when you are alone in your own home at night?
   - Very safe
   - Fairly safe
   - A bit unsafe
   - Very unsafe

WORRIES ABOUT CRIME

<table>
<thead>
<tr>
<th>How worried are you about....</th>
<th>Very worried</th>
<th>Fairly worried</th>
<th>Not very worried</th>
<th>Not at all worried</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Having your home broken into and something stolen?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Being mugged and robbed?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Having your, or your family's car stolen?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Having things stolen from your, or your family's car?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Being physically attacked or assaulted?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Being insulted or pestered by anybody, while in the street or any other public place?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Being subject to a physical attack because of your skin colour, ethnic origin or religion?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

10. How much would you say the crime rate here has changed since two years ago?
    - A lot more crime
    - A little more crime
    - About the same
    - A little less crime
    - A lot less crime
## PROBLEMS IN YOUR LOCAL AREA

<table>
<thead>
<tr>
<th></th>
<th>How much of a problem are…</th>
<th>Very Big Problem</th>
<th>Fairly Big Problem</th>
<th>Not a Very Big Problem</th>
<th>Not a Problem at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Noisy neighbours or loud parties?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Teenagers hanging around on the streets?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>People sleeping rough on the streets or in other public places?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Rubbish or litter lying around?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>Vandalism, graffiti and other deliberate damage to property or vehicles?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>People being attacked or harassed because of their skin colour, ethnic origin or religion?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>People using or dealing drugs?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>People being drunk or rowdy in public places?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

19. During the last 12 months have you or anyone else living in your household had your/their car, van, motorcycle or other motor vehicle stolen or driven away without permission?

1. Yes
2. No

If yes, how many times has this happened? __________

20. During the past 12 months, have you or anyone else living in your household had anything stolen off your/their vehicle or out of it (parts of the vehicle, personal possessions or other things)?

1. Yes
2. No

If yes, how many times has this happened? __________

21. In the last 12 months, did anyone GET INTO the place where you are living without permission and STEAL or TRY TO STEAL anything?

1. Yes
2. No

If yes, how many times has this happened? __________

22. In the past 12 months, was anything you were carrying stolen out of your hands or from your pockets or from a bag or case?

1. Yes
2. No

If yes, how many times?
23. During the past 12 months, has anyone, including people you know well, DELIBERATELY hit you with their fists or with a weapon of any sort or kicked you or used force or violence in any other way?

1 □ Yes
2 □ No
If yes, how many times has this happened? __________

24. Which of the following groups do you think SHOULD have responsibility for reducing crime in your local area? Tick all that apply.

1 □ Members of the public
2 □ Media - TV/newspapers
3 □ Parents
4 □ Neighbourhood Watch
5 □ Other local community/voluntary groups
6 □ Private security organisations
7 □ Social services
8 □ Health authorities/GPs
9 □ Local education authorities/schools/teachers
10 □ Local authorities/councils
11 □ The probation service
12 □ The police
13 □ The courts

THE END, THANKYOU FOR YOUR TIME
Appendix B: Initial Pool of Items Generated for the SCCS

<table>
<thead>
<tr>
<th>Family</th>
<th></th>
<th>Trust</th>
<th>1. I always trust my family</th>
<th>2. I believe my family will always be there for me</th>
<th>3. I trust my family to do what is best for me</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Reciprocity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. My family always try to help me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. I can depend on my family when I am upset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. When I am sick, my family helps me out</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. When a family member is sick, I always try to help out</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. I like to help my family any way I can</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. I am always happy to help my family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td>Trust</td>
<td>1. I believe my friends always look out for me</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I trust my friends to stand by me</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>3. I trust my friends with my secrets</td>
<td></td>
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<td></td>
<td></td>
<td>4. I can tell my best friend anything</td>
<td></td>
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<td></td>
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<td></td>
<td>Reciprocity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. My friends are always happy to help me when I need it</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. I depend on my friends when I am upset</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>7. I support my friends whenever they need it</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>8. My friends depend on me when they are upset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9. I am always available to help my friends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td></td>
<td>Trust</td>
<td>1. My neighbours are trustworthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. I believe my neighbours always look out for me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. I believe my neighbours would comfort me if I was upset</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4. I trust my neighbours enough to tell them my private thoughts</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Reciprocity</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>5. My neighbours would help us in an emergency</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>6. I can ask my neighbours for a favour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. When me or a family member is sick, my neighbours help out</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. My neighbours could depend on me if they are in trouble
9. If my neighbours are sick, I am happy to help them out

<table>
<thead>
<tr>
<th>Community/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trust</strong></td>
</tr>
<tr>
<td>1. Most people in my school are honest</td>
</tr>
<tr>
<td>2. If I dropped my purse or wallet in my community, someone will see it and return it to me with nothing missing</td>
</tr>
<tr>
<td>3. I can trust the police in my area</td>
</tr>
<tr>
<td>4. I trust my school to do what is best for me</td>
</tr>
<tr>
<td>5. The other students at my school are trustworthy (sc84)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Reciprocity</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>6. If I see rubbish in my community I pick it up</td>
</tr>
<tr>
<td>7. I attend school/community events (school fete, public meetings)</td>
</tr>
<tr>
<td>8. I do things to help my local community</td>
</tr>
<tr>
<td>9. People in my school work together to improve the school/community</td>
</tr>
</tbody>
</table>
Appendix C- Qualitative Focus Group / Interview Schedules

1. Tell me about what it is like living in your community?
2. Tell me about what kind of people live in your community?
3. What are the things you like best about your community?
   a. What do you like about the street/neighbourhood that you live in?
4. What would you like to see change in your community?
   a. Is there anything that can be done about it?
   b. If we were going to make this community better, what might we do?
5. Can you think of anything that has worked really well in this community (prompt for projects, community activities etc)
6. What are the challenges in this community?
   a. Are there any local services that try to address these challenges? How do they do it?
7. How would you describe the trust between people living in this community?
8. How would you describe the levels of support amongst people living in this community?

