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**Interventions during the second stage of
labour: An exploration of what may
affect their use in Jeddah, Saudi Arabia**

Roa Fouad Altaweli

A thesis submitted in partial fulfilment of the requirement for
the degree of Doctor of Philosophy in Midwifery

City University London

School of Health Sciences

October 2015



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p 59: **Fig 3.** Current structure of healthcare system in Saudi Arabia.

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Abbreviations

Abbreviations	Full name
AMA	Against Medical Advice
AMUs	Alongside Midwifery Units
ARAMCO	Arabian-American Oil Company
AROM	Artificial Rupture of Membrane
BSN	Bachelor of Science in Nursing
CBAHI	Central Board of Accreditation for Healthcare Institutions
CCT	Controlled Cord Traction
CDSI	Central Department of Statistics and Information
CTG	Cardiotocography
DoH	Department of Health
EBM	Evidence Based Medicine
EBP	Evidence Based Practice
EFM	Electronic Foetal Monitoring
FHR	Foetal Heart Rate
FSBC	Free Standing Birth Centre
FSE	Foetal Scalp Electrode
GCC	Gulf Cooperation Council
IM	Intramuscular
IV	Intravenous
JCI	Joint Commission International
KAU	King Abdulaziz University
KSA	Kingdom of Saudi Arabia
KSU	King Saud University
MCWP	The Maternity Care Working Party
MOH	Ministry of Health
MSN	Master of Science in Nursing
N/K	Not Known
NHS	National Health Service
NICE	National Institute for Clinical Excellence
NICU	Neonatal Intensive Care Unit
NPO	Nothing Per Oral
NSAIDs	Non-steroidal Anti-Inflammatory Drugs
OMSB	Oman Medical Specialty Board
OU	Obstetric Unit
PUH	Peace be Upon Him
RCT	Randomised Controlled Trial
RHL	Reproductive Health Library
SA	Saudi Arabia
SCFHS	Saudi Commission for Health Care Specialists
TBA	Traditional Birth Attendant
UK	United Kingdom
USA	United States of America
VBAC	vaginal birth after Caesarean section
VE	Vaginal Examination
WHO	World Health Organisation

Glossary of terms

Action line	A diagonal line parallel to the alert line. The Alert line starts at 4 cm of cervical dilatation and it travels diagonally upwards to the point of expected full dilatation (10 cm) at the rate of 1 cm per hour. The Action line is parallel to the Alert line, and 4 hours to the right of the Alert line. These two lines are designed to warn professionals to take action quickly if the labour is not progressing normally
Amnioinfusion	A method used to increase the volume of amniotic fluid around the foetus during pregnancy. Under ultrasonic guidance, a needle is inserted into the uterine cavity and saline or Ringer's lactate is infused until the level of amniotic fluid is normal
Amniotomy	Amniotomy refers to artificial rupturing of the membranes (AROM) or 'breaking the waters'. This is done during a vaginal examination using an elongated plastic hook, which is used to pierce the membranes, thus releasing the amniotic fluid. This is carried out in the belief that it can stimulate stronger contractions and thus shorten the duration of labour
Baby resuscitator	A machine used to aid the resuscitation of newborn babies
Bradycardia	A baseline heart rate below the normal range. In the foetus, this is defined as a rate lower than 110 beats per minute
Caput	A Latin word means the head
Cardiotocography	An electronic device used to monitor the FHR and uterine contractions during labour. The CTG can be used on admission, intermittently or continuously.
Daya	The Arabic name for traditional midwife
Doptone	A hand-held ultrasound device
Entonox	Pain relief (a 50:50 mixture of oxygen and nitrous oxide)
Epidural	Epidural analgesia is a central nerve block technique achieved by injection of a local anaesthetic close to the nerves that transmit pain and is widely used as a form of pain relief in labour
Episiotomy	A surgical cut in the muscular area between the vagina and the anus (the perineum)
Evidence based	The process of systematically finding, appraising, and using research findings as the basis for clinical decisions
Foley urinary bladder catheter	A flexible tube that is often passed through the urethra and into the bladder. It is retained by means of a balloon at the tip that is inflated with sterile water
GDP per capita	A gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources

Hadith	Saying of Prophet Muhammad (PUH)
In and out urinary catheter	A flexible catheter used for short term drainage of urine
Intermittent Auscultation	A practice of listening to the foetal heart beat for short periods. Intermittent measurement of the FHR using a Doppler ultrasound or a Pinard stethoscope. The time between measurements depends on the stage of labour
Intervention	The act of intervening
Lithotomy position	A position where a woman is placed on her back with knees bent with her legs up in stirrups and her buttocks close to the edge of the table
Multigravidae	A woman (or female animal) that is or has been pregnant for at least a second time
Partogram/ partograph	A pictorial graphic record of progress of labour by plotting cervical dilation and contractions against time. It starts once a woman is supposed to be over 4cms dilated and/or with strong regular contractions
Pethidine	An opiate pain killer given via I.M or I.V
Primigravida	A woman who is pregnant for the first time
Quran	Allah's revelation
Sunnah	Elaborations by Prophet Muhammad (PUH)
Syntocinon	A synthetic version of the naturally-occurring hormone oxytocin. It has similar actions to the hormone oxytocin which is produced by the body. It works by making muscles of the uterus contract. It is given to induce labour, reduce bleeding after labour, or increase uterine contractions
Systematic review	A review in which evidence from scientific studies has been identified, appraised and synthesised in a methodical way according to predetermined criteria. May or may not include a meta-analysis
The second stage of labour	The delivery or birth stage. It starts from full dilation of the cervix or when the woman feels the urge to push to complete expulsion of the foetus

Dedication

This thesis is dedicated to the following people who influenced and shaped my life tremendously:

To my mother and my teacher

Rahmah Omar Iraqi (1949 -2014)

In loving memory of my mother, my teacher and inspiration, who taught me to read, and nurtured (or tolerated) my natural curiosity; whose support and belief in me never wavered; for everything she has done for me throughout her life; finally, for placing her hopes and dreams in me, which I hope came true

To my father

Fouad Abdulghani Altaweli

For everything he has given especially his support, kindness, love, patience and sacrifices. Truly without his support this thesis would not have been possible

And, to my brothers and little sister

Khalid, Waleed and Rafah

For their support, understanding and their enduring tolerance of my work and studies over the years. Their love, smiles, and laughter have helped me overcome many difficulties and challenges, which I am grateful for

My sister in Law, (her children)

Yasmin, Omar, Sarah and Alia

For being in my life and brightening up my days with their calls and messages

And also, to all healthcare professionals

Obstetricians, Midwives and Nurses

Who have been taking care of women during labour and birth in the government hospitals where this research was conducted, and have made this research possible; for readily giving up precious time to complete the data collection and allowing me to interview them, and for their tolerance and ready acceptance of my presence during labour and birth to observe their practice

And last, but certainly not least, to all the women

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Declaration

This written thesis is my own unaided work. I declare that the work in this thesis was carried out in accordance with the Regulations of the City University London and the School of Health Science on plagiarism. The work is original except where indicated by special reference in the text and no part of the thesis has been submitted for any other degree. Any views expressed in the thesis are those of the author and in no way represent those of the City University London and the School of Health Science. The thesis has not been presented to any other University for examination either in the United Kingdom or overseas.

Signed.....

Date.....

Publications arising during the PhD

Paper publications

Altaweli, R. and Roberts, J. (2010) Maternal-infant bonding: a concept analysis. *British Journal of Midwifery*, 18 (9), pp.552-559.

Altaweli, R. F., McCourt, C. and Baron, M. (2014) Childbirth care practices in public sector facilities in Jeddah, Saudi Arabia: A descriptive study. *Midwifery*. 30 (7) pp.899–909

Conference presentations

Altaweli, R. (2011) ‘Hospital Policies and Practices during Normal Childbirth in Maternity Wards in Jeddah, Saudi Arabia’. Paper presented at: Normal Labour and Birth: 6th Research Conference. University of Central Lancashire. Grange over Sands, Cumbria, UK.

Altaweli, R. (2013) ‘Interventions during the second stage of labour in Saudi Arabia’. Paper presented at: PhD Colloquium. City University London, UK

Altaweli, R. (2013) ‘Interventions use during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia’. Paper presented at: Annual Doctoral Student Conference. School of Health Sciences, City University London, UK

Altaweli, R. (2013) ‘Interventions use during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia’. Paper presented at: Human Reproduction Study Group 12th Annual Conference. British Sociological Association. The Open University, Milton Keynes, UK

Altaweli, R. (2013) ‘Ethical and practical considerations in doing cross-cultural and international research’. Paper presented at: Doctoral symposium. City University London, UK

Altaweli, R. (2014) ‘Interventions during the second stage of labour: an exploration of what may affect their use in Jeddah, Saudi Arabia’. Paper presented at: Clinical teaching/learning in nursing and health sciences conference. King Saud bin Abdulaziz: University of Health Sciences, College of Nursing. Jeddah, Saudi Arabia.

Altaweli, R (2014) ‘Interventions during the second stage of labour in Jeddah, Saudi Arabia’. Paper presented at: 3 Minute Thesis Competition (3MT®). City University London, UK

Altaweli, R (2014) ‘Interventions use during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia’ Paper presented at: The 9th International Normal Labour and Birth Research Conference. Buzios, Brazil.

Altaweli, R. (2014) ‘Interventions use during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia’. Paper presented at: Maternal and Child Health Research Centre Seminar. City University London, UK

Altaweli, R. (2015) ‘Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia’. Poster session presented at: The 8th Saudi students’ conference. London, UK.

Altaweli, R. (2015) ‘Midwifery: A talent, art, and qualification’. Paper presented at: Midwifery pioneers conference. Al Yamamah Hospital. Riyadh, Saudi Arabia.

Abstract

This thesis is an exploratory qualitative study using an ethnographic approach to explore the use of interventions during the second stage of labour among healthcare professionals and what may be influencing their use within two large government hospitals in Jeddah, Saudi Arabia.

Data collection methods included participant observations of 19 labours and births and semi-structured interviews with 29 healthcare professionals comprising obstetricians [n=10], midwives [n=12], nurses [n=6] and nurse-midwife [n=1]. In addition, the hospital labour and delivery ward policies and guidelines from those hospitals were collected. Data collection took place over a two-month period in 2011 at King's Hospital, and a two month period in 2012 at City Hospital (pseudonyms), after seeking ethical approval from City University and from each of the hospitals involved in the study. All participant observations, interviews, field notes (diary), and hospital documentation was recorded using a word processing package (Word 2010) and then transferred into qualitative data analysis software (QDAS) (Atlas.ti 7) which was used for organising and coding interviews transcripts, observations field notes and hospital policy documents.

The findings from this PhD confirm that the influences on use of interventions during childbirth are complex. The findings revealed a number of rationalisations that professionals give for the many interventions used during labour and birth. Primary interventions used routinely included continuous Electronic Foetal Monitoring (EFM), bladder catheterisation, intravenous infusion, denial of companionship, episiotomy practice, lithotomy position, limitations on mobility and on duration of second stage of labour, directed pushing. Rates of instrumental delivery and Caesarean section were increasing.

Thematic analysis of the data identified two core and inter-related explanatory themes in relation to the use of interventions observed during the second stage of labour in Jeddah: ways of seeing childbirth and power. The findings demonstrate the influence of a hierarchical system of control, the impact of the medical model, and the role of power in medical surveillance and fear culture on the use of interventions during the second stage of labour.

Chapter 1: Introduction to the study

1.1. Introduction

“Nature works well the vast majority of the time - birth outcomes are better when labour and birth are nurtured and supported but not interfered with”.

(Davis-Floyd et al., 2009, p.446).

This thesis presents an exploratory qualitative study using an ethnographic approach focusing on the use of intervention during the second stage of labour in two large government hospitals in Jeddah, Saudi Arabia. This chapter introduces the research project, defines the key concepts involved in this thesis, outlining the research rationale, personal and professional motivation, reflection on the study; study’s aims, objectives and research questions. Finally, it provides a brief overview of the thesis.

1.2. Key concepts

1.2.1. Normal childbirth

‘Normal childbirth’, defined by the WHO (1996, p.3) as being:

“Spontaneous in onset, low-risk at the start of labour and remaining so throughout labour and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth mother and infant are in good condition”.

A UK Maternity Care Working Party (MCWP) (2007) argued that it is essential to have a precise working definition for normal birth to enable accurate comparisons to be made between similar women using different services and models of care. In England a formal definition of normal childbirth based on a specific set of routinely

collected statistics adopted by the information centre for the National Health Service (NHS) states:

“Delivery without induction, the use of instruments, caesarean section, episiotomy and without general, spinal or epidural anaesthetic before or during delivery” (Dodwell and Newburn, 2010, p.6)

However, there is no single definition of what can be considered a normal birth. Anderson (2003) wrote that a 'normal birth' is a purely physiological process that takes place in a supportive environment (at home or in a midwife-led setting) where the woman remains at the centre of care and in control. She argued that midwives are the experts of normality and are therefore best placed to define normal birth (Anderson, 2003).

This definition of birth is not applicable to current practice in the Saudi Arabian context because in my experience, *the mode of delivery* is considered more important than the process of delivery; i.e. the definition of childbirth that is adopted is a measurement of outcome rather than the process of labour and delivery. For example, The Health Statistical Yearbook use the term 'normal delivery' for all women who give birth vaginally regardless of whether they receive an epidural or are induced. The term 'abnormal delivery' includes Caesarean sections, ventouse, forceps, breech and other assisted forms of delivery, and is used principally to show the contrast with normal delivery statistics in the MOH and other government hospitals in Saudi Arabia (MOH, 2011).

1.2.2. The second stage of labour

The process of childbirth is divided according to professional definitions into three stages. The first stage (labour stage) begins when regular uterine contractions start and the cervix begins to dilate (Macdonald and Magill-Cuerden, 2011). The second stage of labour (delivery or birth stage) starts from full dilation of the cervix or when the woman feels the urge to push to complete expulsion of the foetus (O’Driscoll et al., 2003). The third stage begins when the placenta and membranes are expelled (Macdonald and Magill-Cuerden, 2011).

“Definitions of the stages of labour need to be clear in order to ensure that women and the staff providing their care have an accurate and shared understanding of the concepts involved and can communicate effectively.”

(National Institute for Health and Clinical Excellence (NICE), 2014, p.590).

NICE (2014, p.590) suggest the following definitions of the second stage of labour:

Passive second stage of labour:

- *the finding of full dilatation of the cervix before or in the absence of involuntary expulsive contractions.*

Onset of the active second stage of labour:

- *the baby is visible*
- *expulsive contractions with a finding of full dilatation of the cervix or other signs of full dilatation of the cervix*
- *active maternal effort following confirmation of full dilatation of the cervix in the absence of expulsive contractions.*

There are some areas of controversy in relation to the second stage of labour. Reviewing definitions of the second stage of labour in six midwifery and nursing textbooks (Reeder et al., 1997; Novak and Broom, 1999; Fraser and Cooper, 2003; Pillitteri, 2003; Henderson and Macdonald, 2004; Olds et al., 2004; Macdonald and Magill-Cuerden, 2011), I found that all the authors state that the second stage of labour is traditionally regarded as the period from full dilation of the cervix at 10 cm to the birth of the infant. Fraser and Cooper (2003) state that the second stage of labour begins when the woman feels the urge to expel the baby. However, Downe (2004) argues that women do not experience labour and birth by anatomical divisions, or dilation of the cervix. In addition, labours do not usually progress at a uniform rate. Often, there is more rapid progress towards the end of the first stage, and this leads to distinctive maternal behaviours. The phase marked by these changes is traditionally defined as 'transition'. Henderson and Macdonald (2004) note that there is very little formal evidence on the nature of transition and some observational studies note the fluid nature of the end of the first stage and beginning of the second stage of labour. Fraser and Cooper (2003) argue that progress from the first to second stage is always clinically apparent.

There are debates about the need for regular vaginal examination to assess the progress of labour and the onset of the second stage of labour. For example, some who argue that routine vaginal examinations are not needed to assess labour progress, or not to mark the second stage (Downe and Dykes, 2009; Winter and Duff, 2009). Recent systematic reviews suggest there is no evidence to support or reject the use of routine vaginal examinations in labour to improve outcomes for women and babies (Downe, et al., 2013). Hobbs (1998) discussed her observations of 'the purple line' as an alternative way of assessing labour progress. NICE (2014) suggests the birth

would be expected to occur within three hours of the start of the active second stage in primiparous women and within two hours in multiparous women. NICE (2014) also suggests that vaginal examination should be offered hourly in the active second stage or in response to the woman's wishes. In addition, NICE (2014) advises that assessment of progress should include maternal behaviour, effectiveness of pushing and foetal wellbeing, taking into account foetal position and station at the onset of the second stage. However, it could be argued if vaginal examination is not done routinely, the onset of the second stage of labour cannot be calculated correctly.

Approaches to second stage management are normally categorised into two types: (a) active management and (b) physiological management. Active management involves medical interventions in the normal physiological process of the second stage of labour and generally includes placing the women in the lithotomy position, encouraging directed pushing, using anaesthesia, episiotomy, and a sterile field (Kitzinger and Simkin, 1984). Physiological management generally involves limited intervention in the normal physiological processes (only when clinically indicated) and the woman choosing her own position, and spontaneously pushing, receiving perineum support (Kitzinger and Simkin, 1984).

Intervention is defined as:

“A situation in which someone becomes involved in a particular issue, problem etc. in order to influence what happens” (Rundell, 2007, p.794).

Intervention is also defined as:

“The action or process of intervening. Interference by a state in another’s affairs, action taken to improve a medical disorder” (Stevenson and Waite 2011, p.744).

Management of the second stage of labour is a process that involves an interaction between healthcare professionals, including obstetricians, midwives and nurses, women and their companions. In Saudi Arabia obstetricians, midwives and nurses play a significant role in the support and care of women during childbirth and have varied roles in the care of women experiencing normal birth. A range of childbirth outcomes are influenced by the decisions healthcare professionals make (Raynor and Bluff, 2005).

1.2.3. Necessary interventions during childbirth

Intervention in the second stage of labour is not a new concept. As presented in the previous section, the meaning of intervention is clear from the dictionary. Many types of interventions during the second stage of labour have been proposed by the literature, including psychosocial interventions, technical interventions, pain-relief interventions, operative interventions, and obstetric interventions (Cherniak and Fisher, 2008).

What remains unresolved however is which of these interventions are necessary in low risk birthing women and which are not (Johanson et al., 2002; Birthplace Collaborative Group, 2011; Shaban et al., 2011; NICE, 2014). This means that there is no conclusive definition of the terms ‘necessary intervention’ and ‘unnecessary intervention’ as these could be subjective, depending on the perspective of the writer.

Interventions during childbirth can have beneficial as well as adverse consequences, hence the need for some definition of necessary or unnecessary. For example, NICE (2014) states that foetal heart monitoring could be necessary to identify foetal distress. Monitoring could also allow for accurate identification of other complications (NICE, 2014). However, evidence indicates that the routine use of the CTG machine for low risk women increases the use of interventions such as Caesarean section and instrumental deliveries without safety benefit (Alfirevic et al., 2013 and see Chapter 3). Such interventions are beneficial when they are clinically required, but can have adverse consequence such as distress, pain, or morbidity to mothers and babies when they are not clinically indicated (Begley, 2014). Therefore, for an intervention to be ‘necessary’ they must be based on evidence, do more good than harm, and should not be used routinely (Begley, 2014; Salam et al., 2014), otherwise they are just interference (Begley, 2014). To provide a more low-tech intervention example, it is recommended to empty the urinary bladder during the second stage of labour by encouraging the woman to urinate spontaneously. However, the use of bladder catheter routinely to empty the bladder is unnecessary and might cause infection of the urinary tract during the second stage of labour when the foetal head is firmly engaged. Catheterisation therefore may be very difficult and even traumatic to the woman (WHO, 1996) and so its routine use can be described as unnecessary intervention.

In my research context, I am looking at interventions in relation to a single, vertex-presenting, full-term foetus in low risk uncomplicated pregnancies. Drawing on the literature reviews conducted and presented in Chapter 3, I have defined ‘unnecessary intervention’ as the routine use of any intervention that is not supported by best clinical evidence for such use. Necessary intervention is inherently more difficult to

define, as it depends on professional judgement but my working definition has been guided by where use of the intervention was selective and involved evidence-based clinical judgement.

As will be discussed in the conclusions of my clinical literature reviews in Chapter 3, most birth interventions have long been considered unnecessary in routine use and should not be used except at the woman's request or when clinical indications are present (WHO, 1996). An unnecessary intervention is a procedure that has more risk than benefit. Evidence shows that many common childbirth interventions lack scientific support as routine measures, have many adverse effects, and lead to use of a cascade of interventions to prevent, monitor, or treat these complications (WHO, 1996; Klein et al., 2006; Shaban et al., 2011). Based on this, parameters of interventions in the second stage of labour for this study were chosen according to what is defined as routine by the literature and reviewed in Chapter 3.

1.3. Rationale

Childbirth is a major life experience for a mother and her family. It is an event that can have a substantial impact on maternal physical, sociological and psychological wellbeing (Berg and Dahlberg, 1998; Khalil et al., 2005; NICE, 2014). For a woman and her family, and for the professionals involved in her care, the birth of the baby is normally the most significant moment during childbirth, accompanied by a sense of achievement that labour and birth are completed (Simkin, 1991).

Childbirth is a natural biological event, but is also, to a great extent, an act that is culturally informed (Oakley, 1980). Although labour and birth are natural processes, interventions (both necessary and unnecessary) comprise a recognisable element of

obstetric and midwifery practices. Interventions in childbirth have been on the rise in Saudi Arabia (Ba'aqueel, 2009), as in many other countries (Downe, 2004; Graham et al., 2005; McAra-Couper et al., 2011; Shaban et al., 2011). In recent centuries, labour and birth have come to be no longer predominantly treated as natural processes without a requirement for interventions in most cases, despite the fact that childbirth outcomes are better when labour and birth are supported without the routine use of medical interventions (Hattem et al., 2008; NICE, 2014). Hence, the United Kingdom (UK) NICE guidelines on intrapartum care (NICE, 2014) recommend that if labour is progressing normally and both mother and baby are well, clinical interventions should not be offered or advised.

