THE BARRIERS AND FACILITATORS OF INTRODUCING EVIDENCE-BASED PRACTICES AROUND THE USE OF EPISIOTOMY IN JORDAN

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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 in full or in part, for a degree at this or any other institution.

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Abstract

The practice of episiotomy is frequently undertaken during birth in many parts of the world, including several countries in the Middle East and Eastern Europe, with no scientific evidence of its benefits. There is a paucity of research examining the underlying reasons or drivers for episiotomy rates, and why they are higher in some countries. Recent evidence supports the restrictive use of episiotomy and this is reflected in policy statements and clinical practice recommendations internationally. In recent years, various strategies have been adopted internationally with a view to shifting opinion and reducing the rate of episiotomy.

This thesis has two main purposes. Firstly, it will examine the facilitators and barriers to evidence-based episiotomy practice in Jordan, including an exploration of the perceptions and beliefs of health practitioners around the use of episiotomy. Secondly, this thesis will identify the strategies that may be effective in introducing evidence-based practice in relation to the use of episiotomy.

The study was undertaken in Jordan in 2012 and 2013 and was conducted in one of the major maternity hospitals in Irbid. A quality improvement approach was selected as the most appropriate framework to guide this study. The study was conducted in three phases; in phase one, a retrospective file review of 300 births was conducted using an audit and review model. In phase two, 15 face-to-face, in-depth semi-structured interviews were conducted with 10 midwives and five key stakeholders (managers and doctors). Interviews were audio-recorded and transcribed verbatim. A feedback and discussion session using a review model was conducted in phase
three to present the findings of the previous phases of the study to staff and to discuss with the participants (23 midwives and nurses) potential strategies to reduce the episiotomy rate in the hospital. Data from this feedback session were also included in the analysis. All quantitative data from the case files were analysed using descriptive statistics to report the percentage of women having an episiotomy. Qualitative data from the field notes, interviews and the feedback and discussion session were analysed using thematic analysis.

The rate of episiotomy is still high for primiparous women in this maternity unit in Jordan. This was confirmed by participating staff in the interviews and the feedback and discussion session. Six major themes emerged from the thematic analysis: ‘Policy: written but invisible and unwritten and assumed’; ‘the safest way’; ‘doctors set the rules’; ‘midwives swimming with the tide; ‘uncooperative and uninformed women’ and ‘the way forward’.

Episiotomy is routinely conducted for all primiparous women in Jordan. This non-evidence-based policy has been handed down over time and appears as an unwritten ‘rule’ that governs the health professionals’ practice of episiotomy. The analysis demonstrated that doctors direct maternity care practices, dictate policy, and determine and perpetuate the ‘rules’ in the maternity unit. Midwives, while at times doubting the spoken policy, were reluctant to modify practices or try to implement change. They did not want to ‘rock the boat’, believing it was better for them to ‘keep the peace’ with doctors and senior staff. Consequently, they would typically opt for the path of least resistance, or in other words ‘swim with the tide’. Moreover, the participating midwives and doctors alike appeared to blame birthing women for not taking part in decision-making processes in relation to the
administration of episiotomy: they described birthing women as ‘uncooperative’ and lacking in knowledge related to labour and birth.

Strategies for change included: running educational programs for both the health staff and to keep their knowledge up to date, building local libraries and providing internet access. Participants suggested that women could be provided with information regarding relevant websites, or offered a telephone hotline or helpline through which to obtain information. Some emphasised that managers needed to be leaders to facilitate change and to offer support to midwives to practise in a different way. Despite these promising suggestions, it was nonetheless apparent that effecting change would be difficult without also addressing the power relationship between midwives and doctors. Similarly, and most importantly, professionals’ perceptions of women as passive and uniformed must be challenged and subverted for change to occur.
CHAPTER ONE

Introduction

1.1 Introduction

Episiotomy is a common surgical procedure used to enlarge the vaginal orifice during birth and was first introduced in order to assist with complicated deliveries. However, in many countries it has become routine practice with no scientific evidence of its benefits (Graham, 1997). Clinicians and researchers have raised questions about the possible harm of episiotomies, such as immediate and prolonged perineal pain, third and fourth-degree tears, excessive blood loss, wound infections, long term dyspareunia, and fecal and urinary incontinence (Hartmann, Viswanathan, Palmieri, Gartlehner, Thorp & Lohr, 2005; Helewa, 1997; Klein, Gauthier, Jorgensen, Robbins, Kaczorowski, Johnson,& Gelfand, 1992). While the performance of episiotomy may be justified for specific maternal and fetal indications (Carroli & Mignini, 2012; Klein et al., 1992; Thacker & Banta, 1983), it appears that this surgical procedure continues to be undertaken too frequently in the developed and now in the developing world (Carroli & Mignini, 2009).

This thesis set out to do two things. Firstly, it will examine the facilitators and barriers to evidence-based episiotomy practice in Jordan, including an exploration of health staffs’ perceptions and beliefs around the use of episiotomy. Secondly, the thesis will describe the strategies that may be
effective in introducing evidence-based practice in relation to episiotomy practices. The study was undertaken in Jordan and was conducted in one of the major maternity hospitals, Princess Badea Hospital, situated in Irbid in northern Jordan.

In some parts of the world such as the Middle East, the rate of episiotomy is very high, often over 50% (Fernandes, Benjamin, & Edwards, 2009). Similar rates are reported in the USA (Graham, Carroli, Davies, & Medves, 2005). In some Eastern European countries, rates as high as 99% have been reported (Royal College of Obstetricians and Gynecologists, 2004). In contrast, the Netherlands has an episiotomy rate of only 8%, while in the UK it is 14%. In Australia in 2008, the average rate of episiotomy was 14.4%, with a variation ranging from 8.5% in the Northern Territory to 20.4% in Victoria (Laws, Tracy, & Sullivan, 2010).

There is a paucity of research examining the underlying reasons or drivers for episiotomy rates, and why they are higher in some countries. Some research has suggested that cultural practices play a significant role (Fernandes et al., 2009). For instance, in Jordan, as in many Middle Eastern countries, midwives manage maternity care for pregnant women with uncomplicated pregnancies and births, and while midwives may perform episiotomies, they do not suture perineal trauma (Hatamleh, Sinclair, Kernohan, & Bunting, 2008). However, the western biomedical model, and in particular obstetrics, has come to dominate practice and many American approaches to medical education are evident, with little support for midwifery practices (Fernandes et al., 2009).
Internationally, over the past two decades, research evidence supporting the restrictive use of episiotomy has been disseminated, and acceptance of this approach is reflected in policy statements and clinical practice recommendations and guidelines. Various strategies have been used to change and reduce the incidence of episiotomy (Graham, Carroli, et al., 2005). Many countries have implemented policies and strategies to reduce the rates of episiotomy. The World Health Organization (WHO), for example, recommends the restrictive use of episiotomy with a rate of 10–20% considered acceptable (World Health Organization., 2003). While the American College of Obstetricians and Gynecologists recommends episiotomy in some situations and states that the routine use of episiotomy is not necessary (The American College of Obstetricians and Gynecologists., 1997). The Royal College of Obstetricians and Gynecologists in the UK recommends a policy of restrictive use of episiotomy (Royal College of Obstetricians and Gynecologists, 2002).

1.2 Historical perspectives:

An examination of the ways in which episiotomy as a practice has changed over the past 250 years proves enlightening and offers a broader socio-historical context in which to situate this thesis. The use of episiotomy was first documented in the 18th century; however, up until the beginning of the 19th century, episiotomy was seldom performed by American and British physicians (Lappen & Gossett, 2010). Sir Fielding Ould, a Scottish male midwife, was the first to undertake the practice of episiotomy to assist complicated deliveries in 1742 (Lappen & Gossett, 2010; Thacker & Banta, 1983). However, episiotomy did not become routine practice until the 1920s, following a paper that was presented by Joseph DeLee at a meeting of the
American Gynecological Society in Chicago. DeLee was the first to publicly advocate the routine use of mediolateral episiotomy for all primiparous women, and recommended episiotomy as a way to protect the pelvic floor from lacerations and the fetal head from trauma (Thacker & Banta, 1983). In the USA, midwives were gradually excluded from playing an active role in the delivery process and physicians were trained to manage birth, which was part of a medical paradigm that pathologised birth as a ‘disease’ process. It is hardly surprising, then, that the American medical establishment understood episiotomy to merely be a preventative or protective procedure to avoid complications (Thacker & Banta, 1983).

In the first four decades of the 20th century, birth, in many western societies, moved from the home to the hospital and from the jurisdiction and care of midwives to physicians. The new specialty of obstetrics sought to study the process of birth and to improve maternal and fetal outcomes. These changes in the provision of care contributed to the rapid uptake of new procedures including episiotomy (Thacker & Banta, 1983). Thacker and Banta (1983) reviewed and analysed all of the English literature published between 1860 and 1980 regarding the advantages and disadvantages of episiotomy. Based on their thorough review of over 350 books and articles, they found that episiotomy rates had increased with the move away from home births. Furthermore, they concluded that there was insufficient evidence to support the routine use of episiotomy, and no evidence to indicate a benefit of such a practice to the mother or neonate. They also recommended that there was a need to undertake further research in this field (Thacker & Banta, 1983).
1.3 Study Setting

The study was undertaken in Jordan in one of the major maternity hospitals, Princess Badea Hospital, located in Irbid in the north of the country. Irbid is the second largest city in Jordan and has about 9000 deliveries a year (Department of Statistics, 2005). Jordan is a small country in the Middle East with limited natural resources. The climate in Jordan is semi-dry in summer with average temperature in the mid 30 C degree and it is relatively cold in winter averaging around 13 C degree (Hamdi, Abu-Allaban, Al-Shayeb, Jaber, & Momani, 2009). Jordan encompasses a total land area of 92,300 square kilometres. With a population of 6,388,000 and a median age of 23 years in 2012 (Department of Statistics, 2012), Jordan is a young nation. Its Arab population mainly consists of Jordanians, Palestinians and Iraqis. The non-Arab population comprises 2 to 5% of the overall population, and are mostly Circassias, Chechens, Armenian, Turkmens and Romains, all of which have maintained separate ethnic identities (Department of Statistics, 2005). As a result of recent revolutions in neighbouring Arab countries, there has been an increase of refugees into Jordan from Libya, Syria and Egypt, seeking temporary or permanent residence (Remnick, 2013).

The official language in Jordan is Arabic. English, though without an official status, is widely spoken throughout the country and taught in the public education sector as well as at most private schools. As tertiary textbooks are predominantly available in English, Jordanian universities teach all courses using the English language. Islam is the predominant religion in Jordan. It is the official religion and approximately 92% of the population is Muslim. Jordan has an indigenous Christian minority. Christians of all ethnic backgrounds permanently residing in Jordan form approximately 6% of the
population and are allocated respective seats in parliament (Central Intelligence Agency, 2014).

In Jordan there are approximately 200,000 births annually, with 96% of women receiving maternity care in hospital – this includes antenatal care in hospital clinics and community health centres (Department of Statistics, 2005). The birth rate is estimated at 28.1 births per 1000 and the fertility rate of women from 15 to 49 years is approximately 3.5 in 2012 (Department of Statistics, 2012). In Bahrain and Lebanon, the fertility rate is still relatively low, below 4, although higher than in Jordan, while in Syria the fertility rate is 6.9 (Lightbourne Jr, 1982).

There are 106 hospitals in Jordan (Department of Statistics, 2012). Princess Badea Hospital provides maternity services including antenatal and postnatal care to the majority of women in the area and acts as a tertiary centre with an occupancy rate of 82%. Princess Badea hospital is a teaching hospital for medical, nursing and midwifery’s students and is under the authority of the Ministry of Health. At the time this research was conducted in 2012 and 2013, Princess Badea Hospital had a total of 29 medical residents, 50 registered nurses, 69 registered midwives, 46 assistant nurses and nine obstetricians (Badea Hospital, 2012).

1.3.1 Maternity services and education of health professionals in Jordan

The country’s healthcare system consists of public, military and private institutions. In the public sector, the Ministry of Health operates 1502 primary healthcare centres and 31 hospitals, the Military’s Royal Medical Services run 14 hospitals and the Jordan University Hospital accounts for 3% of total beds.
in the country. The private sector provides 36% of all hospital beds, distributed across 61 hospitals. The Jordanian Ministry of Health employs 1427 physicians, 4862 registered nurses and 526 midwives (Department of Statistics, 2012).

Midwifery education in Jordan began as a hospital-based program in the early 1950s and then a three-year diploma of midwifery program was introduced in the mid-1980s and sponsored by the Royal Medical Services. In September 2002, the first university-based Bachelor of Midwifery Program (four years) was launched at Jordan University of Science and Technology (Abushaikha, 2006).

In Jordan, as in many Middle Eastern countries, midwives provide maternity care for pregnant women with uncomplicated pregnancies and births (Hatamleh et al., 2008) but in most maternity units, midwives are directed to follow the obstetrician's orders to manage normal births, and in some cases they act as assistants to the obstetricians in managing births (Shaban, Hatamleh, Khresheh, & Homer, 2011). Therefore, midwives, even those with a four-year Bachelor Degree in Midwifery, are not able to practise according to the international definition of a midwife (Abushaikha, 2006). Instead, they function as obstetric nurses (Abushaikha, 2006; Shaban & Leap, 2011). Abushaikha (2006) and Shaban et al (2011) also reported that there was limited or no scope for midwives to practise independently in the community due to lack of support, combined with the dominance of medicine over all aspects of healthcare.
1.3.2 Lack of evidence-based practice

In recent years, there has been an increasing volume of research across a range of countries in the Middle East that has highlighted the lack of evidence-based maternity care. Sweidan, Mahfoud and DeJong (2008), for instance, examined the correlations between international best practice and guidelines, and a range of childbirth practices in the region, including pubic shaving, enema and episiotomy. They found that in 20 out of 30 Jordanian hospitals (67%), pubic shaving was routine; enemas were routinely given during labour in eight hospitals (27%); and continuous fetal monitoring was recommended in 22 hospitals (77%). Additionally, in the same hospitals, they found that the rate of episiotomy was 67% and caesarean sections 20%. This study is one of a series in a research program sponsored by the American University in Beirut, with co-collaborators in Egypt, Lebanon, Syria and the West Bank. The authors suggested implementing a quality improvement program or an action plan to introduce evidence-based practices and to eliminate unnecessary practices in labour and birth (Sweidan, Mahfoud, & DeJong, 2008).

A study conducted by Shaban et al (2011) assessed the consistency of practice in three maternity hospitals in Jordan with the World Health Organisation evidence-based guidelines. A total of 460 women were observed during labour and birth in three major public hospitals. They found that the overall rate of episiotomy was 58%, even though the majority of women were multiparous. The lithotomy position was used in 100% of births, 95% of women had their labour augmented and 77% of women had electronic fetal monitoring. The principle conclusion was that the childbirth practices in these hospitals failed
to adhere to the World Health Organisation evidence based practices for normal birth (Shaban et al., 2011).

In another study, Hatamleh et al (2008) examined the use of technology in pregnancy, labour and birth in a number of hospitals in Jordan and compared this with international best practice guidelines. These researchers observed that technological intervention is frequently used during pregnancy in Jordan. For example, ultrasound scans were routinely performed, ranging from one to 27 times during pregnancy. In addition, high rates (80.5%) of induction or augmentation during labour were reported; 72% of women had an artificial rupture of membranes and 72.5% had an augmentation with oxytocins during labour. It was also revealed that 132 out of 200 primiparous women (66%) had an episiotomy. The principal conclusion was that the childbirth practices in Jordan were not guided by evidence-based practices (Hatamleh et al., 2008).

Many low to middle-income countries such as Jordan are routinely adopting technological practices related to labour and birth with no or little evidence of the benefits. To date, all studies of episiotomy rates in Jordan and other Middle Eastern countries report a higher rate than recommended in international guidelines. Recently, researchers have started questioning the childbirth practices in Jordan and the degree of consistency with (or departure from) evidence-based practices and guidelines. There are few studies however, that examine how to introduce or facilitate change in childbirth practices, or to propose strategies regarding the implementation of a program designed to address the gap between current childbirth practices and research evidence and guidelines. One important study by Khresheh and Barclay published in 2007 and 2008 reported the value of action research as a process to engage
health professionals in the implementation of a new birth record (Khresheh, Homer, & Barclay, 2009).

The study I undertook for my masters honours degree aimed to address this gap by examining current episiotomy practice in Princess Badea Hospital, including an analysis of the perceptions and experiences of the health staff related to performing episiotomy. It was also my intention to propose and describe the strategies that may be effective in introducing evidence-based practice in relation to episiotomy practices.

1.4 Research question and aims of the study

This study has two main purposes. Firstly, it examines the facilitators and barriers to evidence-based episiotomy practice in Jordan, and secondly, it describes the strategies that may be effective in introducing evidence-based practice in relation to episiotomy practices.

The study has three primary objectives:

- To report the current rates of episiotomy in one maternity hospital in Jordan;
- To assess and describe the midwives’ and key stakeholders’ views and beliefs about the practices related to the use of episiotomy;
- To identify strategies to change episiotomy practice in Jordan.

A quality improvement approach was selected as the most appropriate framework to guide this study. This approach describes an ongoing process that consists of four steps, known as the Plan–Do–Check–Act (PDCA) cycle, or the Shewart cycle (Greenhalgh, Russell, & Swinglehurst, 2005). In this
study, the focus was on the ‘PLAN’ part of the cycle that includes identifying the current practice and plan for change. As a master’s student it was not feasible to undertake the full cycle of quality improvement study. Thus, I chose to utilise the first step of the quality cycle.

The study was conducted in three phases; a quality improvement and audit and review approach was used in phase one and phase three of this study. This involved reviewing the case files of 300 women who had given births in a six month period to determine the current rates of episiotomy and compare the outcomes with international recommendations. A qualitative interpretive approach using face-to-face semi-structured in-depth interviews was used in phase two to explore the perceptions and experiences of midwives and other health professionals including managers and doctors towards episiotomy practice. Interviews were the key approach to data collection in this study. In phase three the ‘Review’ component of a Quality Improvement approach guided the feedback and discussion session with staff in the maternity unit. Participants were informed of the findings of phases one and two, and these findings were discussed with the participants with a view to identifying potential strategies for change.

**Researcher positioning**

I first began working in a maternity unit in 2003 at a private hospital located in Irbid, Jordan. I secured this position after completing my diploma in midwifery from the Nursing and Midwifery College in 2002. At this time, episiotomy was performed as a routine practice for all primiparous women. In 2004, I relocated to Amman, the capital city of Jordan, and commenced working with pregnant women at a public hospital in 2004. While working
there I completed my bachelor degree in midwifery. Over a period of five years, I worked in two different health settings in Jordan – the private and public sector. During this period of employment, I observed that the same policies regarding the use of episiotomy were employed in both of these settings. At the time, I never noticed the need for improving or changing episiotomy practices, and I probably did not question the dominant practices.

I am a Jordanian woman and a midwife who trained and worked in the Jordanian health system. I first became interested in this study regarding episiotomy practice when I travelled with my husband to reside in Australia in 2008. After giving birth to my two children in Australia in 2010 and 2011, I developed a different perspective on childbirth, and started questioning episiotomy practices. In Jordan, I probably would not have questioned episiotomy practice; if my children were born in Jordan, I would no doubt have had an episiotomy at least with the first baby, and possibly also with the second. My personal experiences with childbirth have led to a shift in my perspective, and a questioning of what I was taught in Jordan about episiotomy practice. This stimulated my interest in studying the practices related to episiotomy in Jordan, and a corresponding commitment to assisting to raise awareness and reduce the incidence of episiotomy.

1.5 The structure of the thesis

The first chapter has provided the background to the study. The rationale and setting of the study have been introduced, and the research question and principal objectives have been outlined.
Chapter two reviews the literature relating to changes in episiotomy practice. This literature review is based on a systematic search and review that I undertook in 2012, and which was subsequently published in the International Journal of Childbirth. The chapter begins by briefly outlining the literature on the outcomes of episiotomy and then explores strategies that have been used to implement evidence-based practice related to the use of episiotomy. This chapter also examines theoretical approaches that inform practice change, describes quality improvement as a successful approach in directing practice change. In addition, the change process, and in particular the factors that facilitate or are barriers to practice change are discussed.

Chapter three describes in detail the methodology and methods used in this study. It provides an overview of quality improvement methodology, the choice of approach for this study, describes the data collection techniques, and outlines the methods for data analysis.

Chapter four presents the findings of the analysis of the data collected in this study including the case file data. It describes the central themes that emerged from the interviews with midwives and key stakeholders, field notes, as well as data from the feedback and discussion session undertaken in February 2013.

Chapter five summarises the findings of this study and then discusses the results in relation to the relevant literature, and considers the implications of these findings.

The final chapter of this study outlines recommendations for change related to episiotomy practice and draws the study to a conclusion.
CHAPTER TWO

Review of the literature

2.1 Introduction

In this chapter, I review the literature related to episiotomy practice and describe the strategies and practices that have been used internationally to effectively reduce the rates of episiotomy. I also examine the evidence base that supports the restrictive use of episiotomy, and how this is reflected in policy statements and clinical practice recommendations.

This chapter is presented in three sections. The first section provides an overview of what is currently known about the use of episiotomy internationally, including outcomes of routine episiotomy use that informed the move to restrictive use of episiotomy. This first section also includes a brief introduction to evidence-based practice and the theories or approaches that have been used to guide practice change.

In the second section of this chapter, I present the findings of a review of the literature that reports strategies to change episiotomy practice. This literature review is based on a systematic search and review that was published in the International Journal of Childbirth in 2012 (Hussein, Dahlen, & Schmied, 2012). In this section, I present the strategies that have been used and discuss the factors that facilitate the reduction in episiotomy rates, which include the impact of practice change strategies on episiotomy rates, Continuous Quality Improvement (CQI) implementing clinical guidelines, practice change
(system change) and the impact of health belief systems on practice and practice change.

The final section of this chapter discusses the strategies that are known to be effective in supporting practice change more generally, as well as the potential barriers to changing practice.

2.2 What is episiotomy?

Episiotomy is a surgical incision through the perineal tissue, designed to enlarge the vaginal opening during delivery (Bennett & Brown, 1999; Fraser & Cooper, 2009). This incision is performed using scissors and is usually repaired after the placenta has been delivered. There are two main types of episiotomy that have been described: midline and mediolateral. A midline episiotomy is an incision directly into the middle of the perineum running from the vaginal orifice towards the anus, and it follows the natural line of insertion of the perineal muscles (Kilpatrick & Garrison, 2007). This type is more common in the USA and it has been argued that it is easier to repair and results in less pain (Bennett & Brown, 1999). With a mediolateral episiotomy conversely, the incision begins at the vaginal orifice and it is directed away from the midline. This incision is chiefly used by midwives in the UK and Australia, but is believed to be more difficult to repair (Bennett & Brown, 1999). It was once thought that mediolateral episiotomy would protect the pelvic floor and perineum from damage by decreasing the pressure from the infant's head on these tissues (Douglas & Stromme, 1976), thus reducing the likelihood of severe perineal tears. Like any surgical procedure, episiotomy carries potential risks (Thacker & Banta, 1983), including extension of the episiotomy incision, unsatisfactory anatomical healing, increased blood loss,

2.2.1 What is known about the use of episiotomy?

The widespread adoption of episiotomy has not been without objections. As early as 1948, Kaltreider and Dixon conducted a large observational study and reviewed 3000 deliveries. They reported a large number of severe perineal lacerations and noted their association with midline episiotomy (Kaltreider & Dixon, 1948).

In seeking to establish an evidence base to support or refute the use of episiotomy, a randomised controlled trial was conducted in Canada involving 703 women who were randomly assigned to either a restrictive or liberal episiotomy use group (Klein et al., 1992). In both groups, Klein and colleagues found that the presence of third or fourth-degree tears was associated with extensions of the episiotomy (Klein et al., 1992). Other studies continued to demonstrate an association with midline episiotomy and severe lacerations. For example, several researchers found that midline episiotomy was significantly related to third and fourth degree lacerations and they recommended curtailing its routine use (Bodner-Adler et al., 2001; Labrecque et al., 1997).

Following this research, several studies examined the role of mediolateral episiotomy in the prevention of severe perineal lacerations. A study conducted in Italy followed 519 primiparous women for three months after vaginal birth (Sartore et al., 2004a). Sartore and colleagues found that dyspareunia and perineal pain were significantly higher in the episiotomy
group. Their study concluded that mediolateral episiotomy does not protect against pelvic floor dysfunction, and is also associated with lower pelvic floor muscle strength compared with spontaneous perineal lacerations (Sartore et al., 2004a).

More recently, a Cochrane Review undertaken by Carroli and Mignini (2012) reviewed randomised controlled trials that compared routine versus restrictive use of mediolateral and midline episiotomy to determine the possible harms and benefits of episiotomy on both the mother and baby. In the liberal group, 75% (2035/2708) of women had an episiotomy, while the rate in the restrictive episiotomy group was 28%. At seven days, the restrictive use of episiotomy showed lower risks of severe perineal trauma, posterior perineal trauma, and healing complications. This study also revealed that there was no difference in the incidence of major morbidity, such as urinary incontinence, painful sex or severe vaginal/perineal trauma after birth. The only reported harm with the restrictive use of episiotomy was the possibility of increasing the incidence of anterior perineal trauma (Carroli & Mignini, 2012).

Practices vary between practitioners and in different populations. Dahlen et al (2012) examined the differences in obstetric intervention including episiotomy rate during birth among low-risk women giving birth in private and public hospitals in New South Wales (NSW), Australia. They found that the rate of episiotomy was significantly higher in private hospitals than in public hospitals (28% versus 12% for primiparous women) (Dahlen et al., 2012). Similar findings in NSW were reported ten years earlier in research conducted by Roberts and colleagues (Roberts, Tracy, & Peat, 2000). Therefore, even in the same country, there are variable rates of episiotomy in different health settings and with different providers. The authors concluded that this
variability possibly resulted from different beliefs, behaviours and practice during birth among health professionals. Furthermore, health professionals' beliefs and practices may be influenced by factors such as delivery cost and women's preference or request. In the private sector in Australia, obstetricians are the lead care providers during birth, unlike in the public sector, where midwives are lead providers in collaboration with obstetricians.

Dahlen et al (2013) also reported the rate of episiotomy among different migrant groups in NSW. They found that Indian women had the highest episiotomy rates (32%) as well as the highest rates of caesarean section (31%) and instrumental birth rates (16%). These findings are significant as they indicate that a woman’s cultural beliefs and practices may influence choice related to pregnancy and birth care in the host country: women may ask for, or indeed decline, episiotomy based on normative cultural standards (Dahlen, Schmied, Dennis, & Thornton, 2013). It is also notable that health practitioners may hold certain beliefs about women from different migrant groups and therefore manage their care differently.

Similarly, a population-based, retrospective cohort study conducted by Trinh et al (2013) included all births in New South Wales between 1 January and 31 December 2010. They described the use of episiotomy among Vietnamese-born women in Australia and compared the results with Australian-born women. They also explored the risk factors and pregnancy outcomes associated with episiotomy, as they hoped that these findings would support change in Vietnam. The findings showed that the episiotomy rate amongst Vietnamese-born women was higher (29.9%) than for those women born in Australia (15.1%). In addition, they reported many factors associated with episiotomy, such as primiparous status, giving birth in a private hospital,
induced labour and instrumental delivery. They also reported that episiotomy was associated with postpartum haemorrhage (Trinh, Khamalia, Ampt, Morris, & Roberts, 2013).

Recently, several studies have re-examined episiotomy practice and its potential benefits and harms. Most of these studies, however, are population data-based studies and hence are considered to offer a lower level of research evidence (De Leeuw, Struijk, Vierhout, & Wallenburg, 2001; Stedenfeldt et al., 2012).

### 2.2.2 What is known about changing practice related to the use of episiotomy?

There has been much resistance to changing practice regarding episiotomy. Klein for example writes about the time in the 1970s and 1980s when childbirth practices such as episiotomy were first subjected to intense scrutiny, challenging the prevailing norm related to episiotomy use that had remained dominant since the time of DeLee in the 1920s. Klein and colleagues had great difficulty having their research published, since it challenged the routine use of episiotomy and went against accepted obstetric practices (Klein, 2010). In fact, Klein makes the observation that such resistance typically occurs when one is contesting the current paradigm or orthodoxy. Klein further notes that if you know how practitioners view episiotomy, you would also have a good understanding of how they view birth. This is an important realisation, as deep philosophical positions about vaginal birth often lie beneath arguments for technology use in childbirth (Dahlen, 2011).

Researchers have generally contended that the performance of episiotomies to aid in vaginal delivery is justifiable in certain scenarios including cases of fetal
distress, incidents of shoulder dystocia in order to prevent the tearing of the perineum during instrumental delivery, or in cases where in the mother is hypertensive or has cardiac disease. Again, the decision to proceed with an episiotomy in these cases for primiparous women is not absolute. From the above, it is already quite clear that the use of restrictive episiotomy is evidence-based. Despite the variation in data from varying sources around the world, there is enough empirical evidence to suggest that childbirth practitioners should perform episiotomies on a restrictive basis rather than on a routine basis.

In the next section of this chapter, I provide an overview of the current thinking on the process or theories that inform change in healthcare systems.

2.3 Theories of change.

Implementing and managing change in clinical practice involves transforming care practices and the organisational culture to enhance the effectiveness and quality of care provided to the service users. Various theoretical frameworks and approaches are available to inform and explain organisational and practice change; however authors (Grol & Grimshaw, 2003; McLaughlin & Mitra, 2001; Rycroft-Malone, 2004; Rycroft-Malone & Bucknall, 2011) argue that some approaches are more successful than others at achieving change.

Organisational change has been approached by some from an empirical-rational perspective which emphasises that staff, such as health professionals, are rational individuals (Dunn, 2010) who will readily adopt change if they believe that the innovation or intervention is based on sound research
evidence or rationale. In this approach, it is not essential that there is a leader or change agent directing or driving the change. Instead, it is assumed that the change will occur or evolve because it is ‘good’ (Dunn, 2010). It is now recognised that while such an approach respects the autonomy of individuals to adopt change when ready and confident, it often takes too long to achieve desired goals (Dagnino-Subiabre, 2013).

In contrast, a power-coercive approach, often described as an authoritarian or ‘top-down’ approach (Waterhouse & Lewis, 2004), involves influencing people to adopt change through the use of economic, moral and political sanctions (Jayasingam, Ansari, & Jantan, 2010). A ‘top-down’ approach is characterised by centralised decision-making by those at the higher levels of the organisation (George, McGahan, & Prabhu, 2012), while those who are responsible for the day-to-day delivery of services, such as midwives, are excluded from the decision-making process. Although this coercive approach to change is criticised and considered ineffective, it nevertheless remains dominant in many organisations and across several cultures. A more contemporary version of centralised decision-making is evident in a teleological approach. In this paradigm, change agents and leaders are considered central to change, and change occurs because organisational leaders are committed to it (George et al., 2012). In contrast to the belief that change will evolve over time or that a coercive approach is needed, a teleological approach is planned and ordered, and typically cyclical. The audit and review model, common in many quality activities in health organisations, represents a teleological and cyclical model. In this approach, current systems are reviewed, evidence-based change is implemented and evaluated, and then further change is introduced if required.
For several decades, leaders in change management have argued that change will only occur if a participatory approach is used to encourage the involvement of individuals in all levels of the process of change. This requires that decision-making is delegated from the top level to the lower level of the process (Easterly, 2008; Thomas & McGarry, 1994). To be successful, however, a participatory approach requires the presence of an effective change agent, and individuals within the organisation need to recognise the need for change and be prepared to undertake ongoing education. This has been labelled a normative re-educative approach to change (Dalheim, Harthug, Nilsen, & Nortvedt, 2012) and is reflected in methods such as action research (Cutcliffe & Bassett, 1997), action learning (McPhail, 1997), and more recently appreciative inquiry (Dalheim et al., 2012).