People

9. Tell me about the most important person in your life.
   a. How often do you see/speak to them?
   b. What kinds of things do you do together?
   c. How do they help/support you?
   d. How do you feel when you are with them?

Change

10. Can you think of a time when you have done something in your school to change things?
11. Can you think of a time when you have done something in your community to change things?

School

12. Tell me about this school.
   a. What is it like to go here / teach here?
   b. What are the people like?
13. What are the things you like best about this school?
14. What are the challenges that this school faces?
15. What would you like to see change about this school?
Appendix D: Parent Information Sheet

Centre for Educational Research
Building 19, Bankstown Campus
Locked Bag 1797
Penrith South DC, NSW 1797

Dear Parent / Guardian,

Research Project
Bridging the Gap: Developing Valid and Reliable Measures of Social Capital in Communities

We invite you and your child to take part in a community research project that is being conducted collaboratively by the University of Western Sydney and The Benevolent Society. We are trying to find out how best to strengthen and support children and members of your community to be the best they can be. The Benevolent Society intends to make a significant investment in supporting children, the school, and the community and to start this process we are seeking your child’s views on community needs and ways to support your children and the community.

Your child’s participation involves completing a survey at school that takes about 50 minutes. The survey asks questions about a range of things including their progress at school, the needs of the community, their health, self-concept, and friendships and networks. A small number of students will also be asked to discuss their answers in a 20 minute interview or focus group with a researcher from the university that will be recorded. Some questions relate to personal information, for example, it is important for our research to ask your child about whether or not they follow a religion, the number of people they live with and their relation to them, and their family’s situation (e.g., number of bedrooms, the extent to which they think the family has enough money). Additionally, we will also be confidentially asking a small number of questions about whether or not they engage in risk behaviours such as alcohol and drug consumption and sexual activity. Your child does NOT have to answer these questions if it makes them feel uncomfortable.

The survey may also be conducted again in the future with students who participate this time. However, if this happens, we will contact you again and seek your consent for any future participation by your child or yourself. Participation in this study is voluntary. There will be no adverse consequences if you or your child do not wish to participate and you can withdraw from the study at any time. Students who do not participate will be provided with an alternative activity by their school teacher. Information provided in this study by individuals will not be given to others. Any results that are reported in research reports will be presented in group form, without identifying individuals or the school. The data will be kept in a locked file, accessible only to the researchers in this study although the data may be further analysed by other researchers.

This research is being conducted by Professor Rhonda Craven (97726557, r.craven@uws.edu.au), Associate Professor Geoff Munns (9772 6449, g.munns@uws.edu.au), Dr. Alex Yeung (9772 6325; a.yeung@uws.edu.au), and Dr Tanya Covic, 9772 6266; t.covic@uws.edu.au) of the University of Western Sydney. Please contact the researchers if you have any questions relating to the study. The research has been approved by the UWS Human Research Ethics Committee. We do hope you are interested in participating in this important project.

Sincerely,

Professor Rhonda Craven
Centre for Educational Research, University of Western Sydney
Locked Bag 1797, Penrith South DC, NSW 1797, Australia.
Telephone: 02 9772 6357 ; Fax: 02 9772 6432; Email: r.craven@uws.edu.au

NOTE: This study has been approved by the University of Western Sydney Human Research Ethics Committee (Approval no. HREC H 6370). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Research Ethics Officers (tel: 02 47 360 883). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix E: Parent Consent form

Locked Bag 1797
Penrith South DC NSW 1797 Australia

College of Arts
School of Education

Parental Consent Form

I (print name) ……………………………………………………

Give consent for my child ………………………………………

To participate in the research project described in the Parent Information Sheet.

Title of the Research Project
Bridging the Gap: Developing Valid and Reliable Measures of Social Capital in Communities.

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Please tick the boxes next to the statement’s to indicate your consent for:

☐ I have read the Parental Consent and Information Sheet.
☐ I understand that my child’s participation in this project is voluntary and can withdraw without having to provide a reason.
☐ I understand that my child’s involvement is strictly confidential and that no information will be used in any way that reveals our identity.
☐ I understand that my child will participate in a survey during school time.
☐ I understand that my child may be randomly selected to participate in a focus group or interview during school time and that this will be recorded.
☐ I understand that if I have any questions or concerns about my child’s participation, I can contact any of the above mentioned researchers.

I have read and understood the above and agree (for my child) to participate in this study.

Student’s Name ___________________________________ (please print)

School Name _____________________________________

Student’s Parent and/or Legal Guardian ___________________________ (please print)

Parent/guardian’s signature ___________________________ Date__________

NOTE: This study has been approved by the University of Western Sydney Human Research Ethics Committee (Approval no. HREC H 6370). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Research Ethics Officers (tel: 02 47 360 883). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.