The increase in medical intervention has had a significant influence during the last century in Western and developed countries, and such practices continue to increase despite efforts to encourage normal childbirth (Johanson et al., 2002; Smeenk and ten Have, 2003; van Teijlingen et al., 2004; Hatamleh et al., 2008). Such medical interventions have become routine during normal childbirth in maternity wards worldwide, even in women with straightforward pregnancies (Johanson et al., 2002).

Some studies show that many women with straightforward pregnancies are now experiencing childbirth with common medical interventions such as continuous electronic foetal monitoring (EFM), lithotomy positioning, episiotomy, directed pushing, instrumental deliveries and artificial rupture of the membrane during the second stage of labour in a range of countries (Maimbolwa et al., 1997; Khayat and Campbell, 2000; Abdulsalam et al., 2004; Turan et al., 2006; Hatamleh et al., 2008; Sweidan et al., 2008; Altaweli et al., 2014). Yet, these processes take place in the absence of a firm body of evidence to support their efficacy. Thornton and Lilford (1994) in their critique of the Dublin trial of active management of labour (O'Driscoll

et al., 1973; O'Driscoll et al., 2003) argue that doctors and midwives often intervene in labour by rupturing membranes and prescribing oxytocin in order to prevent harm to mother and baby. These procedures are also referred to as active management of labour, which includes strict diagnostic criteria for labour, early amniotomy, early use of oxytocin, and continuous professional support (Thornton and Lilford, 1994). Active management of labour is an example of the medicalisation of birth and is in widespread use, and appears not to have declined, despite critiques of the evidence (McCourt, 2005, Downe and Dykes, 2009) and NICE guidelines that do not recommend routine use in the UK (NICE, 2008 and 2014). However, as will be discussed in this thesis (Chapter 3), there is no evidence to support the routine active management of labour.

There are similar concerns internationally that some practices during the second stage of labour are not in accordance with evidence-based practice (EBP) (Khresheh et al., 2009). Although the adverse consequences of many practices are well documented and many healthcare organisations do not recommend them as a part of the care provided during the second stage of labour, as shown above there is evidence that these practices still occur routinely in hospital settings.

There are many reasons for the lack of an evidence base in practice among healthcare professionals. These may include a lack of knowledge about EBP and lack of evidence-based institutional policies among healthcare professionals, the negative attitude of healthcare professionals towards research-based patient care, demanding workloads that place restrictions on available time, concerns about adopting different practices from others and being overwhelmed with the amount of information available in medical and nursing journals, as well as textbooks (Melnik, 2002).

Childbirth intervention rates vary significantly worldwide and this variation is not explained by research or patients' characteristics (Shearer, 1993; Belizán et al., 1999; Graham et al., 2005; Althabe et al., 2006, Nippita, et al., 2015) and reflects wide differences in practice and adherence to evidence-based guidelines in hospitals. Cherniak and Fisher (2008) argue that inter-country variations in intervention rates are often attributed to non-clinical factors including cultural beliefs, medico-legal concerns and access to birthing services. Therefore, in some regions women are more likely to be subject to unnecessary obstetric interventions. This can lead to iatrogenic maternal mortality and morbidity (Shearer, 1993; Penna and Arulkumaran, 2003), increasing the cost of care (Shearer, 1993) and unfavourably influencing women's experiences (Fisher et al., 1997; Dodwell and Newburn, 2010). Khresheh et al. (2009) argue that there is widespread international concern that non-evidence based childbirth interventions and practices continue as standard practice, in spite of the realisation that this can negatively affect the quality of clinical childbirth care.

The potential harm caused by medical interventions during the second stage of labour may not be understood by health professionals working in maternity wards and this may account for the reluctance of some health professionals to avoid these practices. Furthermore, it is not clear whether the decision to perform these interventions is based on hospital policy or on a single midwife's or doctor's subjective decision.

1.4. Motivation and reflection on the study

Several personal and professional motivations informed my decision to conduct this research. I am a registered Saudi Arabian nurse-midwife and became interested in midwifery after graduating from King Abdulaziz University (KAAU) with a Bachelor's degree in Nursing. My intention was to eventually work in a government

hospital that offers midwifery positions in which midwives can work independently, overseeing their own cases. However, I was not able to work in such a hospital at that time as an education in midwifery was required to work as a midwife and this was not available in Saudi Arabia. I therefore went to Bahrain to pursue a postgraduate Diploma in Midwifery. After receiving my midwifery qualification I worked in a government hospital as a midwife, conducting normal deliveries, taking care of women with high risk pregnancies, and providing antenatal, intrapartum, and postpartum care in medically uncomplicated cases of pregnant women and their foetuses, as well as immediate post-partum assessment of mothers and newborns identified as midwifery cases. In this hospital, at that time, apart from me, only non-Saudi Arabians were working as midwives because of the lack of midwifery education in Saudi Arabia.

In the period when I was studying for my Bachelor's degree in nursing in Saudi Arabia and my postgraduate Diploma in Midwifery in Bahrain, I have been trained in a medical and interventional environment and I was taught to use routine interventions and carry out practices during the second stage of labour, such as routine episiotomy and lithotomy positioning under sterile techniques for all primigravidae (first births). However, I was not happy that women had limited power to question the service they received; for example, the practices of routine episiotomy and the administration of intravenous fluids. While working with women in Saudi Arabia and Bahrain, I felt very sorry for the women whenever they refused interventions because, after all, it was hospital policy and I needed to convince them that was the best thing for them and thereby coerce agreement, as I felt there was no other choice and I had to do it.

I became increasingly interested in the use of intervention during the second stage of labour at the beginning of my career as a midwife in 2005. This prompted my decision to study for a Master's in Midwifery in the UK and then undertake doctoral studies, so that I would be in a position to help women in Saudi Arabia to have the best experience of birth without unnecessary medical interventions.

During the year that I worked as a midwife in the Labour and Delivery Department of a government hospital in Jeddah, I witnessed various routine interventions and practices performed on women during labour and birth. I also saw a lot of women in situations that reflected a lack of informed decision-making about the interventions used.

During my experience working as a midwife, I used medical interventions routinely in accordance with the hospital's policies. I always believed that birth is a natural event in low risk women and that it needs to be supported, rather than interfered with, and that interventions, whilst appropriate in certain at-risk situations, should not be used routinely for all women. However, as a newly graduated midwife, it was difficult for me to follow EBP because of my lack of experience and seniority. Nevertheless, some experienced senior international midwives persuaded me that there are ways to offer women the chance to have fewer interventions during childbirth, such as restrictive episiotomy practice, and encouraging different positions and mobility, which were not encouraged by hospital policies in the hospital where I worked. Therefore, I was supported by these midwives to be confident enough to help primigravidae women to give birth without episiotomy, as I was afraid to do so and could not believe that a primigravida could give birth without an episiotomy, since during my diploma we were required to perform episiotomy on all primigravidae routinely.

I observed that practices during the second stage of labour varied between healthcare professionals. Although hospital policy suggested the use of routine episiotomy for all primigravidae, some healthcare professionals did not follow this directive and gave these women the chance to have an intact perineum. Some midwives thought it was important to use episiotomy and some of them preferred to give the woman a chance to have an intact perineum. Meanwhile doctors had equally varied views, practices, and attitudes. The reasons for their decisions complying, or otherwise, with policy were not clear and could be affected by many factors.

Before 1952 most women in Saudi Arabia gave birth to their babies at home, attended by traditional midwives (called “dayas” in Arabic). Childbirth took place within a social model at that time and was less medicalised as will be described in Chapter 2. However, with the advancement of technology and the number of hospitals increasing every year, more women give birth within the medical context of hospitals and are having intervention-driven care, with women being cast as passive receivers of medical/midwifery care. This transition to a hospital setting was reflected in my own mother’s experience. She gave birth to my older brother at home and informed me that her experience was pleasant, involving no complications or medical interventions except for the presence of a traditional midwife. Later, she gave birth to me and my other siblings in hospital, as that had become the norm at that time (30 years ago). Undertaking some observational placements in hospitals and birth centres in the UK during my studies made me aware that there are many similarities, as well as differences between obstetric and midwifery practices in Saudi Arabia and the UK. In hospitals around the world most women are treated similarly by being exposed to all kinds of interventions because technology is available in hospital settings and the medical model of care is adopted in them. However, there could be other reasons for

the use of routine medical interventions in hospital settings during the second stage of labour, which are not clear in the literature.

My interest in the interventions used during the second stage of labour, and what affects their use, has increased greatly since I completed my Master's degree in London. While working on my dissertation for this qualification I explored hospital policies and practices during normal childbirth in the maternity wards of nine government hospitals in Jeddah, Saudi Arabia, to assess and verify whether practices are evidence-based. I found that some unnecessary procedures, known to be ineffective or harmful in routine use, were frequently employed (Altaweli et al., 2014). The reasons informing their routine use in this setting were not explored at that stage.

As a midwife I have had the chance to observe several births in different countries, including Saudi Arabia, Bahrain, the UK and the Netherlands. My studies in the UK provided me with the opportunity to become oriented to the obstetric and midwifery practices and interventions provided for women in the UK; particularly, about how the UK government tries to help women to be well informed. In addition, discussion with midwives, friends, colleagues and my supervisors made me aware of and led to consideration of the importance of this research in both the UK and Saudi Arabian contexts in order to understand and improve practice.

A search of the literature, which will be presented in Chapter 3, revealed that there has been no previous research conducted into obstetric hospital practices and what affects their use during the second stage of labour in Saudi Arabia. This search was conducted in comparison to other countries and it identified a need for the current research project, leading to a specific interest in the use of interventions during

childbirth and healthcare provision in Saudi Arabia, a newly-developed country that is similar to many Western countries in terms of childbirth care and interventions.

1.5. Study aim, objectives and research questions

1.5.1. Aim

The aim of this project was to explore the use of interventions during the second stage of labour among healthcare professionals in Jeddah, Saudi Arabia and identify what may be influencing their use.

1.5.2. Objectives

The study sought to address the study aims by meeting the following objectives:

1. Describe the routine care of women during the second stage of labour.
2. Explore obstetricians', midwives' and nurses' attitudes, perceptions and practices in relation to the use of interventions during the second stage of labour in Jeddah, Saudi Arabia.
3. Explore the variations in attitudes, perceptions and practice during the second stage of labour.
4. Explore the influences on practice and what encourages healthcare professionals to use interventions during the second stage of labour in Jeddah, Saudi Arabia.

1.5.3. Research questions

1. What are the perceptions, attitudes and practices of obstetricians, midwives and nurses caring for women in Jeddah, Saudi Arabia in relation to the use of interventions during the second stage of labour?
2. What influences healthcare professionals' decisions to use interventions during the second stage of labour?

1.6. Overview of the following chapters

This thesis is organised into eleven chapters, as follows:

Chapter two presents the Saudi Arabian context. It provides a brief history of Saudi Arabia and an overview of the background information that is important to the study, including the history of the obstetric, midwifery and nursing professions and their associated educational development. It also gives a brief description of healthcare within the Saudi Arabian context.

Chapter three presents the results of the empirical literature review on the evidence around second stage of labour practices, to identify standards of EBP. It also examines the evidence relating to implementation of evidence-based practice.

Chapter four provides a brief overview of the key theoretical areas and concepts relevant to a critical analysis of the use of interventions in obstetric and midwifery practices, and maternity services. It focuses on the available literature relating to the reasons behind the use of interventions during childbirth and the ways in which childbirth is managed in different social settings.

Chapter five sets out the study methodology and the data collection methods adopted in the study. It is divided into two parts. The first part of the chapter discusses the philosophical assumptions underpinning the research and the epistemological issues associated with the selection of different research methods, so as to explain the rationale for the selection of ethnography as an appropriate method to address the research questions. The second part of the chapter focuses on the research design, the methodology that directed the research process and the methods employed for collecting and analysing the data. It discusses the research process and describes the way in which the study was conducted, the difficulties encountered, the decisions made at each stage and the theoretical and methodological assumptions and perspectives underpinning the choices made. It describes how decisions were made with respect to accessing participants, details of the sampling and the methods used for data collection and analysis, the ethical considerations pertinent to the study, the approach to data analysis and the procedures followed to ensure the rigour and trustworthiness of the research.

Chapter six describes the two research settings. Drawing on my observation and service documents, it provides a description of the two research sites (King's Hospital and City Hospital) including their practice environments and organisation. It also provides an overview of the staffing, language, antenatal care, hospital policies and guidelines (in relation to the second stage of labour), companionship issues and mobilisation in both hospitals from information collected from interviews, observations and hospital documents. In order to bring these issues to life, they are contextualized within a vignette drawn from my study observations "Sarah's story".

Chapter seven provides a detailed description of the various ways in which the second stage of labour was managed, based on my observations, interviews with health professionals and documentary evidence from the two hospitals. It presents healthcare professionals' accounts of the second stage of labour care and interventions, and their explanations and justifications for the practices observed and described.

Chapter eight discusses the first core theme resulting from my thematic analysis of the data. It focuses on healthcare professionals' ways of viewing childbirth and the impact of their views on their use of interventions during the second stage of labour. This chapter uses data collected from both sites to explore how practitioners selectively filter their experiences through a process of active meaning making. These filters reflect specific belief systems which can, paradoxically, be both stable and consistent and at the same time fluid and contradictory, depending on the context.

Chapter nine concentrates on the second core theme of the study findings, exploring the complex issue of medical power in the two hospitals, focusing particularly on how it is exercised in these contexts. It also discusses how the view of birth as a medical event, which influences interventions during the second stage of labour intersects with the exercise and structures of power.

Chapter ten presents and discusses the study's findings in relation to the research questions and the literature. It refers to relevant theories in order to try to explain the issues highlighted and to achieve more detailed understanding of why interventions are used during the second stage of labour in this context. At the end of this chapter the study's strengths and limitations are addressed.

Chapter eleven provides a summary of the findings and explains how the thesis contributes to the larger body of knowledge. At the end of this chapter recommendations and implications for improving practices during the second stage of labour in Saudi Arabia are discussed.

1.7. Conclusion

This chapter has provided a definition of the key concepts involved in this thesis. The rationale for investigating interventions during the second stage of labour and how I became interested in this area of practice were discussed. The aim, objectives and research questions were highlighted and an overview of the structure of the thesis, including a summary of each chapter was given. The next chapter provides an overview of the background information that is important to understanding of the study context and gives a brief description of healthcare within the Saudi Arabian context.

Chapter 2: The Saudi Arabian context

2.1. Introduction

This chapter provides an overview of the background information that is important to understanding the context of the study and gives a brief description of healthcare within the Saudi Arabian context. It outlines the history of obstetrics, midwifery and nursing professions, and their associated educational development. Starting with an overview of Saudi Arabia's history, geography and culture the chapter will then go onto describe the health care system before looking in more detail at the set up of the maternity services. In keeping with an ethnographic study, this part of the thesis explores the Saudi Arabia context to help the reader to be familiar with the Saudi Arabian culture and healthcare system. This will help the reader also to understand how Saudi Arabian culture influences the healthcare context.

2.2. Saudi Arabia: History and geography

Saudi Arabia (SA), officially known as the Kingdom of Saudi Arabia (KSA), is a Muslim Arab monarchy in the Middle East. The monarch undertakes the dual roles of Prime Minister and King and also appoints members of the cabinet, which contains many members of the royal household. There is therefore no role for political parties, nor the organisation of labour in the form of trade unions or professional associations (Vidyasagar and Rea, 2004).

Three stages can be identified in the emergence of Saudi Arabia both as a country and a monarchy. The first Saudi Arabian state, established in 1744, lasted until about 1818, with a second phase between 1824 and 1891. The third phase was initiated in 1902 to the present day. The support of Islamic leaders aligned to the Al-Wahabi

movement was an important element during the period of the first phase associated with the reformer Mohammad Ben Abdelwahab (Al-Rasheed, 2010).

Saudi Arabia comprises about four-fifths of the Arabian Peninsula. It is a vast country and the largest Arab state in Western Asia by land area, covering 2,250,000 square kilometres (868,730 square miles). The country is bordered to the West by the Red Sea and the Gulf of Agapa. To the North it shares borders with Jordan, Iraq and Kuwait; to the East it is bounded by the Arabian/Persian Gulf, Qatar and the United Arab of Emirates; and to the South by Oman and Yemen (see Figure 1). Much of the country is desert and some areas are without rain for extended periods (Al Osimy, 1994).

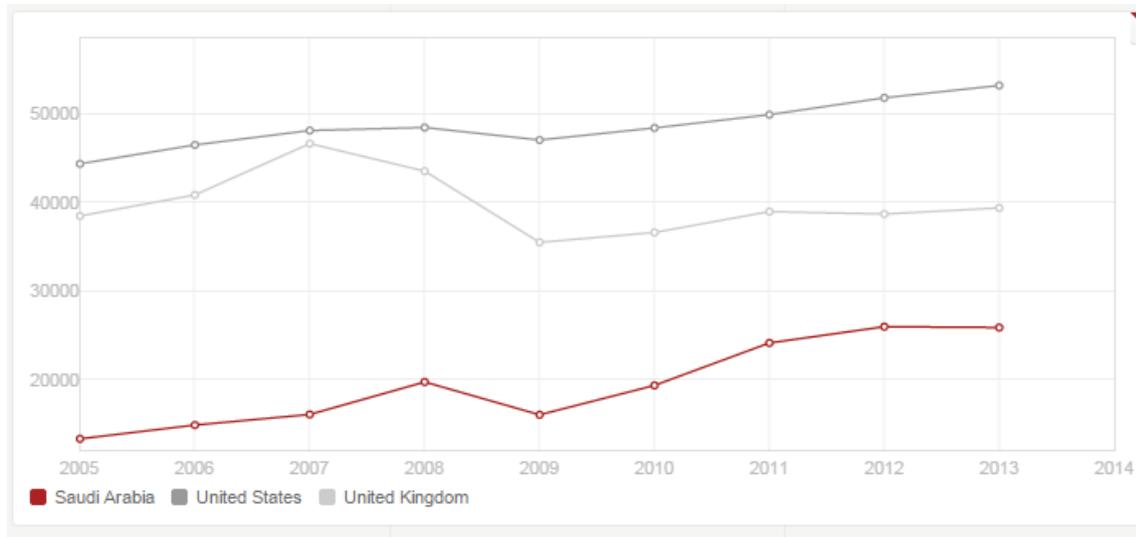
Figure 1: Map of the Kingdom of Saudi Arabia



Source: (Google Maps, 2015)

Saudi Arabia gained international recognition as an independent state in the Middle East in 1932 when its founder, Abdulaziz bin Saud, united the territories in the Arabian Peninsula. Saudi Arabia was never entirely colonised by a European power. Instead, it was under the Ottoman Empire's influence until the end of the First World War, and was then succeeded by British influence until the Second World War (Gallagher and Searle, 1984). Al-Rasheed (2010) discussed that at the end of the Second World War, the USA strategy was to replace Britain as the dominant regional power. As is evident through the liaising of political and economical structural influence with the American establishment of the gas and oil company, ARAMCO (Arabian-American Oil Company) (Al-Rasheed, 2010, Anderson, 2014). Therefore, despite its start as an underdeveloped desert area Saudi Arabia has become one of the wealthiest nations in the Middle East because of these vast resources. Furthermore, it has been noted that although oil production started in the 1930s, the effect of wealth, development and modernisation had only been established in the 1960s (Gallagher and Searle, 1984; Al-Rasheed, 2010).

In terms of economic performance, in 2011 the estimated GDP per capita for Saudi Arabia was US \$20,328 (MOH, 2011). Figure 2 shows the difference between GDP per capita in Saudi Arabia, the United States of America (USA), and the UK.

Figure 2: GDP per capita (current US\$)

Source: (The World Bank Group, 2015)

Saudi Arabia has a population of approximately 28.376 million, including about 8.971 million (32%) expatriates distributed across 20 health regions. In terms of population growth, there is a 3.19% natural annual increase in population, 2.93% total fertility rate and a crude birth rate of 22.9 per 1,000 (MOH, 2011).

Jeddah, where the current research is carried out, is the major city in Western region of Saudi Arabia and the largest seaport on the coast of the Red Sea with a total population at the time of study of 3.862 million including approximately 1.888 million expatriates (MOH, 2011). Jeddah is the second largest city in Saudi Arabia after the capital city, Riyadh. The population of Jeddah is cosmopolitan with different nationalities living together and creating a diverse culture. Since the seventh century, during the annual Hajj pilgrimage, Jeddah has hosted millions of Muslim pilgrims from all over the world. The resulting socialising with pilgrims has a major impact on the culture, society, religion and economy of Jeddah. This in turn may have an impact on the birthing culture within the Saudi Arabian hospitals.

2.3. Saudi Arabian culture

Saudi Arabia is an Arab and Islamic society, to a degree that is extreme even within the Middle East (Gallagher and Searle, 1984). Saudi Arabians share common cultural aspects with Arabs and Muslims worldwide. However, like any other culture, the Saudi Arabian culture is unique in many ways. Al-Shahri (2002) advises, when studying the cultural background of a certain group of people, to avoid the use of an evaluative approach as much as possible, and instead to focus on increasing awareness and understanding. However, Oakley (1980) argues that childbirth is accomplished in and formed by culture, both in a general sense and in the particular sense of the varying definitions of reproduction offered by different cultures. Van Hollen (2003, p.215) recognises that culture is not a “thing” which exists objectively out there in the world, but rather it is a process which is continuously constructed and reconstructed through social interactions, within and against relations of power.

Culture is shaped by many factors, including religion, race, economic status, level of education and environmental factors (Al-Shahri, 2002). Gallagher and Searle (1985) and Moghadam (1992) maintained that a political culture has been created that, on the one hand, reflects conservative cultural and religious values, while at the same time embracing the positive aspects of technological developments and the general improvement of the human condition. For example, a considerable number of Saudi Arabian female physicians are being trained, whose efforts will be directed towards female patients in order to minimize sensitivities concerning male physicians and female patients (Moghadam, 1992). Especially in the context of childbirth, more female obstetricians are encouraged to work within the labour and delivery room.