Over time, some have argued that utilising either a ‘top-down’ or ‘bottom-up’ approach alone is insufficient for change to occur, and that instead a mixed or multiple approach is more effective (Castella, Pheng Kam, Dinh Quang, Verburg, & Thai Hoanh, 2007). In taking a combined approach, a top-down, directive approach can assist in creating an environment for performance improvement, while a bottom-up approach will engage all individuals at all stages of the process of change, stimulating improved performance (Waterhouse & Lewis, 2004). Methods of Continuous Quality Improvement are purported to use both a top-down and bottom-up approach to change.

Based on the critique of episiotomy practice and the variation in episiotomy rates reported internationally, I conducted a literature review to examine the approach and strategies that have been used to reduce the rate of episiotomy in practice.
2.4 Review of strategies to reduce the routine use of episiotomy

The aim of this review was to identify and describe the strategies and practices that have been used internationally to effectively reduce the rate of episiotomy.

Search Strategy

A search was conducted using the following databases: CINAHL, Medline, Scopus, Pub Med and Nursing Consultant. A more general search of Google and international government policies and reports was also undertaken. The search strategy included combinations of relevant keywords: episiotomy, changes, practices, midwife, routine use, and evidence-based. The search was limited to the period from 1980 to 2013. Delimiters applied were humans, English language. The search included any relevant studies, reports, articles and any guidelines or policies.

Search outcome:

The search strategy identified 200 papers, and following a review of the titles and abstracts for relevance, opinion papers and discussion pieces or studies on episiotomy in general were excluded. This resulted in 60 papers that were reviewed at this point. A further 40 papers were excluded as they focused on comparison between restricted and routine use of episiotomy. The remaining 20 papers were read in full and critically analysed to ensure their relevance. This led to a further 11 papers being excluded because they reported the change in rates rather than describing processes or strategies to achieve change. Nine articles in total are therefore included in the review (Fig 2.1).
2.4.1 Findings of the review

The studies identified for inclusion in this review (see table 2.1) were conducted in a number of countries, including the United States of America, Canada, Denmark, Sweden, Australia, United Arab Emirates, South Africa and Brazil. Researchers used different methods to examine change in practice; most used a pre- and post-test design to examine change in practice over time and episiotomy rates were obtained either by file audit or analysis of electronic administrative data reporting episiotomy rates.
Table 2.1: Included studies

<table>
<thead>
<tr>
<th>Author and Year</th>
<th>Country and setting location</th>
<th>Aim</th>
<th>Methods</th>
<th>Participants</th>
<th>Inclusion criteria</th>
<th>Change practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henriksen, Bek, Hedegaard, Secher. (1994)</td>
<td>Denmark Aarhus University Hospital</td>
<td>Evaluates the use of feedback by graphical profile of rate of episiotomy and the impact on clinical practice and perineal status after spontaneous vaginal deliveries.</td>
<td>Pre-Post observational testing, followed by collecting the midwives' feedback regarding to their own attitudes towards episiotomy. Feedback in the form of graphical profile.</td>
<td>3919 women 30 midwives</td>
<td>Multiparous and primiparous women.</td>
<td>The overall rate of episiotomy during the observation period was 37.1% (the first period)</td>
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<tr>
<td>Henriksen, Bek, Hedegaard, Secher. (1995)</td>
<td>Denmark Aarhus University Hospital</td>
<td>Evaluates the use of feedback by graphical profile of rate of episiotomy and the impact on clinical practice and perineal status after spontaneous deliveries.</td>
<td>Pre-Post observational study, Period following the intervention Before and after study evaluation</td>
<td>3919 women 30 midwives</td>
<td>Multiparous and nulliparous women.</td>
<td>The overall rate of episiotomy during the second period (after intervention) was 6.6% lower, with 3.4% indicating a reduction of the incidence of tears of the anal sphincter. It was 37.1% in the first period</td>
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<tr>
<td>Reynolds. (1995)</td>
<td>Canada Family Practice Obstetrics Service</td>
<td>Determines the effectiveness of a Continuous Quality Improvement Program in reducing episiotomy rates.</td>
<td>Pre-Post observational study. Continuous Quality Improvement (CQI) single page newsletter,</td>
<td>102 Family Physicians 1400 women (primiparous and multiparous)</td>
<td>Low-risk women (primiparous and multiparous)</td>
<td>The overall rates decreased from 44.5 to 33.3%. Among primiparous women, the rate decreased from 57.6% to 46.2% and was associated with a</td>
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<td>Author and Year</td>
<td>Country and setting location</td>
<td>Aim</td>
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<tr>
<td>Dahlen. 1999</td>
<td>Australia Sydney King George V Hospital</td>
<td>This study employed an innovative approach to decreasing the episiotomy rate and morbidity associated with routine use of episiotomy.</td>
<td>Data here refers to the reporting of change in episiotomy rates. Removing the episiotomy scissors from the delivery packs.</td>
<td>Midwives in the labour ward primiparous women and multiparous women.</td>
<td>1995 episiotomy and those who had not</td>
<td>The episiotomy rate had dropped from 15% to 10.8% for primiparous women, and from 8.3% to 4.6% for multiparous in 1995. A further decline to 8% for primiparous women and 3.6% for multiparous women was noted in 1998.</td>
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<tr>
<td>Smith, Brown, Hofmeyer, Garner. (2004)</td>
<td>South Africa Gauteng Hospital (n=10)</td>
<td>Implemented a focused change program (The B.B.I.) to influence obstetric practice in Gauteng, South Africa.</td>
<td>Pre-and post-test design Educational workshop intervention comprised a variety of materials including workbook exercises, video material, oral presentations and visual aids, with some traditional printed materials. Interviews with postnatal women (n=247) and follow up</td>
<td>Ten government maternity units in Gauteng hospital, and 247 postnatal women. 215 follow up women 8 labour ward staff.</td>
<td>Postnatal women for the first period. Follow up women for the second period. Labour wards staff. Multiparous and primiparous women.</td>
<td>Findings showed some important improvements in obstetric practice following the implementation of the BBI. An interaction approach to implementing evidence-based practice can influence health professional’s decision to change practice.</td>
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<td>Author and Year</td>
<td>Country and setting location</td>
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<td>Participants</td>
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<tr>
<td>Bastos, Diniz, Riesco, de Oliveira. H. (2007)</td>
<td>Brazil Sao Paulo</td>
<td>Developing and pilot testing an educational package for maternity staff to reduce the routine performance of episiotomy. Exploring individual and organisational barriers and facilitators to changing episiotomy practice.</td>
<td>Questionnaire sent to 52 medical staff and 217 postnatal women to assess knowledge, attitudes and behaviour of maternity staff and postnatal women. A short in-service interactive, inter-professional educational intervention.</td>
<td>3 public hospitals in Sao Paulo. 52 maternity staff (doctors, midwives and nurse-midwives). 217 postnatal women.</td>
<td>Post natal women.</td>
<td>Found that knowledge of the benefits and risks is lacking among maternity care professionals and women, and recommended the introduction of direct-entry model of midwifery education and strengthening of midwifery and obstetric nursing education and the use of initiatives and strategies by key stakeholders can facilitate the acceptance of medical changes.</td>
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<tr>
<td>Ferrande, Benjamin, Edward. (2009)</td>
<td>UAE (United Arab of Emirates) Alwasel Hospital in Dubai</td>
<td>Assessed the existing practice of performing episiotomy and developed multidisciplinary evidence-based guidelines that could be introduced to change practice around the routine use of episiotomy.</td>
<td>Educational sessions to all the medical staff. Interviews with midwives who used episiotomy with indication.</td>
<td>8000 women delivered in the hospital per year. Medical staff (midwives, doctors and</td>
<td>Multiparous and nulliparae's women.</td>
<td>The rate of episiotomy declined from 64% in 2006 to 52.2% in 2007. A further decline to 22.4% was noted in 2008.</td>
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<td>Author and Year</td>
<td>Country and setting location</td>
<td>Aim</td>
<td>Methods</td>
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<td>Lappen, Gossett, (2010)</td>
<td>USA</td>
<td>Evaluate episiotomy practice and also gain insight into the challenge of changing medical practice.</td>
<td>Review study. Examine the evidence that led to changing episiotomy practices and the debate that has surrounded episiotomy.</td>
<td>(health staff).</td>
<td></td>
<td>A quality improvement curriculum should expand clinicians’ knowledge and adherence to guidelines while providing a skill set for future self-directed implementation of change.</td>
</tr>
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</table>
Table 2.2 Strategies for change that have been used in the included studies

<table>
<thead>
<tr>
<th>Author and year</th>
<th>Continuous quality improvement</th>
<th>Clinical guidelines</th>
<th>Health belief system</th>
<th>Practice change</th>
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<tr>
<td>Lappen, Gossette 2010</td>
<td>Self-directed implementation of change.</td>
<td>Clinicians' knowledge should adhere to guidelines. Multiple demands, had no time.</td>
<td>Fear and concern of perineal tears. Obstetricians' power. Cultural beliefs.</td>
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<tr>
<td>Ferrandes, Benjamin, Edwards 2009</td>
<td>Reluctance to change at the outset. Understanding the process of care. Strongly medically dominated. Influenced by individual, social and access to guidelines</td>
<td>Positive support from hospital director. Statistical data regarding episiotomy rate were collected systematically.</td>
<td>Concerns and anxieties around perineal tears. Midwives from various countries, backgrounds and cultures.</td>
<td></td>
</tr>
<tr>
<td>Bastos, Diniz, Riesco, de Oliveira 2007</td>
<td>Direct-entry model of midwifery education and strengthening of midwifery and obstetric nursing education.</td>
<td>Initiatives Awards have been developed to change practice during birth.</td>
<td>Treated birth as if it carries a higher risk to women's health</td>
<td></td>
</tr>
<tr>
<td>Smith, Brown, Hofmeyr, Garner 2004</td>
<td>Empowering and educational program. Good working relationship and enthusiastic staff is central to effective change. Understanding the process of care.</td>
<td>Support from seniors, leaders and motivators.</td>
<td>Fear of perineal tears. Different attitudes and motivation. Different beliefs regarding birth</td>
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<tr>
<td>Author and year</td>
<td>Continuous quality improvement</td>
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<tr>
<td>Dahlen. 1999</td>
<td></td>
<td>Arguments around the removal of the episiotomy scissors.</td>
<td>Concerns around perineal tears and using the episiotomy scissors for cutting the umbilical cord.</td>
<td></td>
</tr>
<tr>
<td>Reynolds. 1995</td>
<td>Empowering and educational program. Understanding the process of care and environment.</td>
<td>Follow the new guidelines. Leaders' opinion</td>
<td>Concerns regarding perineal tears. Individual belief, attitudes and readiness</td>
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</table>
Other studies used questionnaires and focus groups to examine change in episiotomy practice. Most studies implemented some form of educational program such as a CQI program, the Better Birth Initiative (BBI) program and/or educational workshops. However, one study implemented a change in episiotomy practice through strategies such as removing the episiotomy scissors from the delivery packs. These studies are identified in table 2.2. No studies were found examining change in practice that used a randomised controlled design.

Both multiparous and primiparous women were the focus of the studies; however, some of the studies also included health professionals (doctors, midwives and nurses) in order to examine their attitudes and beliefs, and to obtain their feedback about change in episiotomy practice.

The sample sizes varied across the studies. For example, Henriksen et al (1994, 1995) observed 3919 multiparous and primiparous women and reported feedback from 30 midwives around their attitudes regarding change in episiotomy practice. In addition, Reynolds (1995) observed 102 family physicians and 1400 multiparous and primiparous women before and after the implementing of Continuous Quality Improvement program to determine the effectiveness of this program in reducing episiotomy rates. Smith et al (2004) also implemented a focused change program (the BBI) to reduce the routine performance of episiotomy; this was followed by 247 interviews with postnatal women, 215 follow-up interviews with women, and focus group discussion with eight medical staff. Rockner and Jonasson, conversely, sent a questionnaire to medical staff to assess their knowledge, behaviour and attitudes regarding episiotomy practice.
The review identified a range of interventions used to promote evidence-based practice in relation to the restrictive use of episiotomy. In general, the use of multiple strategies (that is, the combination of several interventions) is more likely to effect change in health professional behaviour and practice. The findings of this review are discussed under the following headings: the impact of practice change on episiotomy rates; Continuous Quality Improvement; implementing clinical guidelines; practice change (system change) and the impact of health belief systems.

**Impact of practice change on episiotomy rates**

All of the studies included in this review demonstrated a reduction in episiotomy rates following the practice change interventions. The rate of change varied from study to study. For example, Reynolds (1995) reported that the overall rate of episiotomy declined from 44.5% to 33.3%, while Fernandes (2009) reported that the rates declined from 64% to 52% in 2007 with a further decrease to 22.4% in 2008 (Fernandes et al., 2009). Henriksen reported a decline in the episiotomy rate from 37.1% to 30.5% (Henriksen, Bek, Hedegaard, & Secher, 1995). Dahlen (1999) reported that the episiotomy rate had dropped from 15% to 10.8% for primiparous women and from 8.3% to 4.6% for multiparous women in 1995, with a further decline to 8% for primiparous women and 3.6% for multiparous women in 1998 (Dahlen, 1999). These statistics showed a trend toward a decreased rate of episiotomy after implementing a variety of strategies in a number of countries, all with different population groups.
Continuous Quality Improvement

Education can play a crucial role in changing common medical practice such as episiotomy, by using CQI programs to keep health professionals’ knowledge and practice current, and also to ensure that evidence-based guidelines are being followed (Fernandes et al., 2009; Reynolds, 1995; Smith, Brown, Hofmeyr, & Garner, 2004). The studies reviewed demonstrated that health professionals (obstetricians and midwives) decreased their use of episiotomy during birth, particularly among primiparous women, following the implementation of quality management approaches, and particularly the introduction of educational programs (Fernandes et al., 2009; Reynolds, 1995; Smith et al., 2004).

In the current literature review, the Better Birth Initiative (BBI) program was one of the key initiatives designed to address the gap between practice and research ensuring that clinical practices used in essential obstetric services are grounded in reliable research evidence. Pre-test observations were made to determine current practices. An educational workshop intervention was conducted at each study site, usually between 2–3 hours in duration and consisting of a variety of activities and resources including workbook exercises, video material, oral presentations and visual aids, with the inclusion of some traditional printed materials. The study showed that an interactive approach to implementing evidence-based practice can influence health professionals' decisions to change practice, and that good working relationships and enthusiastic staff are central to effective change (Smith et al., 2004). Similarly, a CQI program (Reynolds, 1995) was used in Canada to examine the process of care during labour and birth. A key principle of CQI methodology is that improvements can be brought about if there is a clear
understanding of the process in providing care or services, and if the focus is on the process rather than on the person. The researchers focused on educational efforts by producing a monthly CQI single page newsletter sent to all family physicians, consultant obstetricians and obstetric nurses. It contained a brief literature review, educational information about a safe length of second stage of labour, monthly episiotomy rates and practical points for assisting a delivery while minimising the need for episiotomy or the risk of perineal trauma. They found that the CQI model may be useful in modifying clinical practice because it focuses on understanding the process of care and the environment in which care is provided, both of which may have a major impact on a physician’s behaviour (Reynolds, 1995).

Ferrandes and colleagues also designed and conducted an educational program for all of the health professionals (midwives, nurses and doctors) in the labour room to discuss the current practice, reasons for this practice and to consider their concerns about increasing the risks for perineal tears or any other complications. They asked all midwives to record the reason for performing episiotomies, and this was followed by interviews with midwives about use and indications for episiotomy (Ferrandes, Benjamin, & Edwards, 2009).

Participants described the focused practice change programs as educational, empowering and providing the opportunity for interaction, discussion and sharing of ideas about changing practice (Reynolds, 1995; Smith et al., 2004). Some participants were reluctant to change their practice at the beginning (Fernandes et al., 2009; Röckner & Fianu-Jonasson, 1999) and others claimed that the proposed changes were externally imposed and unnecessary, a perception that could have contributed to their lack of motivation to attempt
Implementing clinical guidelines

The studies reviewed were conducted in different countries (see table 2.1) where the implementation of strategies and clinical guidelines relating to episiotomy varied. The beliefs of health professionals, and the culture of the organisation had a strong influence on the uptake and effectiveness of clinical guidelines. Some researchers noted that positive support from senior clinicians, leaders and hospital management can dramatically influence acceptance of change and adherence to new guidelines (Fernandes et al., 2009; Smith et al., 2004).

Several of the studies reviewed implemented guidelines (see table 2.2) for the restrictive use of episiotomy unless specific indications during birth arose. These guidelines assisted participants to reduce episiotomy rates, particularly among primiparous women (Fernandes et al., 2009; Reynolds, 1995; Röckner & Fianu-Jonasson, 1999; Smith et al., 2004). However, some participants in the studies did not believe that implementing the recommended practice changes would improve clinical outcomes, such as decreasing perineal tears or reducing the risk of any other complications (Graham, 1998).

Changing systems in order to change practice

The practice change study conducted by Dahlen (1999) involved simply removing the episiotomy scissors from the delivery packs and packaging them separately. This led to a halving of the episiotomy rate in one year. Prior to
this, midwives had observed that often health professionals picked up the episiotomy scissors as a reflex action. By appealing to particular concerns expressed by some practitioners that episiotomy scissors were being made blunt by their inadvertent use for cutting the umbilical cord, they argued that keeping them separate would retain their accessibility but ensure that they remained sharper. By addressing a specific concern, they also changed a practice such that practitioners (who may advocate the use of episiotomy) and researchers (who were aiming to change the practice) both had their needs met. This study illustrates the fact that simple changes can often prove to be the most effective (Dahlen, 1999).

The impact of health beliefs and organisational culture

Birth is one of the most exciting events in life, and is embedded in culture and shaped by beliefs. Differences in healthcare systems and cultural approaches to care, as well as the attitudes and beliefs of individual health professionals, can delay the acceptance of change (Röckner & Fianu-Jonasson, 1999). The studies reviewed were conducted in various countries with different healthcare systems. The nature of this body of research meant that participants held a diverse range of beliefs and attitudes toward changing practices relating to episiotomy. Most of the studies reviewed reported several participants describing concerns and anxieties around the probability of increasing perineal tears or other complications as a result of implementing the restrictive use of episiotomy (Fernandes et al., 2009; Henriksen et al., 1995; Röckner & Fianu-Jonasson, 1999). Some participants described the birth process as a pathological state that at times required surgical interventions like episiotomy, while others described it as natural process.
Such varied beliefs may contribute to and affect the level of acceptance of changes in practice (Klein, 2010; Röckner & Fianu-Jonasson, 1999).

In some of the studies reviewed, researchers also described midwives' beliefs and attitudes regarding birth positions and noted that the incidence of perineal trauma and the probability of episiotomy will increase with the use of lithotomy position with stirrups during birth (Röckner & Fianu-Jonasson, 1999), while others reported that epidural anaesthesia, instrumental deliveries, birth weight and fetal complications were significantly associated with episiotomy (Fernandes et al., 2009; Röckner & Fianu-Jonasson, 1999). Lappen (2010) noted that episiotomies and other interventions that expedite delivery were most likely to be performed during the day and least likely in the middle of the night. Medical staff may have multiple demands on their time during the day and feel more pressure to accomplish delivery more quickly than they do at night (Lappen & Gossett, 2010). They may also simply be less likely to be present during the night, thus consigning the birth to the domain of the midwife, with this variable likely to be reflected in intervention rates.

Cultural barriers to changing practices in maternity care systems that are dominated by medicine may mean that local initiatives, using local opinion leaders, can be a barrier to changing practice (Fernandes et al., 2009; Röckner & Fianu-Jonasson, 1999).

### 2.4.2 Facilitators and barriers to implementing research evidence in practice

Translating research evidence into policy and practice is a challenging experience. These challenges can be at the macro level of health systems and
policy, at the meso level related to organisational culture and leadership, or at the individual professional level related to education, confidence and skill (the micro level) (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Rycroft-Malone & Bucknall, 2011). For example, a study by Bastos and colleagues (2007) in Brazil reported the challenges of reducing the caesarean section rate and other birth interventions. They described that across the country, that is, at the macro level of policy and practice, the model of maternity care is obstetric-led and not based on scientific evidence of effectiveness and safety, and moreover that health professionals still treat birth as if it carries a very high risk to women’s health. They recommended at the national level the introduction of a direct entry model of midwifery education, and a strengthening of midwifery and obstetric nursing education. Several initiatives have been developed to change practice during birth in Brazil; one of these initiatives is the Galba de Araujo Award, which acknowledges and rewards hospitals and maternity care units that demonstrate the greatest achievements in humanising care for women and their newborn babies, including reducing the episiotomy rate. As a result of this initiative, many hospitals are striving to change their practice (Bastos, Diniz, Riesco, & de Oliveira, 2007).

This review of the strategies to change episiotomy practice identified several strategies that influenced health professionals to change their practice. Strategies were directed at different levels within an organisation. Researchers found that focused practice change programs, using quality management approaches (such as audit and review) can influence the behaviour of health professionals, and modify clinical practice regarding episiotomy. Moreover, it can assist health professionals to understand the process of care, the environment and the factors that increases the probability of using episiotomy
Similar methods of CQI, including the implementation of clinical practice guidelines, clinical pathways and clinical audits, have been used to introduce evidence-based practice and to improve the quality of maternity care (Sanares & Heliker, 2006). In the UK, for example, Bick et al used a multi-phased quality improvement process to boost the quality of postnatal care (Bick, Rose, Weavers, Wray, & Beake, 2011). They found that the CQI model was useful in changing clinical practice because it focuses on understanding the process of care and the environment in which care is provided, both of which are factors that may have a major impact on the behaviour of health professionals.

Another study by Fisch and colleagues (2009) found that changes in practice related to labour and birth, such as reducing inappropriate induction rates during labour, can be best achieved by applying an effective quality improvement program. In their program of practice change they included an education program for all medical staff, and the development of new guidelines related to best practice (Fisch, English, Pedaline, Brooks, & Simhan, 2009). Shortell et al reported that involving physicians and key stakeholders in a quality improvement program, getting their feedback, and examining cultural and organisational support, all enhanced the implementation of continuous quality improvement in clinical practice (Shortell, Bennett, & Byck, 1998).
Audit and review

A number of the studies included an audit and review tool as part of the CQI process (Henriksen, Bek, Hedegaard, & Secher, 1994; Henriksen et al., 1995; Röckner & Fianu-Jonasson, 1999). While the strategy of audit and review (sometimes called feedback) can be effective on its own, most commentators recommend that it is used in conjunction with other change strategies (Walraven, 2013). The audit and review model evaluates and examines the use of particular interventions, or the care received by patients, and compares this to best practice standards (Morrell & Harvey, 1999). Shakib et al stated that clinical audit is a useful tool for developing an evidence-based culture and enhancing the implementation of evidence-based practice (Borbasi, Jackson, & Lockwood, 2010; Gallegos & Senft, 2010; Shakib & Phillips, 2003).

Change agent and leadership

Some of the studies included in the review of episiotomy practice change noted the importance of a change agent or leader, sometimes called a champion in the change process (Taylor, Cocklin, Brown, & Wilson-Evered, 2011; Warner, 2011). A change agent is a person who facilitates the adoption of change to introduce evidence into practice (Rycroft-Malone, 2004; Warner, 2011). Hendy and Barlow (2012) examined the role of champions in three health and social care organisations in the UK in implementing initiatives to support clinical care in remote communities. They found that a change agent is required to motivate and help individuals and teams to change their behaviours, attitudes and working methods. They reported that the champion is highly effective in the first stage of adoption, but less so in later stages of the process (Hendy & Barlow, 2012).
The change agent can facilitate change through a hands-on approach and can provide networking, advice and support. In order to perform their roles effectively, change agents need to possess suitable attributes and skills (Hendy & Barlow, 2012), including the capacity to adapt to different situations and to adjust their roles during the implementation of change (Rycroft-Malone, 2004).

The successful introduction of a new guideline or a change in practice is dependent on positive support from senior clinicians, leaders and hospital management, all of whom can strongly influence acceptance of these changes and adherence to new guidelines (Bastos et al., 2007; Fernandes et al., 2009; Smith, Brown, Hofmeyr, & Garner, 2008).

Transformational leaders in the organisation can change the culture to establish a suitable environment to put evidence into practice (Northouse, 2012). They also are more likely to facilitate participation and teamwork, which saves time and enables resources to facilitate change (Rycroft-Malone, 2004).

Education

Key to all of the programs that were implemented to change episiotomy practice was education. Education represents a major change strategy. In some instances, this involved direct face-to-face education, whilst at other times, increased access to educational resources (hard copy or increasingly online) was ensured (Mezirow & Taylor, 2009). Engaging staff in ongoing education can be difficult to achieve in practice (Forsetlund et al., 2009) and
often requires steps to promote interest in the innovation or practice change, thereby increasing professionals' motivation to increase their skills and knowledge (Grol, Wensing, Eccles, & Davis, 2013; Grol & Wensing, 2004). Over time, educational initiatives aim to develop positive attitudes towards change and to build confidence (Dalheim et al., 2012).

Lappen & Gossett (2010) argue that a quality improvement program, if ultimately successful, should expand health professionals' knowledge and increase adherence to guidelines through self-directed implementation of change (Lappen & Gossett, 2010). In the review for this study, Henriksen et al (1994) believe that the process of audit and feedback may have changed the practice of episiotomy by initiating discussions among the midwives regarding the use of episiotomy. They suggest that this may have contributed to the continued reduction in the rate of episiotomy (Borbasi et al., 2010; Henriksen et al., 1994; Senft & Gallegos, 2010).

2.4.3 What are the potential barriers to change?

Multiple factors can hinder change to practice, including lack of staff awareness or confidence, staff shortages, poor interactions between staff and women, and lack of time (Fernandes et al., 2009; Smith et al., 2008).

The culture of an organisation is an important factor that can impact on implementing change (Dressler, 2012) and will influence how individuals within the organisation interpret and make sense of change (Iwelunmor, Idris, Adelakun, & Airhihenbuwa, 2010), including understanding and using evidence-based clinical guidelines. Martins and Terblanche (2003) assert that organisational values and norms have an impact on all the persons attached
to the institution (Martins & Terblanche, 2003). The viewpoints and assumptions of individuals are thus reflected in the rules and procedures of the institutions (Ashkanasy & Humphrey, 2011).

Rogers’ innovation theory helps in understanding the reason why certain practices undergo change (Fox, 2013). This theory suggests that the adoption of an innovation is influenced by whether the organisation has a learning culture, the nature of the adopters, and their specific skills and knowledge (Dalheim et al., 2012). The nature and characteristics of the innovation are also important considerations. If staff do not believe in the evidence or elements of the innovation, they are unlikely to adopt it. For example, the innovation needs to be compatible with other aspects of care in the organisation, and consistent with the beliefs of staff (Dearing, 2009); furthermore, it needs to demonstrate a relative advantage to current practice, and staff need to be able to try it out. If a change is too complex, or does not demonstrate an observable difference in outcomes, staff will be reluctant to adopt the change (Dingfelder & Mandell, 2011).

**Staff attitude and behaviour**

Although the role of organisational culture is crucial in successfully implementing change into practice, individuals' behaviour and characteristics are also equally important. A number of authors (Ingersoll, Kirsch, Merk, & Lightfoot, 2000; Lehman, Greener, & Simpson, 2002; Weiner, Amick, & Lee, 2008) have discussed the relationship between staff readiness for change and achieving change in an organisation, and have found that staff readiness can be a central factor in the dissemination of change. Staff members may be sceptical about the change. Change can also be obstructed if the staff members
perceive a lack of fairness and justice during the implementation of new strategies (Dalheim et al., 2012). In addition, some researchers (Dahl, 2011; Vakola & Nikolaou, 2005) have found a negative relationship between work stress and staff attitudes towards change, indicating that work stress can render individuals more resistant to change. According to Majid et al (2011) new graduates may be unwilling to embrace evidence-based practice because they lack confidence due to their limited knowledge base and practical experience. Some may consider that the new guidelines are inflexible, therefore restricting the way they provide care. Others may find the use of guidelines to be time consuming (Grol & Wensing, 2004).

**Conclusion**

For specific indications, where the benefits outweigh the risks, episiotomy can indeed be beneficial. However, it continues to be overused in many countries around the world without valid scientific justification. The routine use of episiotomy needs to be reconsidered. Clinical studies have led to changes in many medical practices, including the use of episiotomy. These studies usually describe practice trends over time and try to correlate changes in practice with changes in rates of complications. Strategies for changing practice should focus on challenging the rationale for current practice and on creating a social and organisational environment that will encourage motivation, and therefore affect the probability of episiotomy rate change. It is also important to clarify critical success factors before considering trials to determine the degree of effect on practice and behaviour.

Change is an ongoing feature in healthcare today. Achieving change in practice is a slow and difficult process that involves transforming care
practices and shifting organisational cultures and paradigms in order to enhance the effectiveness and quality of care provided to patients. In this chapter, some theoretical approaches that inform practice change were discussed. In the studies reviewed, a quality improvement approach appeared to be a successful strategy in directing practice change. Several factors that influence practice change were identified, and these included the organisational culture, presence of appropriate leaders, staff attitude and education, and the role of the change agent.

Greater efforts around reducing the use of episiotomy are currently needed in several developing countries where high rates prevail. Investigators need to study barriers to change and consider a diverse range of approaches to promoting change in clinician behaviour. It is also important to increase awareness among medical staff to change attitudes towards the use of episiotomy.

In the next chapter, I will describe in detail the methodology and methods used in this study. An overview of quality improvement methodology, qualitative methods and the choice of methods for this study will be presented in the next chapter. In addition, the data collection techniques and methods for data analysis will be described in detail.
CHAPTER THREE

Methodology

3.1 Introduction

In this chapter, I will describe in detail the methodology and methods used in this study. This chapter is organised as follows. In the first section, I provide an overview of quality improvement methodology, which is the research approach that has been selected to address the study aims. I provide an explanation of how quality improvement is applied in this research. This is followed by an overview of the study design, a description of the three phases of the study, and a discussion of the value of a qualitative design for guiding data collection and analysis in this study. The data collection techniques and approach to analysis is discussed for each phase of the study, and the chapter concludes with a consideration of the ethical issues that were important in this research.

3.2 Quality Improvement Approach

A key objective of this study is to identify strategies that could facilitate change in relation to the practice of episiotomy in Jordan. A quality improvement approach was selected as the most appropriate methodology with which to determine current episiotomy practices at the study site, and to identify and plan appropriate strategies for change.
A quality improvement approach is essentially an ongoing process to improve services or processes of care. It is particularly helpful in identifying the deficits or gaps in the process of care and considering ways for improvements (Fisch et al., 2009). A core principle of a quality improvement methodology is that improvements can be brought about if there is a clear understanding of the process of care, and if the focus is on the process rather than on the individuals involved in the process of care (Reynolds, 1995). Quality improvement approaches such as Continuous Quality Improvement and Total Quality Management represent a systematic but cyclical approach to change that encourages active participation of individuals in the process of change. A quality improvement approach involves the integration of quality principles in all activities and throughout the culture of the organisation (Bick et al., 2011).

The use of multidisciplinary teams for quality improvement processes can be traced back to the 1980s and the work of industrial experts such as Joseph Juran (Juran & Riley, 1999). Large projects conducted during the 1980s and 1990s indicated that quality improvement is applicable to and effective in all industries, including government, education and healthcare settings (Berwick, Godfrey, & Roessner, 1990).

Walter Shewart was a major contributor to the codification and expansion of the quality improvement process, developing the ‘control chart’ and the Plan–Do–Check–Act (PDCA) cycle, also known as the Shewart cycle (Greenhalgh et al., 2005). Edward Deming (Deming, 2003) also made a significant contribution to the development of quality improvement, although he is perhaps best known for the 14-point program of recommendations that emphasised the importance of involving all employees in the process of
change, building trusting relationships amongst employees and creating an environment for innovation. Deming in fact emphasised that the focus needed to be predominantly on processes rather than organisational structures. He believed that participatory work is the initial and necessary component for improvement, while management holds the final responsibility for quality (Deming, 2003; Sadikoglu & Zehir, 2010). Decentralised organisation and management has also become a core component of quality improvement approaches (McLaughlin & Kaluzuy, 2005). The key principles of a quality improvement program are customer focus, successful leadership, collaborative efforts by all health professionals and managers, and a continual cycle of improvement (Torres & Guo, 2004).

Widely used in industry for more than 50 years, quality improvement methods have also been applied in a variety of fields such as theory systems, statistics, engineering and psychology. Other disciplines have also selectively borrowed from these areas as a tool for improvement (Plsek, 1993).

Quality improvement has also been successfully applied in healthcare, allowing practitioners to discover the power of collaborative efforts and the importance of effective communication between individuals within an organisation (Kaplan et al., 2010). Effective communication amongst multidisciplinary team members, for instance, effects a learning process deriving from the synthesis of a rich variety of experiences, sharing ideas and beliefs and encouraging individuals through the process of change or improvement, as well as discussing ways to overcome common barriers through the process of change (Bartunek, 2011).
3.2.1 Models of Quality Improvement

Several models have been used for improving the quality of care such as: the FADE model (Focus, Analyse, Develop, Execute, and Evaluate) (McFarlan & Hensley, 2007); PDSA cycle (Plan, Do, Study, and Act) (O’Connor et al., 2005); Six Segma (Chassin, 2008); continuous quality improvement (McLaughlin & Kaluzuy, 2005); total quality improvement (Talib, Rahman, & Azam, 2011); and audit and review (Borbasi et al., 2010).

Each of these models of quality improvement represent general methodologies for developing solutions, redesigning systems and implementing and evaluating change (O’Connor et al., 2005). They are used to direct the process of improvement and provide a clear outline or map to all participants during the process. A number of steps must be undertaken before developing strategies for improvement including; creating the quality improvement team and ensuring effective communication processes are in place and collaboration within the team, and identifying the problem or gap in the process of care. Subsequently, a plan for improvement can be devised and implemented in a small area, to conduct a pilot of the proposed change (Lindenauer, 2008; McFarlan & Hensley, 2007; McLaughlin & Kaluzuy, 2005). Monitoring and evaluating the results before and after the implementation is a critical step in the quality cycle. This cycle is repeated until the desired outcome is achieved (Salcido, 2013).

Audit and review is considered a key element of quality improvement and process of change, since it examines and evaluates the use of particular interventions, and analyses the care received by patients by comparing it to the best guidelines (Bowron, Lyon, & MacLean, 2012; Clare Morrell & Gill
Harvey, 1999). Shakib and Phillips stated that clinical audit is a useful tool for creating an evidence-based culture and enhancing the implementation of evidence-based practice, although it is most frequently used as a measuring tool in the evaluation phase of the audit cycle (Shakib & Phillips, 2003). The audit and review model uses agreed criteria to measure the quality of care in order to implement improvements, and it can be used to identify where errors may occur, locate the defect in the process, and fix it (Borbasi et al., 2010; Kinn, 1997) (see table 3.1). A chart of audit for quality improvement is one of multiple data sources available for quality improvement activities. Other examples include patient survey, discharge summary, billing/claim data, and employee feedback (Morrell & Harvey, 1999).

Table 3.1 Chart of audit. (Graham et al., 2000)

<table>
<thead>
<tr>
<th>Criteria of audit and review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select the topic of interest</td>
</tr>
<tr>
<td>Identify measures</td>
</tr>
<tr>
<td>Identify the target group</td>
</tr>
<tr>
<td>Determine the sample size</td>
</tr>
<tr>
<td>Create audit tools</td>
</tr>
<tr>
<td>Select the data</td>
</tr>
<tr>
<td>Analyse the results</td>
</tr>
<tr>
<td>Summarise the results</td>
</tr>
<tr>
<td>Apply the results in small areas</td>
</tr>
<tr>
<td>Develop the strategies for improvements</td>
</tr>
</tbody>
</table>

In summary, the important characteristics of quality improvement include understanding the organisational environment and its culture and the characteristics of individuals, as well as involving clinicians and managers in the process of improvement in order to enhance services and reduce resistance.
to change (Borbasi et al., 2010). In addition, adopting customer (including patients) and provider preferences is an initial step to guarantee the success of the improvement program. From the outset, it is important to develop a planned program of ongoing change and to design strategies that ensure implementation of the best practices (McLaughlin, 2004).

The quality improvement design as a conceptual approach enables the researchers/change agents to apply multiple methodologies and methods to collect and analyse data, and can use both qualitative and quantitative methods (McLaughlin & Kaluzuy, 2005).

The focus of this study was on the PLAN component of the quality improvement cycle. PLAN incorporates components such as identifying the current practice related to episiotomy practices, and developing strategies for changing these practices. This was believed to be a crucial first step in introducing evidence-based episiotomy practice in Princess Badea Hospital in Jordan.

3.3 Aim of the research

This study has two main purposes. Firstly, it identifies and examines the facilitators and barriers to evidence-based episiotomy practice in Jordan. Secondly, it describes the strategies that may be effective in introducing evidence-based practice in relation to episiotomy practices.
Objectives

The study has three objectives:

- To report the current rates of episiotomy in one maternity hospital in Jordan.
- To assess and describe the midwives’ and key stakeholders’ views and beliefs about the practices related to the use of episiotomy.
- To identify strategies to change episiotomy practice in Jordan.

3.4 Study Design

Quality improvement methodologies informed the design of this study. The choice of data collection methods is guided by the research question and the choice of design (Pope & Mays, 2006). Data collection methods in a quality improvement study can include archival records, interviews, surveys, group discussion and improvement teams. A number of data collection techniques were employed in order to gather rich data about the cultural practices around the use of episiotomy. These techniques included a feedback session and interviews with midwives and other health professionals in order to explore their different ideas and beliefs (Pope & Mays, 2008).

This study comprised three phases:

1. An initial descriptive quantitative phase, which consisted of a retrospective review of the case files of 300 births using an audit and review approach to ascertain the episiotomy rate and report the current practice.
(2) A qualitative phase using an interpretative approach, which comprised face-to-face semi-structured in-depth interviews with midwives and other key staff in the maternity unit.

(3) A qualitative phase using a review model, which involved conducting a feedback and discussion session with midwives and other interested staff to present and discuss the findings of phases one and two, and to work with midwives and other staff to explore strategies that may be effective in changing episiotomy practices. Refer to diagram 3.1.

Diagram 3.1 Study designs and methods employed in each phase of this study.
Quantitative methods were used in phase one of this study to collect descriptive data on the rates of episiotomy. Knowledge of the current rates of episiotomy was considered important baseline information. One of the main objectives of this study was to understand the facilitators and barriers to implementing evidence-based episiotomy practice, and to work with staff to identify potential strategies for change. For this, a qualitative methodology commonly used in change process was considered most appropriate. In phases two and three of the study, a qualitative interpretative design was therefore used. Data were collected via interviews with midwives and other key stakeholders.

Qualitative methodologies have their foundations in social theory and provide a framework for understanding how people act (Daly et al., 2007). This offers the opportunity to explore the ‘behaviour, processes of interaction, and the meanings, values and experiences’ of individuals and groups (Kitto, Chesters, & Grbich, 2008 p.243). (Saddler, 2008, p. 74) observed that the use of a qualitative research design allows inclusion of ‘the informants’ own words to more fully understand his or her thoughts and feelings about the subject of interest’ enhancing the level of authenticity of the research (Saddler, 2008). Rather than posing a threat to the validity of the research, the subjectivity of the research participants is actually a central and valuable dimension in terms of answering the research question. The emphasis is on interacting with individuals in their real world situation, and in some approaches it also encompasses observing their behaviours within their context (Torres & Guo, 2004).

Qualitative methods, such as semi-structured or unstructured interviews and focus groups, enable a deeper understanding of the perceptions of the
individuals involved in the process of care as well as the organisational culture (Grut & Ingstad, 2010). In a qualitative study, the researchers collect data themselves via multiple sources, including examining documents, observing behaviour and interviewing participants. The use of multiple methods of data collection provides a rich picture of the phenomena under study, while accessing several sources assists in establishing rigour and credibility (Grut & Ingstad, 2010). In qualitative research, the researcher searches for patterns and themes in data and makes sense of it.

The quality and trustworthiness of qualitative research is measured differently to quantitative research, where validity, reliability and generalisability are paramount in determining its value. Kitto et al (2008) identify the following key criteria for assessing qualitative research: rigour (thoroughness and appropriate use of research methods), credibility (meaningful, well presented findings), and relevance (utility of findings). Measurement against these criteria provides opportunities for critical analysis of the research, its relevance, and the potential for generalisability to other settings. Another factor to consider in the evaluation of qualitative research is the role of the researcher. This is discussed further in section 3.6.

3.4.1 Study Setting

The study was undertaken in Jordan and was conducted in one of the major maternity hospitals (Princess Badea Hospital) in northern Jordan. Located in Irbid, the second largest city in Jordan, the hospital manages approximately 9000 deliveries per annum (Department of Statistics, 2005). The hospital provides maternity services including antenatal and postnatal care to the majority of women in the area, and acts as a tertiary centre with an
occupancy rate of 82%. A teaching hospital for medical, nursing and midwifery students, Princess Badea Hospital falls under the authority of the Ministry of Health.

In the next section of this chapter, the three phases of the study are discussed. The sample and recruitment processes, data collection and analysis methods are detailed for each phase. The data from phases two and three of this study were analysed together.

3.4.2 Phase one: Analysis of birth records to determine episiotomy rates

A quality improvement and audit and review approach was used in phase one of this study by examining and reviewing the hard-copy case files of 300 births. The aim of applying the audit and review approach in this phase was to determine the current practices around the use of episiotomy and to report the rates of episiotomy, whilst comparing the outcomes with international recommendations.

Sample

In total, 300 birth records were randomly selected and reviewed. This represents around 10% of births in the hospital in one year (around 3000 births a year). The first 50 births in each month for a six-month period were selected until 300 births had been reviewed. The timeframe for the audit was the six-month period from February to July 2012. Both multiparous and primiparous women were included in this review. Women were included irrespective of whether they had a vaginal birth or instrumental birth. The files of women who had a caesarean section were excluded from the review. As a hospital rule, all data relating to women who have a caesarean section are
recorded in separate birth files to the women who have a normal vaginal birth. Therefore, the birth records that were sampled did not include any women who had a caesarean section.

Written and verbal permission was sought and received from the senior executive of the hospital to access the files. See Appendix 1 for the letter of support from the Jordanian Ministry of Health and see Appendix 2 for Arabic version.

**Data collection**

A retrospective file review of 300 births was conducted in the Medical Records office in Princess Badea Hospital. Data were collected in the months of August and September 2012. The data were entered directly into an Excel database that was customised for this study. All data were coded to facilitate the process of data entry and data analysis. The Excel spreadsheet detailed 17 items or criteria, including two items about demographic data on the women’s age – these were coded and recorded by years. The rest (15 items) of the criteria concerned maternal and birth details including parity, which was coded and recorded by the number of births, for example ‘parity=2’ (woman who had given birth two times). However, perineum status was coded by the severity of degree tears, for example ‘perineum status=0’ (woman who had an intact perineum during birth); ‘perineum status=1’ (woman who had first-degree tears during birth).

Data collected included: whether an episiotomy was performed, age of the woman, parity, mode of delivery, position of birth, time of day/night of birth, professional background of birth attendants, birth weight, sex of baby, length
of second stage, type of episiotomy and an extension of third or fourth-degree of tears with episiotomy and an extension of third or fourth-degree of tears without episiotomy (see table 3.2).

Table 3.2 Variables collected in phase one

<table>
<thead>
<tr>
<th>Variables collected</th>
<th>Recorded as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women’s age</td>
<td>Years</td>
</tr>
<tr>
<td>Parity</td>
<td>The number of births</td>
</tr>
<tr>
<td>Mode of birth</td>
<td>NVD or VD</td>
</tr>
<tr>
<td>Position of birth</td>
<td>Lithotomy position</td>
</tr>
<tr>
<td>Time of birth (day/night)</td>
<td>Hours, minutes</td>
</tr>
<tr>
<td>Birth attendants</td>
<td>Midwife, Resident, Student</td>
</tr>
<tr>
<td>Baby sex</td>
<td>Male, Female</td>
</tr>
<tr>
<td>Birth weight</td>
<td>Grams</td>
</tr>
<tr>
<td>Perineum status</td>
<td>Intact, 1st, 2nd or 3rd degree</td>
</tr>
<tr>
<td></td>
<td>Tears, episiotomy, extended</td>
</tr>
<tr>
<td></td>
<td>Tears or episiotomy</td>
</tr>
<tr>
<td>Sutured</td>
<td>Yes or No</td>
</tr>
</tbody>
</table>

Data analysis

All quantitative data from the case files were entered into the SPSS version 20 and were analysed using descriptive statistics. Data were subjected to descriptive analysis using frequencies to present the proportion of women who had an episiotomy during birth, and to summarise all other variables collected.
3.4.3 Phase two: data collection and analysis

A qualitative interpretative design was used in phase two of this study to explore the perceptions and experiences of midwives and other health professionals – including managers and doctors – towards episiotomy practice, and to determine the context of current practice related to the use of episiotomy.

Sample and recruitment

Both purposive (Pope & Mays, 2008) and self-selecting convenience samples were used to obtain the participants for this phase of the study. To ensure that a broad range of health staff participated in the study, I sought to recruit both experienced staff with over 10 years’ experience in the maternity ward, along with less experienced staff. A flyer was placed in the maternity unit to inform health professionals about the study and to invite them to participate. A copy of the flyer is available at Appendix 3. The health practitioners who responded were provided with verbal information about the study and were given a copy of the information sheet (See Appendix 4). Written permission was obtained from participants to be interviewed and audio-recorded (see Appendix 5).

In total, 15 health professionals participated in phase two: 10 midwives and five key stakeholders (including nursing and midwifery leaders and physicians).
Data collection

Data in phase two were collected by face-to-face semi-structured interviews with the consenting health professionals. Interviewing is a well-known qualitative research technique, and can be structured, unstructured or semi-structured (Maxwell, 2012). Interviews are used to obtain factual data about people as well as to measure their opinions, attitudes and beliefs about certain topics. While a structured interview involves asking the same questions in the same order and in the same manner by a trained researcher (Creswell, 2012), semi-structured interviews are conducted more in line with a standard conversation, with the interviewer/researcher accorded the freedom to direct the interviews until no new data emerges (Kvale & Brinkmann, 2009).

In this study, semi-structured face-to-face in-depth interviews with midwives and other health professionals including managers and physicians were conducted to provide new knowledge of the perceptions and beliefs of health professionals caring for women during labour in Jordan. One-to-one semi-structured interviews were selected as the most appropriate approach as this was more likely to create an environment where participants were comfortable talking candidly about the topic (Silverman, 2010). Qualitative interviews should be in the form of conversation with the participant, and should freely encompass several broad and general questions delivered empathetically, as opposed to numerous direct questions which may resemble an ‘interrogation’ (Green & Thorogood, 2013; Kvale & Brinkmann, 2009; Roberts & Taylor, 1997). As a result, greater capacity for obtaining free-flowing ideas provides the opportunity for the participant’s experience or story to emerge. This approach encouraged the participating professionals to freely express their thoughts, beliefs and perceptions around the use of
episiotomy and to identify factors they believed influenced the context of current practice.

A set of open-ended questions (see table 3.3) were developed to ensure that the participants would talk both broadly and more specifically about their practice, and discuss the facilitators and barriers to the use of evidence-based episiotomy practice in the maternity unit. In addition, a brief structured questionnaire was used to collect information about the participants' socio-demographic details (e.g. age, sex, date of birth, occupation, education level, date and place of interview).

Table 3.3: Key prompts for interviews.

**Interview Questions:**

1. Can you describe the policy for performing episiotomies in the hospital?
2. What are the factors that influence your decisions to perform an episiotomy?
3. What are your beliefs around episiotomy practice (in other words should all women have an episiotomy)?
4. Under what circumstances would you not perform an episiotomy?
5. What are you thinking about or what is on your mind when you are holding the episiotomy scissors to perform an episiotomy?

A convenient time and place was arranged to conduct the interviews. Originally it was planned to hold the interviews away from the maternity unit to prevent any interruptions during the interviews. This was approved by the manager. However, when the study commenced, the senior manager indicated that it was preferable that the interviews be conducted close to or within the maternity unit. Accordingly, the interviews were conducted in the
midwifery room inside the maternity unit. To eliminate the possibility of interruption, the senior manager assisted by placing a sign on the door indicating that the room was being used for private interview.

The interviews were conducted during October and November 2012, and their length varied from 25 to 45 minutes. To ensure the quality of data collected, the interviews were recorded using two recorders (with the participants' permission), one digital audio recorder, supplemented by the voice recorder in the researcher's iPhone as a second recorder to safeguard against loss of information in the event of malfunctioning equipment or inaudible speech. This allowed me to focus on participants' non-verbal or body language. All data were transcribed verbatim in the first language of the participants (Arabic) and then I translated them into English.

The first few interviews served to guide subsequent interviews, with the key ideas and beliefs that were expressed by early participants informing later interviews. Following each interview, I recorded gestures and body language that were observed during the course of the interview; for example, facial expressions, depth and tone of voice and periods of silence. Observing and noting these cues provided me with additional insights into participants' constructions of their experience as midwives or managers and doctors in this maternity unit.

**Data analysis**

The interviews and the feedback and discussion data were analysed using thematic analysis. Data analysis of phases two and three is described below.
3.4.4 Phase three: data collection and analysis

Phase three was also informed by a qualitative interpretative approach. A feedback and discussion session was conducted using the ‘review’ cycle of the ‘audit and review’ approach. The findings of phases one and two of the study were presented to participants in phase three, with participants invited to openly discuss their thoughts about the findings, and to consider potential strategies for change in terms of episiotomy practice.

Sample and recruitment

Similar recruitment processes were used to invite staff to participate in the feedback and discussion forum where the results of phases one and two would be discussed and the participants would have an opportunity to consider the implications of the findings. An information flyer was posted on an advertisement board in the maternity unit (see Appendix 6), which included information on the purpose of the forum, duration, location and setting. The maternity unit manager was asked to distribute an information sheet about the feedback session to staff, and the researcher attended one of the midwives’ staff meetings in early February 2013 to inform them about the feedback session. Midwives who were working in the maternity unit, key stakeholders and other interested people were invited to attend the feedback session. The staff that responded were provided with information and given a copy of the information sheet (see Appendix 7) and consent form (see Appendix 8).

A sample of 23 participants including 13 midwives, eight registered nurses and two assistants in nursing attended the feedback and discussion session.
Data collection

The feedback and review session in phase three was conducted as a discussion group with the aim of ensuring that all participants were afforded the opportunity to contribute. Although focus groups require a smaller number of participants, the approach taken to the feedback and review session was similar to a focus group discussion. Focus groups are a common qualitative research technique that use a set of open-ended questions, enabling a group discussion on one or more topics of interest (Gibbs, 2012). A discussion or focus group conducted in a respectful and egalitarian way is more likely to obtain and reflect ‘group talk’, and yields different data from that which might be collected through a more formal meeting (Gibbs, 2012; Jones & Munhall, 2003). Offering feedback on the outcomes of an audit and in this case, the preliminary analysis from the in-depth interviews, in a discussion forum is useful for gaining a deeper understanding of the results, allowing the researcher to gather participants’ interpretation of the findings and providing further information on the facilitators and barriers to implementing evidence-based practice (Skogestad & Postlethwaite, 2007). A group feedback and discussion session following an audit or data collection also allows the participants to comment on each other’s opinion (Schartel, 2012). It is ethically important to share the study results with the participants, because if the participants are not told the outcomes of the study, they will be less likely to participate in future studies; sharing results is also crucial to ensuring practice change (Saedon, Salleh, Balakrishnan, Imray, & Saedon, 2012). When facilitating feedback sessions, it is critical that the researcher or facilitator is mindful of the way in which both positive and negative audit results are presented, including the type of language that is used, and the fact
that certain phrases and terminology might negatively impact on the feedback session (Branch & William, 2002).

The feedback session was scheduled for two months after completion of data collection for phases one and two. Preliminary analysis of phases one and two was conducted to inform and develop the feedback session, by identifying the key issues and shaping the questions for the feedback session. The questions and prompts for the feedback session were prepared in advance (see table 3.4), and were semi-structured, open-ended and progressed from general to specific. This preparation helped to ensure that the key issues were covered during the discussion (Sharts-Hopko, 2001).

Table 3.4: Feedback and discussion key prompts

Key prompts:

1. This research study has explored the beliefs and experiences regarding episiotomy practice of midwives and others in this maternity unit. I have presented the preliminary findings to you. Can you tell me how these findings align with your own beliefs and experiences in terms of episiotomy practice?
2. Can you tell me if you take part in decision-making related to performing an episiotomy as a routine practice, and why?
3. This research study is also about developing strategies to introduce evidence-based practices around the use of episiotomy. Can you tell me what changes are needed in order to reduce the high rate of episiotomy in the hospital? What strategies will assist this change?

In the first part of the feedback and discussion session, I provided a more formal presentation of the findings from phase one and the preliminary
findings of phase two using a PowerPoint presentation. This formed the basis for the group discussion, which was the more informal segment of the session, with questions used to stimulate discussion about the results, and to prompt a consideration of strategies for change.

The venue for the feedback session was booked for two hours, in accordance with permission given by the head of nursing and the clinical development unit’s senior educator. The feedback and discussion session was conducted in a tutorial room that was familiar and regularly used by all health staff in the hospital (computer skills sessions are held in this room four times a month for all hospital staff). This feedback session was facilitated by the researcher. The participants were seated in a semi-circle so that they could see each other and to promote a relaxed and comfortable atmosphere (Sharts-Hopko, 2001). Afternoon tea comprising light snacks was served to all participants. Obviously anonymity cannot be maintained in group discussions; however, data has been de-identified and pseudonyms used in reporting the findings.

Field notes

Field notes were written following the interviews and the feedback and discussion session in order to document non-verbal expressions and the researcher’s general impressions on how the interviews and the feedback session went. I recorded my field notes immediately during the interviews and the feedback and discussion session, and personally transcribed them at a later date. The data from the field notes were de-identified and stored alongside the interview and feedback session data. The field notes following the interviews were used to inform analysis.
Analysis of phase two and three

The interviews and the feedback data were both analysed using thematic analysis. Two stages of analysis were conducted for developing the themes in this study. Preliminary analysis of phase two interview data was conducted from November 2012 until January 2013, so it could inform the feedback session in phase three and aid in the design of questions for discussion. Following the feedback and discussion session in phase three, both data sets were combined for the ongoing thematic analysis. A qualitative interpretive approach was used in this study. Thematic analysis is an iterative process where concepts, categories or themes are constantly refined. Thematic analysis results in minimising the amount of the data and facilitating the communication of findings (Byrne, 2001).

Thematic analysis was used to analyse the data, because it is a methodology that illuminates patterns in data, thus facilitating the process of giving meaning to the data (Braun, Clarke, & Rance, 2013). There are a number of steps taken to analyse the data. Firstly, I organised and prepared the data for analysis. This involved transcribing interviews and the feedback data into Arabic and then translating this into English. During this process, I also made notes about the key issues that were arising. I then read each transcript in full to obtain an overview and to start to make sense of the data. This involved a process of sorting, coding, labelling and developing preliminary interpretations or meanings of the data. Reading and rereading the transcripts and also listening to the recorded interviews was an important step, as it allowed me to become engaged and absorb the data (Clarke & Braun, 2013). After breaking the data apart into codes, I then grouped the data: like with like. That is, data that represented the same ideas or meaning and with the
same or similar codes were brought together. Coded data was then grouped into concepts, and preliminary themes were developed from these codes. Preliminary themes were often labelled with terms or words used by participants. Following the development of preliminary themes, further coding of the data in each theme occurred by identifying linkages and relationships between the themes (Braun & Clarke, 2006).

3.4.5 Rigor in qualitative research

This study was primarily a qualitative study and it is important to consider how rigour was maintained in all phases of data collection and analysis.

Qualitative research involves the researcher being attentive to information and verifying its accuracy (Roberts & Taylor, 1997). Researchers may deal with the data in a variety of ways. The use of open-ended interviewing techniques, audio recording, and verbatim transcriptions will increase the accuracy of data collection (Holloway & Wheeler, 2002). The ultimate goal of rigour in qualitative research is to accurately represent the nature of participants’ experiences. In an attempt to address the issue of rigour in this study, I have been guided by the ideas of Guba and Lincoln (1989). According to Guba and Lincoln, there are four general criteria in judging scientific rigour for qualitative research, namely: credibility, transferability, dependability and confirmability (Guba & Lincoln, 1989).

**Credibility**

Credibility relates to the truthfulness of the findings judged by participants and others involved in the research (LoBiondo-Wood & Haber, 2013; Myers, 2004; Schneider, 2002). In this study, some participants who were interviewed
in phase two also participated in the discussion group and so they were able to validate the key findings. The feedback and discussion sessions in phase three provided me with the opportunity to clarify and verify the interpretation of health staffs’ experiences and constructions. Field notes were also documented following each interview and used reflexively in the analysis to gain further insights and interpretations of the practice experience of midwives and others. Walter et al (2001) confirm that a field journal or a reflective journal enables the researcher to record reflections of the interview process including emotions and experiences, thus creating a more solid reflection and understanding of oneself. In addition, opportunities to confer with my supervisors and other higher degree research candidates enabled me to refine my thoughts and convey experiences and insights gained through the process of inquiry (Walter, Glass, & Davis, 2001).

**Confirmability**

Confirmability relates to ‘the way in which the findings and conclusions achieve their aim and are not the result of the researcher’s prior assumptions and preconceptions’ (Holloway & Wheeler, 2002, p. 255). In this study, the reader and other researchers will be able to follow the path I took in data collection and the way in which I arrived at the themes and their interpretation. This is achieved by revealing details of the research, including raw data (participant quotations), to demonstrate how the process of data analysis and synthesis has taken place. In this process it is also important to include the thoughts and feelings of the researcher in the form of field notes. In this way, data were traced to their original sources.
Transferability

Transferability refers to the faithfulness of participants’ constructions of their world (Holloway & Wheeler, 2002; Schneider, Elilliott, Whitehead, LoBiondo-Wood, & Harber, 2007), and whether the findings can be applied to other contexts (Erlandson, Harris, Skipper, & Allen, 1993). This is accomplished when participants are able to reflect back on their experiences and notice that the findings are meaningful and true to them. In this study, transferability was achieved primarily by taking the preliminary findings back to participants in the feedback session, and secondly, by relating the findings to other studies conducted in the Middle East for example: (Hatamleh, Shaban, & Homer, 2013; Shaban, Barclay, Lock, & Homer, 2012; Shaban et al., 2011).

Dependability

Dependability refers to how well the researcher has developed and explained the research process. If this is achieved to a high standard, then another researcher or reader is able to follow the thinking or conclusions of the research (Schneider et al., 2007). Dependability has been achieved in this research by providing the reader with a detailed description of all aspects of the research process, and clearly describing the methods taken to collect and analyse the data. In this study, field notes were kept, detailing specifics of the research inquiry, including methodological decisions at different stages.

3.5 Ethical Considerations

The study required consideration of multiple ethical issues. ‘The conduct of nursing and midwifery research requires not only expertise and diligence but
also honestly and integrity’ (Burns & Grove, 2003, p. 191). An essential principle in research by fieldwork is the need to protect participants. The use of humans as participants in research requires that the researcher ensures the protection of human rights (National Health and Medical Research Council, 2002) (Koch & Harrington, 1998; Polit & Hungler, 1999).

The qualitative researcher must also attend to potential ethical dilemmas when data collection involves interviewing participants about sensitive topics, such as health professionals reflecting on their practice, particularly if they perceive the researcher to be critical of their practice, or if their practice may be exposed as not of the highest standard (De Laine, 2000; Miller, Mauthner, Birch, & Jessop, 2012).

This research did in fact raise multiple ethical issues. Ethical approval to conduct this study was obtained from the Human Research Ethics Committee from the University of Western Sydney (see Appendix 9). Approval was also sought form the Jordanian Ministry of Health and the ethical review committee in Jordan to obtain access to all government hospitals to collect data (see Appendix 1).

Before conducting my fieldwork in Jordan to collect data, there were many times when I felt anxious due to the potentially sensitive nature of the subject, and the number of ethical issues that needed to be considered. As I am a person coming from the outside, even though the setting is familiar to me, to study or ‘look into’ people’s practices can be quite threatening and confronting. I was very aware of these issues, all of which were addressed in the ethics application and plan for the study. I also thought about important imperatives such as respecting people, their culture and beliefs.
The religious beliefs and culture specificities of the participants were respectfully considered during interviews and the feedback session, and I was particularly aware of these issues given the fact that I share the same cultural background, and moreover I had practised as a midwife and therefore shared a similar professional background with many of the participants. All participants were treated with respect and dignity, and particular sensitivity was afforded to those participants who expressed a different viewpoint about the research topic to that held by the researcher.

Prior to the interviews, it was explained to the participants that they could stop the interview at any time, or refuse to answer any question or erase any part of the taped interview. Participants were also informed that their participation was voluntary and they could withdraw at any time. None of the participants chose this option during interview. At the beginning of the interviews, some midwives were reluctant to give permission to have the interview audio-recorded and were anxious and unclear about why it was necessary. After carefully explaining the purpose of recording the interview, how the information would be used and confidentiality maintained, the participants relaxed; all agreed to be recorded. Written permission was obtained from all participants, stating their consent to be both interviewed and recorded. Doctors were reluctant to take part in the study, and as a result only two doctors were interviewed.

Any information obtained during interviews that could identify the participants remained confidential. All identifying material was removed and data was coded so no individual could be identified.
3.6 Reflexivity: Positioning of the researcher

Returning to Jordan to conduct research in my home country presented both opportunities and challenges for me in terms of being both an 'insider' and 'outsider' researcher. Being an insider can provide a greater depth to the data collected, can facilitate more insightful analysis and improve the capacity to understand what is going on in the research field (Dwyer & Buckle, 2009; Minkler, 2004). Being an insider and being known can result in an increased level of trust and acceptance of the researchers by the participants (Ergun & Erdemir, 2010; Thomas, Blacksmith, & Reno, 2000). Therefore, the participants are more likely to talk candidly, and to share their own stories and experiences with the researcher (Kanuha, 2000).

As a Jordanian woman and a midwife who trained and worked in the Jordanian health system, I am designated in many ways as an 'insider'. I have the same background as the participants, and an extensive knowledge of the community and the participants who were studied. As a member of the community, I am embedded in the culture and fluent in the dominant language of the participant group. In addition, I share the same professional background as that of the participants. All of these factors conferred a high degree of familiarity with ‘the field’, and an identification with the participants involved in the study. As such, I was an 'insider' who was largely accepted as a member of the group, and this narrowed the gap between myself and the participants, encouraging the establishment of an harmonious rapport, and allowing the participating midwives to freely share their stories with me.
Conversely, there was a great deal of curiosity around why I was there and what kind of research I was undertaking. In this sense, I was also accorded something of an ‘outsider’ status. Additionally, as an external researcher, I was an ‘outsider’ who was entering their domain with the express purpose of interrogating specific practices and gaining an insight into the thoughts, beliefs and values held by the participants. At the start of field work in August 2012, I attended one of the regular meetings with midwives to introduce the study and invite them to participate. I introduced myself as a midwife conducting research, and as a Jordanian woman. At this meeting, the midwives asked many questions about the study, and some of them indicated their interest in participating, while others appeared to have neither time nor inclination to participate in any additional activities. Yet others refused altogether to participate in the study, and seemed more interested in my background and social status. I answered their questions and then aimed to steer the conversation back towards the research topic.