2.3.1. Language

The official language in Saudi Arabia is Arabic. However, English is widely used in the country and is the official language for communication and documentation in Saudi Arabian healthcare facilities (Al-Shahri, 2002). Even though most patients and their relatives in Saudi Arabia have Arabic as their first language, most health professionals converse in English (Aldossary et al., 2008). Al-Shahri (2002) and Karout et al. (2013) noted that there is constant need for interpreters to bridge the gap between healthcare providers and their patients an observation corroborated by my own observational data from the field. In order to address this issue, Karout et al. (2013) suggested preparing expatriate nurses working at the maternal health services to be more familiar with the Saudi Arabian expressions and terminology related to women's health. They also suggested that instead of recruiting interpreters, hospitals should ask professionals to pass an Arabic Exam as a condition for employment.

2.3.2. Religion

Islam, which originated in Arabia, is the official religion in Saudi Arabia. It plays a significant role in Saudi Arabian culture. Al-Shahri (2002) and Almutairi and McCarthy (2012) noted that Islam is one of the main factors shaping the Saudi Arabian culture. This is consistently expressed in Saudi Arabian life, starting with the flag of Saudi Arabia and the legal system through to the individuals' daily lives (Al-Shahri, 2002). It is important to provide information about the religion in Saudi Arabia, to help the reader to understand how Islam in Saudi Arabia provides the social agreements and social traditions that influence how women in this culture are seen.

Islam also determines the calendar and guides Saudi Arabians in their daily lives, governing morals, dress, eating habits and business dealing (Al Osimy, 1994). The Islamic calendar is based on Hijri years, starting with the moon year in which the Prophet Mohammad (Peace be Upon Him- PUH) immigrated from Makkah to Madinah. The Hijri (Muslim) calendar is 11 days shorter than the Gregorian calendar, so it is a true lunar calendar and is adjusted to the sighting of the new moon. Saudi Arabia uses both calendars, but mainly the Hijri one, especially in government organisations.

Islam is one of the main and last monotheistic religions. Followers of Islam are Muslims, who believe in God (Allah in Arabic) and that Mohammad (PUH) is His Prophet. The Arabic word 'Islam' simply means 'submission', and derives from a word meaning 'peace'. In a religious context it means complete submission to the will of God. The five major concepts of the Islamic faith or pillars of Islam include the following: (1) testify and faith in Allah (Shahada), (2) prayer five times daily at specified times (Salah), (3) compulsory giving of charities (Zakah), (4) fasting during the month of Ramadan (Seyaam), and (5) pilgrimage, (Hajj) one time during one's life to the holy city of Makkah in Saudi Arabia (Sutherland and Morris, 1995).

"It is not righteousness that you turn your faces towards the East and the West, but righteous is the one who believes in Allah, and the Last Day, and the angels and the Book and the Prophets, and gives away wealth out of love for Him to the near of kin and the orphans and the needy and the wayfarer and to those who ask and to set slaves free, and keeps up prayer and pays the Zakat; and the performers of their promise when they make a promise, and the patient in distress and affliction and in the time of conflict. These are they who are truthful, and these are they who keep their duty." (Quran, 2:177).

Muslims believe in one God; in the Angels created by Him who act upon the heart of each person, inspiring him to do well; in the Prophets and Messengers of God through whom His revelations were brought to mankind containing guidance on how man should live and conduct himself; resurrection, in the Life after death and the Day of Judgement and, Heaven and Hell, individual accountability for actions; in God's complete authority over human destiny.

Muslims believe that everything happen in this life is governed and decided by Allah as the whole world is entirely under the direction and control of Allah.

“Your Lord creates and chooses whatever He wills. The choice is not theirs. Glory be to Allah! He is exalted above anything they associate with Him!”
(Quran, 28:68).

Quranic verses that speak about Allah’s knowledge of the pregnancy such as:

“... to him [alone] is attributed knowledge of the Hour. And fruits emerge not from their coverings nor does a female conceive or give birth except with His knowledge. (Quran, 41:47).

And the verse:

“Allah knows what every female bears; and what the wombs fall short of (in gestation), and what they may add. With Him everything is in a fixed measure.”(Quran, 13: 8).

2.3.2.1. *Prayer in Islam*

It is important to understand different type of prayers in Islam and in the Saudi Arabian culture as relevant to the childbirth context as prayer is believed to facilitate the process of labour and birth and to ease labour pain.

Salah or Salat is prayers of body, mind and soul. It is the second Pillar of Islam and is the name of the practice of ritualistic prayer of formal worship and obligatory prayer which is performed by Muslims anywhere five times each day, forming a direct link between the worshipper and God. These five specific times are dawn, noon, afternoon, sunset, and night which determine the rhythm of the entire day. These five prayers contain verses from the Quran, and are said in Arabic, but personal supplication (Duaa in Arabic) can be offered in one's own language. A ritual called Wudu (Cleaning several parts of the body with water) is a prerequisite to Salah. It is the duty of every Muslim, male and female, after reaching the age of puberty. Muslims generally pray on a prayer rug placed on the floor facing toward Makkah.

There is no hierarchical authority in Islam, and no priests, so the prayers are led by a learned person who knows the Quran (Allah's revelation) chosen by the worshippers. Muslims believe that Allah Almighty answers the supplications of a person, if they pray to Him intensely

“And when My servants ask you, [O Muhammad], concerning Me - indeed I am near. I respond to the invocation of the supplicant when he calls upon Me. So let them respond to Me [by obedience] and believe in Me that they may be [rightly] guided.” (Quran, 2:186).

Prayers are an important part of Muslim life and so it is the norm that a Muslim prays during difficult times and they offer a kind of support during childbirth. There is always a gap between belief and practice, however, and the daily practice of religion may not confirm to formal ideals. There is a coherent belief system that provides account of women's role of giving birth and pain during childbirth. Some Muslims believe that prayers in the form of supplications are accepted and answered by Allah during childbirth. In Islam, there is no Quranic evidence for this claim and there are no specific supplications that are stated to ease the woman's labour pains. For example the verses from Quran that describe Mary's childbirth:

“So she (Mary) conceived him, and she withdrew with him to a remote place. And the pains of childbirth drove her to the trunk of a palm tree. She said, “Oh, I wish I had died before this and was in oblivion, forgotten. But he called her from below her. Do not grieve; your Lord has provided beneath you a stream. And shake toward you the trunk of the palm tree; it will drop upon you ripe, fresh dates. So eat and drink and be contented.” (Quran, 19:22-26).

It is a common basic principle in Islam, when a person is facing difficulty, such as in labour and birth, to use all official means (such as technical knowledge or expertise) to solve their problem, while at the same time putting their trust in God that He will help them achieve their goal (Fadel, 2002). Usually during times of crisis, patients and their families turn to religion for comfort (Sutherland and Morris, 1995) but do not reject the role of medicine and healthcare.

Islam deals with the loss of an infant or child in a very reverent and positive manner. There are many texts in the Quran and Sunnah (elaborations by the Prophet

Muhammad, PUH), which point to the virtue and great reward of those who lose a child and are patient and state that Allah will give them reward without measure.

“Only those who are patient shall receive their reward in full, without reckoning.”(Quran 39:10).

Muslims put their trust in Allah; they are required, however, to make a sincere effort to strive and do their best, and not simply sit back and let things take their course in blind submission. Such belief can give a person a remarkable degree of inner faith, confidence and peace of heart, especially in the face of illness. Moreover, a believer lives with the assurance that whatever is to come to any individual, including death, cannot fail to come at its appointed time.

“For each one are successive [angels] before and behind him who protect him by the decree of Allah. Indeed, Allah will not change the condition of a people until they change what is in themselves. And when Allah intends for a people ill, there is no repelling it. And there is not for them besides Him any patron.” (Quran, 13:11).

This verse of Quran is similar to the proverb

“Trust in God, but tie your camel.” (Source of proverb not known).

This proverb is typically used to illustrate that God helps those that help themselves and to illustrate the aspect of choice within destiny.

This shows how faith is important and sustaining but doesn't simply lead to passivity or a rejection of systematic knowledge and development, or to passivity (people may more easily accept what happens, but they are not simply passive).

The Prophet Mohammad (PUH) said:

“Whatever befalls a Muslim of exhaustion, illness, worry, grief, nuisance or trouble, even though it may be no more than a prick of a thorn, earns him forgiveness by Allah of some of his sins.” (Sahih Al-Bukhari, 544).

In line with this hadith, labour pain is seen in Islam as a way to earn forgiveness from Allah. In addition, there is nothing wrong with using medications or helping to reduce labour and birth pain.

Allah says:

“Allah intends for you ease, and He does not want to make things difficult for you” (Quran, 2:185).

Muslims believe that people are born free of any sin and bear no responsibility for others' faults and sins. It is only after they reach the age of puberty, and they knowingly commit sins that they will be held responsible for their actions in this life and the hereafter. Muslims also believe that forgiveness is always available through repentance. Muslims pray for repentance directly to Allah, without any intermediary; this happens during childbirth when women ask for God's help to ease birth and decrease pain.

“Seek forgiveness of your Lord. Verily He is ever most forgiving.” (Quran, 71: 10).

2.3.2.2. *Islam, gender and patriarchy*

Gender is a social and cultural category that is based on sex but may govern, or at least influence, how differences between the sexes are viewed and played out. Sex is a biological term, while gender is a psychological and cultural one (Oakley, 1985). Oakley (1985) argues that to be a man or a woman is as much a function of dress, gesture, occupation, social network and personality as it is of possessing a particular set of genitals. There is wide variation in the way different cultures define gender (Oakley, 1985).

Patriarchy is:

“a concept used to define a society or organisational system in which men have all or most of the power and influence” (Rundell, 2007, p.1096).

Islam looks at the woman as an equal, mature and capable partner of a man, without whom a family cannot exist and teaches that men and women are all the creation of Allah, existing on a level of equal worth and value. However, in some patriarchal societies like in Saudi Arabia women are treated according to inherited customs and family tradition. Islam preserves women's honour and dignity, and requires that she must be treated with respect and honour. Her femininity should not be exploited in any way, rather she is to be regarded and treated as human individual whose sexuality does not enter into her relationship with any person other than her husband. It is important to understand women's position in Islam and within the Saudi Arabian culture to understand the women's role and how they are seen in labour and delivery wards in the current study. Women are heavily involved in the labour and delivery process in Saudi Arabia as obstetricians, midwives, nurses and women during childbirth and also companions.

In Islam, the responsibility for providing for the family is on the husband, while the responsibility to care for the house and raise the children is on the wife. These are the main priorities, but cooperation between the husband and the wife is required and highly recommended.

The adherence to Islam (as with other religions) varies with the strength of the beliefs of the people. Sometimes culture and traditions interfere with, or even overshadow the religion. Some people claim that something in their culture or tradition is part of the religion, when it is not, or do things that have no justification in Islam and are prohibited; yet that gets portrayed by others as the tenets of the religion. Saudi Arabia tends to implement policies that encourage economic growth, but at the same time maintain traditional family relationships. In the Saudi Arabian context, the woman's place is still seen as being within the home environment and their life style is generally the most restricted in the Middle East (Moghadam, 1992).

2.3.3. Women in Saudi Arabia

The general lack of authority granted to women is reflected in the context of childbirth where women may not have the power to decide aspects of their care during labour and birth in medicalised settings. Moghadam (1992) argues that economic and educational development tend to erode classic male domination, though in parallel new forms of gender and class inequality may be created.

According to the statistical yearbook issued by the Central Department of Statistics and Information (CDSI, 2010) around 49% of the Saudi Arabian population were female during the data collection period, the rate of unemployed female was 33.4%, and the rate of unemployed male was 7.4% (CDSI, 2011). Most the women are employed within education and healthcare. However, within conventional male-

dominated Saudi Arabian culture, only a small percentage of Saudi Arabian females are in employment (Gallagher and Searle, 1984; Ratner and El-Badwi, 2011).

Moghadam (1992, p.5) defined development as

“a broad process of economic and social change, usually promoted by technological advancement but crucially affected by changes in social structure, property relations, and cultural understandings”.

He provides an overview of economic and social development since the 1960s within the Middle East as a whole and where the increased power of the state, economic development and the role of oil wealth have contributed to improved educational and work opportunities for women. This level of economic development also introduced changes in social structures, which saw the emergence of middle class women with a new degree of social and economic independence and this was also reflected in a more prominent public image of female emancipation.

According to Ratner and El-Badwi (2011) the Wahhabis have imposed strict gender apartheid and discrimination against women. This is disseminated through institutional rules, cultural concepts and artefacts. Gender apartheid is defined by Ratner and El-Badwi (2011, p.234) as *‘a distinctive pattern of gender relations’*. Of course, gender apartheid did not just happen, nor did it emerge from the personal desires of individual men and women that were negotiated interpersonally. Gender apartheid in Saudi Arabia, including the exclusion of women from most areas of civil life, was imposed by the extreme conservative, autocratic Wahhabi Islamic authority in the 1970s which strongly emerged under Mohammad ibn Abd Al-Wahhab (Al-Rasheed, 2010). Women are segregated in Saudi Arabian schools and universities. Female students have their own buildings and lecturers and are free not to cover

themselves inside these buildings. Male students have their own buildings across the street and do not mix with women. However, in the hospital environment, students mix together since hospitals are considered a mixed place of work, although the wards are single sex for patients.

The house in Saudi Arabia is structured in such a way that the man and his friends have a space that is separated from the family space. The upper class is not bound by these restrictions as in some families, women freely interact with male outsiders without veils (Ratner and El-Badwi, 2011).

As a Saudi Arabian female, I witnessed the gender segregation enforced by gender segregation laws that prohibit unrelated men and women from having any contact with each other (Ratner and El-Badwi, 2011; Almutairi and McCarthy, 2012), with the hospital working environment being a key exception. Almutairi and McCarthy (2012) argue that gender-based segregation in Saudi Arabia is authorised by the society and imposed through government structures. While the nature of this gender segregation has changed slightly over the years, government laws restrict women's freedom of mobility, for example by prohibiting women from travelling abroad alone without the written consent of their male guardian. Women in Saudi Arabia have some restrictions on the right to travel, and limitations regarding education and work opportunities through the supervisory role of the male relative (Vidyasagar and Rea, 2004).

Vidyasagar and Rea (2004) reviewed the work experience of 28 female Saudi Arabian doctors working in Saudi Arabia, describing their experiences and providing details of the nature of the problems they encountered. While they identified issues within the constitution and the legal system, more obvious issues arose due to the

policy of segregation of the sexes, which influenced both their choice of specialty and their prospects of career development. However, satisfactory career progression among some older female doctors gave encouragement to younger colleagues.

2.3.3.1. Autonomy of Saudi Arabian women

In Saudi Arabian culture, the authority of the family overrides people's individual autonomy (Al-Shahri, 2002). Decisions taken by women can often be altered according to the views of the family. In the Saudi Arabian context, a male member normally leads the family and is often the main source of income, as well as being the authoritarian protector and spokesperson, and usually the ultimate, but not absolute, decision maker (Al-Shahri, 2002). Women in Saudi Arabia should not be examined by male healthcare professionals without a mentally competent adult (either a male or female relative or other female healthcare professional) being present (Al-Shahri, 2002). However, Al-Shahri (2002) argues that some women may consent to be examined by male professionals to avoid embarrassing the 'authority figures' of health professionals, particularly during childbirth. Female patients may request female physicians when available. A male family member, or spouse, will often request to be in continuous attendance during the female patient's entire stay (Sutherland and Morris, 1995). However, from my own experience this does not happen all the time, as any family member can attend during women's entire stay when hospital policy permits it.

Western culture has had a significant influence on Saudi Arabian culture, however, with the governing role of the Saudi Arabian royals initially being achieved through British influence and subsequently nurtured by the United States. In addition, the class of educated professionals in Saudi Arabia has had wide exposure to Western

influence through educational contacts and many Westerners have work contracts within Saudi Arabia (Vidyasagar and Rea, 2004).

2.3.4. Clothing in Saudi Arabia

Saudi Arabian dress code among both genders is characterised by modesty that follows Islamic precepts and Saudi Arabian culture. The typical items of dress for males are the thobe (a garment that covers the entire body) and the ghutra (a headscarf that is typically white or red). It is uncommon for Saudi Arabian men to wear shorts in public. It is customary for Saudi Arabian women to wear the abayah (black cloak) in public with a tarha (black head scarf) and for their faces also to be covered (Al-Shahri, 2002). However, in hospital settings healthcare professionals, both Saudi Arabian and non-Saudi Arabian, are not obligated to follow the Saudi Arabian cultural norms in clothing. They wear a coloured scrub suit that is provided by hospitals. Only Muslim women (doctors, midwives and nurses) wear headscarves. From my own experience, when women are admitted to the labour ward they must change out of their personal clothing and wear hospital gowns. In this context it is important to explain clothing in hospital and Saudi Arabian culture, as in hospital setting women are obligated to follow hospital rules that include wearing hospital gown during labour and birth to facilitate the use of interventions for healthcare professionals.

2.3.5. Hospital visiting practices

Saudi Arabian hospitals have separate male and female wards. However, healthcare professionals of both sexes work alongside each other. Visiting patients in hospital is a common cultural practice in Saudi Arabia and is encouraged in Islam. However, Al-Shahri (2002) points out that the number of relatives, friends, and neighbours

gathering in a patient's room can occasionally be large enough to interfere with healthcare provision. Therefore, some hospitals have strict visiting policies, especially during labour and delivery, such as a one-person policy or no visitors/companions allowed during labour and birth (Altaweli et al., 2014). Al-Shahri (2002) argues that healthcare professionals should accept and work within Saudi Arabian traditions rather than try to modify them. It is important to understand the visiting culture in Saudi Arabia, to provide the context for the reader to understand the companion policy in labour and delivery wards examined in the current study.

2.3.6. History of enthusiasm for technology

Gallagher and Searle (1984) described Saudi Arabia as a Third World society which embraces its traditions explicitly even while it is in the process of undergoing rapid and extensive modernisation. Gallagher and Searle (1984) found that Saudi Arabia had an obsessive passion for gadgetry and instrumentation, especially for technology originating from America. Saudi Arabia had sought to acquire the most up-to-date modern technology. This drive stems from an appreciation of the role of technology in wealth creation in oil extraction operations. While there was acknowledgement of the significant cultural gap between American and Saudi Arabian values, the USA was considered an acceptable partner and with technology continuing to be imported into Saudi Arabia on a massive scale, Gallagher and Searle (1984) identified a preference in this process for American technology.

Gallagher and Searle (1984) suggested that a feature of hospitals in Saudi Arabia was that they seek to adopt the most recent medical technologies and systems of patient care. Yet, they argue that such technology may be inappropriate or poorly implemented in some instances and this can detract from the relationship between

physician and patient. Although Gallagher and Searle's (1984) observation of Saudi Arabian medical culture is several decades old, from personal knowledge it is still relevant to date.

2.4. History of Saudi Arabia: Healthcare context

In 1925, by a royal decree of King Abdulaziz, the first Public Health Department was founded in Makkah (Alharthi et al., 1999). This department was responsible for sponsoring and monitoring free healthcare for the population and pilgrims through establishing a number of hospitals and dispensaries (Almalki et al., 2011). These healthcare services reflect upon the beginning of movement from home birth to hospital birth in Saudi Arabia.

The founding of the Public Health and Ambulance (PHA) services in 1925 marked a key phase in the development of the early healthcare infrastructure within Saudi Arabia. This development included both the building of healthcare premises (hospitals and clinics) and the implementation of a regulatory process to ensure an appropriate level of quality in the care provided (MOH, 2014).

In 1926 a Health Directorate was established in Jeddah. At the same time, the Ajjad Hospital was opened in Makkah and the Bab Shareef Hospital was opened in Jeddah. Prior to these developments, there had been no organised healthcare system in the country (Khaliq, 2012). Up to the late 1940s, the majority of Saudi Arabia's population received only traditional forms of public welfare through religious and private support (Al Osimy, 1994).

In 1950 Saudi Arabia's public health service was established (Al Osimy, 1994) and in 1951 the Directorate of Public Health became the Ministry of Health (MOH) by

another royal decree (Al Osimy, 1994). When the MOH was created, the construction of public hospitals and health centres began (Al Osimy, 1994; Tumulty, 2001). Since the first hospitals were established in the early 1950s, healthcare in Saudi Arabia has developed rapidly (Tumulty, 2001).

In the 1970s the government introduced five-year development plans to improve all sectors of the nation, including the Saudi Arabian healthcare system (Mufti, 2000). Since then, significant enhancements in healthcare have been achieved in Saudi Arabia (Almalki et al., 2011). Table 1 summarises the rapid expansion of the Saudi Arabian healthcare system since 1951.

Year	Total number of hospitals in Saudi Arabia	Beds	Physicians	Nurses	Reference
1951	16	1,169	N/K	N/K	Al Osimy (1994)
1970	74	9,039	1172	3267	WHO (2006) Khaliq (2012)
1971	75	7,942	817	2,268 (26% Saudi Arabian)	Al Osimy (1994)
1987	149	26,000	4,000	30,000 (6% Saudi Arabian)	Tumulty (2001)
1992	177	27,923	14,082	30,799 (13% Saudi Arabian)	Al Osimy (1994)
1996	290	N/K	14,554 (12% Saudi Arabian)	33,373 (15% Saudi Arabian)	Mufti (2000) Tumulty (2001)
2007	387	53519	47919 (21.6% Saudi Arabian)	93735 (28.8% Saudi Arabian)	MOH (2011)
2008	393	53888	52838 (20.8 % Saudi Arabian)	101298 (29% Saudi Arabian)	MOH (2011)
2009	408	55932	54903 (23.1% Saudi Arabian)	110858 (32.3% Saudi Arabian)	MOH (2011)
2010	415	58126	65619 (21.7% Saudi Arabian)	129792 (31.8% Saudi Arabian)	MOH (2011)
2011	420	58,696	69,226 (22.4% Saudi Arabian)	134,632 (33.6% Saudi Arabian)	MOH (2011)

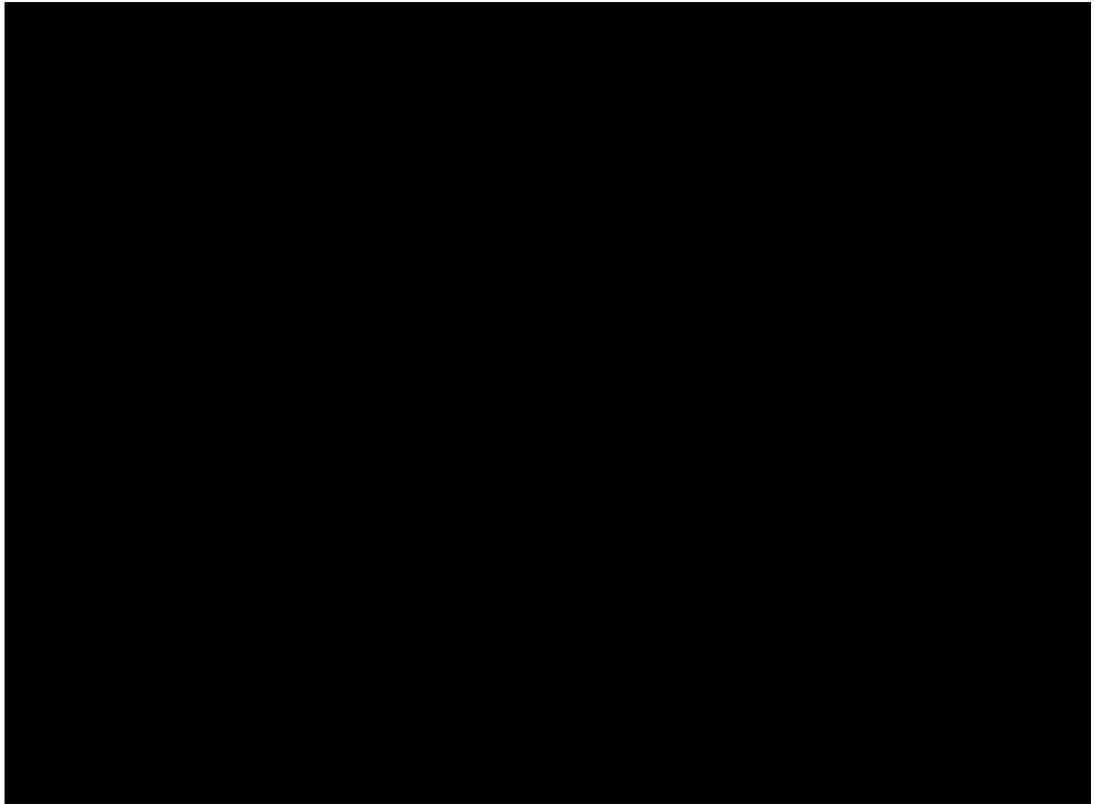
In 2002 the Council of Health Services was established by royal decree to ensure the level of care provided consistently meets acceptable standards. The MOH supervises 20 regional directorates of general health affairs in various parts of the country (WHO, 2006b).

According to the WHO (2000), Saudi Arabia's overall health service performance is ranked 26th among 191 of the world's health systems, with France being ranked 1st and the UK 18th. It comes before the rankings of many other health systems of wealthy countries such as Canada (30), Australia (32), the USA (37) and other health systems in the Arab region, with the United Arab Emirates ranked (27), Qatar (44), Bahrain (42), Kuwait (45), Egypt (63) and Jordan (83).

In recent decades Saudi Arabia has witnessed rapid growth in its housing, public sanitation, health services and education system, and a decline in mortality and morbidity rates (Al Osimy 1994, WHO, 2006a). The government gives high priority to the health sector, providing all Saudi Arabian citizens with free, high quality health care. However, the health service is facing challenges because of growing demand, rising costs and public pressure for better services (Al-Ahmadi and Roland 2005).

A key component of the MOH's financial policy is the percentage of total government spending allocated to healthcare, which was introduced through the five-year national development plan. The MOH is identified as the major source of healthcare funding and finances. The Saudi Arabian MOH operates 59.5% of all hospitals in the country. Of the remaining 40.5%, the private sector operates 21.2% and all other government entities combined 19.3% (see Figure 3) (Almalki et al., 2011).

Figure 3: Current structure of the healthcare system in Saudi Arabia



Source: (Almalki et al., 2011)

2.5. Healthcare professionals in Saudi Arabia

Healthcare professionals in Saudi Arabia consist mainly of physicians and nurses. However, midwives' number is included in the nurses' number. Table 2 shows the number of healthcare professionals in the MOH and other government hospitals in Saudi Arabia.

Table 2: Number of professionals in Saudi government hospitals in 2011				
	MOH		Other government	
	Physicians	Nurses	Physicians	Nurses
Male	25313 (20 % Saudi Arabian)	19966 (92% Saudi Arabian)	9485 (45% Saudi Arabian)	4505 (42% Saudi Arabian)
Female	8686 (31% Saudi Arabian)	57980 (38% Saudi Arabian)	3596 (60% Saudi Arabian)	23808 (8.7% Saudi Arabian)
Total	33999 (23% Saudi Arabian).	77946 (51.9% Saudi Arabian)	13081 (49.5 % Saudi Arabian).	28313 (14% Saudi Arabian)
	2206 Obstetricians (14.9% Saudi Arabian) 3.5% male Saudi Arabian 11.2% female Saudi Arabian		671 Obstetricians (81.3% Saudi Arabian)	

In 1993, the Saudi Commission for Health Care Specialists (SCFHS) was established by a Royal decree No. M/2 to supervise, regulate and accredit all health-related training programmes and classify and maintain a register of all licensed practitioners across Saudi Arabia. The commission is also authorised to provide registration, and to issue and renew licences for various groups of healthcare professionals, including obstetric, midwifery and nursing staff.

2.5.1. Shortage of Saudi Arabian healthcare professionals

As in other sectors of the economy, most healthcare workers, including physicians, nurses and pharmacists, are expatriates from Egypt, the Philippines, Pakistan, India, Bangladesh and many other countries. A significant number of Europeans, Australians, Canadians and Americans are also among the vast array of healthcare workers (Khaliq, 2012). While there has been a high level of influence of Islamic ethical principles and associated cultural values in the development of healthcare in Saudi Arabia, this contrasts with the employment of a highly diverse set of foreign and expatriate healthcare professionals, which Al Osimy (1994) indicated can lead to variability in the care provided.

Nursing shortage is a worldwide problem but it has been argued (Miller-Rosser et al., 2006) that the Saudi Arabian nursing shortage is due to the country's unique history and context. As a temporary strategy, the Saudi Arabian health system is mainly staffed by non-Saudi Arabian nurses recruited from all over the world (Al Osimy 1994, Al-Shahri 2002; Almutairi and McCarthy, 2012; Karout et al., 2013) such as the Philippines, India, South Africa, Malaysia, the UK, the USA, Europe and other Arab countries, to fill the critical gap caused by insufficient numbers of Saudi Arabian nurses to meet the nursing workforce needs in Saudi Arabia (Tumulty, 2001). However, this strategy can create other difficulties and tensions (WHO, 2000).

Professionals working in Saudi Arabian hospitals receive different salaries for the same position. Westerners are paid higher than Asians (particularly Filipinos), South Africans, Malaysians, or even Saudi Arabian or Arabs in the same position. This system is said to be based on the standards of living in the home country of the professionals, the value of money in each country, and the quality of the educations

that professionals had. This provides an insight into the hierarchical context in the hospital setting which might have an impact on the working environment.

Data from Abu-Zinadah (2006) confirm significant shortages of Saudi Arabian healthcare professionals working in Saudi Arabian health sectors. Without a shared culture and language, it is difficult to deliver effective health education within nursing care to Saudi Arabians (Aldossary et al., 2008). Aldossary et al. (2008) reviewed healthcare provision in Saudi Arabia and the development of nursing together with its current challenges. They concluded that there is a need to increase the proportion of Saudi Arabian nurses so that culturally appropriate holistic care can be delivered. The vulnerability of healthcare in Saudi Arabia was clearly demonstrated in 1991, during a time of political instability when the threat of conflict led to a dangerous mass exodus of nursing personnel. This event led to an increased drive to promote 'Saudization' (the process of replacing foreigners with indigenous workers) of healthcare personnel in Saudi Arabia (Tumulty, 2001), as part of a wider policy, intended to open up more space in the workforce (Doumato, 1999, p.571). Saudi Arabia officially adopted the policy of 'Saudization' in the 2004 development plan (Khaliq, 2012) with the aim of reducing dependence on non-Saudi Arabian workers in the economy. As part of this initiative, financial support is provided to individuals seeking high value career paths through education or direct employment (Vidyasagar and Rea, 2004).

The MOH is actively implementing a programme of staff development to provide a more highly skilled and trained healthcare workforce. Within this system, the education process is periodically reviewed in terms of course content, teaching methods and practical coursework. In addition, there are set protocols to guide educational elements undertaken in Saudi Arabia and also abroad (MOH, 2011).

2.5.2. Medicine in Saudi Arabia

The first Saudi Arabian physician graduated in 1951 from a medical school in Egypt and since then, as Gallagher and Searle (1984) stated, the indigenous Saudi Arabian medical profession has grown from a zero base. In 1981, there were approximately 5,300 physicians in Saudi Arabia, and of these, only 460 (9%) were Saudi Arabian nationals. The remainder were expatriate physicians, mainly from Egypt, Pakistan, and India (Gallagher and Searle 1984). This may explain the influence of various cultures on the Saudi health system.

Gallagher and Searle, two non-Saudi (American) doctors, conducted an ethnographic study to observe doctors' roles and medical cultural in Saudi Arabia (1984). They argued that a key element of the process of modernisation of the Saudi Arabian health system would need to be the progressive recruitment of trained Saudi Arabian physicians, a process that would take several decades (Gallagher and Searle 1984). At the time of their observational study, it was anticipated that the increasing provision of medical training within the Saudi Arabian context would build an identity of increasing professional status. However, I could not identify any article to investigate the medical culture since the publication of this study and the number of Saudi doctors has not increased dramatically. At the time of data collection for this current study in 2011, there were around 69,226 physicians, 22.4% of them Saudi Arabian and 134,632 nurses, 33.6% of whom were Saudi Arabian, employed by the health services in Saudi Arabia (MOH, 2011). There were 24.4 physicians and 47.4 nurses per 10,000 people (MOH, 2011), compared to 27.9 physicians, 88.3 nurses and midwives per 10,000 people in the UK in 2010 (WHO, 2014).

2.5.3. Nursing in Saudi Arabia

Nurses are heavily involved in labour and birth care in Saudi Arabia. Nursing, as a profession, was not mentioned in the history of medicine during the pre-Islamic civilisation era until the 630s. Its first mention as a profession was in the service of the Muslim armies during periods of war, where women accompanied soldiers as companions and caretakers during the time of the Prophet Mohammad (PUH) (Al Osimy, 1994). Nursing was considered the responsibility of women because men were engaged in fighting (Al Osimy 1994). However, according to Al Osimy (1994) the nursing profession in the sixth century was not restricted to war and caring for the army because there were women, such as Salma, the Prophet's maid, who practised nursing and midwifery in times of peace.

Rufaida Al-Asalmiya is well-known in Islamic history for her service, devotion, patience, kindness, care and commitment to men and women (Jan, 1996). She was a Muslim women's leader and the founder of the first school of nursing in the Muslim world during the Prophet Mohammad's time (PUH). Jan (1996) and Al Osimy (1994) maintains that she deserves the title of the first nurse in history. Al-Asalmiya developed the first code of nursing conduct and ethics and organised a team of Muslim women and young girls, training them in nursing practice (Jan, 1996). Jan (1996) referred to her as a Muslim "Florence Nightingale" who has not been widely recognised.

According to Al Osimy (1994), nursing in Saudi Arabia started with volunteers who performed simple procedures for patient care. Doctors required these assistants, who had no educational background, just on-the-job training, to perform simple care, which was later termed nursing care (Al Osimy, 1994). The development of nursing

practice can be considered to have developed from the role of these volunteers in the first dispensaries and early hospitals (Tumulty, 2001).

During modern times in Saudi Arabia, Lutfiyah Al-Khateeb was the first Saudi Arabian woman to obtain official nursing education, obtaining her nursing diploma in 1941 from Cairo, Egypt (El-Sanabary, 1993, El-Sanabary, 2003, Miller-Rosser et al., 2006). After this, she returned to Saudi Arabia where she devoted her life to the improvement of women's health and education, making a significant contribution to health development in the country (El-Sanabary, 1993). Throughout the 1960s Al-Khateeb lobbied for female education in nursing and medicine, which was influential in establishing the health institutes, and she became the first director of the one such institute at the time in Jeddah (El-Sanabary, 1993; 2003). She was acknowledged by Saudi Arabian leaders and won their support for her ideas, mission and common sense views on education, nutrition, sanitation and clothing (El-Sanabary, 1993).

Al-Khateeb appealed to the population for pregnant women to take advantage of health facilities for prenatal care and safe deliveries. Her drive for the establishment of specialist and obstetric hospitals led to the conversion of an existing eye hospital to a maternity hospital with a staff of Arab physicians (El-Sanabary, 1993). Subsequently, the work of Al-Khateeb was continued by Samira Islam, a pharmacology professor who promoted the nursing profession within the Saudi Arabian healthcare system (El-Sanabary, 2003).

Prior to the establishment of the Saudi board system for health professions in 1992 no registration for nursing staff existed (Al Osimy, 1994). Therefore, a significant development in terms of representation of the nursing profession within the structure of the MOH was the formation of the Central Nursing Committee (CNC) in 1987 (Al

Osimy, 1994) as prior to this there had been no effective nursing representation. This voluntary group was chaired by Dr. Sulauman Al Bilali, at that time the Director General of Hospital Affairs with a membership from a cross section of physicians and nurses, including both Saudi Arabian and non-Saudi Arabian representatives. The committee's role included an outreach process to communicate with nursing staff in remote areas (Tumulty, 2001).

In Western culture the nursing profession has tended to be largely female in its make-up, with a historical trend to favour males in the medical profession. These roles tend to be reversed within Islamic culture, where there are more females in medicine than in nursing. This reflects that medicine is seen by Muslim women as a highly desirable profession, with nursing, by comparison, being considered as a low status occupation. These social attitudes have largely prevented efforts in Saudi Arabia to recruit and train adequate numbers of female nurses internally (El-Sanabary, 1993).

2.5.3.1. Nursing education in Saudi Arabia

The first school of nursing in Saudi Arabia was opened in 1926 (WHO, 2006b), but in the early days, nursing education faced many difficulties. Since the late 1950s continuing effort has been made to provide training opportunities both locally and abroad for Saudi Arabian nationals to become healthcare professionals (Khaliq, 2012). In 1958, the first formal training for nurses was established at a health institute in Riyadh, in a collaborative effort between the MOH and the WHO (Al Osimy, 1994), but this scheme was solely for the training of male nurses (Tumulty, 2001). Initially, only 15 Saudi Arabian male students with elementary school preparation, comprising six years of schooling, were admitted to a one-year Health Institute Programme, which was a health inspector speciality (Al Osimy, 1994). The

differential education of nurses in Saudi Arabia has a profound effect on the responsibilities assigned to them in childbirth contexts. Nurses are heavily involved in labour and birth settings, yet are seen as less important in the medical context than doctors, but more recognised than midwives. This leads to high-risk pregnancies being primarily the responsibility of nurses, while low-risk pregnancies are more often left to midwives.

In 1958 when the first nurse aide programme for elementary school graduates in Saudi Arabia was established, it initially faced objections from parents, students and the Saudi Arabian government over concerns that it would prepare female students to work with men and lead them away from home due to the long working hours (El-Sanabary, 1993). However, in an attempt to counter these fears an Egyptian consultant to the WHO, Soad Hassan, who was involved in planning and implementing the first health institutes, and her Saudi Arabian colleague, Lutfiyyah Al-Khateeb, who had been educated in Egypt, made speeches and public appearances, and wrote articles for radio and newspapers in order to promote nursing and encourage people's interest.

The MOH subsequently decided to encourage the programme as a viable educational option for women, having received assurances that students would remain veiled, that care would be provided to female patients only and they would not be expected to work with male physicians. In addition, they were not to work during the afternoon or undertake night shifts. Since then the MOH has added several new institutes for women and men in various Saudi Arabian towns throughout the country (El-Sanabary, 1993), with the Saudi Arabian government providing them with the necessary resources to train the country's healthcare professionals, including nurses (Abu-Zinadah, 2006).

An educational programme in nursing for females began in 1960 when schools were opened in Riyadh and Jeddah, utilising the existing elementary school facilities (Al Osimy, 1994). In 1961, the MOH opened two more health institutes for women, one in the capital, Riyadh, and one in Jeddah under a similar agreement with the WHO, which included nursing training programmes (El-Sanabary, 1993). Men and women who graduated from these health institutes were appointed as nurses' aides (Miller-Rosser et al., 2006). Abu-Zinadah (2006) suggests that a qualified health care workforce was needed to improve the quality of health care in Saudi Arabia.

The first college of nursing in a university setting was established in 1976 in King Saud University (KSU) in Riyadh, followed by a department of nursing at KAAU in Jeddah in 1977 when 6 Saudi female students chose to major in nursing (Al Osimy, 1994).

During the data collection period, nursing education in Saudi Arabia was provided by two ministries, the MOH and the Ministry of Higher Education (MOHE). The MOH (general nursing institution administration) provides education in health institutes and intermediate colleges for high school graduates, enabling them to receive a diploma in nursing in 3 years. The MOHE (university administration) provides education in nursing colleges (Al Osimy, 1994), enabling them to receive a Bachelor of Science degrees in nursing (BSN- 4 years) and Master of Science in Nursing (MSN- 2 years). In 2012, the health institute and intermediate colleges were merged with nursing colleges under the MOHE to offer only higher education in nursing and midwifery.

2.5.4. Midwifery in Saudi Arabia

An extensive literature search into the history of midwifery in Saudi Arabia yielded limited information. This may be explained by the fact that midwifery was not recognised as a profession until recently; more information was found about the history of the nursing profession in general. It may be argued that nursing and midwifery are separate professions on account of the fact that a midwife cannot work as a nurse and vice versa. Every profession requires specific skills and the training system should provide options for students and allow them to decide on a specific career path. Nevertheless, the current situation in Saudi Arabia is not clear since the midwifery profession is still considered an integral part of the nursing profession. Furthermore, there are variations between hospitals regarding the job descriptions of nurses, midwives and nurse-midwives, which depend on the relevant hospital policies when staff are recruited. Some hospitals require a full midwifery qualification for specific midwife positions whereas others allow nurses to work as midwives, allowing them to supervise births after they have gained sufficient experience in the labour room. Other hospitals recruit midwives under the nursing title but without allowing them to independently apply their midwifery knowledge, skills and practice and in these settings, so that only doctors are allowed to conduct births.

There is a lack of documented evidence on the history of the development of midwifery as a profession in Saudi Arabia. In this way, the Saudi Arabian healthcare system resembles the American model of healthcare system (Gallagher and Searle 1984). As in the USA, midwifery has failed to develop as a profession, meaning that obstetricians rather than midwives play a key role (Davis-Floyd, 1992; Loudon, 1992, Jordan, 1997). This may partially explain the move towards interventions, as there are few advocates of normal birth, as midwives tend to be.

2.5.4.1. *Midwifery education in Saudi Arabia*

Midwifery education in Saudi Arabia is still not fully established. From talking with some of the Saudi Arabian obstetricians and midwives, I learnt that around 1991 the direct entry midwifery education programme was initiated in health institutes and intermediate colleges under the MOH in many cities in Saudi Arabia. However, recently around 2012, all direct entry midwifery diploma education stopped when all graduate finished their courses because these institutes and colleges joined the MOHE under university level, which only run Bachelor's degree in nursing.

Most Saudi Arabian midwives with this qualification work in MOH hospitals. However, they struggle to get higher education in midwifery as there is no midwifery support for them in Saudi Arabia. Their only option is to further their education through nursing, hence the neglect of the midwifery profession. There is no bridging midwifery programme in Saudi Arabia, because the scientific committee stopped all bridging midwifery programmes and transfer these to a nursing bridging programme. This has an impact on the staffing profile in hospitals.

Recently, since 2006, a few universities and hospitals in Saudi Arabia have started to offer an SCFHS-accredited postgraduate diploma in Midwifery for nurses who hold a Bachelor's degree in nursing, for example, Prince Sultan Military City hospital, and King Fahad Medical City hospitals in Riyadh in association with the MOH, and University of Dammam. However, there is no further information about these programmes available publicly.

2.5.4.2. *Traditional midwives in Saudi Arabia*

The WHO (1992) defines a traditional birth attendant (TBA) as a person who assists mothers during childbirth and who initially acquired her skills by delivering babies herself or through an apprenticeship to another TBA.

Although many women in Saudi Arabia now give birth in hospital because of the large number of hospitals in Saudi Arabia, not all women have access to hospital facilities, especially in the more remote rural areas of the country (Khattab et al., 2000). Therefore, some women, especially Bedouins, still give birth at home with the help of traditional midwives who still function in areas that have widely scattered populations, poor roads and which are far removed from health services (Kattab et al., 2000). Only a few articles describe the role of these traditional midwives in Saudi Arabia (Al-Sekait, 1989, Khattab et al., 2000). Kattab et al. (2000) point out that the need for a training programme for TBAs in Saudi Arabia has been questioned since good health care facilities exist, advancements in technology have taken place and there has been an increase in health personnel.

A house-to-house survey (Al-Sekait, 1989) was conducted in 10 randomly selected communities in Riyadh districts to identify the role of the midwife in rural Saudi Arabia. The study showed that the midwife's role in a village was particularly significant in protecting the health of poor and less educated mothers and Al-Sekait (1989) suggested that if effective coverage of antenatal, delivery and postnatal services is to be achieved, then a greater emphasis should be placed on training the traditional midwives. However, this suggestion seems not to have been taken up.

Khattab et al. (2000) conducted a survey in 1997 in the Asir region of Saudi Arabia to assess the need for TBAs in Saudi Arabia. They surveyed the preferences of women

living in remote areas regarding delivery locations and type of attendant. They used three different questionnaires: one for TBAs, one for doctors and one for women of the area. The study also assessed the opinions of primary health care (PHC) doctors about TBAs and identified trends in the practices of TBAs and their need for maternal and child care training, using questionnaires and focus group discussions. It was found that home deliveries were preferred by approximately 24% of women and delivery by TBAs was preferred by 38% of women. TBAs were preferred because they were easily accessible and being female, they understood the local culture and were able to give psychological comfort during birth. Khattab et al. (2000) found that many TBAs disclosed harmful practices such as cutting the umbilical cord with a dirty razor blade; no PHC centre help was sought by 75% of TBAs. Most of the doctors surveyed were concerned about the lack of cooperation between PHC centres and TBAs. The majority of TBAs had been taught delivery practice by their mothers or were self-taught (33 and 47.8% respectively). The lack of recognition of the role of TBAs in the Saudi system echoes the general lack of recognition of the contribution made by professional midwives and also the lack of priority for their education.