**Conclusion**

This chapter describes quality improvement methodology as the most appropriate framework to guide this study. A qualitative design was the key approach employed in this study. This chapter has outlined the core data for the quality improvement methods. These included the 300 case files for the six-month period from February to July 2012, and interviews with ten midwives and five other key stakeholders to assess their beliefs and views regarding the use of episiotomy as a routine practice in Jordan. Of the 23 participants who attended the feedback session, 13 were midwives, eight were nurses and three were assistants in nursing. The attendees at the feedback
session identified a number of strategies that were needed to introduce evidence-based practices around the use of episiotomy in Jordan.

In this chapter the analytical processes were explained. All quantitative data from the case files were analysed using descriptive statistics to report the proportion of women having an episiotomy and to summarise all other variables collected. All qualitative data from the field notes data, interviews and the feedback and discussion data were analysed using thematic analysis. Two stages of analysis were conducted for developing the themes in this study. Preliminary analysis of phase two interview data was conducted in order to be able to inform the feedback session in phase three and to design questions for discussion. Following the feedback and discussion session in phase three both data sets were combined for the ongoing thematic analysis. Ethical considerations were addressed, as well as the sensitivity issues in the study site.

The following chapter will describe the results of the analysis from the quality improvement data collection methods employed in this study.
CHAPTER FOUR

Results

4.1 Introduction

This chapter presents the findings of each phase in this study. The purpose of these analyses is to report the episiotomy rate in Princess Badea hospital and describe current practices around the use of episiotomy. I also describe the participants’ views and beliefs about episiotomy practice and the process of practice change, and report the factors that facilitate or act as barriers in reducing the episiotomy rate.

The analysis of the case file data, interview data and feedback data showed that the rate of episiotomy is still high for primiparous women in Princess Badea Hospital in Jordan and that there are ‘rules’ that regulate the health staffs’ practice of episiotomy. These ‘rules’ are not written in policy but rather are spread through verbal communication between staff and are the ‘rules’ known by all health staff.

The analysis also indicated that doctors dominate maternity care practices and are the ones who dictate the policy or make the ‘rules’ in the maternity unit. Additionally, the analysis revealed that the midwives are anxious about making change as they do not want to ‘rock the boat’ so they are happy to swim with the tide. It also appeared that the majority of health professionals held negative views of women, believing them to be uncooperative and lacking in knowledge when it came to labour and birth. Moreover, they
tended to blame the women for not taking part in decision-making during birth and in relation to episiotomy.

4.2 Results from phase one

A total of 300 case files were reviewed for women who had given birth vaginally, including instrumental births, over a six-month period from February to July 2012. The ages of the women who had given birth over this six-month period ranged from 17 to 47 years, with a mean of 37 years. Both multiparous and primiparous women were included in this audit. Women were included if they had a vaginal birth or any instrumental birth. Women who had a caesarean section were excluded from the audit, as the focus of this study is episiotomy.

The majority of the women had a spontaneous vaginal delivery (n=299). Only one woman over the six-month period had a vacuum delivery. The majority of women in this sample were multiparous women with a rate of 73.9% (n=221), while the rate of primiparous women was 26.2% (n=79).

The analysis of the quantitative data showed that the only position for giving birth was the lithotomy position, with a rate of 100%. Almost half of the births (47%) were conducted by midwives, while 39.7% of the births were conducted by resident medical doctors, and 13.3% of the births were conducted by midwifery students under the supervision of a registered midwife.

Overall, the rate of episiotomy was 41.4% (n=125), 38 women were reported to have had a first-degree tear (12.6%) and 135 women had an intact
perineum during birth (45%). Only one woman in the sample had an episiotomy that extended to a fourth-degree tear.

The analysis also showed that 72 out of 79 primiparous women (91%) had an episiotomy during birth, while just two primiparous women had first-degree tears (33%), and five women had an intact perineum during birth (6%).

In addition, the analysis also showed that 53 out of 221 multiparous women (24%) had an episiotomy during birth, while 130 multiparous women had an intact perineum during birth (59%) and 36 of them had first-degree tears during birth (16%). One multiparous woman had an episiotomy that extended to a fourth-degree tear, and one was reported to have had a urethral tear during the birth. Table 4.1 below summarises the results of the quantitative data of phase one.

Table 4.1 The results of phase one

<table>
<thead>
<tr>
<th>Birth details</th>
<th>N=300</th>
<th>Percent=100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode of birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal vaginal birth</td>
<td>299</td>
<td>74%</td>
</tr>
<tr>
<td>Vacuum delivery</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiparous</td>
<td>221</td>
<td>74%</td>
</tr>
<tr>
<td>Primiparous</td>
<td>79</td>
<td>26%</td>
</tr>
<tr>
<td>Birth attendant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwife</td>
<td>142</td>
<td>47%</td>
</tr>
<tr>
<td>Residents</td>
<td>120</td>
<td>40%</td>
</tr>
<tr>
<td>Student midwife</td>
<td>38</td>
<td>13%</td>
</tr>
<tr>
<td>Birthing position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithotomy position</td>
<td>300</td>
<td>100%</td>
</tr>
</tbody>
</table>
Perineal status

<table>
<thead>
<tr>
<th>Multiparous women</th>
<th>N=221</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intact perineum</td>
<td>130</td>
</tr>
<tr>
<td>1st degree tears</td>
<td>36</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>53</td>
</tr>
<tr>
<td>Episiotomy+3rd or 4th degree tears</td>
<td>1</td>
</tr>
<tr>
<td>Bi-urethral tears</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primiparous women</th>
<th>N=79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intact perineum</td>
<td>5</td>
</tr>
<tr>
<td>1st degree tears</td>
<td>2</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>72</td>
</tr>
<tr>
<td>Episiotomy+3rd or 4th degree tears</td>
<td>0</td>
</tr>
<tr>
<td>Bi-urethral tears</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Percentages for multiparous and primiparous women out of total for parity

The analysis of the case file data showed that the rate of episiotomy is still high for primiparous women in Princess Badea Hospital. This analysis establishes important baseline data regarding episiotomy practice in this hospital, and a rationale to proceed with phase two where the perceptions and experiences of health staff were examined in order to inform strategies for change.

4.3 Phase two and three results

In phase two of this study, a sample of 15 health professionals were interviewed, including ten midwives and five key stakeholders (including midwives, nursing and midwifery leaders and physicians). Participants were aged between 24 and 43 years, with a median age of 35 years. Ten of the
participants were registered midwives with a range of eight months to 22 years’ experience. Two of the registered midwives had completed a Bachelor Degree in Midwifery at university, while eight midwives had completed a two or three year Diploma in Midwifery in a nursing college.

Two out of the five key stakeholders were residents in the maternity unit, with the remainder (three) being senior managers. This mix allowed for a sample with a variety of ages, experiences and positions in the maternity unit to be interviewed.

In addition, in phase three, a total sample of 23 participants between the ages of 27 and 47 years attended the feedback and discussion session, with the median age of 36. Their professional experience ranged from two to 24 years. Participants included 13 midwives, eight registered nurses and two assistants in nursing. Of the midwives and nurses who participated in the feedback and discussion session, 8% had five years or less experience in practice as a midwife or child and family health nurse, 46% had between 5 and 15 years’ experience and the remaining 46% had over 15 years’ experience.

Details of the participants who were interviewed and attended feedback session are provided in table 4.2.
Table 4.2: Participants’ socio-demographic details

<table>
<thead>
<tr>
<th>Participants’ socio-demographic details</th>
<th>Phase two</th>
<th>Phase three</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=15</td>
<td>N=23</td>
</tr>
<tr>
<td><strong>Age range</strong></td>
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<td></td>
</tr>
<tr>
<td>21-25</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>26-30</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>31-35</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>36-40</td>
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<tr>
<td>41-45</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>46-50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registered midwife</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Manager</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Resident</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Registered nurse</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AIN</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
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Findings from the qualitative data

Six major themes emerged from the thematic analysis including: ‘Policy’ (sub-divided into ‘written but invisible’ and ‘the unwritten and assumed policy’), ‘the safest way’, ‘doctors set the rules’, ‘midwives swimming with the flow’, ‘uncooperative and uninformed women’ and ‘the way forward’.

The first major theme is ‘policy: written but invisible and unwritten and assumed’ which describes the participants’ perspectives on the development of the policies, and their beliefs about how the policies influence or direct current practice regulating the use of episiotomy in the hospital.

The second group of themes is related to factors that facilitate the adoption of this practice as routine in the process of care. These were categorised as:

- The safest way
- Doctors set the rules
- Midwives swimming with the flow
- Uncooperative uninformed women
- ‘The way forward’ discusses the key strategies that midwives and other staff see as important in effecting change around use of episiotomy.

The emergent themes are illustrated with quotations from participants. Phase three data from the feedback and discussion session are also included with this analysis as many of the same ideas and experiences emerged. The actual words spoken by participants are identified using italic style (or inverted commas if cited in-text). Each of the main themes is composed of a number of associated sub-themes that are described. The themes and sub-themes are
presented in figure 4.1. Pseudonyms are used to protect the identity of the participating staff.

Figure 4.1: Themes and sub-themes.

| The policy                      | • Written but invisible policy  
|                                | • Unwritten and assumed policy  
| The safest way                  | • It's better for the patient    
|                                | • The known way  
|                                | • The easiest and most efficient way  
| Doctors set the rules           | • Doctors set the rules         
|                                | • The stage is set              
| Midwives swimming with the tide | • The protective way             
|                                | • Feeling powerless             
| Uncooperative, uninformed women | • Uninformed women              
|                                | • Uncooperative women           
|                                | • Disembodied and disconnected women  
| The way forward                 | • Educated staff  
|                                | • Educated women  
|                                | • Staff readiness              

4.3.1 ‘Policy’ – ‘written but invisible’ and ‘the unwritten and assumed policy’

At the start of each interview all participants - midwives and maternity service key stakeholders (managers and doctors) - were asked whether they were aware if the hospital had a policy related to episiotomy and if so, what that policy stated. What emerged from the analysis, however, was that there were in fact two policies – ‘the written but invisible policy' and ‘the unwritten and assumed policy’.
**Written but invisible policy**

Some participants – most notably the key stakeholders explained that a written policy was available to guide practice related to episiotomy; however, this policy was not easily sourced or even known to the majority of midwives.

The written policy focuses on the procedural aspects of performing episiotomy and suturing the perineum, as recommended by best practice principles or the research evidence. However, this written policy did not provide any directions about who required an episiotomy or when an episiotomy should be performed. There was no mention of primiparous women as a cohort that should have an episiotomy routinely performed. A copy of this policy was kept on a shelf in the Nursing Development Unit and not disseminated to staff. Few participants in the study knew of its existence, and those who did were mainly key stakeholders – hence the label, ‘the invisible policy’. In fact, only four participants out of fifteen talked about the written policy; three of these were key stakeholders and just one participant was a registered midwife who held a bachelor degree.

*It (the written policy) is all about the systematic procedure for performing an episiotomy, the way to do it, the suitable time to do the cut and the recommended way to do the suturing. It is the only written policy regarding the use of episiotomy in the hospital* (Midwife 1).

*It is just a set of guidelines to deal with different types of tears and episiotomy during birth; it is just like following steps to reach desirable outcomes* (Manager 1).
Yes, we have a written recommendation on how to do an episiotomy and it is kept filed in the clinical development unit (Manager 2).

A number of other participants indicated that they had heard about the policy but had never seen it.

I have heard about it but never read about it because it is not available for all staff or not easily accessible (Midwife 5).

I cannot find it anywhere in the maternity unit, it is not at hand; you need to ask the managers about it (Midwife 6).

I remember that I heard about it once when two managers talked to each other about writing the recommendations needed for the guidelines book (Midwife 3).

During the interviews, it became apparent that most participants were entirely oblivious to this written policy; not only had they never seen it, but they were not even aware of its existence.

I have no idea about this policy and this is the first time I have heard about it (Midwife 4).

The only midwife who had inquired about the written policy was the one participant with a bachelor degree. Upon asking her why she appeared to be the only midwife who knew about this policy, she replied that maybe she was the only person who had ever enquired about it.
I was given the midwifery guidelines book while I was a university student. On reading it, I understood that episiotomy is to be used only in critical cases. Then when I started working in the hospital I found the opposite happening; episiotomy was performed as a routine practice for all primiparous woman. At that time, I was a new graduate with a keen desire to learn medical experiences. I clearly remember a hot discussion between my supervisors and myself which occurred around this routine practice, then I was told about the written policy and explained that this written policy does not apply here in the hospital (Midwife 1).

**Unwritten and assumed policy**

The analysis revealed that the dominant policy that related to episiotomy was an unwritten one. This ‘unwritten policy’ dictated that all primiparous women require an episiotomy without even assessing the perineum to determine the necessity of enlarging the vaginal orifice. The same policy applied to women having their second baby but who had a caesarean section for their first birth. Participants appeared to rely almost exclusively on the ‘unwritten and assumed policy’ to guide their practice.

This unwritten policy was viewed by participants as the ‘real’ policy, and it was evident that midwives and other health professionals valorised the unwritten and ‘handed down’ policy as though it were the endorsed policy to be implemented even in emergency cases.

*We all know that a primiparous woman equals episiotomy* (Midwife 7).
It has become a fixed attitude regarding each primiparous woman, and health staff consider it a formal policy that we should follow when working in the maternity unit (Midwife 9).

It is a well-known policy all health professionals employed regularly in the maternity care know about (Midwife 3).

Key stakeholders including physicians believed that all maternity staff should know about this unwritten policy and that new employees should be informed about it. From the analysis, it was evident that more senior or experienced staff members played an important role in ensuring that new midwives and other staff were aware of this unwritten policy regarding episiotomy.

When I started working in the hospital, I was told that I should follow this policy and do what others do in the maternity care (Midwife 9).

It was the first thing I have learnt in the work field (Midwife 2).

The first thing I was asked on my first day at work was whether I could perform an episiotomy (Midwife 3).

They asked me to work with an older staff member for three months when I was a new employee to ensure that I was confident with performing episiotomy (Midwife 6).

When asked why the unwritten policy had become ‘law’ or the rule, most of the participants claimed that the unwritten policy had been passed to them or
‘handed down’ from older, more senior and experienced staff, and was simply ‘accepted’ over time as though it were an endorsed policy. It became the ‘tradition’ – the acceptable way to do things.

*It is a long-established practice from many years ago that we use every day in the maternity unit and in time it has become the usual practice for all primiparous women* (Midwife 6).

When participants were asked about the inaccessibility of the written policy and the concomitant reliance on the unwritten or handed-down policy, managers and physicians alike were very clear that based on this unwritten policy, all primiparous women – as well as all women who had a caesarean section for their first delivery – would have an episiotomy during birth. This was regarded as an unspoken maternity unit policy that (for unspecified reasons) it was not possible or advisable to incorporate into official, institution-level policies.

*It is the rules of a particular unit, not included in the hospital clinical guidelines. It stays as a rule specific to this department, and each department in this hospital has its own rules. We cannot include all these rules in the clinical guidelines; it is usually regulated either verbally or written by senior staff in the department* (Manager 3).

Some of the participants interviewed or participating in the feedback session explained that this ‘unwritten policy’ is a general policy that pertains to the practice of episiotomy in all hospitals throughout Jordan. It is widely believed that this practice offers optimal care for women during birth.
I have worked before in another hospital in Jordan, which also had the same policy regarding performing episiotomy as a routine practice for all primiparous women; it is a general policy not specific to this hospital. It is a common practice in all the hospitals .... it is not related to a particular hospital (Midwife 8).

It is widely used in all hospitals and all health staff are convinced of this procedure as the best way for a safe birth with few complications (Manager 1).

Two kinds of policy that covered the use of episiotomy were discussed in this study: the written policy and the unwritten. Although the formal 'written' policy was available to guide episiotomy practices, it was not easily sourced or even evident to most midwives, whereas the second or 'unwritten' policy was in fact the one with which staff were familiar. As such, it was viewed as the 'real' policy. Health professionals have used these two kinds of policies in different ways. The written policy was used to present a front that the maternity unit was complying with evidence-based practice. Yet each group of health professionals believed the unwritten policy to be the ‘safest way’ for them to avoid criticism and evade adverse repercussions.

4.3.2 The safest way

The second theme that emerged from analysis of the interviews, feedback and discussion session was the ‘safest way’. This title is derived from the participants’ own words. The theme ‘the safest way’ reflects the perceptions and beliefs of midwives and other health professionals – including physicians and managers – that adopting episiotomy as a routine practice for primiparous women is the best and safest approach.
At one level, participants viewed the practice of episiotomy as the safest alternative for women. More importantly, however, the performance of routine episiotomy was viewed by physicians as the ‘safest way’ due to its expediency: the easiest option, it required less effort, and thereby reduced their workload.

The theme ‘the safest way’ is reflected in three sub-themes, namely: ‘it is better for the patient’, ‘the known way’, and ‘the easiest and most efficient way’.

**It is better for the patient**

According to the doctors, the primary reason for adopting episiotomy as a routine practice related to patient safety; that is, they believed it to be in the best interests of the patient. It was evident that most doctors viewed the childbearing woman as a sick person, while they (the doctors) were the experts in medical care. By extension, the ethos of ‘the doctor knows best’ prevailed.

Some participants stated that performing an episiotomy would result in better outcomes for the patient. Moreover, they considered episiotomy to be a ‘less risky’ practice.

*It is better for patients to have clean, neat incisions rather than many perineal tears* (Physician 1).

*Having a regular incision like episiotomy is better for patients as this would avoid any defects in the vaginal shape* (Midwife 6).
Having multiple perineal tears instead of having an episiotomy during birth may increase the probability of being sutured under general anaesthesia and losing more blood than normal (Physician 2).

Some of the participants believed that performing an episiotomy was also important in order to maintain functional sexual relations between the women and their partners, as an episiotomy incision was perceived to heal in a ‘proper’ way without any ‘faults’ in the vaginal wall.

*It is conducive to a better sex life for patients* (Manager 1).

*This is the main issue that patients think about after giving birth. Most patients ask the health staff about ways to maintain the vaginal wall as it was before pregnancy* (Midwife 3).

*It is a big issue in our country, maybe one of the leading causes for divorce between partners, and so all our patients are concerned about it* (Midwife 7).

Some of the participants also believed that performing an episiotomy would circumvent the need for plastic surgery in the future, including one participating midwife who described her personal experience.

*An episiotomy would be preferable to having cosmetic surgery in the future, which would cost the patient a lot of money* (Physician 1).
As a woman not a health professional, I opted for an episiotomy during my last delivery; it was the fifth birth for me and instead of having cosmetic surgery and being operated on again (Midwife 8).

Some participants emphasised that women are accepting of the option of episiotomy, and frequently request it, since they believe that the procedure will prevent complications in the future. For some women, it was considered to be akin to cosmetic surgery.

Women ask for episiotomy as a cosmetic procedure in order to restore the perineum for their future sex life (Midwife 3).

Instead of undergoing future cosmetic surgery, women take advantage of having an episiotomy during birth as a repairing surgery (Physician 1).

Health professionals also believed that women's perceptions regarding episiotomy were passed down through generations; the mother taught her daughter to ask for episiotomy, and so forth.

Women come and ask for an episiotomy as her close friend told her about the benefit of having episiotomy during birth as to not change the perineal shape (Midwife 6).

The known way

Midwives and other participants used the expression ‘the known way’ as a reason that they adopt episiotomy as routine practice. ‘The known way’ demonstrated that health professionals preferred to work in a way that was
familiar to them rather than taking a risk by choosing an unknown method or a different practice. Working in a known way can make professionals feel more comfortable and secure.

If we always walk on this known way why should we choose a less known path to walk through on? (Physician 2).

We feel relaxed when we already know what to do and when to do it, so we know everything before it happens (Midwife 3).

We are used to performing episiotomy for each primiparous woman, so we are more confident and competent at performing episiotomy as a routine practice (Midwife 2).

We fell into a habit, we feel more comfortable when we perform episiotomy rather than dealing with unknown complications (Physician 2).

During the feedback and discussion session, it was also identified that working with a well-known practice that is viewed as routine is more acceptable to staff than grappling with uncommon and unfamiliar practices.

Undertaking familiar duties and experiences creates a stress-free environment (Midwife 7).

It is hard to work against what is natural, why should we change practices that we are accustomed to (Manager 2).
One physician described any attempts to change policy as an inconvenience with unexpected outcomes, stating that

… if you have two ways to walk through, which one will you choose – the known way that you already have walked through many times without an incident or the unknown and risky way that you have no idea about? (Physician 2).

Some of the participants and other health professionals identified that choosing the well-known way is safest option, because it reduces any element of surprise and minimises problems.

*Using the guidelines while at work can reduce the probability of mistakes or problems* (Midwife 3).

*Performing episiotomy can reduce pressure during work as I am not ready for any surprises during work* (Manager 1).

*We prefer to deal with a planned procedure with an expected outcome and try not to expose patients to any risks* (Physician 1).

Initially, participants were asked to explain the reason for adopting episiotomy as a routine practice for primiparous women. In response, participants – including both doctors and midwives – expressed their fears and concerns about unexpected outcomes during birth, such as perineal tears.

*Many physicians describe their concerns and anxieties about the probability of increasing perineal tears or any other complications during birth* (Midwife 6).
Experiments to deliver primiparous woman without episiotomy have resulted in extended perineal tears, so we are now more convinced that there is no chance for doing that as it has unpredictable outcomes for patients (Physician 2).

Why would we want to put patients at risk in addition to other risks such as birthing complications, like pulmonary embolism, postpartum bleeding, baby asphyxia and any other probable complications during birth? Why would we resist these solutions? (Physician 1).

The easiest and most efficient way

Some participants who were interviewed or attended the feedback session indicated that performing an episiotomy as a routine practice is also the easiest way to facilitate birth and requires less effort as it minimises the need for surgical repair.

I think one regular cut including multiple layers is better than multiple irregular tears with one layer (Manager 2).

Perineal tears may take around one hour to suture, and in some cases an exploration may be required to determine the tear’s site or suture it under general anaesthesia, so it takes more time and effort (Physician 1).

Episiotomy is an easy procedure to follow as we need just 10–15 minutes to do the stitches (Midwife 3).
Some participants explained that time constraints, combined with receiving more than the expected number of women into the birthing unit concurrently, encouraged health professionals to perform episiotomies as this was a familiar and therefore more efficient practice.

*Physicians may have multiple demands on their time and feel more pressure to accomplish a delivery as soon as possible* (Manager 3).

*Currently we receive more delivery cases than before, as many migrants have come to Jordan as a result of revolutions in their country, such as Libyans, Egyptians and Syrians, so medical staff have been pushed to the limit and they try hard to provide essential medical services to a huge number of patients* (Manager 3).

*The ratio between midwife and patient is 1:4 and sometimes 1:5, so being busy with multiple tasks to do everyday forces the health staff to choose the expected and shortest way to accomplish their tasks* (Manager 2).

*I usually work with another three doctors on a shift and our role is to cover all the departments in the hospital as well as be ready for emergency caesarean sections. This puts a lot of strain on us* (Physician 1).

Doctors appeared concerned that the decision not to perform an episiotomy may place other demands on them, particularly if complications arose.

*Why do we want to add extra demand on us, or be confused and worried about other probable complications, if we have a good solution to prevent these complications?* (Physician 1).
In summary, descriptions of doctors’ practices relating to episiotomy were drawn not only from the data obtained from the key stakeholders, such as managers and doctors, but also from the participating midwives. Performing an episiotomy was viewed by all to be the safest way, and was accepted as the easiest thing to do, requiring less effort. It was also believed to result in better outcomes for the woman. Additionally, it appeared that participants preferred working within their comfort zone as they became increasingly attached to a familiar practice over time. It was evident that the less risky and better-known way was the path that was overwhelmingly preferred by the majority of health practitioners.

4.3.3 Doctors set the rules

In the interviews and feedback and discussion session, I explored in greater depth with the midwives and managers the justifications that were provided for continuing with a non-evidence-based practice. Questions and prompts were used, such as ‘tell me more about who determines that all primiparous women require an episiotomy’. This encouraged participants to frankly and openly discuss the role of the doctors in the maternity unit. This theme also encompasses the sub-theme of ‘the stage is set’, which describes how the environment is prepared in a way that facilitates and creates the context of practice and promotes episiotomy.

This theme reflects the dominant role and unchallenged authority of doctors within the maternity unit, and how this perpetuates a power structure that allows them to set the rules. Evidently, the doctors had used their authoritative role to influence or shape the context of practice in a manner
that accorded with their beliefs and understandings on birth. The view that ‘doctors set the rules’ emerged not only from data gathered from the key stakeholders such as managers and doctors, but also from the participating midwives.

During the interviews, participants were asked about who introduced the routine practice related to the use of episiotomy as a policy in the maternity unit. The following responses were provided.

*The physician is the only person who has the authority to determine the rules in the maternity unit without including other health professionals in their decisions* (Manager 1).

*They (the doctors) write the rules believing that no one will reject these rules* (Midwife 6).

Participants were also asked about their role in the birth process. In response, midwives and key stakeholders stated that physicians hold the main responsibility for determining the type of care provided in the maternity unit and the nature of any interventions used.

*Physicians not only establish maternity rules but also control and influence all aspects of maternity care* (Midwife 4).

*They always try to expand their role in the maternity unit and keep maternity care under their control* (Manager 3).

*All complicated delivery cases must be delivered by doctors only* (Midwife 3).
Maternity managers have set a new rule that all primiparous women should be delivered by doctors not by midwives (Midwife 9).

In addition, the participating midwives described the role that the physicians played in instructing all other health professionals in these practices and also in monitoring how midwives practised.

Physicians always assess and treat the complicated cases as well as observe what other health professionals are doing (Midwife 3).

I know one doctor who always checks the birth records to ensure that all staff are working in accordance with the spoken policy (Midwife 5).

It was very clear that the midwives ‘knew their place’ and were expected to follow the doctors’ rules.

You should be one of the followers or you will be a troublemaker (Midwife 2).

Participating midwives also indicated that physicians have the authority to regulate the rules in maternity care, since ‘doctors know best’ based on their educational status and experience.

I was told that physicians have high educational levels and are more experienced in dealing with major tasks, so they have the main responsibility in maternity care (Midwife 5).
Physicians always say you should listen and respect people who have more experience and knowledge (Midwife 3).

The stage is set

This sub-theme illustrated the way in which the organisation of the maternity unit and midwives’ and managers’ practices prepared 'the stage' for the performance of episiotomy. For example, midwives ensured the availability of episiotomy equipment at all times.

We have a notebook relating to the number of episiotomy sets we have on the shift, we must check how many sets we have and if they are sterilised or not (Midwife 1).

One of our tasks during the work is to keep all the episiotomy sets cleaned and sterilised for the other shifts (Midwife 8).

When midwives were asked about the availability of episiotomy sets during birth, they stated that there were around 10 sterilised episiotomy sets available and accessible in the second stage, during all day and night shifts.

We have 20 delivery sets and 10 episiotomy sets present in a cabinet inside the second stage room, you should check their availability for the next shift and keep it sterilised all the time (Midwife 3).

It is necessary to keep the episiotomy sets easily accessible during birth (Midwife 5).
When midwives were asked about the number of cases for which they were required to prepare episiotomy sets, they stated that they prepared a set for each primiparous woman.

*In the case of a primiparous woman, we prepare both delivery and episiotomy sets, but in case of a multiparous woman, we just prepare the delivery set and if we need the episiotomy set, we can access it easily* (Midwife 6).

It was apparent during data collection that the way in which the delivery suite environment was set up also primed the scene for episiotomy. The delivery beds are designed in a way that makes them suitable only for the lithotomy position during birth. Using the lithotomy position increases the probability of performing an episiotomy during birth (Dahlen, Homer, Leap, & Tracy, 2011) yet the influence of this kind of birth room preparation was not easily recognised by the staff.

Some of the participants interviewed indicated that there was no option to use optimal positions for childbirth in the hospital as physicians insisted on the lithotomy position during birth and instructed all midwives accordingly.

*Lithotomy positions with strapped legs were recommended by doctors during birth* (Manager 1).

*We have no other choice of position to deliver woman, we usually use lithotomy position that's the only position we learned to use* (Midwife 7)

When participants were asked to describe the reasons for adopting lithotomy position in births, responses included:
The delivery beds are designed to suit just the lithotomy position, so if you want to use other birthing positions, you need to change all the beds in the delivery suite (Manager 2).

We are not taught to use other positions and we are used to using the lithotomy position during birth (Midwife 6).

The way in which the delivery suite environment was set up also established the scene for controlling or managing women during birth. In my field notes I recorded the following:

The woman’s role in the birth process is limited by factors such as having a separate space with a single bed and four curtains around it for each patient rather than a separate room in the first stage, and using the same second stage room for all patients with no privacy and the need to share the same toilet (Field notes, 20th August, 2012).

As a maternity unit rule, women in labour are not allowed to have a support person, this goes against international guidelines and being alone during birth must affect the role that a woman role during birth (Field notes, 13th September, 2012).

The expression ‘doctor knows the best’ illustrated the authority of doctors in setting the rules in the maternity unit. Doctors appeared to try to convince other health professionals of the primacy of their role in maternity care, emphasising the fact that they have the main responsibility for maternity services. Moreover, the doctors typically assumed that, because they have
more knowledge and experience than other health professionals, their colleagues must obey their orders. This theme helps to explain the continuing use of non-evidence-based practices related to the use of episiotomy in the maternity unit. In summary, doctors influence the context of practice and in many respects, prepare the stage for the performance of episiotomy, by setting the rules that regulate episiotomy as routine practice and limiting the responsibility that midwives can assume. Similarly, midwives contribute to setting the scene as they are the people responsible for re-stocking the room, thus ensuring equipment for episiotomy is always on hand.

4.3.4 Midwives swimming with the tide

The majority of midwives who participated in the study accepted ‘the unwritten and assumed’ policy relating to episiotomy as the safest and best way to practise. Only two participants offered a contrasting view. The theme of ‘midwives swimming with the tide’ reflected the midwives’ fear of recrimination or exposure to punitive action if they failed to comply with the rules, and their consequent hesitancy to assume responsibility for the care of women in labour and birth. This dynamic both reflected and reinforced their powerlessness. Midwives believed they had no choice but to ‘swim with the flow’, as opposed to working against the system and effecting reform.

The concept of ‘safety’ was accorded a variety of meanings by different participants. One midwife interviewed used the phrase ‘to be on the safe side’, and stated that this reflected her perception that if she performed episiotomy routinely for primiparous women, she would be ‘safe’ and would thus avoid conflict with other health professionals. The theme of safety incorporated two sub-themes: ‘the protective way’ and ‘feeling powerless’
The Protective Way

The sub-theme ‘the protective way’ reflects the perceptions and beliefs held by midwives regarding the adoption of episiotomy as a routine practice in birth care. Choosing to work with the system and in accordance with the 'unwritten policy' was considered a key way in which midwives protected themselves against criticism from other health professionals, and particularly doctors.

Indeed, the main reason for midwives to accept this policy appeared to be lack of support from other midwives or key stakeholders in the hospital. Significantly, they did not want to be seen to be stepping out of line. Midwives described their fear of receiving no support from doctors or managers if they deviated from practising in ‘known way’. Working against the system renders midwives vulnerable to being blamed and punished by key stakeholders for any perineal damage or other adverse events; thus midwives have learned to protect themselves by working within the ‘rules’ and ensuring that they ‘keep the peace’.