2.5.4.3. *Childbirth in Saudi Arabia*

Childbirth in Saudi Arabia has as many similarities as well as differences from childbirth in developed countries, such as the UK and USA. General maternal health in Saudi Arabia is good and most women receive antenatal, prenatal and postnatal care. Maternal mortality rate per 10,000 live births was 1.4 in 2009 (MOH, 2011). Over 90% of births in Saudi Arabia take place in hospitals (WHO, 2006b). Maternal mortality ratio in Saudi Arabia (per 100,000 live births) in 1990–2013 was 16, with comparable values for the UK of 8 and for the USA of 28 (WHO, 2014).

The total number of deliveries in MOH hospitals in 2011 was 256,690. Normal vaginal deliveries comprised 73.6% of births in these hospitals while abnormal deliveries (including instrumental, breech, Caesarean sections and other deliveries) comprised 26.4% of births. Caesarean sections accounted for 23.1% of births. Normal deliveries in other government hospitals constituted 72.8% of the total number of births, with 22.4% of deliveries in these hospitals being Caesarean sections (MOH, 2011) (see Table 3). In line with the worldwide rise in the Caesarean section rate (Khresheh et al., 2009) Caesarean deliveries are one of the most commonly performed surgical procedures in Saudi Arabia. Between 1997 and 2006 there was a significant increase of more than 80% in the Caesarean section rate in government hospitals in Saudi Arabia (Ba'aqueel, 2009) possibly due to the increased rate of unnecessary medical interventions during normal childbirth (Hassan-Bitar and Wick, 2007).

Table 3: Births in government hospitals by type of delivery in Saudi Arabia						
Hospital type	Normal deliveries	Abnormal deliveries				
		Ventouse	Forceps	Breech	Caesarean sections	Others
MOH Hospitals	73.6%	1.6%	0.1%	0.7%	23.1%	1%
Other government Hospitals	72.8%	2.8%	0.4%	0.8%	22.4%	0.7%

Source: (MOH, 2011)

There is wide variation between Saudi Arabian cities in the Caesarean section rate, ranging from between 16.9% and 34.1% (MOH, 2011). Variation in the Caesarean section rate is also evident among English NHS trusts (14.9%-32.1%) (Bragg et al., 2010). These variations will be discussed more in Chapter 3.

Home births account for 31% of births in the Southern region of Saudi Arabia (Al-Mazrou and Farid 1991). In the mid 1980s, 78% of deliveries were by trained personnel (Mufti, 2000). Today, about 98% of pregnant women are attended and delivered by trained personnel (WHO, 2012).

According to the WHO (2014) 98% of women received antenatal care at least once during pregnancy in Saudi Arabia between (2006-2013) from skilled health personnel (skilled personnel not defined), however, no information was available to indicate the percentage of women that received antenatal care at least 4 times during pregnancy. The most reason reported by women in Al-Shammari et al.'s (1994) study for non-compliance to attend antenatal visits was related to accessibility to health centres: 23.3% thought that the health centres were far away from their residence and they needed to involve the husbands in driving them to health centres.

2.6. Conclusion

This chapter has provided background information about the Saudi Arabian history, geography, culture, language, religion, women and gender, clothing, visiting practice, and the history of enthusiasm for technology. Islam and different kind of prayers were presented and discussed in light of using prayers during childbirth, and the relationship between faith in God and the Islamic value given to healthcare, medicine and knowledge. This chapter also has shown how women are not autonomous in the

Saudi culture, which may have an impact on the professionals' role within hospital settings. This chapter has also provided background information about the healthcare context in Saudi Arabia, the history of nursing and midwifery, the Saudi culture and childbirth in the country. This indicates that while progress has been made, the status and resourcing of midwifery is lagging behind that of other modern healthcare systems.

The next chapter provides a more detailed appraisal of the clinical literature evaluating the evidence on routine interventions used during the second stage of labour and then examines the literature on the challenges of implementing evidence-based care in practice.

Chapter 3: Literature review of research into intervention during second stage of labour

3.1. Introduction

As a midwife I brought to the project an understanding of the clinical literature on the second stage of labour and its management. I conducted a detailed review of the clinical literature on second stage care to provide a contextual background to the project and to investigate whether the literature supported the routine use of interventions during normal childbirth. Understanding of this literature formed part of the study rationale and was then used to guide initial data collection in the study.

This chapter is divided into two parts. The first part presents a summary of the clinical evidence relating to the second stage of labour care. This is followed by an examination of literature on the concept of evidence-based medicine (EBM) and evidence-based practice (EBP) and what affects their implementation in hospital settings.

3.2. Search strategy

A search of the literature was undertaken using the standard electronic databases Medline, Maternity and Infant care and Cumulative Index to Nursing and Allied Health Literature (CINAHL). Other searches were made using, EBSCOhost, Google scholar, Cochrane Library Database of Systematic Reviews and Pubmed databases.

The keywords used in the search for section one (3.3.) were “childbirth”, “intervention”, “evidence-based practice”, “episiotomy”, “foetal heart monitoring”, “companion”, “vaginal examination”, “artificial rupture of membrane”, “birth

position”, “lithotomy”, “pushing”, “second stage of labour”, “instrumental delivery” and “Caesarean section”. The keywords used in the search for section two (3.4.) were “childbirth”, “intervention”, “evidence-based practice”, “evidence-based medicine, “attitude”, “perception”, “practice”, “implementation”, “facilitators” and “barriers”.

All relevant references were recorded in Refworks online reference manager. Articles not available locally were requested through the British Library via City University Library. Additional studies were identified by screening reference lists from identified studies and by expert suggestions.

3.3. Second stage of labour practices: Summaries of evidence

The aim of this literature review in this section was to review the current evidence on clinical outcomes of key second stage of labour practices and to assess what the underpinning evidence is for the different routine or selective practices that were identified in my earlier study (Altaweli et al., 2014).

As this review covers a range of labour practices, rather than attempt to review each in detail, the chapter provides summary overviews of current evidence. The focus of interest for each practice examined is the current state of evidence relating to its routine or selective use in labour-ward practice. For this reason, this section focuses on high quality systematic reviews where these are available.

3.3.1. Foetal heart monitoring

Foetal heart rate (FHR) monitoring can be done continuously using the cardiotocograph (CTG) machine or undertaken intermittently by listening to the heart beat using a foetal stethoscope (Pinard) or handheld Doppler ultrasound device (NICE, 2014; Devane et al., 2012). The CTG: is an electronic foetal monitor (EFM), which is a

“machine that plots the strength of uterine contractions against the foetal heart beat” (Jordan, 1997, p.63).

The use of CTG or EFM has increased worldwide, since its development in the late 1960s, in both low and high-risk groups (Johanson et al., 2002). It displays a printout copy of both the foetal heartbeat and its relationship with contractions of the uterus (Smeenk and ten Have, 2003).

A systematic review by Alfirevic et al. (2013) of continuous CTG as a form of EFM compared to intermittent auscultation in low-risk women for foetal assessment during labour showed that continuous use of the CTG machine during labour is associated with a significant increase in Caesarean section and instrumental vaginal births with no significant difference in overall perinatal death rate. It was associated with a halving of neonatal seizures, although no significant difference was detected in cerebral palsy, indicating lack of impact on long-term infant outcomes.

Continuous EFM can restrict women from changing positions or to mobilise during labour and birth which will help with comfort and control during labour. It also makes some healthcare professionals focus on the needs of the CTG rather than the woman in labour (Alfirevic et al., 2013). The use of EFM necessitates reduced

mobility in the woman, which increases the pain; this is then aggravated by call for anaesthesia, which might affect foetal wellbeing and prompt the need for surgical intervention (Cherniak and Fisher, 2008). These examples, and practical observations suggest a route by which use of continuous EFM may lead to further interventions.

Consequently, continuous EFM is not recommended for healthy women with straightforward pregnancies who are at 'low risk' of complications during labour (NICE, 2014). However, many healthcare professionals use it as a routine practice for low and high-risk pregnancy especially in hospital setting, including the Saudi Arabian setting (Alteweli et al., 2014). However, there is no explanation in the literature of why healthcare professionals use the CTG machine continuously.

3.3.2. Maternal position during labour and birth

Evidence indicates that women should be free and encouraged to choose the most comfortable position for themselves during labour and birth and be allowed to make informed choices about the birth (Gupta et al., 2012). In the second stage of labour women should be discouraged from lying supine or semi-supine and should be encouraged and helped to move and adopt whatever positions they find most comfortable throughout labour (NICE, 2014). The evidence from a systematic review on position in the second stage of labour for women without epidural anaesthesia suggested several possible benefits for upright posture during the second stage of labour (Gupta et al., 2012). When women adopt upright positions during labour such as sitting, using birthing stools, chairs, squatting, kneeling they will experience fewer abnormal FHR patterns, significant reduction in assisted deliveries, a reduction in episiotomies and non-significant reduction in duration of second stage of labour, but with an increase in second degree perineal tears and increased estimated blood loss as

over 500 ml specifically associated with the use of a birthing stool (Gupta et al., 2012).

This confirmed the findings of earlier studies where a meta-analysis by De Jonge et al., (2004) of supine position compared to other positions during the second stage of labour indicated a higher rate of instrumental births and episiotomies in the supine position.

Routine use of lithotomy position with or without stirrups during labour is considered a practice that is clearly harmful or ineffective and should be eliminated (WHO, 1996).

Despite research evidence that does not support lithotomy position, still a high rate of lithotomy position is reported in different hospitals worldwide (Maimbolwa et al., 1997; Abdulsalam et al., 2004; Wick et al., 2005; Sweidan et al., 2008; Altaweli et al., 2014).

3.3.3. Pain management

There are several methods used to relieve labour and birth pain. These include pharmacological (e.g. epidural, opioids, inhaled analgesia) and non-pharmacological (e.g. hypnosis, acupuncture, immersion in water, relaxation, massage and local anaesthetic nerve blocks) methods of pain management (Othman et al., 2012). There are many factors influencing women's experience of birth including their expectations, degree of preparation, the complexity of their labour, and the severity of the pain they experience (NICE, 2014).

A recent overview of systematic reviews was carried out by Jones et al. (2012) to summarise the evidence from Cochrane systematic reviews on the efficacy and safety

of non-pharmacological and pharmacological interventions to manage pain in labour. Evidence in their review suggest that women receiving epidural analgesia, when compared with placebo or opioids, had more instrumental vaginal births and Caesarean sections for foetal distress, although there was no difference in the rates of Caesarean section overall. Women received epidural analgesia were more likely to experience hypotension (low blood pressure), motor blockade (hindering leg movement), fever or urinary retention (Jones et al., 2012). Jones et al. (2012) identified that there is some evidence to suggest that non-opioid drugs may improve management of labour pain, with few adverse effects. However, they acknowledged that evidence was mainly limited to single trials.

There is insufficient evidence to support a role for non-opioid drugs on their own to manage labour pain (Othman et al., 2012). A recent systematic review by Othman et al. (2012) found that non-opioid drugs (sedatives) were found to offer better pain relief better satisfaction with pain relief (sedatives and antihistamines) and better satisfaction with the childbirth experience when compared with placebo or no treatment. However, women having non-opioid drugs (NSAIDs or antihistamines) were less likely to be satisfied with pain relief compared with women having opioids. Women receiving sedatives were more likely to express satisfaction with pain relief compared with antihistamines. The reviewers recognise that the majority of studies were conducted over 30 years ago and were at unclear risk of bias (methods of randomisation and allocation concealment) for most of the quality domains.

Parenteral (intravenous/intramuscular) opioids are widely used as pain relief during labour in many countries throughout the world (Ullman et al., 2010). However, parenteral opioids have a limited effect on pain in labour regardless of the agent, route or method of administration (NICE, 2014).

A systematic review (Ullman et al., 2010) was carried out to assess the acceptability, effectiveness and safety of different types, doses and modes of administration of parenteral opioids given to women in labour. The review indicated that parenteral opioids provided some pain relief and moderate satisfaction with analgesia in labour, although up to two-thirds of women who received opioids reported moderate or severe pain and/or poor or moderate pain relief one or two hours after administration. Opioid drugs were associated with maternal nausea, vomiting and drowsiness, although different opioid drugs were associated with different adverse effects. There was no clear evidence of adverse effects of opioids on the newborn. Ullman et al. (2010) did not have sufficient evidence to assess which opioid drug provided the best pain relief with the least adverse effects.

NICE (2014) recommends that Pethidine, Diamorphine or other opioids are available in all birth settings. It advises professionals to inform women that these will provide limited pain relief during labour and may have significant side effects for both themselves (drowsiness, nausea and vomiting) and their baby (short-term respiratory depression and drowsiness which may last several days).

Entonox (Nitrous oxide) is considered to relieve some pain but can make women feel nauseous and light-headed (NICE, 2014). There is a moderate level of evidence to support the use of nitrous oxide in labour and there is no evidence of harm to the baby (NICE, 2014).

A systematic review by Anim-Somuah et al. (2011) was carried out to assess the effects of all modalities of epidural analgesia (including combined-spinal-epidural) on the mother and the baby, when compared with non-epidural or no pain relief during labour. Epidural analgesia was found to offer better pain relief; a reduction in the

need for additional pain relief; a reduced risk of acidosis; and a reduced risk of naloxone (opioid antagonist) administration. However, epidural analgesia was associated with an increased risk of assisted vaginal birth, maternal hypotension, motor-blockade, maternal fever, urinary retention, longer second stage of labour, oxytocin administration and an increased risk of caesarean section for foetal distress. There was no evidence of a significant difference in the risk of caesarean section overall, long-term backache, Apgar score less than seven at five minutes, and maternal satisfaction with pain relief.

3.3.4. Pushing during birth

There are no Cochrane reviews or high-level evidence that directed pushing affects outcomes to support a policy of directed maternal pushing during the second stage of labour. However, a Cochrane intervention protocol was developed by Lemos et al. (2011) to determine, using the best level of evidence available, the benefits and possible disadvantages of different kinds of techniques regarding maternal pushing/breathing during the expulsive stage of labour on maternal and foetal outcomes. NICE (2014) advises professionals to inform women that they should be guided by their own urge to push during the second stage of labour.

Prins et al. (2011) carried out a systematic review of randomised trials to critically evaluate any benefit or harm for the mother and her baby of Valsalva pushing versus spontaneous pushing during the second stage of labour. Evidence from their review does not support the routine use of Valsalva directed pushing in the second stage of labour. Of the three RCT studies examined, the authors found evidence that the technique may reduce the duration of the second stage of labour, and that it has a negative effect on urodynamic factors (including decreased bladder capacity and

decreased first urge to void) 3 months postpartum. Prins et al. (2011) suggest that supporting spontaneous pushing and encouraging women to choose their own way of pushing is most comfortable for them and should be accepted as best clinical practice. They acknowledge that the data in their review are inconclusive as the review included only 3 small studies characterised by the authors as “*sparse, diverse, and some flawed.*” (Prins et al., 2011, p.662)

3.3.5. Companions during labour and birth

There is strong evidence for the effectiveness of companionship in labour and birth and women should be encouraged to have support by birth companion(s) of their choice (NICE, 2014). In the most recent update of their Cochrane review, Hodnett et al. (2013) carried out a systematic review to assess the effects of continuous, one-to-one intrapartum support compared with usual care; and to examine the influence of routine practices and policies, and the supporter’s relationship to the hospital and to the woman on the continuous support. The results of the analysis indicated that women assigned to continuous support were more likely to have a spontaneous vaginal birth and less likely to have intrapartum analgesia or to report dissatisfaction. In addition, their labours were shorter, they were less likely to have a Caesarean or instrumental vaginal birth, regional analgesia, or a baby with a low five-minute Apgar score. There was no apparent impact on other intrapartum interventions, maternal or neonatal complications, or breastfeeding. Subgroup analyses suggested that continuous support was most effective when the provider was neither part of the hospital staff nor the woman’s social network, and in settings in which epidural analgesia was not routinely available (Hodnett et al., 2013).

3.3.6. Duration of the second stage of labour

There is limited quality evidence on the duration of the second stage of labour; therefore, it is difficult to assess the significance of a prolonged second stage on perinatal outcomes for both woman and baby (NICE, 2014). NICE (2014) recommends that birth would be expected to take place within 3 hours in nulliparous women and within 2 hours for multiparous women from the start of the active second stage in most women, although the guidelines acknowledge the lack of high-quality evidence on which to base this advice. Cherniak and Fisher (2008) argued that a decision about the progress of a labour may be inaccurate, if active labour is diagnosed too early, and in situations where there is a strict time allowed for the woman to push; this may also lead to further interventions based on decisions that are essentially subjective.

A systematic review by Altman and Lydon-Rochelle (2006) of prolonged second stage of labour and risk of adverse maternal and perinatal outcomes found evidence of a strong association between prolonged second stage and operative delivery. They found no associations between prolonged second stage and adverse neonatal outcomes in the study reports. Altman and Lydon-Rochelle (2006) argue that although significant associations with maternal outcomes such as postpartum haemorrhage, infection, and severe obstetric lacerations were reported in the reviewed studies, they suggest that inherent limitations in methodology such as oversimplified categorisation of the second stage, inconsistency in study population characteristics, and lack of control of confounding factors were evident in the studies reviewed. The review indicated that most of the studies are inconsistent and do not answer the important questions for maternity healthcare professionals to safely manage prolonged second stage of labour. It is also inherently difficult to understand the

association between long second stage and operative delivery as many labour ward policy have a policy of intervention based on time over clinical indications. How do the researchers know what was clinical need and what was policy?

3.3.7. Vaginal examination

Vaginal examination (VE) is a routine intervention during labour and birth to assess and monitor the progress of labour and birth, and it is also used with other clinical observation such as: the consistency and position of the cervix; and the position and level of descent of the foetal head in the maternal pelvis (Downe et al., 2013). Vaginal examination may have an impact on labour progress in some women by increasing their anxiety and disturbing their focus especially if they are already in pain, highly anxious and in an unfamiliar environment (NICE, 2014). There is low-quality evidence on the frequency of vaginal examination during labour and birth (NICE, 2014). NICE (2014) recommends to offer women a vaginal examination hourly in the active second stage of labour or in response to the women's wishes. However, a recent systematic review (Downe et al., 2013) to compare the effectiveness, acceptability and consequences of digital vaginal examination with other strategies, or different timings, to assess progress during labour at term, found no evidence to support or reject the use of routine vaginal examinations in labour to improve outcomes for women and babies. However, this review included only two studies that met the inclusion criteria: they were small and carried out in high-income countries in the 1990s, with unclear quality in terms of risk of selection bias (Downe et al., 2013). When comparing two-hourly with four-hourly vaginal examinations in labour, the reviewers found no difference in length of labour, or in the secondary outcomes of augmentation, epidural for pain relief, caesarean section, spontaneous

vaginal birth, operative vaginal birth, perinatal mortality and admission to neonatal intensive care (Downe et al., 2013).

3.3.8. Artificial rupture of membrane

Artificial rupture of amniotic membranes (AROM or amniotomy) is one of the most common interventions performed in modern obstetric and midwifery practice in recent years in many countries around the world, to speed up the contractions and therefore, shorten the duration of labour and birth (Smyth et al., 2013). The evidence does not support the routine use of AROM for women during labour. A recent systematic review was conducted by Smyth et al. (2013) to determine the effectiveness and safety of amniotomy for routinely shortening all labours that start spontaneously. They found that there was no clear statistically significant difference between women in the amniotomy and control groups in length of the first stage of labour, Caesarean section, maternal satisfaction with childbirth experience or Apgar score less than seven at five minutes. However, they recognise that there was no consistency between trials regarding the timing of amniotomy during labour in terms of cervical dilatation. Based on this review Smyth et al. (2013) cannot recommend that amniotomy should be introduced routinely as part of standard labour management and care. NICE (2014) recommends that in normally progressing labour, amniotomy should not be performed routinely. It should be offered to women with confirmed delay in the active first stage of labour (NICE, 2014).

3.3.9. Episiotomy practice

There is clear evidence to support the use of restrictive practice of episiotomy in the second stage of labour in comparison with routine practice. Based on evidence, NICE (2014) suggests that a routine episiotomy should not be carried out during spontaneous vaginal birth and it only should be performed if there is a clinical need such as instrumental birth or suspected foetal compromise.

A recent systematic review by Carroli and Mignini (2009) explored the possible maternal and foetal effects of routine versus restrictive episiotomy. They found that restrictive episiotomy policies have a number of benefits, compared with routine episiotomy. Women experienced less severe perineal trauma, less suturing and fewer healing complications at seven days, although they experienced more anterior perineal damage (Carroli and Mignini, 2009). There was no difference between the groups in urinary incontinence, painful sex or severe perineal trauma after birth.

3.3.10. Instrumental delivery

Although instrumental delivery might help to save mother or babies' life in some circumstances such as deep transfer arrest, it is a common obstetric intervention used during the second stage of labour to expedite birth for the mother or baby's benefit (NICE, 2014) but variations in rates suggest that it may be used more than necessary in some settings, even if not in routine use (Macfarlane et al., 2015). The choice of instrument could be influenced by the clinical situation, healthcare professionals' choice or availability of specific instruments (O'Mahony et al., 2010). A systematic review by O'Mahony et al. (2010) indicated that forceps was less likely to fail in comparison to the vacuum (ventouse) in terms of achieving a successful vaginal birth. However, it was also associated with higher rates of complications for the mother.

There was a tendency to more Caesarean sections, and significantly more third- or fourth-degree tears (with or without episiotomy), vaginal trauma, use of general anaesthesia, and flatus incontinence or altered continence with use of forceps. The research also shows an association between the use of instrumental deliveries and psychological trauma (Ayers, 2004) with women who had a forceps-assisted vaginal birth being more likely to report constant posttraumatic-type symptoms several months after the birth (Rowlands and Redshaw, 2012).

3.3.11. Caesarean section

Although Caesarean section might help to save mother or babies' life in some circumstances, it is a major surgical procedure. As such, Caesarean sections is associated with greater iatrogenic risk for both the mother and the baby when compared to vaginal births (Castro, 1999; Belizán et al., 2006; Khunpradit et al., 2011). NICE (2011) suggests to advise women to have a Caesarean section if there is a medical indication.

There is much debate about the increased rate of Caesarean section worldwide. The factors contributing to the observed increase in Caesarean section rate worldwide are complex (Khunpradit et al., 2011). Davis-Floyd et al. (2009) claimed that there is a move towards healthcare professionals and women being more focused on the supposed benefits of Caesarean; minimising awareness of the adverse, long term costs of Caesareans.

Systematic reviews by Althabe et al. (2006) and Villar et al. (2006) examined the association of Caesarean section rates with maternal and neonatal morbidity and mortality. Both reviews found that higher rate of Caesarean section was associated

with higher rates of maternal and neonatal mortality and morbidity and no evidence in the reductions in maternal and neonatal mortality and morbidity.

3.3.12.Summary

This review of literature on the second stage of labour practices has provided a summary overview of current evidence around the second stage of labour (see Table 4). The focus of interest for each practice examined is the current state of evidence relating to its routine or selective use in labour-ward practice. I reviewed the evidence on foetal heart monitoring, maternal position, pushing, companion, duration of the second stage of labour, vaginal examination, AROM, episiotomy practice, instrumental birth and Caesarean section. The evidence is clear in recommending restrictive use of interventions during the second stage of labour. Upright or squatting position, intermittent use of EFM, restrictive episiotomy, spontaneous pushing and companionship during the second stage of labour have been shown by several studies to benefit women's experience of labour as well as its outcomes. In addition, there is no evidence to support the routine use of vaginal examination, AROM, instrumental birth, Caesarean sections or strict duration of second stage of labour as the risks of these practices are higher than their benefits. However, many government hospitals in Jeddah, Saudi Arabia have not updated their clinical practices to reflect these findings (Altaweli et al., 2014).

Although many studies have assessed second stage of labour interventions and practices, identifying the lack of clinical evidence to support routine use, their widespread prevalence globally indicates a need to understand the process of decision making around the use of these interventions.

Interventions	Indications	Evidence
Continuous foetal heart monitoring	High risk pregnancies	Continuous EFM is not recommended for low risk pregnancies as it increases the risk for Caesarean section and instrumental vaginal birth.
Position during birth	Depends on the women preference	Upright is recommended
Pushing during birth	As a way of reducing the duration of the second stage	Spontaneous pushing is recommended
Companion	Depends on women	Women are more likely to have spontaneous vaginal birth and less likely to have intrapartum analgesia or to report dissatisfaction.
Duration of second stage of labour		No clear evidence to suggest the normal duration of the 2 nd stage of labour.
Vaginal examination	To assess and monitor the progress of labour and birth and clinical observation	Every 4 hours during 1 st stage of labour Every hour during the 2 nd stage of labour
AROM	To expedite labour and birth	Should not be performed routinely
Episiotomy	To accelerate birth when there is foetal distress	Restrictive use, only when there is foetal distress or tight perineum
Instrumental delivery	To accelerate birth when there is foetal distress	Forceps was less likely to fail in comparison to the vacuum (ventouse) but is associated with greater risks
Caesarean section	To accelerate birth when there is foetal distress	May have greater risk than vaginal birth

3.4. Evidence-Based Practice (EBP) and its implementation

The literature review in Section 3.2 of this chapter identified a lack of evidence to support routine use of most common interventions in labour and birth. This poses the question of why there is such a widespread use of interventions during the second stage of labour without good evidence of effectiveness, particularly considering the sensitivity of the procedure for the women receiving it, and the potential for adverse consequences in some settings. Hence, the second part of my literature review focused on the research around the adoption of EBP and what influences its implementation.

3.4.1. Definition and meaning of EBP

Evidence-based medicine (EBM) and evidence-based practice (EBP) concepts are used interchangeably in the literature. However, EBM is used for medicine and has been proposed as an important tool for improving the quality of maternity care (Turan et al., 2006).

EBM is defined as:

“the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.” (Sackett et al., 1996, p.71-72)

EBP can be applied to any practice that is based on evidence. EBP is defined as:

“the use of the best scientific evidence integrated with clinical experience and incorporating patient values and preferences, in the practice of professional patient care” (Houser and Oman, 2010, p.1).

In this thesis, I will use the term EBP as it is a broad term to be applied to any practices and will use EBM where the writers use it in their papers to examine EBM concepts with physicians.

EBP has been described as a new paradigm within health and social care that has gradually emerged since the 1970s and has led to an increasing request for research evidence, upon which practice decisions can be based (Aveyard, 2010). According to Rycroft-Malone et al. (2004) EBP has become the main means of informing policy, practice, management and education within health care services across the developed world.

Cluett and Bluff (2006) highlighted that the aim of EBP is to do the right thing, at the right time, for the right person; in other words ensure quality care for the individual client. This is achieved by evaluating ideas, practices and previous events and applying this learning to future practice. EBP must be embedded in critical awareness of issues and arguments regarding what comprises evidence (McCourt, 2005).

Wilby and Al-Siyabi (2013) argue that there is a traditional belief that high quality evidence is based on only Randomised Controlled Trials (RCTs) or systematic reviews with meta-analysis. However, EBM is not restricted to RCTs or systematic reviews. It involves tracking down the best external evidence with which to answer clinical questions (Sackett et al., 1996). Wilby and Al-Siyabi (2013) pointed out that these studies when well conducted only represent high internal validity but lack external validity or generalisability to actual patients. Therefore, other types of study such as qualitative studies should not be ignored.

However, there are concerns internationally that many practices in healthcare are not evidence-based, including many childbirth practices. For example, Khresheh et al.

(2009) argue that there is widespread international concern that non-evidence based childbirth interventions and practices continue as standard practice, and that this can negatively affect the quality of clinical childbirth care. Although the adverse consequence of many practices are well documented and many healthcare organisations do not recommend them as a part of the care of the second stage of labour, there is evidence that these practices still occur in the hospital settings routinely. For example, women with straightforward pregnancies are subjected to routine episiotomy, directed pushing and lithotomy during the second stage of labour in many countries (Maimbolwa et al., 1997; Khayat and Campbell, 2000; Abdulsalam et al., 2004; Turan et al., 2006; Hatamleh et al., 2008; Sweidan et al., 2008; Altaweli et al., 2014).

3.4.2. Professionals' views and attitudes towards the use of interventions

Many studies have explored healthcare professionals' views and attitudes towards the use of interventions during childbirth such as the use of CTG machines and episiotomy practice. The evidence suggests that doctors' views can influence their use of interventions and also patient outcomes. Klein et al. (1995) evaluated whether physicians' views toward episiotomy are related to their use and to differential outcomes in childbirth. They found that doctors with favourable views toward the use of episiotomy were more likely to use procedures such as oxytocin and lithotomy position to hasten labour, and women were more likely to have perineal trauma and pain, and to be less satisfied with the birth experience. Women whose doctor held an unfavourable view of episiotomy were more likely than women attended by other doctors to have an intact perineum and to experience less perineal trauma.

Stamp (1997) surveyed Australian midwives to obtain their perceptions and practices on episiotomy. All midwives surveyed agreed that foetal distress in the second stage of labour indicated the need for an episiotomy. However, the sample of midwives revealed significant variation in their views on, and practices in, the second stage of labour. Most midwives also agreed that they would 'almost always' or 'sometimes' consider a rigid perineum, a previous third degree tear, or an imminent or buttonhole tear to be a reason for doing an episiotomy. The response rate of this survey was 65%. A limitation of this methodology is that the researchers did not actually observe midwives in practice.

Moreover, a postal survey was conducted in the UK by Sinclair (2001) to identify midwives' attitudes towards the use of technology and more precisely the use of the CTG machine for EFM in the labour ward. The results show that midwives rejected any idea of them being, or becoming, reliant on machines in their practice. The findings also suggest that there is a fear among some midwives that technology is de-skilling them. However, the review also identified that midwives who trust machines are more willing to use them and trust is affected by perceived competence.

A Canadian study by Reime et al. (2004) compared family physicians', obstetricians' and midwives' self-reported practices, attitudes and beliefs about central issues in childbirth in a maternity care teaching hospital using a mail-out questionnaire. They measured 23 five-point Likert scale items addressing attitudes toward routine EFM, induction of labour, epidural analgesia, episiotomy, doulas, vaginal birth after Caesarean section (VBAC), birth centres, provision of educational material, birth plans and Caesarean section. Reime et al. (2004) found out that obstetricians were the most attached to technology and interventions including Caesarean section and inductions, midwives the least, while family physicians fell in the middle. They

recognised that generalisations can be problematic. However, Reime et al. (2004) suggest that obstetricians and midwives generally follow a defined and different approach to maternity care, while, family physicians are heterogeneous, sometimes practising more like midwives and sometimes more like obstetricians.

A qualitative study by Hindley et al. (2006) using a semi-structured interview approach was conducted in the North of England to evaluate midwives' attitudes and experiences with the use of foetal monitoring for women at low obstetric risk. Fifty-eight midwives working in two hospitals were interviewed. Midwives subscribed to the notion of woman-centred care, but because of a complexity of factors experienced in their daily working lives, they felt vulnerable when attempting to implement evidence-based foetal monitoring practices. Midwives regretted the loss of a woman-centred approach to care when technological methods of intrapartum FHR monitoring were used widely. The study showed that midwives have positive attitudes toward intermittent auscultation and seem committed to increasing its use. They dislike EFM because of its deleterious effects on labour as the increased watchfulness is focused on the machine and not the woman. However, the irony is that these midwives found it difficult to practice confidently without EFM, and it is doubtful that this dilemma will be resolved as the technology becomes increasingly more sophisticated.

Chaillet et al. (2007) conducted a qualitative study in Montreal, Quebec to explore obstetricians' perceptions of clinical practice guidelines in regards to the use of EFM. They carried out 10 focus groups, followed by 6 semi-structured interviews.

Obstetricians perceived the use of continuous EFM as reassuring because the EFM paper strip represents a strong evidence of good practice in case of litigations.

Obstetricians perceived also that continuous EFM helps to supervise students and residents in the labour and delivery ward.

Another study carried out by Teckla et al. (2010) explored the practice of episiotomy by midwives in an urban setting working in the labour ward at Pumwani Maternity Hospital in Kenya. In-depth interviews were conducted among midwives. They reported different reasons to have influenced the midwives practices, which are very tight perineum, breech presentation, premature labour, female genital mutilation, instrumental delivery and status of the foetus. In-depth interviews demonstrated lack of specific guidelines on specific procedures, personal attitudes and inadequate administration support. They recommended an urgent need to put in place modalities to ensure that guidelines are developed and used appropriately in order to standardise provision of services.

McKevitt et al. (2011) carried out an exploratory descriptive study to examine midwives' and doctors' attitudes towards the use of the CTG machine in labour ward practice in a maternity unit in Northern Ireland. The study results show that the majority of respondents preferred the use of the CTG machines, had positive attitudes toward the CTG technology and were confident about their skill in interpreting CTG tracings. The majority of the respondents felt that their training adequately prepared them for using CTGs. The respondents believed CTG technology continues to have a role in monitoring and detecting FHR abnormalities though this role is limited by how well the CTG is used and interpreted.

Smith et al. (2012) carried out a systematic review and thematic analysis on professionals' views of foetal monitoring during labour in a variety of countries, identifying four key themes related to professionals' views of monitoring the FHR during labour: reassurance and safety; technology; communication/education and 'midwife by proxy'. Each might be considered influential when attempting to implement evidence-based FHR monitoring practices during labour. EFM offered

professionals reassurance because they perceived it as providing the hard copy ‘proof’ of an uncompromised baby. This ‘proof’ was perceived to minimise exposure to criticism and potential litigation. However, professionals also recognised the false sense of security offered by EFM and not all professionals relied on the CTG to ensure a good neonatal outcome (Smith et al., 2012).

Reviewing the literature on the healthcare professionals’ views and attitude toward the use of interventions during the second stage of labour indicates that there is limited evidence about healthcare professionals’ views and attitude toward the interventions use labour in Saudi Arabia. However, physicians’ awareness, attitudes and practice towards EBM has been well documented in different regions of Saudi Arabia (Al-Ansary and Khoja, 2002; Al-Almaie and Al-Baghli, 2004; Al-Omari and Al-Asmary, 2006; Khoja and Al-Ansary, 2007), Qatar (Al-Kubaisi et al., 2010) and Oman (Al Wahaibi et al., 2014).

Five studies used a questionnaire survey to assess primary healthcare physicians’ awareness, attitudes and practice towards EBM in the Riyadh region of Saudi Arabia (Al-Ansary and Khoja, 2002), in the Dammam area of Eastern region of Saudi Arabia (Al-Almaie and Al-Baghli, 2004), in Al-Taif Governorate, Western region of Saudi Arabia (Al-Omari and Al-Asmary, 2006), in Asir region, Saudi Arabia (Khoja and Al-Ansary, 2007) and in Doha, Qatar (Al-Kubaisi et al., 2010). All studies found a low level of awareness regarding extracting journals, review publications and databases related to EBM, and even if aware, many did not use them. Nonetheless, all studies found that most of the respondents welcomed the principles of EBM and most physicians who had heard about the concept of EBM, had a positive attitude toward it and agreed that its practice improves patient care. In Al-Omari and Al-Asmary’s (2006) study 48% of respondents reported regular use of EBM in their daily clinical

practice while in Al-Kubaisi et al.'s (2010) study 68.7% reported actively practicing EBM. Unfortunately, however the journals most commonly reported used by physicians in Khoja and Al-Ansary's (2007) studies were those sponsored by pharmaceutical companies, which could introduce a bias (Wilby and Al-Siyabi, 2013).

Al Wahaibi et al.'s (2014).study used self-administered online questionnaire to evaluate the knowledge and attitudes of Oman Medical Specialty Board (OMSB) residents towards EBM. Time constraints and skills in EBM were perceived by residents to be the two major barriers to use EBM.

Although there were some studies to assess physicians' attitude toward EBM in Saudi Arabia, no studies were identified to assess nurses and midwives attitudes. These studies reflect a general positive attitude toward EBM from physicians throughout Saudi Arabia, but do not provide evidence of ability to translate this into practice.

3.4.3. Variations in views, attitudes and practices

Some of the factors behind variations in views, attitudes and practices of healthcare professionals are investigated in the literature. Stamp (1997) found considerable variation of Australian midwives views on, and practices in, the second stage of labour relating to perineal massage, delivery of the head and reasons for cutting an episiotomy. A survey in the UK by Tincello et al. (2003) has demonstrated differences in the reporting of episiotomy technique between doctors and midwives. Both studies used questionnaires for their data collection. In Alfirevic et al.'s (2004) prospective observational study of ten maternity units in England, there was a significant inter-unit variation in the use of syntocinon for augmentation of labour, mode of delivery and type of perineal damage.

Childbirth intervention rates such as Caesarean sections vary broadly worldwide. This variation in Caesarean section rate is medically unjustified (Shearer, 1993; Belizán et al., 1999; Althabe et al., 2006, Nippita, et al., 2015) or explained by research or patients' characteristics and reflects wide differences in practice and adherence to evidence-based guidelines in hospitals. The evidence suggests that high rates of Caesarean sections cannot be explained by demand from women and may reflect medical control rather than women's choices. (Castro, 1999; Gamble et al., 2007; McCourt et al., 2007).

Mazzoni et al. (2011) conducted a systematic review and meta-analysis of women's preferences for Caesarean section. They found that the overall preference for Caesarean section was 15.6% in a wide variety of countries. Higher preference for Caesarean section was reported in women with a previous Caesarean section (29.4%) versus women without a previous Caesarean section (10.1%), and those living in a middle-income country (22.1%) versus a high-income country (11.8%).

Variation in episiotomy rate exists between and within countries. There is also variation among health professionals' practice within the same institution. The factors that account for this variation in practice are unclear (Graham et al., 2005). Hueston (1996) examined clinical and non-clinical factors associated with the performance of episiotomy in the USA and found the strongest independent predictors of episiotomy were primigravidae or vacuum extraction. Provider specialty (obstetrician, family physician, nurse-midwife) and the site of care (4 community hospitals, and one which was the primary affiliate of a state-supported medical school), were also associated independently with the use of episiotomy. The highest rates of episiotomy use were among the obstetricians.

Pel et al. (1995) conducted a study to investigate factors behind provider-associated variations in obstetric intervention rates, performing a survey of obstetricians and co-workers in a sample consisting of 38 Dutch hospitals, using a questionnaire. They found considerable inter-individual variation. The increasing age of the obstetrician and routine EFM had an increasing effect; employment of midwives had a decreasing effect. Gender, position, experience, litigation and convenience factors (co-workers/duty shifts) had no effect. Pel et al. (1995) concluded that supplier-induced differences do impact on obstetric interventions and are influenced by personal and hospital-policy factors. They also found that individual differences in physicians' practice style had an impact.

Shorten et al. (2002) found that if the professional attending the delivery was an obstetrician rather than a midwife, the probability of an episiotomy or tear requiring suture was greatly increased. Midwives achieved higher rates of intact perineum (56% to 61%) than obstetricians, regardless of the birth positions adopted by women. The authors suggest identification of the strategies used by midwives to achieve favourable perineal outcomes.

Viswanathan et al. (2005) suggested in a systematic review that variations in the practice of episiotomy are determined by local professional norms, experiences in training, and individual provider preference rather than variation in the needs of individual women at the time of birth. Professional opinions varies also with regards maternal risks and benefits associated with routine use of episiotomy (Hartmann et al., 2005).

Graham et al. (2005) reviewed statistics from around the world, revealing overall high rates of episiotomy but with a decreasing trend in some countries. Considerable

variation occurs in the use of the operation by country, within countries, and even within the same professional provider group in the same institution. Graham et al. (2005) argued that these variations are not explained by differences in the pregnancy population.

Harris (2005) investigated practice variation among midwives during the third stage of labour in two NHS trusts in England using grounded theory. She noted inter practice variation (between different midwives) and intra practice variation (within an individual midwife's practice), particularly in relation to the amount of intervention midwives chose to use during the third stage of labour. In her study practice variation in third stage care was a reflection of the individuality of midwives and the way midwives chose to individualise the care of women. However, other studies have shown that inter-practice variations in rates of birth interventions may be based on organisational and professional factors that do not fall within professional judgement to individualise care (Bragg et al., 2010; Macfarlane et al., 2015). While some variation should be seen based on clinical needs and women's wishes and professional judgement this evidence suggests that much of the variation may not be a consequence of careful clinical judgement so much as the cultural and organisational context in which the care happens to take place.

3.4.4. Implementation of EBP

There is no proof that evidence will change healthcare professional practice, no matter how clearly formulated, designed and spoon-fed to them (Thorp, 2008). According to Thorp (2008) it is important to understand what influences healthcare professionals' behaviour and decision-making using qualitative methods.

Implementation of EBM into obstetric practices remains challenging (Althabe et al., 2008) especially when trying to introduce evidence and clinical guidelines into routine daily practice (Grol and Grimshaw, 2003). Greenhalgh et al. (2014) argue that wide variation in implementing EBP remains a problem. Changing established clinical practice is problematic (Belizán et al., 2007). In Saudi Arabia the use of intervention during childbirth is common practice and so it may be difficult to change it to apply new evidence. The implementation of guidelines by healthcare professionals and health system managers is inconsistent and gaps remain between recommended care and clinical practice (Flodgren et al., 2013).

When research that aimed to improve healthcare and reduce health problems is not being successfully implemented, it will create 'research waste' (Macleod et al., 2014). Greenhalgh (2006) argues that all the training in search techniques and critical appraisal will be wasted if researchers do not put at least as much effort into implementing valid evidence and measuring progress towards their goals as they do into reading research papers. Graham (1997) argues that challenging obstetric interventions may not always be easy and sometimes requires determination and patience. This can lead to considerable stress and interpersonal distress when dealing with colleagues.

Multidisciplinary teamwork is essential. Although barriers exist, there is room for new information within practice as Rycroft-Malone et al. (2004) found; having a multi-disciplinary focus is perceived to increase the chances of successful implementation. Sandall (2014) argues that for significant change to occur to achieve better birth experience, attention should be paid to social and professional attitudes, birth environments and practices.

In countries like the UK, strengthening practice rests on the application of an evidence-based approach, with the best available evidence gathered from research, providing the basis for the policies that guide practice. In addition, there are systems in place to monitor and ensure appropriate application (Rycroft-Malone et al., 2004). Furthermore, approaches to care are governed by legalisation applied by organisations such as the Nursing and Midwifery Council (NMC), British Medical Council (BMC) and the DoH. NICE represents such governance in the UK and it is distant from observed practice in Saudi Arabia. NICE (2008) recommends offering pregnant women evidence-based information and support to enable them to make informed decisions regarding their care.

Even with all these structures, therefore, implementation in the UK has been challenging. The availability of evidence-based guidelines does not always ensure the application of EBPs. Research shows that the availability of evidence through publication is not enough to improve care (Kulier et al., 2008) and educational strategies with medical professionals are generally ineffective (Chaillet et al., 2006). In addition, healthcare professional awareness of evidence is not enough to implement EBP (Gülmezoglu et al., 2007; Thorp, 2008) especially if the clinical environment is not conducive to change (Grol and Grimshaw, 2003). Thorp (2008) argues that making healthcare professionals aware of the quality and quantity of evidence about obstetric practice and providing them with increased accessibility and training in EBM failed to change their behaviour in any significant fashion.

Implementation of EBP, therefore, is not simple and has been a challenge. In practice much care is still not evidence based, and there are biases in what kinds of evidence are implemented or not. McCourt (2005) argues that people selectively recognise and interpret research data. The challenges when implementing evidence into practice are

complex and varied (Rycroft-Malone et al., 2004; Bick and Chang, 2014). It requires a complex series of actions (Berghella, 2010).

3.4.4.1. *Facilitators and barriers to implementation of EBP*

Numerous facilitators and barriers were identified in the literature, as well as potential strategies for promoting change that could be integrated into interventions. Identifying facilitators and barriers to implementation of EBPs is an essential way to guide the development of effective strategies (Chaillet et al., 2007). Many studies carried out worldwide have explored the facilitators to the adoption of EBP. Facilitators to implementation of EBPs refer to the type of support required to aid people to change their attitudes, practices, skills, ways of thinking, and working (Kitson et al., 1998). To facilitate the adoption of guidelines, local healthcare professionals' perceptions should be considered to make recommendation more useful and acceptable (Chaillet et al., 2007).