*We must protect ourselves … no-one will support us if something happens, even midwife supervisors will complain about us, blame us too, so it is better for us to engage with the rules rather than face problems* (Midwife 10).

*Moving away from the known practice may cause your behaviour to seem odd to others* (Midwife 4).

*It is a big adventure for me to try to change this policy or act in opposition to physicians. I will not put myself in this situation at all* (Midwife 2).
Most of the midwives were convinced that ‘going with the flow’ – or in other words, adhering to the unwritten policy – was indisputably the safest path for them. Although some midwives were not convinced that it was the optimal alternative, they still adhered to the unwritten policy. As these midwives stated, they felt forced to comply.

*I was told what to do and I need to accept that to avoid getting into trouble or being found guilty in front of others* (Midwife 9).

*I believed that we must give the pregnant woman a chance to have a normal birth, but I could not go with my own beliefs* (Midwife 4).

The participating midwives explained that they were told what to do, and that there was no point in trying to change practices. The comment below from one midwife describes the difficulties and challenges inherent in attempting to change the accepted practice, or trying to go against the system.

*Swimming in the opposite direction will waste your time and effort as no changes will be made and at the end you will be forced to swim with the flow* (Midwife 3).

The use of the words ‘not accepted’ illustrates the reluctance of midwives to try to change practice: no-one encouraged them to even attempt to challenge the status quo. Midwives were therefore understandably hesitant and reluctant to embark on any change.

*I think we need more time and a big revolution to do that* (Midwife 5).
Any effort to try to change episiotomy practice is not accepted. I think doctors must begin this change and once they accept it we will too (Midwife 8).

Punished for speaking up

The expression ‘punished for speaking up’ reflects midwives’ feeling of being intimidated by those in authority; a power dynamic that compels midwives to act in accordance with the instructions prescribed by authority figures during birth. Consequently, midwives frequently felt that their voices were not heard, and that their skills were diminished and undervalued. This eroded their confidence in their own capabilities to provide optimal maternity care.

Most midwives talked at length about the challenges they would confront or the problems they would inevitably experience in the workplace were they to stand up against the system.

They will send me a written notification for not following the rules (Midwife 1).

I will not risk trouble and have to come in front of physicians, as they will accuse me of being a trouble-maker (Midwife 7).

Some midwives provided examples where they or other health staff engaged in practices that went against the rules set by the physicians; that is, they went ‘against the flow’ and were punished for doing so. They described their fears of being punished if they repeated previous infractions. One midwife described her own story thus:
I once attempted to help a primiparous woman give birth to a baby without performing an episiotomy, or any tears; the doctor on duty blamed me verbally for not following the rules or doctors' orders. He told me that I needed to assist him during the birthing process and not refuse his orders or act against his instructions (Midwife 6).

Some midwives described the physicians' attitudes towards midwives who ‘step out of the line’ or do not follow the rules.

They will take your action as a personal criticism and they will consider that you are trying to correct them or challenge their decisions. This makes them more aggressive (Midwife 8).

You cannot even tell them there is no need to do an episiotomy for patients; they will consider it as interference in their affairs (Midwife 5).

Participating midwives described the emotional punishment that was applied to anyone who stepped out of line. Non-compliant midwives were seen as an aberration, or intentionally isolated in the workplace, which was one of the strongest punitive measures.

Being isolated from other health staff because you always go against the system makes you keener to follow the rules (Midwife 6).

If I act against the rules, they will put me under observation and they will not trust my work anymore (Midwife 1).
Anecdotes about midwives who had previously acted against the 'unwritten policy' made other midwives less inclined to speak out or go against the system, as the anecdotal precedents made them fear that they would suffer the same repercussions. One midwife told the story of a midwifery educator who tried to deliver a primiparous woman without episiotomy.

_I remember one teacher had a hot discussion with the doctors on duty around the necessity of giving the pregnant woman the chance to give birth normally without any external interventions; after the discussion, the doctors allowed her to deliver the primiparous woman without episiotomy, but they stressed that she will take the responsibility of this decision. Also, she would need to shoulder the responsibility for any degree tears. Unfortunately a fourth-degree tear occurred when she tried to deliver the woman without episiotomy. The doctors on duty blamed the educator for the wrong decision she made during the birth in terms of not performing episiotomy on the woman. A written notification was sent to the university regarding this educator, to reassess her ability to care for patients. This was a disappointment to all midwives at that time_ 

(Midwife 1).

**Keeping the peace**

In this context, midwives were reluctant to take responsibility for decisions related to birth care and episiotomy. Midwives came to fear being held responsible for outcomes, and over many years had preferenced participating as an assistant in the birthing process, rather than assuming a more active role. Generally, they were either not trained to make decisions, or did not have the confidence to do so. Rather, they were accustomed to passively complying with doctors’ orders.
Why would I put myself under responsibility if there is someone who could do it instead of me? (Midwife 7).

It is much easier to just follow the rules rather than making them or taking part of these decisions and rules (Midwife 5).

In this context, the midwives had become risk averse and exhibited reluctance or total avoidance in terms of assuming responsibility. Rather, they acquiesced to the doctors’ wishes.

I will not take the risk of not following the rules (Midwife 4).

I prefer to go away from any problems, I will not expose the patient to any hazards; it is easier for me to go with the flow (Midwife 7).

It appeared to be important to the midwives and some of the key stakeholders that cordial relations were maintained between staff in the maternity unit. In order to avoid potential conflict, it was believed that roles in the workplace must not overlap. Ensuring positive relationships depended on midwives and managers keeping the peace by working in line with physicians.

Most of the participating midwives indicated that maintaining positive working relationships with physicians was one of main reasons that they needed to accept their rules and the 'unwritten policies' without objection.

We try to work with the system to ease the relationship between staff (Midwife 8).
We are trying to bring about a smooth relationship with doctors by following their rules (Midwife 4).

It is hard to work in an unstable environment, it is better to work in agreement with doctors (Midwife 7).

Feeling powerless

This sub-theme reflected the attitude of midwives in relation to their sense of powerlessness, and the pervasive feeling that their roles were being consistently undermined. Essentially, the midwives were being forced to act as little more than assistants, and to obediently follow the doctors’ orders during the birth process. Consequently, midwives generally preferred to play a passive, secondary role in the birth process, and to wait for someone to issue them with instructions, rather than taking the initiative themselves.

Most of the participating midwives identified that their capacity to function at an optimal level was compromised by non-negotiable directives from authority figures.

Physicians always intervene with midwives’ work and do not allow them to practise midwifery freely (Midwife 2).

We always work under doctors’ supervision; we cannot take any action without their permission (Midwife 5).
During the feedback and discussion session, some midwives reported that physicians routinely limited the role of midwives by introducing rules that restrain their function in the birth process.

*Recently physicians developed a rule that stated that all primiparous women must be delivered by physicians not by midwives* (Midwife 8).

*Sometimes physicians prefer to deliver all cases just to prevent any case of perineal tears. That limits our role during birth to that of observers* (Midwife 10).

One midwife claimed that physicians treated midwives as potential competitors in the maternity unit.

*Physicians are concerned about their position in the maternity unit, so they try to keep midwives under their control* (Midwife 6).

Some of the participating midwives indicated that their duties were delegated in such a way that they spent most of their time filling out pregnancy records, nursing notes and birth records, all of which are time-consuming procedures.

*Midwives always work in a rush, sometimes we cannot do the tasks required, like filing, following medical orders or giving medical care. We spend around 70% of our time filling out forms* (Midwife 3).

*The midwife is always away from the main role in the birth process because she is busy doing other stuff like filing* (Midwife 8).
This theme reflected midwives' fear of being punished for failure to follow the rules, and consequently they did not assume responsibility for their actions or practices, which in turn reinforced their powerlessness. Choosing to work in alignment with the system and in accordance with unwritten policy was considered as a way in which midwives could protect themselves against criticism from other health professionals, and particularly doctors.

4.3.5 Uncooperative and uninformed women

This theme illustrates the role of women in the birth process as viewed by the midwives and other key stakeholders. Interestingly, women were blamed for not taking part in any decision-making during birth, and specifically in relation to episiotomy. The participants believed that women needed to learn about the birth process and to educate themselves about how to protect their bodies from harm. In the interviews, midwives and doctors alike implied that women were uninformed about birth; the hypothesis was also advanced that a lot of women had lost their confidence in being able to give birth without intervention offered by health professionals. This theme included three sub-themes: uninformed women, uncooperative women, and disembodied and disconnected women.

Uninformed women

Many of the participants – midwives and other professionals – indicated that women were in part to blame for the use of episiotomy and other interventions, because women were largely uninformed about the labour and birth process. This belief appears to render the relationship between woman and health staff quite tense during birth.
Pregnant women usually come to give birth unaware of the real situation of the birth process, scared and concerned about any procedure during birth (Midwife 9).

Women have no idea about any birth technique, like breathing techniques during contractions, and they will not be able to listen effectively while they are in pain (Physician 2).

Participants also argued that the educational level of the women varied, although professionals suggested that even if women have a high level of education, they also frequently have little knowledge of the birth process.

You could say half of the women who come to the maternity unit have a high school degree and are unaware of the birthing process, while those who have completed a bachelor or higher degree also have no idea or valid information regarding the birth process (Midwife 4).

It is difficult to deal with a low level of education. Women will not listen to your advice during pregnancy and birth (Midwife 7).

In addition, during the feedback and discussion session, participants stated that the source of women’s initial information regarding the birth process is generally her family and friends. Typically, this information conveys a negative view of birth.

They ask their mum, close friends or neighbours about their personal experience during birth (Midwife 3).
Sometimes they start telling others’ experiences and stories in the maternity unit (Nurse 2).

Unfortunately, most of the time their relatives pass on their bad experiences and negative feelings during birth, and this impacts negatively on the pregnant woman’s attitude during birth (Manager 3).

Some participants believed that because women have little information about birth and are often frightened and in pain, they are not in an ideal position to make informed decisions, and therefore the physician and other health professionals must make the decisions for them.

*Being scared with no knowledge makes it easier for physicians to think and decide instead of the pregnant woman* (Manager 2).

*She is a patient and she cannot make any decision related to the birthing process while she is in pain* (Physician 1).

**Uncooperative women**

The sub-theme ‘uncooperative women’ reflects how midwives and other health professionals effectively ‘blamed’ women for the high rate of episiotomy among primiparous women. Some considered women’s ‘behaviour’ during birth as a factor that increased the rate of episiotomy and other external interventions, due to the fact that the women fail to follow the instructions of health staff during birth.
We try to shorten the birth process if the pregnant woman is not following our instructions during birth (Physician 1).

It is hard to deal with an uncooperative woman during birth as we expect many complications associated with the process of birth (Midwife 4).

Most of participants interviewed claimed that women do not cooperate and were not following the instructions of staff during birth.

It is hard to convince pregnant women to accept any procedure while they are in pain (Midwife 5).

They do not follow our instructions during birth, which means the process of birth does not go well (Midwife 1).

**Handing over control to staff**

The sub-theme ‘handing over control to staff’ reflects the perception of midwives and other health professionals about women and the birth process. This sub-theme illustrated the perception that women simply ‘hand over’ their body to health professionals during birth; that is, they are not seen as active participants in the birthing process.

Once they lie down on the delivery bed, they allow medical staff, particularly doctors, to perform any procedure related to their bodies (Midwife 9).

I was in the nursing room one day when several midwives were discussing how pregnant women feel about their body during birth.
I entered the nursing room to conduct an interview with one midwife. While I prepared the papers and the digital recorder required for the interview, several midwives were discussing the feelings that pregnant women have toward their body during birth. The midwives present described that women were irritated by their body and felt angry at being out of control or not being able to control their body during birth (Field Notes, 20th September, 2012).

One midwife interviewed described her own feelings of her body during birth; she described being detached from her body during examinations and the birthing process.

*I felt strange from my own body parts the doctor was examining. I felt discomfort and this experience affected me* (Midwife7).

Another midwife recounted her birth experience to me following the interview:

*The feeling of being out of control during the birth process is an intense experience of fragmentation* (Field Notes, 10th October, 2012).

During the feedback and discussion session, some participants indicated that health professionals pay no attention to pregnant women during birth; they treat them as a sick person, and not as an individual who has a right to be part of the process of care.
Health professionals always talk over the pregnant women and to each other, but not to pregnant women; we deal with them as a pathological case, not a human (Midwife 2).

I heard one woman say to her relatives that doctors and midwives were doing things to her body but they were paying no attention to her at all (Midwife 7).

The recurrence of this theme reflected the role of women in the birth process as viewed by participants. Evidently, participants blamed women for not taking part in any decision-making during birth. It was identified by the participants that women failed to become involved in this decision-making as they lacked the requisite knowledge about the birth process. This also resulted in their unwillingness to cooperate with health staff during birth.

4.3.6 The way forward

Participants in the feedback session were not surprised by the findings, and in the ensuing discussion, they confirmed the themes as elucidated above. During the feedback session, participants were also asked to identify strategies that could facilitate change of practice in relation to episiotomy. These strategies are discussed in three sub-themes: educated staff, educated women, and staff readiness.

Educated staff

Some participants indicated that education was a crucial prerequisite in order for health staff to accept practice change, and to address the entrenched resistance to changing non-evidence-based practices.
There has to be a lot of education; if you don’t have all the staff being educated, it’s not going to work (Manager 3).

I suggested that it is good to encourage health staff to continue their education, read the literature and attend workshops related to their work (Manager 1).

I suppose there is always education, particularly for those who are non-believers (Nurse 2).

Some of the interviewees described the importance of running ‘refresher’ sessions in order for health staff to keep their knowledge up to date.

We also need educational sessions to keep health staff’s knowledge up to date with recent research and best practice, and to design a program to address the gap between clinical practice and research ensuring that the current clinical practices are grounded in reliable research (Midwife 2).

Continuous education, up-to-date statistics and data are required, so health staff can see what the results are (Manager 1).

During the feedback session, one manager also identified the importance of providing relevant literature and feedback from previous studies as an effective strategy in moving forward.

Increasing staff awareness of recent literature, research and clinical guidelines is an important step forward (Manager 1).
Some of the participants suggested that infrastructure was also needed to support best practice in the workplace; for example, building a library inside the hospital and providing internet access to improve staff knowledge and give access to recent research findings.

*We need a library that contains recent research, literature and best practice inside the hospital with free access and membership for all hospital staff; this will increase staff awareness of the need to address the gap between the current practice and best practice* (Midwife 1).

*Providing free internet access for all health staff can make access to recent research and literature more convenient. Maybe in this way, the health staff will be more likely to adhere to reliable research and best practice* (Nurse 2).

One midwife interviewed reported that midwives lacked the confidence to deal with an intact perineum during birth, while other midwives emphasised that change in practice needed to start with education at university or college.

*We were not taught to deal with an intact perineum during birth, as it was not possible in the hospital to deliver the patient without doing the cut* (Midwife 9).

*I think we should start learning at college or university. It is important to teach students from recent editions of textbooks, recent research, clinical guidelines and best practice* (Midwife 7).
They have used old textbooks to teach students at nursing college and university … I think this is the first block in a big wall they built to resist any change (Nurse 4).

**Educated women**

Most participants described the need for a greater focus on educating pregnant women by running educational programs to improve their knowledge of pregnancy and the process of birth, and to familiarise them with various procedures that may be used during the birth process.

*I suggest starting labour preparation programs as an initial step to preparing a pregnant woman to be ready for giving birth, and also to inform her what she will experience. I think in this way a pregnant woman will be more familiar with procedures during birth* (Midwife 8).

*It is better to run educational sessions for pregnant women that cover pregnancy and the birth process* (Manager 2).

Some participants stated that current antenatal clinics are lacking in services, and that this adversely affects the quality of care. Often, the care will fail to meet the needs or requirements of pregnant women, as it is primarily focused on one dimension of care at the expense of other aspects.

*I think the problem here is insufficient antenatal services, as they do not offer educational classes for pregnant women, so the pregnant woman does not know what she is going to go through, particularly if it is the first time she is pregnant* (Midwife 5).
Antenatal clinics and medical centres always provide for, and focus on, the primary needs of pregnant women. Some of these are like measuring blood pressure, checking blood results, and checking the fetus on ultrasound to make sure it develops well. But they do not focus on providing health education sessions for preparing patients for the birthing process (Midwife 6).

The problem starts from primary healthcare; we need to be active in this part of care in positive and correct manners. Antenatal services must be carried out on three levels; prevention, protection and promotion (Midwife 3).

In addition, it was also suggested during the feedback session that using communication materials instead of running educational classes for pregnant women would be a good idea for busy maternity units that are short staffed.

If staff do not have time or space to conduct educational sessions, they can show CDs regarding the birth process in the waiting room. In this way, pregnant woman can have the correct information regarding pregnancy and the birth process while waiting to see the doctor (Midwife 10).

Some participants suggested other ways of disseminating information to women, such as using web links that women can access to gain information, and providing a telephone hotline or helpline staffed by midwives or other qualified persons who are equipped to answer relevant questions.

I also suggest creating a special link on the internet network for pregnant women, so they can access all the information they need for pregnancy and the birth process anytime and anywhere (Physician 2).
I suggest we hire staff to be ready to answer all women’s questions regarding pregnancy and birth on the phone, and it is good to have a free hotline for all women (Midwife 9).

**Staff readiness**

Initially, when participants were asked during the feedback session and the interviews about their readiness to change, a variety of responses were recorded, as most of the midwives were reluctant to even contemplate the idea of change.

*I think most of us are quite frightened about the idea of change and I think others will be complaining about it* (Midwife 7).

Alternatively, some midwives believe that newer staff were likely to be more receptive to change.

*I think new staff have the ability to accept the change and find out new information and ideas for looking after the patient* (Nurse 4).

It was also identified during the interviews that motivation and encouragement from the key stakeholders such as managers can positively affect the change process.

*I think including the key stakeholders in the process of change can facilitate the acceptance of these changes* (Midwife 8).
Positive support from leaders can influence the acceptance of the change (Midwife 1).

In this final theme, ‘the way forward’, I have discussed the key strategies that midwives and other staff see as important in facilitating change around the use of episiotomy. Staff education was viewed as a key avenue to accepting change and reducing the resistance to reform. The need for a greater focus on educating women around the birth process was also discussed.

**Conclusion**

This chapter reported the results of the quantitative data of phase one of this study. The quantitative data were analysed using descriptive statistics. Principle findings showed that the rate of episiotomy is still high for primiparous women in Princess Badea Hospital in Jordan.

In addition, this chapter also reported the findings of qualitative data from the interviews with midwives and other key stakeholders, field notes and the feedback and discussion session. The qualitative data were analysed using thematic analysis. Principle findings revealed that two kinds of policy covered the use of episiotomy in the hospital: the written but invisible policy, and the unwritten and assumed policy. Interviews revealed that there is an unwritten ‘rule’ of which everyone is aware, and this rule dictates that all primiparous women require an episiotomy. This unwritten policy was viewed as the ‘real’ policy and consequently prevailed as the dominant practices employed in the hospital.
Six major themes emerged from the thematic analysis including: policy ‘written but invisible’ and ‘unwritten and assumed policy’, ‘the safest way’, ‘doctors set the rules’, ‘midwives swimming with the flow’, ‘uncooperative and uninformed women’ and ‘the way forward’.

The analysis also demonstrated that the authority of doctors translated to their dominant role in setting the rules inside the maternity unit. It also appeared that doctors’ prescription of practices would generally reflect their own personal beliefs and understanding about the birthing process.

Additionally, this analysis also revealed that midwives are anxious about making change. They are reluctant to speak out, because they feel they must concur with the doctors’ directives. It also appeared to be important to the midwives that cordial relations were maintained between all health staff.

This analysis also indicated that women were often blamed for not playing a key role in decision-making during birth, and for failure to learn how to protect their bodies from any harms during birth.

The next chapter will summarise the key findings of this study and discuss the results of both the quantitative and qualitative analysis. Factors impacting on health professionals' beliefs and experiences regarding episiotomy practice will also be discussed in detail.
CHAPTER FIVE

Discussion

Introduction

This aim of this thesis was to examine the facilitators and barriers to evidence-based episiotomy practice in Jordan, including an exploration of health professionals' perceptions and beliefs around the use of episiotomy. This thesis also described the strategies that may be effective in introducing evidence-based practice in relation to episiotomy.

In this chapter, I will discuss the findings of the study. Firstly, I will provide an overview of the key findings, and examine these in relation to the evidence presented in chapter two. In section 5.2, the primary institutional and individual barriers to evidence-based episiotomy practice are explored using the relevant literature on knowledge translation and practice change. In the last, but arguably most important section, I draw on the concept of authoritative knowledge and technocratic practice to explain the main organisational and individual factors that have impacted on health professionals' beliefs and experiences regarding episiotomy practice. In this part of the discussion, I address the strategies for change.
5.1 Overview of the study findings

A quality improvement audit and review approach was used in phase one to obtain baseline data regarding episiotomy practices in Princess Badea Hospital, Jordan, and to examine the levels of consistency with international evidence-based practice related to episiotomy. In phase two, a qualitative approach was employed to identify the facilitators and barriers to evidence-based episiotomy practice and to explore the beliefs, experiences and practices of health professionals regarding episiotomy practices in this hospital. In addition, a feedback and discussion session using a review model was conducted in phase three of the study. In this session, the findings of the case file audit and the interviews with staff were presented to 23 midwives and nurses, followed by a discussion of the potential strategies for change.

The findings of the quantitative analysis showed that episiotomy is routinely performed for primiparous women in Princess Badea Hospital. The overall rate was 41.4%, although the majority of women were multiparous (n=221). The analysis also indicated that episiotomy is highest for primiparous women with a rate of 91%, while the rate of episiotomy for multiparous women was 24%.

The analysis of interviews with staff revealed a policy 'void' in relation to guidance on the use of episiotomy. The written policy that did exist was invisible to most, and only provided guidance on the procedural aspects of episiotomy. The study showed that a spoken policy dominated, one that had been handed down over the years by obstetricians and reinforced by the majority of staff including midwives, managers and doctors.
Additionally, the qualitative analysis demonstrated that doctors dominated maternity care practices in the hospital and were the ones who directed, or in fact constructed, policy related to episiotomy and other practices in the maternity unit. Doctors' treatment of midwives as their assistants rather than care providers in the birth process in their own right was also highlighted in this study. In this highly medical context, it was also clear that the midwives were anxious and reluctant about making change to the existing episiotomy practices. They wanted to please the doctors and managers in order to avoid reprimand, and this impacted negatively on midwives who described a loss of their skills and a diminution of confidence in terms of their capacity to provide quality midwifery care.

The study also revealed that health professionals – doctors and midwives alike – appeared to view women in a critical or disparaging way, believing that they lacked specific knowledge and experience regarding the birth process. Women were viewed as dysfunctional, weak and needing to be rescued or ‘managed’ by an expert.

Many cultural and social factors that impede the acceptance of practice change were identified in this study. The participating midwives and other key stakeholders, and particularly the managers, stated that the number of deliveries in the maternity unit equated to a very heavy workload, with what they considered unreasonable midwife to woman ratios (one midwife to five women in labour). This impacted both the current practices and the perceived opportunities for practice change.

More optimistically, participants also identified some changes that could occur to facilitate reform in episiotomy practice. Education was identified as
the key factor. The study participants mentioned that lack of ongoing educational programs for health staff as well as for women meant that many outmoded practices and beliefs remained in place.

However, the culture of the maternity unit was the main impediment to the adoption of evidence-based practices during birth. Even the way in which the maternity unit was designed and how it was managed set the scene for the continuation of routine use of episiotomy. The delivery beds were designed for the use of lithotomy position, all women were placed in lithotomy position to give birth, and the episiotomy equipment was available and prepared for use at all times in the birthing room.

In the next section in this chapter, I will examine the factors influencing the health professionals' beliefs and experiences around the use of episiotomy.

5.2 Restrictive episiotomy as evidence-based practice

Clinical guidelines are developed to help health professionals with decision-making around a specific health condition or clinical situation. Guidelines must be clear, evidence-based and relevant to the context (Greenhalgh et al., 2004; Rycroft-Malone, 2004). Importantly, procedures should also be discussed with the woman and her family in order to meet her individual needs (Page, Page, & McCandlish, 2006). The findings of this study indicated that the episiotomy practices in the hospital were not consistent with evidence-based practice and current international guidelines. International evidence supports the restricted use of episiotomy, and this is reflected in policy statements and clinical practice recommendations such as in the United Kingdom and the Netherlands (Royal College of Obstetricians and
Gynecologist., 2002). In Princess Badea Hospital, most of the beliefs expressed by the participants in relation to episiotomy practices did not reflect these evidence-based guidelines, but instead reflected 'opinion-based practice' (Hampton, 2002), led by particular individuals, in this case the doctors and managers guiding the maternity care practices.

In their 2003 Advisory Paper, the World Health Organization advocated for the restricted use of episiotomy, advising that the rate of episiotomy should be between 10% and 20%, and preferably under 20% (World Health Organisation, 2003). The findings of my research – that over 90% of primiparous women in Princess Badea Hospital had an episiotomy – is in line with the reported high rates of episiotomy in the USA, Eastern Europe (Graham, Carroli, et al., 2005; Lappen & Gossett, 2010) and in other middle and low-income countries (Fernandes et al., 2009; Shaban et al., 2011). As noted in chapter two, in Jordan in 2008, Hatamleh et al reported an overall episiotomy rate of 66% (Hatamleh et al., 2008). Three years later, Shaban et al reported that 58% of women either had an episiotomy or an episiotomy plus perineal lacerations. This suggests that the overall episiotomy rate may be declining in Jordan, or at least at Princess Badea Hospital, where in 2012 I found that the overall rate was 41.4%. However, this does not appear to be the case for primiparous women. Similar to my study, Shaban et al reported that the majority (96%) of primiparous women had an episiotomy performed (Shaban et al., 2011). These overall episiotomy rates are similar in other middle-eastern and southeast Asian countries. For example, Fernandes et al reported that Al Wasel hospital in Dubai had an episiotomy rate of 64% in 2009. The SEARCHID study reported an overall episiotomy rate in South East Asian countries (Malaysia, Thailand, he Philippine and Indonesia) of 65%. (Sea-Orchid Study Group., 2008).
Importantly, other non-evidence-based practices may accompany high episiotomy rates. For example, other researchers in Jordan have reported the continuing practices of enemas administration and pubic shaving (Sweidan et al., 2008); high rates of induction of labour (Hatamleh et al., 2008) and augmentation of labour (Khresheh et al., 2009; Shaban et al., 2011) and the use of lithotomy position for birth (Shaban et al., 2011). Similarly Khayat and Campbell (2000) examined routine childbirth practices in the maternity units in 39 hospitals in Lebanon. They also found the use of enemas, perineal shaving, lithotomy position and episiotomy were all commonly used in these hospitals. Furthermore, they reported that the majority of these hospitals have no written policies or clear guidelines to inform any childbirth practices, and moreover these practices are neither supervised nor monitored (Khayat & Campbell, 2000).

This variation in episiotomy rates between countries indicates that even though there are well-recognised and endorsed guidelines on the use of episiotomy internationally, many countries do not have these guidelines in place. However, as discussed in the literature review, the use of episiotomy not only varies between countries but also varies within the same country and even within the jurisdiction of a single medical service provider (Dahlen et al., 2013; Dahlen et al., 2012; Klein et al., 1992; Trinh et al., 2013). In the private sector in Australia for example, episiotomy rates are significantly higher than in the public sector (Dahlen et al., 2012). In addition, in Australia women from some migrant groups – for example, Indian, Vietnamese and Chinese women – experience higher rates of episiotomies than Australian-born women (Dahlen et al., 2013).
Many factors may contribute to this variation across and within countries in relation to episiotomy practice (Fernandes et al., 2009; Graham, Davies, Henderson, & Bick, 2005). For example, miscommunication with women from different ethnic groups, particularly if they speak little English, may be one explanation for the variation among women giving birth in Australia (Dahlen et al., 2013). It is reasonable to suggest that this variation may be influenced by practitioner preference and women's needs and by factors such as cultural background (Appleby et al., 2011; Mercuri, 2013). It is also likely that organisational practices influence these outcomes. For instance, where there are clear guidelines regarding an intervention, there is less variation in practices (Appleby et al., 2011). Furthermore, variation of episiotomy rates may result from differences in the training provided in medical schools or in hospital training programs, where the systemic and institutional beliefs and pedagogy may deviate from accepted guidelines (Behruzi et al., 2010; Love, 2013). As with other Middle Eastern countries, Jordan has adopted educational programs for professionals and care practice from the West (Althabe, Belizán, & Bergel, 2002). The decision to perform an episiotomy rests largely in the hands of the attending physician, and so their education and beliefs are also significant.

Before examining the factors that influence the continued use of routine episiotomy in countries such as Jordan, it is important to consider whether the restrictive use of episiotomy is still best evidence.

**Is the restrictive use of episiotomy evidence-based?**

In recent years, there is growing debate about the restrictive use of episiotomy. Some commentators have pointed to the reported rise in severe
perineal trauma (Hartmann et al., 2005; Helewa, 1997; Klein et al., 1992; Shaban et al., 2011) and questioned whether episiotomy rates should be as low as they are in some countries, such as the Netherlands (8%). Critics argue that these recent studies are population-based studies (Dahlen et al., 2013; Dahlen et al., 2012; Trinh et al., 2013) and hence provide lower-level evidence compared to the randomised controlled trials that led to significant practice change in the past two decades.

In seeking to establish an evidence-base to support the restrictive use of episiotomy, several studies over the past two decades examined both the harms and benefits of episiotomy. Klein et al found that there was a correlation with extension episiotomy and third and fourth-degree perineal tears (Klein et al., 1992). Following that, numerous studies examined the role of mediolateral episiotomy in preventing severe perineal lacerations, arguing that mediolateral episiotomy does not protect from severe perineal lacerations (Klein et al., 1992; Sartore et al., 2004b). This was consistent with the findings of a randomised controlled trial conducted by Carroli and Mignini (2012), who reported that the restrictive use of episiotomy showed a low risk of severe perineal trauma. There is also the question of whether or not a routine episiotomy prevents certain conditions such as urinary incontinence and pelvic floor dysfunction. Again, there is no evidence to support such an association (Carroli & Mignini, 2012).

Researchers have asserted that it may be reasonable to perform an episiotomy to aid in vaginal delivery in cases of fetal distress, or in cases of shoulder dystocia where an episiotomy may prevent the tearing of the perineum during instrumental delivery, or in cases where the mother is hypertensive or has cardiac disease such that ‘bearing down’ will be too difficult for her. Again,
the decision to go through with an episiotomy in these cases for primiparous women is not absolute (Cardozo & Staskin, 2006).

It appears however that the restrictive use of episiotomy is evidence-based. Leading professional bodies support this stance. The American College of Obstetricians and Gynecologists recommends that the restrictive use of this procedure should be practised instead of the routine performance of episiotomies (The American College of Obstetrician and Gynecologist., 1997). The WHO recommends that the restrictive use of episiotomies in low-risk vaginal births was associated with the lower risk of posterior perineal trauma and lower need for suturing perineal trauma. The performance of episiotomy is systematically being limited in many countries via training and retraining, the renewal of standard protocols, and through quality improvement processes and supervision (Liljestrand, 2003).

The restrictive use of episiotomy is therefore evidence-based. Despite the variation in data from various sources around the world, there is enough empirical evidence to indicate that childbirth practitioners should perform episiotomies on a restrictive basis rather than on a routine basis.

In summary, the above discussion has demonstrated that there is substantial high-level research supporting restrictive use of episiotomy. In the following discussion, I will examine in detail the various barriers and challenges to lack of evidence-based episiotomy practice.
5.3 Evidence-based practice: barriers and challenges

In the past decade, researchers have increasingly focused on the knowledge–practice gap. The problem of getting evidence into practice was initially defined as an innovation gap (lack of high-quality research evidence), but after many years it was recognised that there were areas where robust research evidence did in fact exist, and yet professionals failed to use this evidence in their daily practice (Greenhalgh et al., 2004). The Canadian Institute of Health defines knowledge translation as the synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health (CIHR, 2005).

Rycroft-Malone et al and others have argued that transferring evidence into practice is usually a slow and complex process requiring planning, skill, money, time and determination (Brownson, Colditz, & Proctor, 2012; Rycroft-Malone, 2007). In addition, commentators such as Grol and Grimshaw, Greenhalgh and Rycroft-Malone (2011) state that in general it was hoped that the evidence-based movement would influence practice change, with a mantra that goes something like this: if only people have the information and access to it, they would change practice (Greenhalgh, 2001; Grol & Grimshaw, 2003; Rycroft-Malone & Bucknall, 2011).

The focus of the knowledge translation process is on rendering evidence-based practices more usable and accessible, thus increasing the likelihood that the innovation will be implemented in clinical settings. In order to do this, it is important to address barriers to implementation of evidence into practice.
These barriers may exist at various levels within individuals or organisations (MacDermid & Graham, 2009; Rapp et al., 2010).

It is important to add that evidence-based practice is not without its critics. Authors such as Harrison argue that attempts to bring about change in organisations in order to implement evidence-based practice commonly result in a ‘new managerialist’, top-down approach in which change is achieved through a scientific bureaucratic approach (Harrison, 2002, p. 469). This approach ‘… centres on the assumption that valid and reliable knowledge is mainly to be obtained through the accumulation of research conducted by experts according to strict scientific criteria…and the distillation of such findings into protocols and guidelines’ (Harrison, 2002, p. 469). Applying this in the context of healthcare institutions, it is argued that the evidence-based medicine movement and the increasing use of guidelines has led to an increase in ‘proceduralisation’, with a greater number of ‘tick lists’ and compliance procedures to ensure the implementation of evidence-based procedures. Attree (2005) argues that the impact of the ‘scientific–bureaucratic’ or top-down approach to managing change in practice settings is beginning to demonstrate dissatisfaction and dissonance amongst staff. Therefore attention needs to be given to how to translate and implement innovative research into practice in local settings (Attree, 2005).

I will now examine the institutional and individual barriers to implementing evidence-based episiotomy practice.
5.3.1 Institutional barriers

Health professionals work in specific social, organisational and structural settings where a range of factors may facilitate or impede change (Grol & Wensing, 2004). The findings of my research indicated that there were many barriers to implementing evidence-based episiotomy practice at Princess Badea Hospital, and moreover that these impediments existed at both the institutional and individual level.

Organisational barriers in this maternity unit included the current policy 'void' with limited capacity to develop and implement evidence-based policy. This was impacted by high staff workloads and lack of training and education in evidence-based practice. Other researchers have identified that even where there is access to evidence-based policy, implementation is frequently limited by a lack of resources, inadequate time, staff shortage, workload and being unsupported by key stakeholders (Al-Omari et al., 2009; Rycroft-Malone & Bucknall, 2011; Tita, Selwyn, Waller, Kapadia, & Dongmo, 2005).

A policy 'void' at Princess Badea Hospital

The findings of this study showed that the health professionals were practising in a policy 'void' in relation to guidance on the use of episiotomy. The so-called policy was in fact a procedural guide for undertaking an episiotomy and even then, most of the staff were unaware of it. Yet the key stakeholders interviewed insisted that a written policy did exist, and they stated that the copy thereof was kept on shelf in the Nursing Development Unit in the hospital.
The presence of this procedure on episiotomy may be misleading not only to practitioners but also to auditors. For example, in the event of an external inspection, audit and review or accreditation, the so-called policy could be presented as evidence that all practices and procedures related to childbearing women are consistent with evidence-based policy.

Regardless, the midwives in this study were only familiar with the unwritten or ‘spoken’ policy in relation to the use of episiotomy in the hospital. Moreover, none of the participants (with the exception of one midwife) was even aware of the evidence related to the restrictive use of episiotomy. Similar findings have been reported by Khayat et al in a study examining childbirth practices in Lebanon, which similarly revealed no evidence of appropriate guidelines related to episiotomy practices (Khayat & Campbell, 2000). Teckla et al (2010) undertook a cross-sectional qualitative and quantitative descriptive study at Pumwani Maternity Hospital in Pumwani, the capital of Kenya. They evaluated episiotomy practice among midwives in this hospital and found many barriers to evidence-based practice, including lack of access to specific guidelines in relation to episiotomy practice, individual attitudes and inadequate support from key stakeholders (Teckla, Omoni, Mwaura, & Omuga, 2010).

**Quality and style of leadership**

The study revealed that the organisational structure in the Princess Badea Hospital was hierarchical with an authoritarian managerial style. This structure is unlikely to be conducive to change. According to Sanson-Fisher (2004), innovations are most likely to be accepted easily in systems that support an innovative and creative culture – a culture in which there is
transformational leadership. As described in chapter two, a top-down approach brings with it rigid and static rules, with little or no consideration to the opinions of staff; moreover, there is no avenue for staff to communicate upwards (Morrison & Milliken, 2000). In effect, hierarchical organisations and concentration of power at the top prevent meaningful communication of innovation and evidence-based practice (Morrison & Milliken, 2000).

**Lack of education on the use evidence-based practices**

Lack of basic and ongoing education for health staff was identified in this study as a significant barrier to implementation of evidence-based episiotomy practices. This corresponds to the findings in the literature review, where education is repeatedly identified as a key facilitator for reform, given its power to modify health professionals' behaviour and practices (Bastos et al., 2007; Fernandes et al., 2009; Henriksen et al., 1994; Reynolds, 1995; Smith et al., 2004). Inadequate medical or midwifery education and a lack of formalised, ongoing training may translate to a scenario where staff has a limited awareness of, or no appreciation for, the value of evidence-based practice. Al Omari et al (2009) examined Jordanian doctors’ awareness of evidence-based practice, and similarly suggested the need for an effective educational program for both undergraduate and postgraduate doctors to increase the uptake of evidence-based maternity care. In the SEAORCHID project, Martis et al examined the knowledge and perception of health professionals related to evidence-based maternity care practices across four South East Asian countries (Malaysia, Indonesia, Thailand, and the Philippine). Fifty eight percent (385 out of 660) of the participants reported that they used evidence-based guidelines. However, the majority of respondents indicated limited understanding of the concept of evidence-based
practice (Martis, Ho, & Crowther, 2008). A population-based survey of reproductive health workers conducted in a north western province of the Cameroon identified similar challenges (Tita et al., 2005). The health workers noted that there was an absence of continuing education and a corresponding lack of access to educational resources. Other participants in Tita's study stated that there was simply a deficit in terms of the habit of self-education. In other words, there was no culture that encouraged further studying or reading to update one's knowledge on episiotomies and similar interventions (Tita et al., 2005). Rycroft-Malone (2004) argues that organisations without a learning culture make change difficult.

Participants in my study also indicated that they did not know how to access and use evidence-based information; they also explained that there was inadequate time to access information due to staff shortages, heavy workload and lack of support from key stakeholders. This is consistent with other reports (Al-Omari et al., 2009; Rycroft-Malone & Bucknall, 2011; Tita et al., 2005). Staff at Princess Badea Hospital indicated that they had difficulty accessing electronic and even hard copy resources such as journals, databases and current textbooks. Indeed, this hospital did not even have access to local public libraries where evidence-based information could be obtained. Lack of access to library resources has been reported by other researchers who have examined evidence-based practice in Jordan and other middle and low-income countries (Al-Omari et al., 2009; Tita et al., 2005). According to Martis et al (2008), 301 participants (46%) across all four South East Asian countries reported that they had access to a computer at work and consequently to electronic resources, while 139 (21%) indicated that they had no access to electronic resources (Martis et al., 2008). Without the current
evidence-based information, the widespread use of out-dated and sometimes harmful interventions continues.

**Workload and staff shortages**

Chronic shortages in staffing in many healthcare facilities mean staff have no time to read up on or learn about new practices (Belizan et al., 2007). Indeed, many researchers have identified a correlation between heavy workload and the lack of evidence-based practice (Grol & Grimshaw, 2003; Haynes & Haines, 1998; Rycroft-Malone & Bucknall, 2011). For example, in Jordan, Al Omari et al (2009) undertook a cross-sectional study to examine doctors’ awareness and attitudes towards evidence-based practice. Of the 386 respondents, 270 (74%) reported lack of personal time during work as a barrier to using evidence-based practices, and 275 out of 386 (75.3%) respondents reported that work overload limited evidence-based uptake. Another study in Jordan by Shaban et al (2012) reported that lack of time and high workloads were a barrier to developing midwifery as a primary health care strategy. They highlighted that tasks such as documentations and observations were prioritised over spending time with women particularly in health promoting activities (Shaban et al., 2012).

**5.3.2 Individual barriers to change: Resistance**

The role of the organisation in inhibiting change has been discussed above, but characteristics of individuals are equally important in terms of implementing change. Some of these factors include the nature of adopters, their desire for familiarity versus their preparedness for change, whether they
have access to evidence-based information, and importantly whether they believe the evidence.

In order for health professionals to embrace change in healthcare practice, they need to be trained and motivated (Rycroft-Malone, 2004). Some of the factors that prevent health professionals from adopting evidence-based practice include lack of familiarity, motivation awareness and self-efficacy (Grol & Wensing, 2004). Most of the beliefs expressed by the study participants in relation to episiotomy practices indicated that the health professionals generally preferred to work in a way that was familiar to them, rather than taking a risk by choosing an unknown way. This makes health professionals feel more comfortable and secure in their work (McPhail, 1997). Fear of repercussions or unknown outcomes is often at the root of a health professional's resistance to change. In this study, both midwives and doctors had a clear preference to perform episiotomy for all primiparous women, as this was the ‘known’ and the ‘safest’ way for them and (as they believed) for the women.

In addition to the availability of evidence, the way in which health professionals interpret and understand evidence-based practice is also a crucial consideration. One of the key and early barriers to implementation is that the evidence-based research findings are not valued by all practitioners. If practitioners are not able to read or to interpret findings, to understand them and to feel confident in the new knowledge, they will not use it (Grol & Wensing, 2004; Majid et al., 2011).

The continued routine use of episiotomies for low-risk, primiparous women in Jordan and in many other countries implies that there is a low acceptance
and/or understanding of new literature on evidence-based practices with
regards to episiotomy. In a study that surveyed obstetricians in Greece,
Grigoriadis et al found that 51% of the health providers performed routine
episiotomies for vaginal deliveries, and that lateral and mediolateral
episiotomies were both commonly used. They found this practice was
influenced by limited knowledge and lack of confidence of the obstetricians in
the episiotomy guidelines (Grigoriadis, Athanasiou, Zisou, & Antsaklis,
2009). In Tita's study in the Cameroon, of the 328 health workers who
responded to the survey, 237 (72%) stated that they were aware of evidence-
based interventions on episiotomies (Tita et al., 2005). In a similar study
performed in Latin America, the new knowledge on restrictive episiotomy
was widely perceived as not having the best of outcomes; moreover, many
practitioners felt that they lacked the skills to understand the new information.
Many practitioners maintained that there was no need to change current
practices based on the new evidence-based information – instead, they
preferred to adhere to traditional and ‘time-honoured’ medical practices
(Belizan et al., 2007).

Similarly, in Jordan, a cross-sectional study conducted by Al Omari (2009)
examined the awareness and attitudes of doctors towards evidence-based
practice in general. Al Omari reported that 47.9% of the participants were
unaware of the evidence-based practice, while 26.6% were aware but did not
apply it in their daily practices. These findings accord with studies conducted
in Iran (Mozafarpour et al., 2011) and Saudi Arabia (Al-Musa, 2010).
Moreover, MacDermid and Graham (2009) also reported that the research–
practice gap may exist because of a lack of awareness of evidence-based
practices.
In summary, many factors that were identified in the literature review correlated to my findings regarding the challenges in implementing evidence-based practice. The lack of a written policy was perhaps one of the main barriers to changing episiotomy practice in this maternity unit. Yet this absence of policy may be reflective of broader issues around the culture of the maternity unit, the hospital’s style of leadership, the medical dominance over maternity care practices and the stereotyping of women as uneducated and uncooperative.

Historically, the belief in the superiority of western knowledge compared to other knowledge has provided justification for the colonisation of numerous countries and the attempts to modify and reform cultural beliefs and practices in other societies (Briggs & Sharp, 2004). Authoritative medical knowledge emanating from the western, industrialised world, particularly the USA and UK, has had considerable institutional and social ramifications for middle and low-income countries (Cunningham & Andrews, 1997; McCourt & Dykes, 2009; Thompson, 1987). Today, medical students internationally are taught procedures such as episiotomy in medical school (Althabe et al., 2002). As with many other countries in the Middle East, Jordan has taken on board American and western medical educational systems and practices.

These ideas are explored in the following section.

**5.4 Authoritative knowledge and medical control over birth**

The study findings revealed that the doctors held the power and authority to develop and disseminate policies and prescribe practices. In this maternity unit in Jordan, the doctors' attitudes and beliefs dominated, medical knowledge relating to birth was prioritised and regarded as the ‘right’ or
legitimate view, and women’s and midwives’ knowledge was considered inferior or subordinate. In this context, doctors assumed a position of power and control in the maternity unit and the hospital, and midwives believed that they were powerless to act in any way that deviated from the dominant medical approach to episiotomy. Midwives had learnt that if they challenged the doctors' views, they would be punished in some way, and therefore it was not worth standing up to them. More importantly, doctors and midwives alike believed that interventionist practices, such as episiotomy, were necessary because birthing women were uneducated and uncooperative during labour and birth.

The concept of ‘authoritative knowledge’ can help explain the origins of these beliefs and the current practices related to episiotomy and other aspects of pregnancy and birth care. Authoritative knowledge is a concept first coined by anthropologist Brigitte Jordan (1992, 1997), when she studied birth in four cultures across the world (Mexico, the United States, Sweden and the Netherlands). Jordan explains that, although multiple knowledge systems exist simultaneously across and within cultures, and may inform healthcare and other decision-making, one knowledge system may hold more power than others. Furthermore, a body of knowledge may become the dominant or authoritative knowledge system by virtue of the person or group who holds that knowledge (Jordan, 1992). Therefore, even though a body of knowledge may not be reliable or evidence-based, it may still be pursued, propagated and perpetuated because it originates from a trustworthy source (Davis-Floyd & Sargent, 1997; Jordan, 1992, 1997; Kempe, Theorell, Noor-Aldin Alwazer, Christensson, & Johansson, 2013). This ‘legitimate’ knowledge gains ascendancy and thereby undermines other types of knowledge (Cahill, 2001;
Jordan, 1997; Kempe, Noor-Aldin Alwazer, & Theorell, 2010; Kempe et al., 2013).

Jordan’s work on authoritative knowledge as it relates to pregnancy and birth has demonstrated that medical knowledge was positioned in such a way that women's knowledge about their own bodies was invalidated or subordinated – eclipsed by the valorisation of the institutionalised, ‘medical’ ways of knowing (Jordan, 1992). Pigg (1997) applied the concept of authoritative knowledge to her work with traditional birth attendants in Nepal. She revealed the actions of medical professionals and midwives discredited the local knowledge of traditional midwives. Furthermore, her research demonstrated, similar to the findings in my study in Jordan, that medical knowledge is often positioned as authoritative regardless of other local knowledge systems (Pigg, 1997). Similarly, an ethnographic study by Berry (2006) in Guatemala showed that although the local knowledge of individuals was culturally relevant and was considered legitimate by many women, it was still superseded and delegitimised by medical knowledge (Berry, 2006). Davis-Floyd, Barclay, Daviss and Tritten (2009) described birthing models around the world that provided effective care for women, and reported that hierarchical models, in which the knowledge of those higher in the system of care is considered superior, are less likely to provide the care that women need. The researchers found that those lower in the hierarchical order often had to ‘manipulate’ the system or ‘play games’ to acquire the provision of care that the women needed. The researchers also described the characteristics of models that did work, and emphasised the centrality of woman-centred care where the women take part in decision-making in relation to their bodies. The midwifery model of care was identified as a positive and highly-effective model, as this is where the woman is placed at
the centre of care, where the midwife works in collaboration with other professionals, uses evidence-based practice and where there is effective communication between health organisations (Davis-Floyd, Barclay, Daviss, & Tritten, 2009).

**How medicine came to hold authoritative knowledge on birth**

In the 18th and 19th centuries, the biomedical model emerged, as beliefs about ill-health shifted from being considered a natural event that was the ‘will of God’ to being conceptualised as a disease process, something that could be singled out and treated (Lupton, 2012). Seventeenth century French philosopher and mathematician René Descartes had a significant influence on the development of western biomedicine, because he promoted the radical idea that the mind and the body were two separate spheres. Descartes argued that the body could be seen as part of the physical world, while the mind is part of the spiritual world. Employing these ideas, biomedicine rapidly came to dominate approaches to healthcare over the course of the 19th century. This new model was also associated with the rise of university medical training that ensured that practitioners were experts in biomedicine. Doctors formed their own organisations to set standards about who should and should not be allowed to practise healthcare. As the medical establishment consolidated its influence in society, a variety of healers on the margins – including midwives – were pushed aside (Ehrenreich & English, 1979; Lupton, 2012; Murphy-Lawless & Torode, 1989). Increasingly, hospitals became the site of healthcare and the relationship between the medical expert and the patient became predominant, with individuals deferring to and complying with the expert advice dispensed by the doctor. Cultures that have adopted this model of scientific medicine will generally view the goal of
medicine as an effective means of eradicating the cause of the problem or disease, enabling curing. In this context, the development of biomedical technology has flourished (MacLachlan, 2006).

The medicalisation of childbirth dates back to this time in the 18th and 19th centuries, when ‘medical men’ discredited groups such as traditional birth attendants, and those they termed ‘barber surgeons’ (Davis-Floyd, 2004; Ehrenreich & English, 1979; Martin, 1987). With this came a shift from home birth to hospital birth, which was believed by the new ‘obstetricians’ of the day to be the safer option, particularly in terms of saving babies’ lives. In the hospital, women were attended by male doctors rather than the traditional birth attendants who had been female (Cahill, 2001). This in turn diminished the role of midwifery in the birth process. The triumph of biomedicine over birth was hastened by the introduction of the forceps by the Chamberlain brothers, who championed these instruments as a way to save the life of the child (Cahill, 2001; McCourt & Dykes, 2009). From this point on, birth was arguably reconceptualised as a technological event.

Technocratic childbirth: Medicine and the techniques used to dominate childbirth practices

Following on from Jordan’s work on authoritative knowledge, Davis Floyd articulated the role that the technocratic model of pregnancy and birth has played in maintaining medical dominance. In the hospital setting, contends Davis-Floyd (2003), a pregnant woman and her body are regarded as a birthing machine. The industrialisation of birth had characterised treatment as an assembly-line production, able to focus on the individual body parts that needed fixing. The use of anaesthetics efficiently eliminated any conscious involvement on the mother's part, thereby facilitating and justifying the
practitioners’ view of the woman as a machine producing a product (Davis-Floyd, 2003; Farber, 2011)

Many authors (McCourt & Dykes, 2009; Farber, 2011 and others) have elucidated the production line analogy as a basic model for modern hospitals. Technocratic practices and the perspective that the body is a machine that is separable into its constituent parts has become embedded in medical education. In this training pedagogical paradigm, doctors are also instructed to guard themselves by avoiding emotional attachment (Davis-Floyd, 2001; Simonds, Rothman, & Norman, 2007). The technocratic approach to childbirth also illustrates how hospitals are managed more broadly, and it highlights the imperative of particular management practices that consign midwives and women to compliant components working on a production line.

Davis-Floyd (1993) illuminates the technocratic model of birth as ‘the core paradigm underlying contemporary obstetric practices, including technology’ (p. 316). To further advance this point, she draws on Rothman’s work on women and power in the birthplace, a study that emphasises ‘separation’ as the fundamental tenet of the medical paradigm (Rothman, 1982). The female body is viewed as a defective machine to be managed (Martin, 2001; Rothman, 1982, p. 12; Ussher, 2006). The medical professional has been positioned as an ‘engineer’ who monitors pregnancy and labour, and fixes any faults. The woman, her pregnant and birthing body, is positioned as ‘unruly and faulty’, exemplified by the medical diagnosis of an ‘incompetent cervix’ (to describe a scenario where the cervix opens prematurely during pregnancy which may result in miscarriage). In this sense, the female body is
seen as an unreliable vessel that needs to be carefully monitored (Ussher, 2006).

The technocratic model continues to dominate contemporary maternity care in the western world, objectifying and demarcating individuals as either expert or patient (Davis-Floyd, 2001). Today, doctors have access to highly advanced technology that they apply to body systems in order to cure disease. Critics such as Masciale (2005) and Behruzi et al (2013) observe that in modern hospitals, the maternity unit is equipped with machines that control fetal heart rates and contractions, while the women are immobilised with wires and tubes.

Examining current obstetric practices in Jordan, Hatamleh et al (2008) pointed out that technology is frequently used during pregnancy and birth. Interventions such as caesarean section and the use of procedures such as ultrasounds, artificial rupture of membranes, episiotomy and instrumental delivery are commonplace. The researchers reported that 89% of women had continuous fetal monitoring during labour, while ultrasound scans were routinely used throughout pregnancy, ranging from one to 27 (Hatamleh et al., 2008).

The technocratic approach to birth maintains the hierarchical distancing between the expert professionals and the women, while paying scant attention to women’s psychological wellbeing. In Jordan, women are typically unaccompanied during labour and birth, and midwives are not encouraged to talk with women or to provide emotional support (Hatamleh et al., 2013). Hatamleh et al (2013) undertook an exploratory prospective study to examine women’s experiences of the care they receive during birth, and to evaluate
their level of satisfaction with the quality of maternity services in Jordan. They found that overall women reported a negative experience of birth, with 36% of women stating that they were not treated with empathy, humanity and respect during birth. Communication between health professionals was described as hostile or absent, and the women reported being treated as a machine rather than a human being during birth. The health professionals paid little or no attention to the women's emotions or needs during the birth process. Davis-Floyd (2001) argues that the separation of the body into component parts liberates medical personnel from all sense of responsibility for the spirit or mind of the women. This was evident in my study, particularly in the language used by the health professionals during the interviews, when they implied that the woman's body was a machine to be managed – as one doctor said, ‘the woman is just a case I report as a number at the end of the work shift’ (Physician 1). Similarly, the prevailing view was that women were weak, dysfunctional and needing to be rescued – ‘pregnant women usually come to give birth unaware of the real situation of the birth process’ (Midwife 9). The doctors implied that they paid little consideration to the women's feelings and thoughts and did not see the need for engaging women in decision-making during birth.

As Jordan (1992) observed, the inclination to objectify a woman extends to denial to discuss any facet of care with the individual. This leads to the distancing of health professionals from birthing women. However, this approach has frequently been justified in the interests of the 'safety' of the woman and her baby (Cahill, 2001). The disconnect between practitioner and women has been justified with the assertion that women need to be safe, especially during pregnancy. This was consistent with my findings, where
participating midwives, managers and doctors pointed out that performing episiotomy was the ‘safest way’ for women during birth.

According to Wu et al (2013), the disrespectful manner in which women are treated by health professionals is often culturally informed. In most cultures, women are treated as subordinate to men; hence they do not have the power to make decisions, even decisions that will affect their health and wellbeing (Wu et al., 2013). In some societies such as those in low and middle-income countries, male authority is entrenched, with men positioned as the unrivalled decision-makers regarding women's healthcare. In these contexts, there is a lack of a female voice, and commentators have noted the relationship between this attitude and the education levels of the female population. Women in low-resource countries are less likely to be educated for as long as men (Mohanty, Russo, & Torres, 1991), and this diminishes their power and weakens their position in society.

Institutions such as hospitals have themselves become machines that are increasingly controlled by procedures (Smeets, Gribnau, & van der Ven, 2011). Proceduralisation leads to the multiplication of control systems, so that the solution to minimising errors is to improve and increase procedures in order to stop the problems from recurring. From the perspective of the participating doctors and midwives, the focus in Princess Badea Hospital is to manage the birthing process as efficiently as possible. Episiotomy fits into this imperative as it is viewed as a neat, clean and efficient procedure, in contrast to the risk of perineal tears that would require an investment of greater time and effort to manage and treat. From the perspective of the participating doctors, performing episiotomies could prevent women from having plastic surgery in the future, and would also ensure a good sexual life.
The design and organisation of the maternity unit and related procedures at Princess Badea Hospital can be likened to a production line, with women moving from the first stage rooms to a second stage birthing room, and finally to the third stage rooms. All women were placed in the lithotomy position to birth their babies, and all primiparous women had an episiotomy as a routine practice during birth. In this context, episiotomy was considered the easiest way to expedite birth and facilitate perineal repair. Most importantly, however, it ensured an efficient production line.

It was not only the doctors that approached birthing women as machines and the hospital as a production line. The majority of participating midwives described practising in a fragmented way, viewing birth as a process that had to be controlled, with the women needing to be managed by the experts. Midwives reported that they did not have time to spend with individual women as they had too many women in their care. Moreover, they explained that tasks such as recording observations, administering medications and documenting the progress of labour were prioritised over the provision of individualised care and support to women.

In summary, the normalisation of authoritative knowledge and technocratic practices serves to maintain the medical profession’s position of primacy and dominance. This hegemony has in turn shaped societal beliefs regarding childbirth, not just in western countries, but also in many low and middle-income countries such as Jordan. As evidenced in my study, doctors are considered to occupy the most powerful position in the birth process regardless of the role of midwives and the women's right to have control over their bodies during birth.
I will now briefly examine the impact that medical dominance and professional socialisation has had on midwifery practice in Jordan.

**What was the impact of medical domination on midwifery practice?**

In most western countries, the medicalisation of pregnancy and childbirth has resulted in midwives being stripped of their power to support women in birth outside the realms of medical surveillance (Ehrenreich & English, 1979, 2005). Anthropologists such as Davis Floyd (1992) assert that the practice of midwifery is derived from the familial practices of providing support to women giving birth. The practice of midwifery was recognised by Hippocrates in the 5th century BC and Socrates’s mother was a midwife. The Old Testament Book of Exodus recognised the strength and independence of midwives. While midwives still attend the births of the majority of the world’s babies (Trevathan, 2010), their autonomy and viability have been seriously compromised (Davis-Floyd & Sargent, 1997; Sargent & Bascope, 1996). Many authors (Barclay, 2008; Bluff & Holloway, 2008; Fahy, 2007; Marshall, 2005) have described the role that both the medical and nursing professions played in the systematic subordination of midwifery. In Jordan as in many other countries in the Middle East, midwives are directed to follow obstetricians’ orders in the management of birth, and in most instances midwives essentially become assistants to the obstetricians (Abushaikha, 2006; Shaban et al., 2011). Shaban et al similarly reported that medical domination of the health system resulted in limiting midwives to fully practicing their role and considering them as inferior, therefore they were losing their confidence and skills (Shaban et al., 2012).
Midwives in Jordan, even those with a four year Bachelor Degree in Midwifery, are not able to practise in accordance with the international definition of the midwife; instead, they function as obstetric nurses (Abushaikha, 2006, 2013; Shaban & Leap, 2011). (Abushaikha, 2006, 2013) and Shaban et al (2011) also reported that resistance to change in the scope of midwifery practice, education and professionalisation came mostly from nurses and obstetricians who dominate the field. They concluded that there was limited or no scope for midwives to practise independently in the community due to lack of support, and the medicalisation of all aspects of healthcare (Shaban & Leap, 2011).

The increasing the use of technology during birth and the limitations that this places on midwifery practice has resulted in many midwives losing confidence in their skills to care for women during labour and birth (Fahy, 2007; Versluysen, 1981). The powerlessness felt by the midwives in my study was reflected in the language they used during the interviews, with participants describing 'working in line with the doctors' or 'not rocking the boat'. As in studies conducted in western countries (Fahy, 2007), the midwives participating in my study felt they were constantly undermined, under surveillance, and subjected to the scrutiny of obstetricians and management. As a consequence, midwives take less responsibility for their actions and for their ongoing professional development (Davis-Floyd, 2003). When their practice is under constant surveillance and is controlled by doctors, midwives do not feel they have the capacity to be effective, respected advocates for women's needs in labour and birth. In this model of care, it is clear that midwives are not aligned with the women for whom they care, but rather are subordinated to the hospital or institution that employs them. Doctors do not believe that midwives have adequate training and skill to direct care for
pregnant women, and frequently label midwives as incompetent and ill-equipped to address the medical needs of the expectant women (Park, McAlaney, & Connolly, 2008). Behruziet al (2010) found that midwives in Japan lack authority to determine care for women, and are not allowed to carry out any procedures without a doctor’s permission. This has limited their capacity to accomplish their role to a high standard. In addition, Behruziet al (2010) reported that the doctors and midwives used language that controlled and limited decision-making by the women, thus perpetuating the medical professional’s power in this relationship dynamic. Together with women, midwives working in institutionalised models of maternity care also act as a disempowered and disrespected group (Wu et al., 2013).

Some commentators (Bourgeault, 2006; Park et al., 2008; Reiger & Lane, 2009) have identified growing tensions between midwives and doctors as midwives increasingly reassert their role as advocates for women. Many midwives want to work in an environment in which they can help to make collaborative decisions based on the wishes of the women (Page et al., 2006). However, in this study, the midwives did not appear to be in a position to provide women with the support they needed, as they themselves felt disempowered by the doctors in the maternity unit.

Professional socialisation and the education of midwives in Jordan

According to Haynes, Butcher and Boese (2004), socialisation is a subconscious process where people internalise behavioural standards and norms, while forming a sense of commitment and identification with a professional field. Professional socialisation occurs through education and training, as well as in the workplace where the institutional culture and
personal beliefs shape the professional identities of midwives and their practices (Parsons & Griffiths, 2007).

In Jordan, as in other parts of the world, midwives were originally educated in an apprenticeship style, working with traditional midwives or birth attendants (Abushaikha, 2013). This was particularly important in a country such as Jordan where women have a preference for a female birth attendant (Abushaikha, 2006, 2013; Shaban & Leap, 2011; Zahran, 2012). Jordan, Davis-Floyd and others (Davis-Floyd & Johnson, 2006; Ehrenreich, 2010; Jordan, 1989; Kruske & Barclay, 2004) lament the loss of the traditional role of the midwife 'being with woman' and the apprenticeship approach to learning the skill of midwifery. Increasingly in the Middle East, midwives were trained in hospitals under the supervision of doctors and nurses.

The Jordanian Ministry of Health is responsible for the education and training of healthcare professionals through nursing and midwifery colleges and public and private universities. Midwifery education began as a hospital-based program (Abushaikha, 2013), before a three year diploma of midwifery program was introduced and sponsored by the Royal Medical Services (Shaban & Leap, 2011). Most midwives in this study had completed the Diploma in Midwifery, yet they still lacked the requisite knowledge and skills to substantively influence practice.

To improve the quality of healthcare provided to pregnant and birthing women, a direct entry midwifery education (university-based program) for midwives in Jordan was introduced in 2002 in response to changing trends in midwifery education Worldwide, and in an effort to deliver higher-quality care to women (Abushaikha, 2006). It is interesting to note that the only
midwife in this study who was aware of the invisible (written) policy and who had questioned the routine use of episiotomy was someone who had recently graduated with a Bachelor Degree in Midwifery.