The existing evidence suggests there are several ways to help in implementing clinical practice guidelines in obstetric practice. These include selection and training of opinion leaders in each hospital, prospective identification of efficient strategies and barriers to implementation, interactive workshops, training of manual skills, one-on-one face-to-face academic sessions, reminders, regular visits to facilities involving assessment, feedback, training and action, multifaceted behavioural intervention, audit based on evaluation methods, intensive targeted feedback and multifaceted strategies based on audit and feedback and facilitated by local opinion leaders (e.g. clinical director of a hospital or clinic) (Chaillet et al., 2006; Chaillet and Dumont, 2007; Althabe et al., 2008; Kulier et al., 2008; Thorp, 2008; Iyengar et al., 2014).

Chaillet et al.'s (2007) qualitative study findings indicate that obstetricians require evidence tools and support to assess their practices and enhance their performance. In addition, peer review activities supported by opinion leaders have been identified by obstetricians as the most suitable strategy to improve the use of the guidelines in their practices.

Kulier et al. (2008) identified five steps to implement evidence into practice. First, healthcare professionals need to be aware of, and knowledgeable about, the new clinically useful evidence. Second, they need to be persuaded about its potential for patient benefit to accept it. Third, they need to decide to adopt the new management in suitable clinical situations. Fourth, the patient must accept the intervention. Fifth, implementation needs to involve the collaboration of the institution, and other healthcare professionals, and be feasible and cost-effective.

Chaillet and Dumont (2007) conducted a meta-analysis to assess the effectiveness of interventions for reducing the Caesarean section rate and to assess the impact of this reduction on maternal and perinatal mortality and morbidity. They found that audit and feedback quality improvement and multifaceted strategies that involve health workers in analysing and modifying their practice were effective to improve clinical practice and for reducing the Caesarean section rate.

A multifaceted behavioural intervention in Argentina and Uruguay hospitals (including selection of opinion leaders, interactive workshops, training of manual skills, one-on-one academic detailing visits with hospital birth attendants, reminders, and feedback) were effective in increasing the adoption of EBP and changed healthcare professionals attitude to increase the prophylactic use of oxytocin during the third stage of labour and reduce episiotomy practice (Althabe et al., 2008).

However, Bick and Chang (2014) pointed out that practices could be changed during the active research intervention, but after the intervention study has finished, the practice often returns to what it was before. They mentioned a couple of reasons including poor dissemination of results, other competing healthcare priorities, or too little resource or motivation to implement and sustain change in practice.

Iyengar et al. (2014) examined the adherence to EBPs for childbirth before and after a quality improvement intervention in health facilities of Rajasthan, India. The interventions included orientation training of doctors and programme managers and regular visits to facilities involving assessment, feedback, training and action. Use of several unnecessary or harmful practices reduced significantly such as using routine augmentation of labour, episiotomy for primigravidae, fundal pressure, and routine suction of newborns. They argue that an intervention based on repeated facility visits combined with actions at the level of decision makers can lead to considerable improvements in quality of childbirth practices in the health services. However, some practices did not show any improvements, such as dorsal position for delivery, use of partograph, and hand-washing.

Table 5 below summarises the facilitators to implementation of EBPs based on my literature review.

Table 5: Facilitators to implementation of EBPs

- Interventions that include prospective identification of efficient strategies and barriers to implementation
- Selection and training of opinion leaders (e.g. clinical director of a hospital or clinic)
- Orientation training of doctors and programme managers
- One-on-one face-to-face academic sessions and detailing visits
- Interactive workshops
- Training of manual skills
- Peer review activities supported by opinion leaders
- Repeated regular facility visits involving assessment, feedback and training combined with actions at the level of decision makers
- Reminders
- Intensive directed feedback
- Audit based on evaluation methods
- Multifaceted strategies based on audit and feedback quality improvement and facilitated by local opinion leaders
- Multi-disciplinary focus
- Multifaceted strategies that involve health workers in analysing and modifying their practice
- Multifaceted behavioural intervention
- Evidence tool and support to assess professionals' practices and enhance their performance
- Attention to social and professional attitudes, birth environments and practices.

Many studies carried out worldwide have also explored EBP and the barriers to its implementation. These consisted of medico-legal concerns, public opinion, lack of resources, economics and costs, marketing, consumerism, pharmaceutical industry issues, language issues, institutional and other organisational barriers (Gülmezoglu et al., 2007; Oxman et al., 2007, Thorp, 2008). Eason and Feldman (2000) recognise that there are powers that might prevent doctors from practicing EBPs in obstetric birth; these include time pressures, malpractice fears, lack of experience, and an interventionist practice pattern.

Turan et al. (2006) conducted a study to document the current state of obstetric practices at three maternity hospitals in Istanbul, Turkey, and identified attitudes, social pressures, and perceptions that, according to the theory of planned behaviour, may pose challenges for adoption of EBPs. Their findings indicate that healthcare professionals had negative attitudes about some recommended practices, while they had positive attitudes towards some ineffective and/or harmful practices. They identified social pressure to comply with practices recommended by supervisors and peers, as well as the belief that limited resources affect maternity care providers' opportunities to perform evidence-based procedures. An underlying problem was the failure to involve women in decision-making regarding their own maternity care.

Belizán et al. (2007) studied barriers to adoption of evidence-based perinatal care in Latin American hospitals (Argentina and Uruguay). Barriers as perceived by healthcare professionals included limited access to information, negative attitudes toward changes in practice, lack of skills in performing new practices, lack of medical resources and explicit guidelines and a perceived need to practice defensive medicine.

Chaillet et al.'s (2007) identified barriers to adoption of clinical guidelines and limit obstetricians' use of intermittent auscultation. Barriers as perceived by obstetricians included lack of a one-to-one nurse-patient ratio, use of a central EFM system, anaesthesia department preferences for the use of continuous EFM when women receive an epidural, availability of equipment (i.e. pH metre) to accurately diagnosing foetal hypoxemia and to investigate non-reassuring patterns of the EFM, limited use of foetal scalp blood sampling, availability of experienced nurses, maternal preferences to have continuous EFM and fear of lawsuits. Human resources and organisational factors have been seen in their study as the main barriers to performing intermittent auscultation.

Physicians perceived barriers to incorporating EBM into practice in Saudi Arabia and the Gulf Cooperation Council (GCC) countries to be: patient workload; time constraints; absence of a local library; limited resources and facilities; lack of training workshops and courses about EBM; no distributed updated clinical letters; journals or guidelines; the lack of relevant evidence; and the negative impact of EBM on traditional medical skills and the art of medicine (Al-Ansary and Khoja, 2002; Al-Almaie and Al-Baghli, 2004; Al-Omari and Al-Asmary, 2006; Khoja and Al-Ansary, 2007; Al-Kubaisi et al., 2010; Al Wahaibi et al., 2014). Therefore, there is much room to improve EBM practices in this region.

The literature above highlighted many barriers that prevents using evidence in clinical practice, including restrictions created by EBP systems themselves, human factors, and the organisations within which patient care is delivered (Houser and Oman, 2010). Table 6 summarises common barriers to using EBP.

Table 6: Common barriers to using EBPs	
Barriers	Causes
Limitations in EBP systems	<ul style="list-style-type: none"> • Lack of explicit guidelines and relevant evidence and no distributed updated clinical letters; journals or guidelines • Language issues • Claimed negative impact of EBM on traditional medical skills and the art of medicine
Human barriers	<ul style="list-style-type: none"> • Lack of skills in performing new practices • Lack of experience and an interventionist practice pattern • Availability of experienced professionals • Negative attitudes toward changes in practice and about some recommended practices • Positive attitudes towards some ineffective and/or harmful practices • Professionals wanting reassurance • Lack of a one-to-one nurse–patient ratio • Time pressures and constraints • Social pressure to comply with practices recommended by supervisors and peers • Public opinion and maternal preferences
Organisational and institutional barriers	<ul style="list-style-type: none"> • Patient workload • Malpractice fears, fear of litigation and medico-legal concerns and a perceived need to practice defensive medicine • Limited medical resources, facilities, economics and costs and absence of a local library • Limited access to information • Lack of training workshops and courses about EBM • Availability of equipment (i.e. pH metre) • Pharmaceutical industry issues

Numerous strategies were identified in the literature for overcoming barriers in implementing EBP, including: identifying the barriers, strengthening beliefs about the benefit of evidence based care, teaching the basics of EBP, organising and implementing journal clubs, and conducting EBP rounds (regularly scheduled forums), and creating a culture in which EBP is valued (including administrative support and encouragement) (Melnyk, 2002). In addition, learning the skills of EBM and using evidence-based guidelines developed by colleagues (Al-Ansary and Khoja, 2002). In addition, healthcare professionals should take in consideration the context, culture and enablers to support and sustain research practice (Bick and Chang, 2014). Belizán et al. (2007) argue that interventional studies must be adapted to translate evidence-based methods into new cultures and contexts. Improving access to information, use of role models, skills development and improved resources and support may be effective ways to overcome the barriers to change in obstetric care (Belizán et al., 2007).

3.5. Conclusion

Practices and procedures used during labour and birth which are known to increase the possibility of medical interventions should be avoided wherever possible (MCWP, 2007). Reviewing the literature on the management of the second stage of labour provided a rationale for the investigation of use of intervention during the second stage among healthcare professionals in Saudi Arabia. Systematic reviews of studies have shown that the use of intermittent foetal monitoring, upright or squatting position, restrictive episiotomy, spontaneous pushing, companionship during the second stage of labour have been shown to benefit women's experience of labour as well as its outcomes. However, many government hospitals in Jeddah, Saudi Arabia

have not updated their clinical practices to reflect these findings (Altaweli et al., 2014). From my review, the conclusion is that there is strong evidence to support restrictive use rather than routine use of interventions during labour, including interventions in the second stage specifically.

The main gap in the existing literature is lack of understanding of what influences the labour practices of healthcare professionals. Few studies were found to have investigated the decision-making of healthcare professionals during the second stage of labour in labour wards worldwide, or the influencing factors behind the routine use of interventions. Additionally, it appears that no studies have been published on second stage of labour practices in labour wards in Saudi Arabia.

The literature is very extensive in regards to the EBM and EBP. Many studies identified facilitators and barriers to implementing EBP. It is clear by reviewing the EBM and EBP concepts, that changing routine practices and implementation of EBM into practice is challenging and we needs greater understanding of the barriers that prevent healthcare professionals from adopting EBP. Healthcare professionals' awareness of EBM seems insufficient to follow EBP and to reduce the use of interventions during the second stage of labour.

The review of evidence suggests that more complex and multi-faceted approaches are needed including: selection of opinion leaders, interactive workshops, training of manual skills, one-on-one academic detailing visits with hospital birth attendants, reminders, and feedback. However, the review of evidence also suggests that even if we use multi-faceted approaches, technical solutions even beyond just providing information seem to have limited effects, or only work for some types of evidence.

The next chapter will discuss the theoretical literature that was examined, which could support explanation of the reasons that may influence healthcare professionals to use interventions during the second stage of labour or not, and to explore understanding of why adoption of EBP may not be easy in practice, even when professionals have all the knowledge.

Chapter 4: Theoretical literature review

4.1. Introduction

This chapter provides a brief overview of the key theoretical areas and concepts that were considered as pertinent to a critical analysis of the use of interventions in obstetric and midwifery practices and maternity services in Jeddah. It draws from a range of literature that explores the social and cultural drivers behind the use of interventions during childbirth and the ways in which childbirth is managed in different social settings. I identified these initially through wide reading and then through an inductive and iterative process during the data collection stage as the themes emerged. The intention of this review is to theoretically contextualise the current and emerging practices in Jeddah, which are described in this thesis. Key theoretical areas and concepts that I felt may be useful to the analysis and for explaining my findings are: gender in childbirth, institutionalisation and place of birth (birth territory); medicalisation of childbirth; risk and childbirth; and power.

4.2. The application of theory for the analysis of obstetric and midwifery practices

The term theory is defined by Bryar and Sinclair (2011, p.28) as:

“a mental construct which seeks to clarify the relationships between facts and phenomena (between concepts)”.

Bryar and Sinclair (2011) stated that theory fundamentally offers explanations for actions, events and phenomena. On the other hand, concepts can be seen as the building blocks of a theory (Nieswiadomy, 2002; Walker and Avant, 2005); with words or terms framing particular aspects of any given reality. The meaning of a

concept is typically expressed by the use of a definition and provides examples of instances of it (Nieswiadomy, 2002). However, Bryar and Sinclair (2011) argue that theories and models are projected with the intention that they will be verified, adapted or abandoned in response to the emergence of new evidence arising from observation or other forms of research. This was the intention of my initial theoretical reading, prior to the data collection and analysis.

Childbirth can be theoretically categorised as a normal phenomenon or a state of illness. Van Teijlingen (2005) argues that adhering to either a medical or social/midwifery model is associated with a particular prescriptive approach regarding ways of behaving in childbirth. According to the medical model, birth is a medical problem, medical interventions are necessary and the woman is viewed as subject, unable to participate in the medical decisions; her feelings are not as important as her safety and that of her foetus (Wagner, 1994; van Teijlingen, 2005). In contrast, according to the social/midwifery model, birth is normal physiological biosocial process and important life event (Wagner, 1994; van Teijlingen, 2005). Medical and social/midwifery model of childbirth will be discussed further in this chapter. Healthcare professionals can adopt a medical or social/midwifery model of care regardless of their educational background, despite its general influence. This means that medical doctors may potentially adopt a midwifery model of care, and a midwife may adopt a medical model of care depending on individual birth circumstances. The variation in healthcare professionals' views of 'normal' childbirth is reflected in the literature, resulting in significant confusion around the definition (Henley-Einion, 2009). The concept of 'normal labour' has been extensively explored within midwifery (Gould, 2000; Anderson, 2003). Anderson (2003) considers that from a midwifery perspective, 'normal' could imply a physiological definition, but its

utilisation could also suggest compliance with common practices. The assumption here once midwives start thinking in medical terms normal pregnancies are at risk of becoming medicalised (Smeenk and ten Have, 2003), because an obstetric medical model is adopted for normal practice (Shaban and Leap, 2012).

As this literature suggests, there are many theories and concepts proposed to provide explanation for the use of interventions during childbirth in maternity wards worldwide, extending to Saudi Arabia. A principal objective of this thesis is to contribute to the theoretical debates around the management of the second stage of labour and to add further insight through the exploration of interventions in the second stage of labour in Jeddah.

4.3. Decision making

Decision-making is a fundamental and essential part of obstetric and midwifery practices and is underpinned by theoretical preferences and allegiances. Decisions that are made during childbirth will determine the actions, practice of healthcare professionals and the quality of obstetric and midwifery care (Raynor and Bluff, 2005). In the industrialised world today, it is common to see women who are admitted to a labour room confined to bed, monitored continuously for no reason except that it is hospital policy, and subject to decisions about their care made for them by healthcare professionals (Coppen, 2005) rather than with them.

There are many factors that could influence healthcare professionals' decision to use interventions during childbirth. Mander and Melender (2009) used a hermeneutic phenomenological approach in Finland and New Zealand towards examining the experiences contributing to healthcare professionals' decisions at clinical,

organisational and policy-making levels. They explored the meaning of choice and decision making to the participants in order to inform the organisation of the maternity services in Scotland. They used in-depth, semi-structured conversations with mothers, midwife managers/policy makers, midwives and other maternity care providers. Their finding highlighted that the context of 'trusting the system' together with admirable skills in obtaining information enabled informants to feel secure and safe with regards to making decisions. This sense of trusting in the system demonstrates the importance of the cultural context in which decision-making takes place.

Blix-Lindstrom et al. (2008) conducted focus-group discussions with 20 midwives experienced in working in labour wards in Stockholm, Sweden to explore and understand how they perceive and experience decision-making in relation to the augmentation of labour. Five themes were identified in their study illustrating the factors considered by the midwives to influence decision making: 'regulations and guidelines'; 'shortage of delivery rooms'; 'influence of obstetricians'; 'women in labour'; and 'midwives' professional selves'. They found that a sense of professional power over the opportunity to direct factors that influenced decision-making during augmentation of labour affected the midwives' levels of job satisfaction significantly. They argued that this sense of power could consequently influence collaborations between both obstetricians and women during labour. Again this evidence shows how the place and the time in which the decisions are made helps to determine what interventions are selected and which ultimately influences the health outcomes for mothers and their babies.

Blix-Lindstrom et al. (2008) found that the midwives' sense of power and autonomy was linked to the extent of their capacity to influence the decisions that were made for

women during labour. The midwives described their professional role as trying to balance the power and prescriptions of the obstetricians, the women's desires during labour, and their own difficulties with acting upon their convictions. They experienced a sense of having power when they were in a position in which they could apply their knowledge based on experience. The researchers also found that the way the respondents were able to navigate and utilise their influence significantly affected their satisfaction with the decisions made, and reflected their experience of significant power within their profession.

According to Blix-Lindstrom et al. (2008) midwives knew how to navigate and, in principle, influence obstetricians and women, in order to achieve the results they wanted. These findings revealed the opportunities that midwives have for making clinical judgements about augmentation of labour, and their desire to act in accordance with their knowledge and expertise. A primary finding of their study showed that some midwives described a sense of losing power and a feeling of being involved in an ethical dilemma when the obstetrician's directions did not always meet what they perceived as the best interests of the women.

Carlsson et al. (2012) conducted a constructivist grounded theory study in Sweden, interviewing 19 women after they had given birth to their first child. Their findings highlight the fact that primigravidae who stayed at home during the latent phase of labour, had a feeling of power that was stated as characteristic of the driving force towards the birth, a bodily and mental strength and a feeling of authority over their own bodies. Loss of power was the core fear among the women interviewed, in reference to their ability to cope with childbirth. They argued that if their sense of power was weakened, this would then affect the whole birthing process. This implies

that women who maintain power have the ability to make choices during the birthing process.

Clinical decision making lies at the heart of second stage of labour interventions and as this literature suggests these decisions are complex and involve a variety of factors. This chapter will explore some of the key factors identified in the literature that help explain interventions that are used to manage the second stage of labour in birthing rooms across the world. The following sections will present theories and concepts aiming to provide an explanation for the use of interventions during childbirth, none of which have previously been examined in a Saudi Arabian context.

4.4. Gender in childbirth

Historically, childbirth was a women-centred (Kirkham, 1996) social event that occurred at home accompanied by close family and friends. Women were traditionally attended or assisted by other women in what was considered a natural process (Witz, 1992). The only intervention was the presence of a traditional midwife who had experience from attending other births (Coppin, 2005; Henley-Einion, 2009) and was well-known within her community for providing social support in situations that did not normally require further interventions. The role of traditional midwives, who are mostly women, is ensconced in the rituals of almost every culture (Arney, 1982). Midwifery was the usual model of care and doctors were only invited in for obstructed or difficult births and only if the births occurred in hospital (Coppin, 2005). Indeed, the old Latin word for midwife, *obstare* or *obstetrix*, means ‘woman who stands before’ (Arney, 1982; Donnison, 1988).

Witz (1992) observed that the division of labour between midwives and medical men has been a focus of struggle since the seventeenth century, pointing specifically to examples in the UK. The entrance of men and their instruments to the profession led to benefits for women in obstructed labour, but also profoundly affected the balance of power relationships in the delivery room (Kirkham, 1996). Thus, as gendered discourse sought to usurp female midwives, they struggled to restrict access to the occupation of midwifery as far as possible (Witz, 1992).

In the nineteenth century, competence based on professionalism and scientific knowledge, saw men enforcing patriarchal domination in the arena of childbirth, to the exclusion of female midwives (Witz, 1992). The concept of patriarchy as a key influence in the field of medicine was introduced by Witz (1992, p.3) in her analysis of gender and professionalisation

“In order to structurally ground the category of gender; by locating it firmly within power relations predicated on male dominance and female subordination”.

Obstetricians became influential within the childbirth domain (Coppin, 2005). Therefore, midwives came second to or were subordinate to obstetricians – as exemplified by a re-appropriation of the term obstetrician to apply to the male doctors, rather than the midwives.

4.5. Institutionalisation and place of birth

The physical space where childbirth takes place has been described in the literature as being an important factor which helps shape both how women experience birth as well as how practitioners and birth attendants manage birth. In particular the

institutionalisation of birth is a key theory considered by contemporary researchers (Kirkham, 1996). This rise of hospitals worldwide in the modern era as the preferable place for childbirth has been recognised by a number of authors. Childbirth has been increasingly concentrated in large centralised hospitals, and as stated by Wagner (2001) this has been associated with a trend towards more intervention in childbirth.

The reasons influencing the shift to hospital birth are complex (Wagner, 1994). One of the strongest drivers behind the movement from home birth to hospital birth is the taken for granted assumption that the hospital birth is safer than home birth (Coppen, 2005), even though rates of maternal mortality in many countries rose with the shift of birth into hospitals (Loudon, 1992; Tew, 1994). The hospital, however, not only represents safety symbolically but is considered to be the modern environment for childbirth, with its own special set of guidelines, behavioural values, language usage and technology (Henley-Einion, 2009). Henley-Einion (2009) argues that hospital births are immersed in symbols of the medical profession, including science, power and authoritative knowledge, which may have inherent risks for birth. Jordan (1993, p.151) argued from her observation of the medical model of childbirth that obstetric technology and technical procedures are treated as essential in the hospital environment and “ownership” of the artefacts required to manage childbirth reveals who should be seen as holding authoritative knowledge and subsequently, legitimate decision making power.

What is particularly relevant about this theory from this research point of view is that recent empirical evidence suggests that the birth setting is highly correlated with the rate of intervention used (Birthplace Collaborative Group, 2011, NICE 2014). Recent findings from the Birthplace in England cohort study showed that women who have a low risk pregnancy are more likely to have higher rates of intervention when

delivering in hospital than those who remain in midwife-units or at home (Birthplace Collaborative Group, 2011), with care being clinically safe in all settings. The more women are delivered at hospital, the greater the extent of the intervention used, thus the routine use of EFM, instrumental deliveries, Caesarean section and the use of medication became the norm in maternity units for both low- and high-risk women (Coppen, 2005; Blaaka and Eri, 2008). As yet many of these interventions have not been properly evaluated in clinical practice, although despite this they were not questioned until recently (Coppen, 2005). The reasons for this are historical and represent a growing tendency to assume that technology enhances quality of life, extending to surveillance, control and management of life from before birth (Blaaka and Eri, 2008).