The brief overview of the historical influences on midwifery practices in Jordan and the socialisation of the midwives in the hospital environment has provided insight into the challenges inherent in implementing an evidence-based practice.

In this final section, strategies for change are discussed. It is also important to consider how effective the quality improvement approach of audit and review has been in this study, in terms of stimulating motivation towards change. The final section opens with a consideration of this.

5.5 Strategies for change

Given the many challenges to implementing evidence-based practice globally, there is increasing emphasis on identifying strategies for change.

5.5.1 Approaches to practice change

Quality improvement approaches are commonly used to improve healthcare provision in a clinical setting (Allegrante et al., 2009). Typically, the quality improvement approach utilises an audit tool to monitor or evaluate services to ensure that processes for achieving quality care are in place and that the standards of quality are being met (Donabedian, 2002). The focus of quality improvement has been on making care processes transparent, making it easier to identify where problems may occur or are occurring by adopting a
systematic approach to measuring quality itself (Johnston, Crombie, Alder, Davies, & Millard, 2000). The primary objective of a clinical audit is to act as a strategy for improving healthcare delivery (Johnston et al., 2000).

Audit and review was used in this study to gather baseline data regarding current episiotomy practice and the availability and implementation of evidence-based guidelines, and also to obtain staff perceptions about episiotomy and decision-making processes. This information was then supplied to the staff for discussion and review, and to seek their feedback. The audit and review process was applied to this study to help identify strategies for change and to understand the barriers to evidence-based episiotomy practice.

In designing this study, it was hoped that reviewing with staff the current episiotomy rates in the maternity unit, gathering and presenting current perspectives of midwives and key stakeholders, and discussing this in relation to international guidelines on episiotomy, would be enough to stimulate motivation for change and to engage staff in identifying potential strategies for reform. This did not happen. While participants were able to make some suggestions for change, it was very clear that from their perspective, change was considered too difficult or almost impossible. The factors influencing this position have been discussed above.

It is also important to consider whether the process of audit and review was the most suitable method for facilitating change in this setting in Jordan, or conversely whether the conduct of the quality improvement process was inadequate. While the initial intention of clinical audit and review was to provide systematic improvement and provoke change in the provision of
healthcare, this model has been criticised as being too linear and not addressing underlying health system, organisational and individual health professionals’ practices (Hearnshaw, Harker, Cheater, Baker, & Grimshaw, 2002).

According to Haernshaw et al (2002), clinical audit is not always effective for initiating change in nursing and midwifery care. Indeed, even in cases where this approach has proved effective, the impact has been limited or not sustained. Proponents of QI processes such as audit and review, however, argue that while the effects of audit and review in improving healthcare are inconsistent and relatively weak, the problem may be the way in which the QI process is conducted rather than the core concepts or elements of the QI process itself. Johnson et al (2000) and Leng (2013) assert that theoretically it is not that audit and review is an ineffective tool, but rather that people do not adequately understand the way in which audit and review needs to be conducted (Borbasi et al., 2010; Kinn, 1997).

TQM and CQI approaches have, however, been successfully used with audit and review in the midwifery context. Bick et al (2011) for example successfully introduced a quality improvement initiative to enhance inpatient postnatal care and discharge home. Audit and review and CQI approaches were effectively used in Bick's study, which included multiple methods of data collection such as focus groups, interviews, revising documents and surveys, followed by feeding the results back to the health professionals. The researchers indicated that these approaches can be successfully implemented in the midwifery context through active engagement of health professionals, including key stakeholders, in all stages of the process of change (Bick et al., 2011).
However, when significant change or a cultural shift is needed, the process of audit and review is often not robust or rigorous enough. In complex settings such as healthcare organisations, it is essential to examine the ‘opposing’ forces within the environment. Here change theorists argue that approaches that examine power relations are needed. For example, some suggest that approaches known as dialectical and political power approaches (Dawson, Farmer, & Thomson, 2011; Harcombe, 1999) should be applied, because these models focus on real issues such as power and culture in relation to healthcare provision. A dialectical approach for change focuses on the clash between the organisational culture and the political power (Mawdsley, 2005). In this model, the two forces (power and culture) influence each other; hence creating or hindering change (Enosh & Ben-Ari, 2010). According to Kotter the process of change is usually directed by leaders, but it appropriately reflects stakeholders’ concerns (Kotter, 2010). Kotter states that certain skills are prerequisites to organisational or political change. For example, there is a need to network and form coalitions, and to bargain and negotiate. Once an institution has established a clear agenda, formed a network and placed people in positions of power, it becomes easy to negotiate towards change. This model emphasises social movements and roles played by leaders in providing change (Chiesa & Malinowski, 2011).

These ideas relate to the findings of my study in terms of culture and power; in Princess Badea Hospital, it was the key stakeholders (doctors and managers) who held the power by introducing the maternity policies and practices and directing the staff in the maternity unit. My study also revealed that the midwives were supporting the doctors’ views, as they (the midwives) felt disempowered by the way in which the system positioned them in relation
to the ‘authority’ figures. Strategies for change therefore must engage the key stakeholders who hold positions of power as well as midwives and others who provide care for women on a daily basis.

Participatory approaches that emphasise working with professionals in an equal way in the research process may be more effective. This was well demonstrated in the work by Khresheh and Barclay who reported success in introducing a new birth record shared between hospital and community in three hospitals and community health services in Jordan (Khresheh et al., 2009). They used an action research approach to engage practitioners in the research process. Training in the use of the new health records was provided for health professionals and at these workshops they were educated about the purpose of the study and through this process they became committed to the new record. Kresheh and Barclay highlighted that this participatory process enabled the health professionals to maintain a sense of control and this minimized resistance to change. As a result of the researcher working with them, Kresheh and Barclay reported that health workers demonstrated increased professionalism, while managers and clinical directors were supportive in creating a simple change that enhanced the working environment in a way that appears to be sustained (Khresheh et al., 2009).

5.5.2 Strategies to change practice

Change can be achieved in practice through various strategies, including effective dissemination of information, easy access to this information and well-trained staff who are able to read and apply the new evidence. Most importantly, however, to implement change, an organisation requires strong leadership and an identified change agent/s or champion (Bass & Riggio,
2012; Yukl & Heaton, 2003). This person (or people) can ensure that individuals are ready for change by promoting awareness of innovation, encouraging the involvement and interest of the professionals, and ensuring that everyone has (or can gain access to) the skills and knowledge needed to implement the change (Grol & Wensing, 2004). As well as the development of insight, a positive attitude towards change and confidence in the new practice are important. However, the quality of the evidence itself, and its fit with the beliefs of the clinician, will determine whether or not the clinician will put this information into practice (Rycroft-Malone & Bucknall, 2011). Addressing the barriers to change is an initial step in implementing evidence into practice (Dalheim et al., 2012). Resources must be available to support the change agents, the staff and also the healthcare consumers. (Rycroft-Malone & Bucknall, 2011). Thus any attempt to enhance the implementation of evidence-based practice depends on altering or enhancing these factors.

In this study of episiotomy practice in Jordan, a number of strategies for change were put forward by participants in phase three. Education for staff and women alike was identified as a key strategy. Motivation and active encouragement from key stakeholders such as managers was furthermore seen as something that would positively affect the change process.

Overall, however, the participants remained pessimistic about the possibility of change. The midwives and nurses who were present in the feedback and discussion session did not believe that anything could ultimately change, because the doctors held such a powerful position. The tendency in this session was to repeat their concerns that they would be sidelined or blamed if a woman experienced severe perineal trauma. The suggestions put forward
for change were therefore considerably more superficial than core or foundational strategies that would effect ‘real’ and institutional change. Despite this, it is important to consider whether any small and viable steps were identified that could be implemented in order to activate the broader and perhaps more longitudinal process of change.

Education is undoubtedly a key strategy in transferring evidence into practice. Internationally, a range of educational programs and campaigns have been implemented to inform change in common childbirth practices. For example, as discussed in the literature review, CQI and TQM approaches were used in initiatives such as the Better Birth Initiative, and were effective in achieving a reduction in common birth interventions (Fernandes et al., 2009; Reynolds, 1995; Smith et al., 2004). According to Rogers and other theorists of change management or innovation, it is important to devise effective and diverse strategies to implement and disseminate new evidence, these include mass media and now social media, education for the public and professionals are considered the most effective. As a follow-on education programs need to be well-designed and supported by a range of resources pre-post test evaluations; video materials, oral presentation and visual aids (Walraven, 2013).

Finally, at the heart of change management is communication. Communication is an important tool to facilitate change within an organisation. Effective communication can create a positive relationship between staff, increasing awareness of evidence-based practice (Leonard, Graham, & Bonacum, 2004; Robinson, Gorman, Slimmer, & Yudkowsky, 2010). Vakola & Nikolaou (2005) indicated that effective work relationships and building supportive networks between individuals within an organisation creates a more positive attitude towards change (Vakola & Nikolaou, 2005). It
soon became apparent in this study that there was limited collegial communication between midwives and doctors, and that midwives went out of their way to please the doctors in order to maintain peaceful and cordial relations. Midwives were intent on avoiding conflict or friction.

Good communication skills are essential to enable health professionals to interact effectively with women. Skills in active listening will enable professionals to obtain information from women that is relevant and important from the woman’s perspective (Keyton, 2010; Murray et al., 2000). Listening skills are imperative in terms of acquiring information necessary for diagnosis. Similarly, high-quality inter-professional collaboration is an important step in successfully introducing change.

**Conclusion**

In this chapter, I have discussed the findings of the study. The results suggest that at this hospital there has been a reduction in the overall rate of episiotomy compared with rates reported in similar studies in Jordan. However the episiotomy rate for primiparous women remains unacceptable high at almost 100%.

The key institutional and individual barriers to evidence-based episiotomy practice were discussed including the lack of evidence-based policy, high workloads, lack of opportunity for ongoing education and poor communication across the organisation and between professionals. These are common to a number of other studies that have reported barriers to evidence-based maternity care in the Middle East. However, cultural beliefs about the place of women and the role of midwives in maternity care appear to be
impacting on the environment or conditions for change. The concept of authoritative knowledge and technocratic practice has provided some understanding of the origins and impact of the culture of maternity services and the professional identity of midwives internationally. It was clear that the obstetricians held the power and authority to develop policies in the maternity unit and medical knowledge relating to birth was prioritised and women's and midwives' knowledge were considered inferior.

The next chapter will conclude the thesis and implications for practice and change will also presented in detail.
Chapter Six

Conclusion and Implications for Practice

This chapter concludes the thesis by reviewing the rationale for the study, the need for change in episiotomy practice, the key findings and considering the implications for practice and strategies for change.

To date, studies of episiotomy rates in Jordan and other Middle Eastern countries report higher rates than recommended in international guidelines. This unnecessary intervention is often accompanied by other non-evidence-based practices such as perineal shaving, induction of labour and lack of support in labour. In the past decade, researchers have started questioning the high level of medical intervention in birth in Jordan and the degree of consistency with evidence-based practices and guidelines (Khresheh et al., 2009; Shaban et al., 2011; Sweidan et al., 2008). However, there have been few studies investigating how to introduce or facilitate change in childbirth practices or the implementation of programs to address the gap between current childbirth practices and evidence-based practices. The study I undertook for my masters honours degree aimed to address this gap by examining the facilitators and barriers to evidence-based episiotomy practice particularly the perceptions and beliefs of midwives, obstetricians and managers around restrictive use of episiotomy and to explore strategies that may be effective in introducing evidence-based practices around the use of episiotomy in Jordan.
The study was undertaken in Jordan and was conducted in one of the major maternity hospitals (Princess Badeea Hospital) in Irbid in the northern part of Jordan. A quality improvement approach was selected as an appropriate methodology for the study as it is helpful in identifying the deficits or gaps in the process of care and figuring out ways for improvement. The value of commencing with the PLAN component of a quality improvement approach is demonstrated by the richness of the data collected that have helped to explain the high rates of episiotomy and identified the challenges associated with changing this practice in this hospital, and most likely, in other maternity facilities in Jordan.

Data were collected in three different phases; in phase one a retrospective file review of 300 births was conducted using an audit and review model. In phase two face-to-face semi-structured interviews were conducted with 10 midwives and 5 key stakeholders (doctors and managers). A feedback and discussion session using a review model was conducted in phase three to present the findings of the previous phases of the study to staff and to discuss with the participants potential strategies to reduce episiotomy rate in the hospital.

The findings of this study indicated that the episiotomy practices in the hospital were not consistent with evidence-based practice and current international guidelines as the rate of episiotomy is still high for primiparous women in Princess Badea Hospital. This non-evidence-based policy has been handed down over time and appears as spoken ‘rules’ rather than in written documents or guidelines.
The analysis of the data resulted in six key themes including: “Policy: written but invisible and unwritten and assumed’; ‘the safest way’; ‘doctors set the rules’; ‘midwives swimming with the tide’; ‘un co-operative and uninformed women’ and ‘the way forward’.

Identification of the themes, "the safest way" and "doctors set the rules" led to consideration of the concepts of authoritative knowledge, as doctors held the power and authority to develop and disseminate policies and to prescribe practices. The attitudes and beliefs of the doctors dominated, and medical knowledge relating to birth was prioritised and regarded as the ‘right’ or legitimate view. In contrast the themes, ‘midwives swimming with the tide’ and ‘un co-operative and uninformed women’ led to consideration of the concepts that women’s knowledge and midwives knowledge were inferior or subordinate to medical knowledge and the midwives believed they were powerless to act differently from the dominant medical approach to episiotomy.

The theme 'the way forward' identified strategies that could facilitate implementation of evidence-based practice related to episiotomy. Education was identified as the key factor to facilitate practice change. Suggestions from participants about how education could be provided included: running educational programs for both the health staff and women, increasing access to evidence-based resources by building local libraries, providing internet access to enable staff to access information.

Resources to support women were also identified including: communicating information through internet resources, providing web links and providing a telephone hot line or help line. While at one level these are extremely
important strategies, participants recognised that without support from management to both provide these resources and to motive and encourage staff, these strategies directed at individual practice change would not be effective.

Most importantly, it was clear from the study participants that implementing these strategies for change would be difficult without significant change in the relationship between midwives, obstetricians and managers. Most importantly perceptions of women as passive and uniformed must be challenged.

**Limitations of the study**

There are several limitations to this Masters Honours project. First, the study was conducted in only one maternity unit in Jordan and therefore the findings may not be generalizable to other maternity units in Jordan and the Middle East. However, other studies of medical and midwifery care in Jordan have also reported high rates of episiotomy as well as other interventions in birth and have described, or at least, alluded to the challenges of changing practice in a hierarchical and medically dominated health system.

I did experience some difficulty recruiting participants. While 10 midwives agreed to participate in phase two, others declined, and it may be that the midwives who did participate were either more confident about their practice or perhaps were more motivated towards change. Most importantly, I was only able to recruit two doctors. This is a significant limitation as according to the findings of the study, obstetricians as a group of health professionals are the most influential in determining policy and practice. If more doctors had
been agreeable to participate, it is possible that additional information about their perspectives and their practice may have been revealed.

The second aim of this study was to develop strategies for change. The workshop in phase three was specifically designed to identify general and specific strategies to change episiotomy practice at Princess Badea Hospital. However, much of the phase three workshop discussion focused on the findings of the study and the 23 participants (all midwives and nurses) were keen to continue discussing these issues. While strong support for the findings in phase two was provided in the workshop discussion, this left less time for discussion of the strategies for change. On reflection, it would have been valuable to ask the participants to break into smaller groups to ‘brainstorm’ specific ideas for change. In general, the workshop participants only identified strategies that related to increasing opportunities for education of both staff and women. There was only limited discussion about the organisational culture and how to change the nature of the relationships between doctors and midwives or how to promote the role of the midwife in the care of women in pregnancy, birth and the postnatal period. Two managers were present at the workshop. Their presence may have restricted midwives and nurses from putting forward their ideas.

Despite these limitations, active and ongoing reflection of my role as the researcher in the research process contributed to the collection of a rich dataset. Being a member of the same group as the study participants was critical as it helped me to initiate engagement with the managers of the Clinical Development Unit and to a certain extent with staff in the maternity unit, particularly the midwives. The level of acceptance of the research and my presence facilitated the collection of rich data.
6.1 Implications and recommendations for practice

As identified in chapter two and in the Discussion, there are many studies that describe strategies for successful implementation of evidence-based practices including: ensuring appropriate resources are available particularly for ongoing education and training for the development of practitioner attitudes and skills; the health organisation or working environment needs to be conducive to change; change must be sponsored through effective leadership, and ideally consumers will be involved in or at least consulted in the change process. The quality of the research evidence itself and its fit with the organisation and the beliefs of the clinicians will also determine whether or not the clinician will put this information into practice (Rycroft-Malone & Bucknall, 2011). Thus any attempt to enhance the implementation of evidence-based practice will clearly depend on altering or enhancing these factors.

In the final section of this thesis I briefly outline the strategies that may be effective in changing episiotomy practice at Princess Badea Hospital. A multi-dimensional approach is required which includes awareness raising and stimulation of interest and motivation for change; access to evidence-based information and resources; knowledge of evidence-based practice and the development of guidelines and policies.
1. **Awareness amongst staff at all levels of the need to change episiotomy practice**

One of the first steps to achieve change is to increase the awareness of health professionals of evidence-based episiotomy practice. Most participants in this study were not aware of international recommendations in relation to episiotomy practice and remained convinced that women ‘wanted it’. Nonetheless, it is likely that by participating in this study midwives and perhaps the two doctors now have some awareness that the restrictive use of episiotomy is recommended practice in many other countries. This together with the work of Shaban et al, also conducted at Princess Badea, establishes a foundation for introducing practice change (Shaban et al., 2012)

2. **Access to resources required to develop evidence-based guidelines and policies.**

One of the first steps in evidence-based practice is the development of guidelines and policy. Currently there is no policy related to evidence-based episiotomy practice at this hospital. Access to resources such as libraries, databases and the internet pose significant barriers. Here an alliance with the local university and staff in the Medical and Nursing and Midwifery training programs could provide short-term access to these much needed resources.

3. **Training and skills in evidence-based policy and guideline development**

Staff at Princess Badea will require new knowledge, skills and confidence in using research in order to enable them to read critically and understand published papers. A productive alliance with the education institutions may help to facilitate this. It is crucial that this training be multidisciplinary
bringing the obstetricians, other doctors, midwives and nurses together for this training.

4. **Effective Leadership and presence of change agents**

Even the development of skills in critical analysis and reflection by practitioners does not assure the use of evidence-based information. Effective leaders capable of planning, implementing, and sustaining innovation in this environment must be identified. It is crucial that leaders have sufficient authority to successfully make change and receive training and support in evidence-based practice. Carefully selecting and training project leaders and clinician supervisors will help develop or support a learning culture. It was not evident during my time at this hospital if there were managers who would be effective leaders. However staff in the Clinical Development Unit were very keen to progress the development of evidence-based policy and their role should be fostered.

5. **Improving communication and relationships**

Effective work relationships and building supportive networks between individuals within an organisation creates a more positive attitude towards change (Vakola & Nikolaou, 2005). Effective communication skills are also essential for health professionals to interact with women (Murray et al., 2000). Inter-professional collaboration will be essential in successfully introducing change.

The key element in leading change is the ‘people factor’. People will always give support to things they create or that they believe in; hence a collaborative approach to change through stakeholder involvement is critical. To achieve a change in episiotomy practice at Princess Badea Hospital and in other
services in Jordan and then ultimately to introduce woman-centred maternity services in Jordan it will be crucial to bring together midwives, obstetricians and women to establish mutual trust and respect. Much can be learned from the work of Khresheh and Barclay who effectively used action research to build collaborative relationships between obstetricians and midwives to introduce a new maternity record in Jordanian Hospitals (Khresheh et al., 2009)

**Conclusion**

My study has demonstrated that non-evidence-based practices related to episiotomy are widely used during birth in this hospital. In addition, medical professionals (doctors) dominate childbirth practices and dismiss the perspectives of women and midwives. Ongoing collaborative research is needed to introduce evidence-based practices around the use of episiotomy in Jordan. This study provides the data that can inform practice change.
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APPENDICES
Appendix 1

Letter of support from Jordanian ministry of health (English version)
In the Name of God the Most Merciful
Ministry of Health

Number: Development /Trainees /5163
Date: 30/05/2012

The Manager, Al Bashir Hospital
Head of the Scientific Research Ethics Committee

Greetings

Attached is a copy of the Application submitted by the Masters Student in Midwifery at the University of Western Sydney in Australia, Suha Abdelmajeeed Abdullah Hussein in which she seeks approval to conduct a research titled:

(Designing Strategies to Introduce Evidence-Based Practices Around the Use of Episiotomy in Jordan)

by consulting the Statistics Office in the Princess Badiha Hospital to collect reports about the ratio of Episiotomy in the Princess Badiha Teaching Hospital, then meeting the midwives and doctors in the Department of Obstetrics and Gynecology, then conducting a workshop lasting around two hours about the results the researcher reached.

Noting that the research will be from the month 8-11/2012.

Please take note and let me know about the possibility of approval.

Yours respectfully

The Manager, Human Resources Development
Dr Ayoub Al Sayayda
Signature

Copy/File
H SH

Hashemite Kingdom of Jordan
Phone: +96265200230 Fax: +96265688373 P.O. Box 86, Amman 11118, Jordan
Web Site: www.moh.gov.jo

END OF TRANSLATION
Appendix 2

Letter of support from Jordanian ministry of health (Arabic version)
Designing Strategies To Introduce Evidence-Based Practices Around The Use Of Episiotomy in Jordan

جراحات الفتحة في الأردن

Esta is a digital image of a page from a document. The document contains text in both Arabic and English. The Arabic text at the top of the page is not legible. The English text at the bottom of the page reads:

Designing Strategies To Introduce Evidence-Based Practices Around The Use Of Episiotomy in Jordan

The text is signed by a person named Mohammad A. Al-Muawad, and the document is dated July 2012.
Appendix 3

Invitation Flyer for One-One Interview
Designing Strategies to Introduce Evidence-Based Practice around the
Use of Episiotomy in Jordan.

With Suha Hussein

October and November, 2012
30-40 Minutes

You are being invited to participate in phase two of this study. If you agree to participate in this study you will be interviewed in a one-to-one interview by Mrs Hussein. The interview will last for 30 to 40 minutes and will be conducted at the Princess Badea Hospital in the clinical development unit. You will be asked to sign the consent form before the interview. These interviews will be recorded by digital audio tape. In the interview you will be asked to discuss your views and beliefs about practices related to episiotomy.

PLACE:
The interviews will be held in the Clinical Development Unit,
Wheelchair accessible, free parking in the hospital parking.

For further information, please contact Suha Hussein at 0405007574 or at 17531754@uws.edu.au.

To be translated in to Arabic.
Appendix 4

Participant Information for Interview
Participant Information Sheet (General)

An information sheet, which is tailored in format and language appropriate for the category of participant - adult, child, young adult, should be developed.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text. Further instructions are on the last page of this form.

Project Title: The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

Who is carrying out the study?

Thank you for taking the time to read this information. You are invited to participate in "A Study Designing Strategies to Introduce Evidence-Based Practices around the Use of Episiotomy in Jordan". Conducted by Mrs. Suha Hussein, a masters research candidate in the School of Nursing and Midwifery at the University of Western Sydney under the supervision of Professor Virginia Schmied, Associate Professor Hannah Dahlon and Dr. Margaret Duff.

What is the study about?

The aim of this study is to examine the barriers and facilitators to evidence-based episiotomy practice in Jordan, including the perception of midwives who are working in the maternity unit in the hospital and also will seek the perception of key stakeholders in the hospital such as obstetricians, maternity educators, maternity manager and hospital manager.

This will be a three phased study and will include phase one - a review of birth records to report the current rate of episiotomy in Princess Badea Hospital; phase two - interviews with midwives and key stakeholders to ascertain their views and beliefs about practices related to episiotomy. The third phase of the study will involve the conduct of a workshop to develop strategies for practice change.

What does the study involve?

You are being invited to participate in phase two of this study. If you agree to participate in this study you will be interviewed in a one to one interview by Mrs. Suha Hussein. The interview will last for 30-40 minutes and will be conducted at Princess Badea hospital in the clinical development unit. You will be asked to sign the consent form before the interview. The interviews will be recorded by digital audio recorder. In the interview you will be asked to discuss your views and beliefs about practices related to episiotomy. Some of the questions you will be asked to discuss include: 1. Can you describe the policy of performing episiotomies in the hospital? 2. What are the factors that influence your decisions to perform an episiotomy? 3. What are you beliefs about this and over there ways should all women have an episiotomy? 4. Under what circumstances would you not perform episiotomy?
5-Can you express your thoughts that you have in your mind when holding the episiotomy scissors to perform an episiotomy?

All information collected during interviews will be confidential. Names of individuals will be removed from transcripts and replaced with pseudonyms and all data will be in de-identified format. Your participation is confidential and that the information gained during the interview may be published but no information about you will be used in any way that reveals your identity. Suha Hussein, the researcher will have a lap top computer owned by the University of Western Sydney for data collection and all data will be stored on this password protected lap top and on an external portable hard drive that will be kept in locked cabinet at my home. The electronic voice recordings of interviews will be transferred to the lap top computer and external hard drive and will be erased from the portable voice recorder.

How much time will the study take?
The interview will be organised for a time that suits you and the hospital. The interviews will be conducted in a private room in the clinical development unit in the hospital, each interview will be no longer than 30 to 40 minutes minutes.

Will the study benefit me?
There is no expected direct benefit for you as a health professional. It is likely however that staff who participate in the interviews will have time to reflect on practice in relation to episiotomy and it may prompt you to obtain more information about episiotomy. This lead to expected benefit to woman and wider community.

Will the study involve any discomfort for me?
You may feel discomfort or anxiety during interviews if you are concerned about your practice. During interviews, the researcher will make every effort not to influence your views or thoughts and will allow you to freely express your thoughts. The researcher will not react to any of your views, particularly those who disagree with the research topic.

How is this study being paid for?
This study has no funding.

Will anyone else know the results? How will the results be disseminated?
All aspect of the study, including results, will be confidential and only the researchers listed above will have access to information on participants. All data will be in de-identified format. No information will be provided on individual participants to any other participants or institution. Results will be disseminated through a Masters thesis completed by Suha Hussein and publications in a peer reviewed professional Journals, but individual participants, including your names will not be identifiable in a report.

Can I withdraw from the study?
Participation is entirely voluntary: you are not obliged to be involved and - if you do participate - you can withdraw at any time without giving any reason and without any consequences.
Can I tell other people about the study?
Yes, you can tell other people about the study by providing them with the chief investigator's contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?
When you have read this information, Mrs. Suha Hussein will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact me, Suha Hussein, a masters research candidate, mobile: 0405007574 (Jordanian number to be provided).

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee and the Jordanian Ministry of Health Human Research Ethics Committee. If you have any complaints about the ethical conduct of this research, you may contact the Ethics committee through the office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. You can also contact the Ethics committee in Jordan through the office of Research unit on Tel +60 2 5057 837 or email diwan@moh.gov.jo.

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.
Appendix 5

Participants Consent Form for interviews
Participant Consent Form

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text.

Project Title: The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

I, ________________________ , consent to participate in the research project titled The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

I acknowledge that:

I have read the participant information sheet [or where appropriate, ‘have had read to me’] and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signed: __________________________

Name: __________________________

Date: __________________________

Return Address: The Clinical development unit, Princess Fahda hospital

This study has been approved by the University of Western Sydney Human Research Ethics Committee.
The Approval number is: H9695
Appendix 6

Flyer of the feedback and discussion session
Designing Strategies to Introduce Evidence-Based Practice around the
Use of Episiotomy in Jordan.

With Suha Hussein
Monday February 18, 2013
10:00 am – 12:00 pm

You are being invited to participate in phase three in this study. If you agree to participate in this study, you will be invited to attend a workshop to develop strategies for practice change around the use of episiotomy. The workshop will provide an opportunity for participants to share their ideas and thoughts regarding the use of episiotomy and to increase participants’ knowledge of evidence base in relation to episiotomy practice internationally and nationally and to discuss strategies that may have assisted to change practice regarding episiotomy. The findings of the research study will be presented in the workshop. The participants will be asked to complete a questionnaire before and after the workshop.

The workshop is open for midwives, other health staffs, and other interested people including midwives’ students.

PLACE:

The workshop will be held in the Clinical Development Unit

For further information, please contact Suha Hussein at 0405007574 or at 17531754@uws.edu.au.

To be translated in to Arabic.
Appendix 7

Information sheet for the feedback and discussion session
Participant Information Sheet (General)

An information sheet, which is tailored in format and language appropriate for the category of participant adult, child, young adult, should be developed.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text. Further instructions are on the last page of this form.

Project Title: The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

Who is carrying out the study?

Thank you for taking the time to read this information. You are invited to participate in “A Study Designing Strategies to Introduce Evidence-Based Practices around the Use of Episiotomy in Jordan”. Conducted by Mrs. Suha Hussein, a masters research candidate in the School of Nursing and Midwifery at the University of Western Sydney under the supervision of Professor Virginia Schmied, Associate Professor Hannah Cahill and Dr. Margaret Duff.

What is the study about?

The aim of this study is to examine the barriers and facilitators to evidence-based episiotomy practice in Jordan, including the perception of midwives who are working in the maternity unit in the hospital and its seek the perception of key stakeholders in the hospital such as obstetricians, maternity educators, maternity manager and hospital manager.

This will be a three phased study and will include phase one - a review of birth records to report the current rate of episiotomy in Princess Badea Hospital, phase two - interviews with midwives and key stakeholders to ascertain their views and belief about practices related to episiotomy. The third phase of the study will involve the conduct of a workshop to develop strategies for practice change.

What does the study involve?

You are being invited to participate in phase three of this study. If you agree to participate in this study, you will attend a workshop to develop strategies for practice change around the use of episiotomy. The workshop will be conducted in Princess Badea hospital in the clinical development unit. It is anticipated that between 12 to 25 people, including midwives, obstetricians, key stakeholders and educators will participate in the workshop. After you have read this information sheet and agree to participate, you will be asked to sign the consent form. At the start of the workshop you will be asked to complete a questionnaire related to the use of episiotomy. During the workshop the researcher Suha Hussein will provide feedback on the findings of phase one and two and then you will participate in discussion and activities to identify strategies that could help to facilitate practice change around the use of episiotomy. You need to be aware that the workshop discussion will be audio recorded with your permission. This audio-recorded data will be used to record the key strategies identified as well as participants’ thoughts about changing practice. Mrs Suha Hussein will be assisted in the workshop by a co-facilitator who will also make record aspects of the workshop discussion in field notes or on butcher’s paper. At the end of
the workshop you will ask to complete a brief questionnaire to evaluate your experience of the workshop.

All information collected during the workshop will be confidential. Names of individuals will be removed from transcripts and replaced with pseudonyms and all data will be in de-identified format. Your participation is confidential and that the information gained during the workshop may be published but no information about you will be used in any way that reveals your identity. Suha Hussein, the researcher will have a laptop computer owned by the University of Western Sydney for data collection and all data will be stored on this password protected laptop and on an external portable hard drive that will be kept in locked cabinet at my home. The electronic voice recordings of interviews will be transferred to the laptop computer and external hard drive and will be erased from the portable voice recorder.

How much time will the study take?
The workshop will last for two to three hours. The workshop time will be organised in discussion with the hospital management so as not to inconvenience staff.

Will the study benefit me?
There is no expected direct benefit for you as a health professional. It is likely however that staff who participate in the workshop will increase their knowledge about episiotomy use and the strategies that can be used to reduce the rate of episiotomy. A reduction in episiotomy may lead to benefits to women and wider community.

Will the study involve any discomfort for me?
There is a small chance that you may feel slight discomfort or anxiety during the workshop if you are concerned about your practice. During the workshop, you will be treated with respect and dignity and all views about the research topic, episiotomy will be respected.

How is this study being paid for?
There is no tuncing.

Will anyone else know the results? How will the results be disseminated?
All aspects of the study, including results, will be confidential and only the researchers will have access to information on participants. I will not provide any information on individual participants to any other participants or institution. Results will be disseminated through the publication of a masters thesis by Suha Hussein and through publications in peer reviewed professional journals, but individual participants, including your names will not be identifiable in a report.

Can I withdraw from the study?
Participation is entirely voluntary: you are not obliged to be involved and - if you do participate - you can withdraw at any time without giving any reason and without any consequences. You need to be aware that any contribution you made prior to your withdrawal from the workshop may have been recorded but it is unlikely that we will be able to identify your individual contribution and therefore your contribution will be included in the analysis of the data. As above your contribution will not be identifiable.

Can I tell other people about the study?
Yes, you can tell other people about the study by providing them with the chief investigator’s contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?
If you would like to know more at any stage, please feel free to contact me Suha Hussein, a master
research candidate, mobile: 0405007574 (Jordanian contact number to be added).

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee and the Jordanian Ministry of Health Human Research Ethics Committee. If you have any complaints about the ethical conduct of this research, you may contact the Ethics committee through the office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. You can also contact the Ethics committee in Jordan through the office of Research unit on Tel +60 2 6067 637 or email diwan@moh.gov.jo.

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 001 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.
Appendix 8

Consent form for the feedback and discussion session
Participant Consent Form

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text.

Project Title: The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

I, ..........................................., consent to participate in the research project titled The Barriers and Facilitators of Introducing Evidence-Based Practices around the Use of Episiotomy in Jordan.

I acknowledge that:

I have read the participant information sheet [or where appropriate, 'have had read to me'] and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to the photo shoot that may be taken during the workshop.

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signed: _____________________________

Name: _____________________________

Date: _____________________________

Return Address: The Clinical development unit, Princess Alexandra hospital

This study has been approved by the University of Western Sydney Human Research Ethics Committee.

The Approval number is: H9695
Appendix 9

Ethical approval from Ethics Committee from University of Western Sydney
25 July 2012

Professor Virginia Schmied,
School of Nursing and Midwifery

Dear Virginia,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal H9695 “Designing Strategies to Introduce Evidence-Based Practices Around the Use of Episiotomy in Jordan”, until 31 March 2014 with the provision of a progress report annually and a final report on completion.

Please quote the project number and title as indicated above on all correspondence related to this project.

This protocol covers the following researchers:

Virginia Schmied, Margie Duff, Hannah Dahlen, Suha Hussein.

Yours sincerely

Dr Anne Abraham
Chair, UWS Human Research Ethics Committee

v.schmied@uws.edu.au
17531854@student.uws.edu.au
Appendix 10

What Makes Episiotomy Rates Change?:
A Systematic Review of the Literature

Suha Abed Almajed Abdallah Hussein, Hannah Dahlen, and
Virginia Schmied

BACKGROUND: Episiotomy is still a commonly used surgical intervention during birth in some parts of the world, such as the Middle East and Eastern Europe. Evidence supports the restrictive use of episiotomy, and this is reflected in policy statements and clinical practice recommendations. Internationally, various strategies have been used to change and reduce the incidence of episiotomy.

AIM: To identify and describe the strategies and practices that have been used internationally to effectively reduce the rate of episiotomy.

METHOD: We searched CINAHL, Medline, Scopus, PubMed and Nursing Consultant from 1980 to 2010 by using the keywords episiotomy, change, practice, midwife, routine use and evidence-based. A review of the literature was undertaken, which examined factors that facilitate the reduction in episiotomy rates.

RESULTS: Two hundred articles were found, and after examination, only nine provided relevant data and are included in this review. The findings of this review are discussed under the following headings: impact of practice change on episiotomy rates, continuous quality improvement, implementing clinical guidelines, practice change (system change), and the impact of health beliefs and organizational culture. Strategies for changing practice that were identified focused on challenging rationales for current practice and on creating a social and organizational environment that encourage motivation and, therefore, are more effective in reducing episiotomy rates. The literature identified the importance of clarifying critical success factors before trying to implement change with regards to episiotomy usage.

CONCLUSION: Greater efforts to reduce episiotomy rates are currently needed, particularly in countries with high rates. Researchers need to continue to examine the barriers to change and investigate approaches that promote clinician behavior change.

KEYWORDS: midwife; hymenial ring; obstetrics; evidence-based trauma

INTRODUCTION

Episiotomy is a commonly used surgical procedure to enlarge the vaginal orifice during birth and was first introduced to assist with complicated deliveries. However, in many countries it has become routine practice with no scientific evidence of its benefits (Graham, 1997). Clinicians and researchers have raised questions about the possible harm of episiotomies, such as immediate and prolonged perineal pain, third and fourth degree tears, excessive blood loss, wound infections, long-term dyspareunia, and fecal and urinary incontinence (Helewa, 1997). Although the performance of episiotomy may be justified for specific maternal and fetal indications (Klein et al., 1992; Thacker & Banta, 1983), it appears that this surgical procedure is...
undertaken too frequently in the developed and now in the developing world, with little evidence to support current rates (Carrol & Mignini, 2009).

In some parts of the world such as the Middle East, the rate of episiotomy is very high, often over 50% (Fernandes, Benjamin, & Edwards, 2009). Similar rates are reported in the United States (Graham, Carrol, Davies, & Medves, 2005) and in some eastern European countries, as high as 99% have been reported (Royal College of Obstetricians and Gynaecologists [RCOG], 2004). In contrast, the Netherlands, for example, has an episiotomy rate of 8% and in the United Kingdom, it is 14%. In Australia, in 2008, the average rate of episiotomy was 14.4%. This ranged, however, from 8.5% in the Northern Territory to 20.4% in Victoria (Laws et al., 2010).

There is a paucity of research examining the underlying reasons or drivers for episiotomy rates, and why they are higher in some countries. Some research has suggested that cultural practices may play a significant role (Fernandes et al., 2009). For instance, in Jordan, as in many Middle Eastern countries, midwives manage maternity care for pregnant women with uncomplicated pregnancies and births, and while they may perform episiotomies, they do not suture perineal trauma (Hatamleh, Sinclair, Kernohan, & Bunting, 2008). However, the medical model and in particular obstetrics dominates practice, and many American approaches to medical education are evident, with little support for midwifery practices (Fernandes et al., 2009).

Internationally, over the past two decades, evidence supporting the restrictive use of episiotomy has been disseminated, and acceptance of this approach is reflected in policy statements and clinical practice recommendations and guidelines. Various strategies have been used to change and reduce the incidence of episiotomy (Graham et al., 2005). Many countries have implemented policies and strategies of restrictive use of episiotomy, although the emphasis varies. The World Health Organization (WHO; 2003), for example, recommends the restrictive use of episiotomy with a rate between 10%–20% being acceptable. The American Academy of Pediatrics (AA) and American College of Obstetricians and Gynecologists (ACOG, 1997) recommends episiotomy in some situations and states that the routine use of episiotomy is not necessary. The RCOG in the United Kingdom recommends a policy of restrictive use of episiotomy (RCOG, 2002).

The purpose of this article is to identify and describe the strategies and practices that have been used internationally to effectively reduce the rate of episiotomy. The findings of this review will be of particular interest to countries or regions such as the Middle East and Eastern Europe where episiotomy rates remain high. This review of the literature will assist health professionals to identify practices that may reduce the rate of episiotomy.

**BACKGROUND**

Episiotomy is a surgical incision through the perineal tissues, designed to enlarge the vaginal opening during delivery (Bennett & Brown, 1999). This incision is performed using scissors and is usually repaired after the placenta has been delivered. There are two main types of episiotomy that have been described: midline and mediolateral. A **midline episiotomy** is an incision directly into the middle of the perineum running from the vaginal orifice towards the anus, and it follows the natural line of insertion of the perineal muscles (Bennett & Brown, 1999). This type is more common in the United States, and it has been argued that it is easy to repair and results in less pain (Bennett & Brown, 1999). With a **mediolateral episiotomy**, the incision begins at the vaginal orifice, and it is directed away from the midline. This incision is chiefly used by midwives in the United Kingdom and Australia but is believed to be more difficult to repair (Bennett & Brown, 1999). It was once believed that mediolateral episiotomy would protect the pelvic floor and perineum from damage by decreasing the pressure from infant's head on these tissues (Douglas & Stromme, 1976) and reducing the likelihood of severe perineal tears.

Like any surgical procedure, episiotomy has potential risks (Thacker & Banta, 1983), including extension of the episiotomy incision, unsatisfactory anatomic results, increased blood loss, dyspareunia, postpartum infections, and traumatized women (Carrol & Mignini, 2009).

**Historical Perspectives**

The practice of episiotomy is particularly interesting, however, because of the way that the use of this procedure has changed over the past 250 years. The use of episiotomy by physicians was first documented in the 18th century; however, up until the beginning of the 19th century, episiotomy was seldom performed by American and British physicians. The use of episiotomy
during birth was first undertaken to assist complicated deliveries by the Scottish male midwife Ould in 1742 (Dahlen et al., 2011). It did not become routine until the 1920s, following a paper that was presented by Joseph DeLee at a meeting of the American Gynecological and Obstetrical Society in Chicago. DeLee was the first to publicly advocate the routine use of mediolateral episiotomy for all primiparous women and recommended episiotomy as a way to protect the pelvic floor from lacerations and the fetal head from trauma (DeLee, 1920). In the United States, midwives were gradually excluded from playing an active role in the delivery process, and physicians were trained to manage what was viewed as a “disease” process. Thus, it is not surprising that they assumed the use of episiotomy was merely a preventive or protective procedure from complications (Thacker & Banta, 1983).

In the first four decades of the 20th century, birth moved from the home to the hospital and from midwifery practice to physicians. The new specialty of obstetrics sought to study the process of birth and to improve maternal and fetal outcomes. These changes in care contributed to the rapid uptake of new procedures including episiotomy (Thacker & Banta, 1983). Thacker and Banta (1983) reviewed and analyzed all the English literature in over 350 books and articles published between 1860–1980 regarding the advantages and the disadvantages of episiotomy. Based on their thorough review, they found that episiotomy rates had increased with the move away from home births and concluded that there was insufficient evidence to support the routine use of episiotomy and no evidence to indicate the benefit of such a practice to the mother or neonate. They also recommended that there was a need to undertake further research in this field.

What Is Known About the Use of Episiotomy?

The widespread adoption of episiotomy was not without objections. As early as 1948, Kalthreider and Dixon had conducted a large observational study and reviewed 3,000 deliveries (primiparous, large infant birth weight). They reported a large number of severe perineal lacerations and noted their association with midline episiotomy (Kalthreider & Dixon, 1948).

In seeking to establish an evidence base to support or refute the use of episiotomy, a randomized controlled trial was conducted in Canada involving 703 women who randomly assigned to either a restrictive or liberal episiotomy use group (Klein et al., 1992). Klein and colleagues (1992) found that the presence of third or fourth degree tears was associated with extensions of the episiotomy in both groups. Other studies continued to demonstrate an association with midline episiotomy and severe lacerations. For example, several researchers found that midline episiotomy was significantly related to third and fourth degree lacerations, and they recommended curtailing its routine use (Bodner-Adler et al., 2001; Labrecque et al., 1997).

Following this research, several studies examined the role of mediolateral episiotomy in the prevention of severe perineal lacerations. A study conducted in Italy followed 519 primiparous women for 3 months after vaginal birth (Sartore et al., 2004). Sartore and colleagues (2004) found that dyspareunia and perineal pain were significantly higher in the episiotomy group and concluded that mediolateral episiotomy does not protect against pelvic floor dysfunction but also is associated with lower pelvic floor muscle strength compared with spontaneous perineal lacerations.

More recently, a Cochrane review undertaken by Carroli, reviewed randomized controlled trials that compared a liberal versus restrictive use of mediolateral and midline episiotomy. In the liberal group, 75% (2,035/2,708) of women had episiotomies, whereas the rate in the restrictive episiotomy group was 28%; and women experienced less severe perineal trauma, less posterior perineal trauma, less suturing, and fewer healing complications at 7 days, with no difference in occurrence of pain, urinary incontinence, painful sex or severe vaginal/perineal trauma after birth. Overall, women experienced more anterior perineal damage with restrictive episiotomy. Both restrictive compared with routine mediolateral episiotomy and restrictive compared with midline episiotomy showed similar results to the overall comparison (Carroli & Mignini, 2009).

What Is Known About Changing Practice Related to the Use of Episiotomy?

Equally interesting is the resistance to changing practice regarding episiotomy. Klein, for example, writes about the time in the 1970s and 1980s when childbirth practices such as episiotomy began to come under intense scrutiny, challenging the prevailing norm related to episiotomy use established since the time of DeLee in the 1920s. Klein and colleagues (2010) had great difficulties getting their research published because it challenged the routine use of episiotomy.
and went against accepted obstetric practices. Klein comments that this is what happens when you are contesting the current paradigm or orthodoxy, and if you knew how practitioners saw episiotomy, you knew how they viewed birth. This is an important realization, because deeper philosophical positions about vaginal birth often lie beneath arguments for technology use in childbirth (Dahlen, 2011).

THE REVIEW

Aim

The aim of this literature review was to identify and describe the strategies and practices that have been used internationally to effectively reduce the rate of episiotomy. The findings of this review will be of particular interest to countries or regions such as the Middle East or Eastern Europe where episiotomy rates remain high. The findings of the review will assist health professionals to identify practices that may reduce the rate of episiotomy.

Search Strategy

A search was conducted using the following databases: CINAHL, Medline, Scopus, PubMed, and Nursing Consultant. A more general search of Google and national and international government policies, and reports was also undertaken. The search strategy included combinations of relevant key words: episiotomy, changes, practices, midwife, routine use, and evidence-based. The search was limited to the period from 1980 to 2010. Delimiters applied were humans and English language. The search included any relevant studies, reports, articles, and any guidelines or policies.

Search Outcome

The search strategy identified 200 papers, and following a review of the titles and abstracts for relevance, opinion papers, and discussion pieces or studies on episiotomy, in general, were excluded. This resulted in 60 papers, which were reviewed at this point. A further 40 papers were excluded because they focused on comparison between restricted and routine use of episiotomy. The remaining 20 papers were read in full and critically analyzed to ensure their relevance. This led to a further 11 papers being excluded because they reported the change in rates rather than describing processes or strategies to achieve change. A total of nine articles are included in the review (see Figure 1).

The studies identified for inclusion in this review (see Table 1) were conducted in a number of countries, including the United States of America, Canada, Denmark, Sweden, Australia, United Arab Emirates, South Africa, and Brazil. Researchers used different methods to examine change in practice; for example, most used a pretest-posttest design to examine change in practice over time, and episiotomy rates were obtained either by file audit or analysis of electronic administrative data reporting episiotomy rates. Most studies implemented some form of educational program such as continuous quality improvement (CQI) program, the Better Births Initiative (BBI) program, and changing practice through strategies such as removing the episiotomy scissors from the delivery packs. However, no studies were found examining change in practice that used, for example, a randomized controlled design.

FINDINGS

The review has identified a range of interventions used to promote evidence-based practice in relation to the restrictive use of episiotomy. In general, the use of multiple strategies, that is, the combination of several interventions is more likely to effect change in health professional behavior and practice. The findings of this review are discussed under the following headings: the
<table>
<thead>
<tr>
<th>AUTHOR AND YEAR</th>
<th>COUNTRY AND SETTING LOCATION</th>
<th>AIM</th>
<th>METHODS</th>
<th>PARTICIPANTS</th>
<th>INCLUSION CRITERIA</th>
<th>PRACTICE CHANGE</th>
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<tbody>
<tr>
<td>Henriksen et al. (1994)</td>
<td>Denmark Aarhus University Hospital</td>
<td>To evaluate the use of feedback by graphical profile of episiotomy rate and the impact on clinical practice and perineal state after spontaneous vaginal deliveries.</td>
<td>Pre-Post observational study, followed by midwives' feedback regarding intervention towards episiotomy</td>
<td>3,919 women 30 midwives</td>
<td>Multiparous and nulliparous women</td>
<td>The overall rate of episiotomy during the observation period was 37.1% (first period).</td>
</tr>
<tr>
<td>Henriksen et al. (1995)</td>
<td>Denmark Aarhus University Hospital</td>
<td>To evaluate the use of feedback by graphical profile of episiotomy rate and the impact on clinical practice and perineal state after spontaneous vaginal deliveries.</td>
<td>Pre-Post observational study period following the intervention</td>
<td>3,919 women 30 midwives</td>
<td>Multiparous and nulliparous women</td>
<td>The overall rate of episiotomy during the second period after intervention was 66.1% lower, 3.4% reduced the incidence of tears of the anal sphincter. It was 37.1% in the first period.</td>
</tr>
<tr>
<td>Reynolds (1995)</td>
<td>Canada Family Practice Obstetrics Service Tertiary Care Hospital in South Western Ontario</td>
<td>To determine the effectiveness of a CQI program in reducing episiotomy rates.</td>
<td>Pre-Post observational study CQI design single-page newsletter sent to all family physicians with voluntary education sessions</td>
<td>102 Family Physicians 1,400 women (primiparous and multiparous)</td>
<td>Low-risk women (primiparous and multiparous) provided care in the year before and year during CQI program</td>
<td>The overall rates decreased from 44.5% to 33.3%. Among primiparous women, the rate decreased from 37.8% to 46.2% and was associated with significant decreased in perineal tears. Among multiparous women, the rates decreased from 34.3% to 23.6%.</td>
</tr>
<tr>
<td>Dahlén et al. (1999)</td>
<td>Australia Sydney King George V Hospital</td>
<td>To reduce the episiotomy rate by removing the episiotomy scissors from the delivery pack.</td>
<td>Report of changing episiotomy rates after change</td>
<td>All midwives in the labor ward All women</td>
<td>All midwives in the labor ward All women</td>
<td>Episiotomy rate dropped from 1.5% to 10.8% for primiparous women and from 8.3% to 4.6% for multiparous in 1995; declined further in 1998 (8% for primiparous and 3.6% for multiparous women).</td>
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<tr>
<th><strong>AUTHOR AND YEAR</strong></th>
<th><strong>COUNTRY AND SETTING LOCATION</strong></th>
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<th><strong>PARTICIPANTS</strong></th>
<th><strong>INCLUSION CRITERIA</strong></th>
<th><strong>PRACTICE CHANGE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith et al. (2004)</td>
<td>South Africa Gauteng Hospital (n = 10 hospitals)</td>
<td>To implement a focused change programme (88B) to influence obstetric practice.</td>
<td>Pretest-posttest design Educational workshop Intervention comprised a variety of materials (work book exercises, video materials, oral presentations, and visual aids) with some printed materials Interviews with postnatal women (n = 247) and follow up (n = 215) Focus group discussion with labor ward staff (n = 8)</td>
<td>10 government maternity units in Gauteng hospital 247 postnatal women 215 follow up women 8 labor ward staff</td>
<td>Postnatal women for the first period Follow up women for the second period Labor ward staff Multiparous and primiparous women</td>
<td>Findings showed improvements in obstetric practice following the implementation of the 88B, an interaction approach to implementing evidence-based practice that can influence health professionals' decision to change practice.</td>
</tr>
<tr>
<td>Bastos et al. (2007)</td>
<td>Brazil Sao Paulo</td>
<td>To develop and pilot test an educational package for maternity staff to reduce the routine performance of episiotomy. To explore individual and organizational barriers and facilitators to changing episiotomy practice.</td>
<td>Questionnaire sent to 52 medical staff and 217 postnatal women about knowledge, attitudes, and behavior of maternity staff and postnatal women A short, in-service, interprofessional educational intervention Education sessions to all medical staff Interviews with midwives who used episiotomy</td>
<td>3 public hospitals in Sao Paulo 52 maternity staff (doctors, midwives and nurse-midwives) 217 postnatal women</td>
<td>Postnatal women</td>
<td>Knowledge of the benefits and risks of episiotomy lacking among professionals and women. Recommended introduction of direct-entry midwifery education and strengthening of midwifery and obstetric nursing education. The use of initiatives by key stakeholders can facilitate the acceptance of change.</td>
</tr>
<tr>
<td>Fernandes et al. (2009)</td>
<td>UAE (United Arab Emirates) Al Mawaleh Hospital in Dubai</td>
<td>To assess the existing practice of performing episiotomy and develop a multidisciplinary evidence-based guidelines to change practice around the routine use of episiotomy.</td>
<td>Review study Examine the evidence that led to changing episiotomy practices and the debate that has surrounded episiotomy</td>
<td>8000 women delivered in the hospital per year Medical staff (midwives, doctors and health staff)</td>
<td>Multiparous and multiparous women</td>
<td>The rate of episiotomy declined from 64% in 2006 to 52.2% in 2007. A further decline in episiotomy rate to 22.4% in 2008.</td>
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<tr>
<td>Lappen et al. (2010)</td>
<td>USA</td>
<td>To evaluate episiotomy practice and gain insight into the challenges of changing medical practice.</td>
<td></td>
<td></td>
<td>A quality improvement curriculum should expand clinician's knowledge and adherence to guidelines while providing a skill set for future self-directed implementation of change.</td>
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impact of practice change on episiotomy rates, continuous quality improvement, implementing clinical guidelines, practice change (system change), and the impact of health belief systems.

Impact of Practice Change on Episiotomy Rates

All of the studies included in this review demonstrated a reduction in episiotomy rates following the practice change interventions. The rate of change varied from study to study. For example, Reynolds (1995) reported that the overall rate of episiotomy declined from 44.5% to 33.3%, whereas Fernandes et al. (2009) reported that the rates declined from 64% to 52% in 2007 with a further decrease to 22.4% in 2008. Henriksen, Bek, Hedegaard, and Secher (1995) reported a decline in the episiotomy rate from 37.1% to 30.5%. Dahlen and Ryan (1999) reported that the episiotomy rate had dropped from 15% to 10.8% for primiparous women and from 8.3% to 4.6% for multiparous women in 1995, and a further declined to 8% for primiparous women and 3.6% for multiparous women in 1998. These statistics showed a trend toward decreased rate of episiotomy after implementing different strategies in different countries with different populations.

Continuous Quality Improvement

Education may play a crucial role in changing common medical practice such as episiotomy by using CQI programs to keep health professionals’ knowledge and practice current and also ensure that they are following the guidelines (Fernandes et al., 2009; Reynolds, 1995; Smith, Brown, Hofmeyr, & Garner, 2004). The studies reviewed demonstrated that medical staff (obstetricians and midwives) decreased their use of episiotomy during birth, particularly among primiparous women following implementation of different types of educational programs (Fernandes et al., 2009; Reynolds, 1995; Smith et al., 2004).

The Better Births Initiative (BBI) program is designed to address the gap between practice and research, ensuring that clinical practices used in essential obstetric services are grounded in reliable research evidence. Pretest observations were made to determine current practices. An educational workshop intervention was conducted at each study site, usually between 2–3 hr in duration, and comprised a variety of activities and resources including workbook exercises, video material, oral presentations, and visual aids with some traditional printed materials. The study showed that an interactive approach to implementing evidence-based practice can influence health professionals’ decisions to change practice, and that good working relationships and enthusiastic staff is central to effective change (Smith et al., 2004).

Similarly, a CQI program in Canada (Reynolds, 1995) was used to examine the process of care during labor and birth. A key principle of CQI methodology is that improvements can be brought about if there is a clear understanding of the process in providing care or services and if the focus is on the process rather than on the person. They focused on educational efforts by producing a monthly CQI single page newsletter sent to all family physicians, consultant obstetricians, and obstetric nurses. It contained a brief literature review, educational information about a safe length of second stage of labor, monthly episiotomy rates, and practical points for assisting a delivery while minimizing the need for episiotomy or the risk of perineal trauma. They found that the CQI model might be useful in modifying clinical practice because it focuses on understanding the process of care and the environment in which care is provided, both of which may have a major impact on physician’s behavior (Reynolds, 1995).

Fernandes and colleagues also designed and conducted an educational program for all the health professionals (midwives, nurses and doctors) in the labor room to discuss the current practice, reasons for this practice, and their concerns about increasing perineal tears or any other complications. They asked all midwives to record the reason for performing episiotomies, which was followed by interviews with midwives about use and indications (Fernandes et al., 2009).

Participants described the focused practice change programs as educational, empowering, and providing the opportunity for interaction, discussion, and sharing of ideas about changing practice (Reynolds, 1995; Smith et al., 2004). Some participants were reluctant to change their practice at the beginning (Fernandes et al., 2009; Röckner & Fiana-Jonasson, 1999), and others claimed that the proposed changes to practice were externally imposed and unnecessary, which could have contributed to their lack of motivation to attempt change (Fernandes et al., 2009; Lappen & Gossett, 2010; Röckner & Fiana-Jonasson, 1999; Smith et al., 2004).
Implementing Clinical Guidelines

The studies reviewed were conducted in different countries where the implementation of strategies and clinical guidelines relating to episiotomy varied. The beliefs of health professionals and culture of the organization had a strong influence on the uptake and effectiveness of clinical guidelines. Some researchers noted that positive practice changes from implementing guidelines for the restrictive use of episiotomy unless specific indications were reported that many participants described their concerns and anxieties around the probability of increasing perineal tears or any other complications following the restrictive use of episiotomy (Fernandes et al., 2009; Henriksen et al., 1994; Röckner & Fians-Jonasson, 1999; Smith et al., 2000). Some participants described the birth process as a pathological status that sometimes needed surgical interventions like episiotomy, whereas others described it as a natural process. This may contribute and affect the acceptance of changes in practice (Klein, 2010; Röckner & Fians-Jonasson, 1999).

In some of the studies reviewed, researchers also described midwives’ beliefs and attitudes regarding birth positions, and noted that the incidence of perineal trauma and the probability of episiotomy will increase by increasing the use of lithotomy position with stirrups during birth (Röckner & Fians-Jonasson, 1999), whereas others reported that epidural analgesia, instrumental deliveries, birth weight, and fetal complications were significantly associated with episiotomy (Fernandes et al., 2009; Röckner & Fians-Jonasson, 1999). Lappen and Gossett (2010) noted that episiotomies and other interventions that expedite delivery were most likely to be performed during the day and least likely in the middle of the night. Medical staff may have multiple demands on their time during the day and feel more pressure to accomplish delivery more quickly than they do at night (Lappen & Gossett, 2010). They also may simply be less likely to be around and the birth becomes more the domain of the midwife at night, which is reflected in intervention rates.

Changing Systems in Order to Change Practice

The practice change study conducted by Dahlen and Ryan (1999) involved simply removing the episiotomy scissors from the delivery packs and packaging them separately. This led to a halving of the episiotomy rate in 1 year. Prior to this, midwives had observed that often health professionals picked the episiotomy scissors up as a reflex action. By using particular concerns expressed by some practitioners that episiotomy scissors were being made blunt by their inadvertent use for cutting the umbilical cord, they argued that by keeping the scissors separate, it would still be available but remain sharp. Therefore, by addressing a concern, they also changed a practice; so both practitioners who like episiotomy and researchers who were trying to change the practice had their needs met. This study showed how sometimes simple changes are the most effective (Dahlen & Ryan, 1999).

The Impact of Health Beliefs and Organizational Culture

Birth is one of the most exciting events in life, and is embedded in culture and shaped by beliefs. Differences in the health care systems and cultural approaches to care, as well as the attitudes and beliefs of individual health professionals, can delay the acceptance of change (Röckner & Fians-Jonasson, 1999). The studies reviewed for this article were conducted in various countries with different health care systems and participants’ held varying beliefs and attitudes toward changing practices related to episiotomy. Most of the studies reviewed reported that many participants described their concerns and anxieties around the probability of increasing perineal tears or any other complications following the restrictive use of episiotomy (Fernandes et al., 2009; Henriksen et al., 1994; Röckner & Fians-Jonasson, 1999; Smith et al., 2000). Some participants described the birth process as a pathological status that sometimes needed surgical interventions like episiotomy, whereas others described it as natural. This may contribute and affect the acceptance of changes in practice (Klein, 2010; Röckner & Fians-Jonasson, 1999).

What Facilitates the Reduction in Episiotomy Rates?

Getting research evidence into policy and practice is challenging. A systematic review by Greenhalgh, Roberet, Macfarlane, Bate, and Kyriakidou (2004) found that the problem of getting evidence into practice
was initially defined as an innovation gap (lack of high-quality research evidence); and after many years, it changed to become behavior gap (professional’s failure to use this evidence in their daily practice; Greenhalgh, 2001).

A study by Bastos and colleagues (2007) in Brazil reported that the maternity model of care is not based on scientific evidence of effectiveness and safety, and health professionals still treat birth as if it carries a very high risk to women’s health. They recommended the introduction of direct entry model of midwifery education and strengthening of midwifery and obstetric nursing education. Several initiatives have been developed to change practice during birth in Brazil; one of these initiatives is the Galba de Araújo Award, which acknowledges and rewards hospitals and maternity care units with the greatest achievements in humanizing care for women and their newborn babies, including reducing the episiotomy rate. As a result of this initiative, many hospitals strive to change their practice (Bastos, Diniz, Riesco, & de Oliveira, 2007).

In this review, several strategies were identified as a way to help health professionals change their practice. Researchers found that the focused practice change programs can influence health professional behavior and modify clinical practice regarding episiotomy and also lead medical staff to understand the process of care, environment, and factors that increases the probability of using episiotomy (Bastos et al., 2007; Fernandes et al., 2009; Graham, 1998; Henriksen et al., 1994; Reynolds, 1995; Smith et al., 2004). Lappen and Gossett (2010) argue that a quality improvement program should expand health professionals’ knowledge and increase adherence to guidelines, and recommended self-directed implementation of change. Henriksen et al. (1994) believes that process of audit and feedback may have changed the practice of episiotomy, that is, by initiating discussions among the midwives about the use of episiotomy. They suggest that this may have contributed to the continued reduction in rate of episiotomy (Henriksen et al., 1994).

The successful introduction of a new guideline is dependent on the fundamental principles of change management, for example, positive support from senior clinicians, leaders, and hospital management, which can strongly influence acceptance of these changes and following of new guidelines (Bastos et al., 2007; Fernandes et al., 2009; Smith et al., 2004). Ongoing data collection, audit, and review can provide evidence of the effectiveness of guidelines.

On the other hand, cultural barriers to changing practices in maternity care systems that are dominated by medicine may mean that local initiatives using local opinion leaders can be a barrier to changing practice (Fernandes et al., 2009; Graham, 1998; Rückner & Fianu-Jonasson, 1999). In addition, other factors have been identified that may hinder changes to practice such as lack of participant’s awareness, lack of self-efficacy, staff shortage, poor interactions between staff and women, as well as lack of time (Fernandes et al., 2009; Smith et al., 2004).

**CONCLUSION**

Episiotomy for specific indications where the benefits outweigh the risks can be beneficial, but it continues to be overused in many countries in the world without scientific reasons, and the routine use of episiotomy needs to be reconsidered. Clinical studies have led to changes in medical practice, such as with episiotomy. These studies usually describe practice trends over time and try to correlate changes in practice with changes in rates of complications. Strategies for changing practice should focus on challenging rationales for current practice and on creating a social and organizational environment that will encourage motivation, and therefore, the probability of episiotomy rate change. It is also important to clarify critical success factors before considering trials to determine the size of effect on practice and behavior.

Greater efforts around reducing the use of episiotomy are currently needed in several developing countries with high rates. Investigators need to study barriers to change and investigate approaches to promoting change in clinician behavior. It is also important to increase awareness among medical staff to change attitudes towards the use of episiotomy.

**REFERENCES**


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