Hospitalisation, it has been argued leads to childbirth becoming a

“process whereby the medical establishment, as an institution with standardised professional guidelines, incorporates birth in the category of disease and requires that a medical professional oversee the birth process and determine treatment” (van Hollen 2003, p.11).

Women who give birth in a hospital are more likely to be more directly exposed to obstetric technology. This is in part due to the fact that there is heightened awareness that there is an operating room near to the labour ward where a Caesarean section can be performed if anything is judged to go wrong during childbirth (Jordan, 1993).

There were 415 hospitals in Saudi Arabia in 2010, an increase of 22 (5.3%) since 2008 (MOH, 2010). As discussed in Chapter 2, there has been a great shift worldwide from home birth to hospital birth (WHO, 2006b) and in Saudi Arabia this has been particularly rapid (see Chapter 2). The vast majority of women in Saudi Arabia today

experience labour as hospital inpatients, which implies that medicalised childbirth is the norm given the hospital labour ward setting and the presence or observation of doctors, regardless of whether the birth is identified as a low risk midwife-case or not. Births supervised by obstetric doctors are often medicalised and women in labour are treated as having a medical condition. This is seen in the increased use of interventions in low risk pregnancies. In my previous research (Altaweli et al., 2014) I found that most government hospitals in Jeddah, Saudi Arabia use interventions and technology routinely during labour and childbirth. As most women have a hospital-based birth, they are subject to multiple interventions during pregnancy, labour and birth. This is consistent with the findings of Smeenk and ten Have (2003) who argue that in hospitals, interventions are more frequently used because technologies and instruments are more readily available.

Within the birthing environment of the hospital even the meaning of normal has transformed. Squire (2009) for example provides rich insight into the de-facto definition of normal labour within hospital settings, as consisting nowadays of EFM, promotion of epidurals, and routine use of medical and surgical interventions to speed up the process. Squire (2009) argues that the 'risk' linked with deviations from a standard or norm as defined by the obstetric profession and implemented and enforced by the midwifery profession, is the key to all of these occurrences. The organisation of maternity care, including the place of birth and the preferred birth attendant is affected by the concepts of risk operationalised in childbirth (van Teijlingen, 2005). In a hospital setting midwives' work differently as they experience pressure to conform to standard medical guidelines (MacDonald and Bourgeault, 2009).

4.5.1. Place of birth and midwifery practice

This process of modernisation and then globalisation, encouraging the shift of childbirth into the hospital obstetric setting wherein medical knowledge is viewed as authoritative is described as having a huge impact upon midwifery practices. As childbirth moved into the institutional setting a great shift in midwifery and childbirth practices took place.

Midwife literally means ‘with woman’ (Fraser and Cooper, 2009). By being there to support women and in helping them to learn about and understand their bodies and their transition into motherhood, the midwife’s role, traditionally, is integrated into the context of women’s social lives. Traditionally, midwives tended to use few interventions during normal childbirth in a home environment, however the move into hospitals has increased their use of medical technology. Within the context of hospitalised care midwifery practice is medically controlled and regulated as they manage births in a hospital setting, midwives are required to follow hospital policies and guidelines in reference to childbirth. The effects of which are possible interventions such as pharmaceutical augmentation for slow labour and Caesarean section for a long pushing stage. Such standards are often imposed upon the noninterventionist character of midwifery care (MacDonald and Bourgeault, 2009). The theory being proposed here is that midwives’ experience of autonomy and decision-making could be reduced when they work within a medically controlled healthcare system causing them to feel that they are losing their skills and confidence when providing antenatal, intrapartum and postnatal care (Shaban et al., 2012). Also, their professional identity and the image of midwifery could become confused within a medical model of care, as it is no longer seen as a primary health approach (Shaban et al., 2012), and the midwives lack of autonomy in part due to their education and

regulation within a nursing paradigm. Midwives may feel that the obstetricians and nurses hinder their autonomy, as they are limited in regards to their opportunity to practice the full role and scope of the midwife.

Harris (2005) revealed a theory of contingent decision making for the third stage of labour, which provided a robust explanation of the key influences on the practice variation of midwives. She identified three models of midwifery care; the interventionist approach, the non-interventionist approach and the reflexive perspective. These three models influence how interventions are used by midwives in the third stage of labour, and how individualised the care was. Most notably, this research suggests that midwives transition between intervention approaches depending on environmental factors.

In any given situation a midwife was seen to move and adapt according to which influencing factor was dominant. For example even if a midwife had a strong belief about the normality of childbirth, over time she could be coerced by the environment she worked in to adopt a more interventionist style of third stage care. In particular, this suggests that a midwife's practice changes depending on the unique body of knowledge the midwife has, the context of a particular birth, and the midwife's personal values and beliefs. Overall, Harris (2005) suggested that the practice of midwives could be better understood as a continuum rather than a dichotomy, flowing between interventionist and non-interventionist approaches depending on individual birth circumstances.

A review of the decision-making research literature in midwifery was undertaken by Jefford et al. (2010). They found that decision-making is under-researched in midwifery and more specifically in birth. Their review found that midwifery decision-making during birth is socially negotiated involving hierarchies of surveillance and control. Therefore, this study is important to explore healthcare professionals' decision-making during the second stage of labour.

A study by Mead and Kornbrot (2004) suggested that midwives' perception of risk are strongly influenced by the environment in which they work and midwives alter their practice in different environments, so despite their clinical knowledge and judgement and desire to respond to women's wishes and have partnership with them, they can be very influenced by practice environment and norms.

According to Blaaka and Eri (2008) the labour room is the location of a battle between natural and technological management of labour. They argue that the wisest midwives privilege the sensation of a human hand on the belly, over electronic monitoring as it provides more sensitivity and does not prompt unnecessary responses that the electronic device demands. It is through pursuing ethical actions that the midwife weighs up evidence and uses her senses to understand the birthing body's natural rhythm. Although scientific knowledge can provide extra information with which to assess the situation, it is important for the midwife to be fully cognisant of the manner in which such evidence is influencing her focus (Downe and Dykes, 2009).

Fahy and Parratt (2006) offer an interesting discussion regarding the theory of birth territory. This theory was synthesised inductively from empirical data generated by the authors in their roles as midwives and researchers. This reflects a critical post-

structural feminist perspective and expands on some of the ideas espoused by Michel Foucault. According to Fahy and Parratt (2006, p.64) birth territory refers to:

“the features of the birth room, called the ‘terrain’, and the use of power within the room, called ‘jurisdiction’”.

The theory of a birth territory describes, explains and predicts the relationships between the environment of the individual birth room, issues of power and control, and the way the woman experiences labour physiologically and emotionally. The authors utilise two contrasting stories to support their proposition in terms of ‘terrain’ and ‘jurisdiction’. The factor that appears to have most impact on the woman’s embodied self is whether ‘integrative power’ or ‘disintegrative power’ is evident.

Fahy and Parratt (2006, p.45) state that midwives can use ‘midwifery guardianship’ to create and maintain ideal environmental conditions in the form of a ‘birth territory’, in which maximum support is provided to women and fetuses during labour and delivery. Women in this context are more likely to give birth naturally under their own power, be satisfied with the experience and adapt with ease to the postpartum period. These factors, together with a reduction in medical intervention, benefit the baby. Blaaka and Eri (2008) argue that caring about what occurs in the birth setting, seeing it as a unique life event is not merely a purely technical issue, but also heightens the possibility of a positive presence in the room at this time. This behaviour is based on a belief system in which the birthing body is understood as a living and sensing body, incorporating order and disorder (Blaaka and Eri, 2008).

Despite the potential for the theory of guardianship the impact of the working environment of midwives in most countries, including Saudi Arabia, should not be underestimated. As the findings from this study will demonstrate midwifery practice

is predominantly restricted to hospitals and often midwives are unable to realise their guardianship role because they do not work as autonomous practitioners, but as assistants to obstetric specialists. Kirkham (1996) argued that midwifery in hospitals is being subordinated to medicine and is organised in a hierarchical way that is designed according to the nursing staff model. This hierarchy is ever more present within hospital settings in which the dominant profession is given the power to define the situation. These developments threaten the survival of midwifery practice and the existence of the midwife in her present-day manifestation.

In many instances the medicalisation of childbirth confines women's birth experiences, it restricts the role of midwives during childbirth and entails changes to the birth place; often leading to more extensive use of specialised care (Smeenk and ten Have, 2003). Midwives in Saudi Arabia are dependent on medical doctors and work 'under guidance of' or 'under control of' or 'with referral by' a medical doctor, contrary to those in many Western countries like Britain and Holland, where they work as autonomous practitioners (Smeenk and ten Have, 2003).

Within the context of institutionalised birth, midwifery practice can actively contribute to medicalisation and increased use of medical interventions during childbirth. Kirman and Ferguson (2007) assert that the presence of a midwife is to some extent an intervention because they are offering their knowledge, skills and experience to women to guide them through their pregnancy and childbirth and by doing so are changing the course of events. The positioning of midwives in the hospital setting results in tensions being generated that affect the midwife's professional role, as a midwife feels her first devotion is to the woman she is with. This tension can be intensified in the presence of technologies that require her attention (Kirkham, 1996). Kirkham (1996) argued that such tensions must have a

negative impact on the care given by the midwives to women. As Scamell's research shows, midwives working in the UK borrow so heavily from the discourse of medical surveillance that they are left with few opportunities to facilitate spontaneous birth (Scamell, 2011).

4.6. Medicalisation of childbirth and the cascade of intervention

This section will begin by examining the meaning of medicalisation and the impact it has on the use of interventions and vice versa during childbirth. The literature describing the theory of the medicalisation of childbirth is extensive and has significant theoretical overlaps with the place of birth theory described above. Despite these overlaps the theory of the medicalisation of childbirth offers another layer of meaning providing further theoretical insight into the use of interventions in the second stage of labour. Medicalisation is defined by (Conrad, 1992, p.209) as

“a process by which nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders”.

The term ‘medicalisation of childbirth’ (Oakley, 1980) or ‘medicalisation of life’ (Illich, 1976) is often used to refer to, or to describe, the widespread use and normalisation of medical interventions. It is used synonymously to mean a form of ‘interference’ with human nature (Coppin, 2005), and in this project interference with the physiological process of childbirth. To understand the reasons for the use of interventions and medicalisation of childbirth today, it is important to examine the influence of doctors, midwives, nurses and medical technology.

The discussion of medicalisation in this form was developed and introduced by sociologists and entered the arena of debate via sociological literature in the 1970s as

discussed by the works of Conrad (1992), Illich (1976) and Szasz (2007) among others; it explains how scientific knowledge of medicine can be applied to a range of behaviours which are not self-evidently medical or biological, but over which medicine can exert control (White, 2009). Medicalisation can be identified in the manner in which pregnancy and birth are approached as a disease by both pregnant women and midwives (Smeenk and ten Have, 2003). This calls attention to the process by which the terms 'health', 'disease' and 'illness' and the continuing supply of new technologies offer new potential to control ever more aspects of life and health of both the mother and the foetus (Smeenk and ten Have, 2003). In the case of pregnancy and childbirth, Henley-Einion (2009) notes that the process of medicalisation has resulted in childbirth being viewed as a primarily medical event rather than a social one.

Worldwide, childbirth in most modern societies has changed significantly. It has become highly medicalised and obstetric intervention rates during childbirth have escalated, as influenced by many factors such as risk management (Oakley, 1980; Squire, 2009), the availability of technology, medico-legal pressures, and the lack of involvement of women in the decision making (Johanson et al., 2002). Western, medicalised, high-tech maternity care, is a highly controlled approach and in many cases dehumanises women, often leading to unnecessary, costly, dangerous, invasive obstetric interventions which theorists have argued are highly unsuitable for export to developing countries (Wagner, 2001).

Internationally, concern has been expressed about the widespread medicalisation of childbirth, as it is largely unsupported by evidence of benefit. A WHO publication states:

“By medicalizing birth, i.e. separating a woman from her own environment and surrounding her with strange people using strange machines to do strange things to her in an effort to assist her (and some of this may occasionally be necessary), the woman's state of mind and body is so altered that her ways of carrying through this intimate act must also be altered and the state of the baby born must equally be altered. The result is that it is no longer possible to know what births would have been like before these manipulations.” (WHO, 1985, p.85).

Medicalisation of childbirth as discussed herein refers to the increasing trend for hospital birth within a medical setting, combined with an increased tendency to turn to technology and interventions in childbirth such as episiotomy, intravenous infusion, AROM, routine EFM and epidural analgesia (Coppen, 2005).

In this regard childbirth is unique; van Hollen (2003, p.12) argued that the process of medicalisation of childbirth is different from the medicalisation of health problems, in which medicalisation is desired but not available to those of lower social economic classes, or those in poorer countries. Indeed, “non-medicalised” birth is not necessarily a symptom of inequality except in the more extreme situations of poverty where women lack access to medical care in the case of medical complications; rather, the medicalisation of birth involves a pathologising of the “normal” life process by placing birth under the domain of the professional doctor even in healthy women and pregnancies.

Smeenk and ten Have's (2003) analysis of developments in Dutch midwifery suggested that the medicalisation of pregnancy and birth is certainly influenced by two factors. Firstly, the continuing supply of new technologies offers new potential to

control ever more aspects of life and health of both the mother and the foetus.

Secondly, medicalisation can be identified in the manner in which pregnancy and birth are approached as a disease by both pregnant women and midwives.

4.6.1. Theories of use of technology within medicalisation

According to Crozier et al. (2006, p.96) birth technology refers to

“machinery and tools devised to be used in midwifery and the care of a woman in childbearing”.

McAra-Couper, et al (2011) claim that technology is fast becoming the major factor of choice in every aspect of our lives. Many people are fascinated about the technological progression in obstetric care (Smeenk and ten Have, 2003). In the industrialised West, progress in obstetrics has been measured in increasing intensity in relation to interventions, in the use of new technologies and in the almost complete removal of the birth process from the nonmedical domain of women into the realm of the professional, with technological progress, more tools and techniques are developed to establish differences between pregnancies and therefore deviances from normal (Smeenk and ten Have, 2003).

The danger with medicalisation of childbirth and using routine interventions and technology, is an increased likelihood of further technological intervention in addition to the potential for iatrogenic harm. Or put another way the danger of introducing the routine use of one technology in birth is that it can cause what has been called in the literature ‘a cascade of intervention’ where one intervention leads to another. A cascade of interventions is defined by Bailliere's Midwives' Dictionary as

“iatrogenic consequences of intervening in normal physiological process of labour, including untimely attempts to induce labour, artificially rupturing membranes before or during labour, effects of medications for pain relief, dorsal position, etc, which interfere with adequate oxytocin release, adversely affect woman’s ability to push baby out, increase infection risk” (Tiran and Denise, 2012, p.37).

As technology increases, the interventions during childbirth such as intravenous infusions, restrictions on eating and drinking, and confinement to bed, became routine for all women (Lothian, 2001). The role played by medicalisation is far reaching in its consequences as will be demonstrated throughout this study.

When investigating the pathologising of childbirth it is interesting to note that Johanson, et al. (2002) claim that the inappropriate use of EFM possibly explains the degree and generality of medicalised practice in Western maternity care. Kirkham (1996) argues that the growth of technology such as EFM has an intense effect on women and their assistants, providing information that mothers themselves cannot provide. According to Kirkham (1996) electronic monitoring symbolises a central change in the obstetric view of childbirth. It concerns all pregnancies and, bases findings on a statistical assessment of risk in which normality seems to be a crude and possibly irrelevant concept. From the medicalisation theory, technology such as the CTG machine has a great influence on midwifery practices. Chapter 2 showed how the use of technology contributes to a cascade of intervention without clinical benefit. It changed the character and sense of work and also challenges the legitimacy and authority of midwifery (DeVries, 1993). The midwife often seems to take into account the machine more than the woman (Kirkham, 1996) and so Kirkham (1996)

has argued that the midwife has become, by default, a doctor's handmaiden, equipped to manage technology.

4.7. Risk and childbirth

Risk has been an interesting concept in the past decade, associated with sociological research and theory in this area as well as a common topic of public discourse. In healthcare, the concept of risk is important for obstetric and midwifery practices. Obstetricians view birth as dangerous and inherently risky, such that the use of interventions is essential. The midwifery view is that birth is a normal physiological and social process (van Teijlingen, 2005), but watchful attention is needed for cases where problems could arise. As such, midwives often use skills to monitor and to detect problems in a timely manner if they develop, without needing to jump in precipitately. This alertness is termed watchful waiting; as investigated by Carlson and Lowe (2014). Midwives and physicians define the concept differently, based on their philosophical perspectives. For many midwives watchful waiting means:

“providing calm, non-invasive therapeutic support to a woman in labour, so as to facilitate their work” (Carlson and Lowe, 2014, p.518).

However, for many physicians, watchful waiting means:

“observation undertaken to avoid immediate surgery while active surveillance of labour progress and maternal/foetal stability is enacted” (Carlson and Lowe, 2014, p.518).

This demonstrates the contrast between how midwives and obstetricians conceptualise and act on their perceptions of risk.

The application of an effective midwifery model of childbirth (being with the women and not to use interventions) in the current century seems to be a daily challenge for midwives in labour rooms (Blaaka and Eri, 2008). Medical models of childbirth have become dominant in most countries, as evidenced by the increase in Caesarean section rates worldwide, a factor that is transforming the nature of childbirth (Davis-Floyd et al., 2009). When interventions are practised routinely, they become the norm, and therefore, professionals stop seeing them as invasive.

Lazarus (1997) states that biomedicine, with its reliance on technology, is both a forceful practice and a powerful ideology. It has a tremendous influence over how women are thought of in labour and how they themselves think about childbirth. The medical model assumes that life is a problem and the body is seen as imperfect or even corrupt as it is full of risk and health is only obtained with help from the outside (Wagner, 1994). However, the social model assumes that life is a solution, and since everyone dies, the quality of life is important in this model (Wagner, 1994). Adopting these two models may affect the way professionals view childbirth.

The use of interventions during labour and birth is complex. It is not simply rejected by the social model and accepted by the medical model (Wagner, 1994). The literature shows that there are many ways to view risk and social response to it. Lupton (2006) and Bryers and van Teijlingen (2010) have identified three theoretical perspectives in sociological writings: risk society and reflexive modernity; cultural/symbolic or social and cultural construction of risk; and governmentality and self-surveillance. Risk is a political concept (Beck, 1992; Douglas, 1992; Giddens, 1999) as it is used to attribute blame and responsibility for ill events, and it is argued that the concept has emerged (as apart from the concept of danger) mainly in relation to modernisation (Foucault, 1991; Beck, 1992; Douglas, 1992; Giddens, 1999). As a

result of industrialisation, urbanisation and globalisation, modern society has been termed a 'risk society', in which the perception, concern and sense of presence of danger and hazards have increased (Beck, 1992; Giddens, 1999). In this conceptualisation, it is acknowledged that risk has not actually increased statistically, but that modern society is far more preoccupied with it. Beck (1992) and Giddens (1999) argued that in 'risk society', lay people are felt to rely on expert identification and calculation of risks and to follow expert advice about how to deal with them. However, lacking their own traditions, local knowledge, religious beliefs or habits, lay people are faced with frequent worries about which information to trust and what to do about risk (Lupton, 2006).

Beliefs about risk are part of shared cultural understandings and practices (Douglas, 1992). Foucault (1991) theorised that modern societies are controlled and organised by encouraging individuals to self-regulate; this is the concept of 'governmentality'. According to Foucault (1991) risk avoidance has become a moral enterprise relating to issues of self-control, self-knowledge and self-improvement and therefore, if people fail to avoid risk they will find themselves stigmatised and subject to ethical judgements.

Alternatively, Giddens (1999) argued that risks can only be present when there are decisions to be taken. According to Giddens (1999) risk is always related to safety, security and responsibility. It is often argued that safety can only be properly ensured by having all births occur in hospital or a place where healthcare professionals and technical resources are available at any time (Akrich and Pasveer, 2000). Some argue this based on the view that birth complications can never be predicted and therefore, labour should always be monitored with advanced technology; it follows, therefore, in this perspective that women should give birth in hospital as labour may suddenly

become complicated, calling for expert services only hospitals can provide. From this perspective, it is better to expose all women to a hospital environment, even if eventually only a few women will need it (Smeenk and ten Have, 2003). Most Western obstetric systems and the Saudi Arabian system are based on this paradigm. Other may argue that childbirth is a physiological process in which for low risk women medical interventions should be restricted as much as possible, particularly as medical environments and interventions carry their own risks and may interfere with the biosocial process of labour and birth.

Van Teijlingen et al. (2004) recognised that medicalisation of childbirth and the use of intervention results from the attitude of considering every pregnancy and childbirth to be at risk unless proven normal retrospectively. Thus, many women feel that they are obliged to embrace all the available technology to ensure the safety of their baby.

“Safety is not an absolute concept. It is part of a greater picture encompassing all aspects of health and wellbeing. Each woman should be approached as an individual, and given clear and unbiased information on the options that are available to her, and in this way helped to balance the risks and benefits for herself and her baby” (DoH, 1993, p.10).

A comfortable and supportive environment is considered in the literature to be essential for all women during labour and birth in order to help them relax and feel secure (MCWP, 2007). Within the culture of risk a technocratic birthing environment where women are surrounded by all the healthcare professionals who can offer a medically controlled birth, may provide this essential feeling of security. McCourt et al. (2011) recognise that women feel safe physically and psychologically when they have trust in the professionals caring for them and this may be more important than

the birth setting in the choices they make. Lock and Gibb (2003) found that the experiences of women entering the foreign environment of the hospital to give birth involved feelings of isolation and disempowerment, while the familiarity of home presented strong feelings of security and support. Furthermore, Enkin et al. (2000) claim that when childbirth occurs in a hospital setting, the mother might experience a lack of control because the environment is unfamiliar, impersonal and governed by routine practices.

Therefore, the dominant medical model of birth sets a norm that safety should be ensured by using intervention. In modern health care systems, risk management is considered an important part of service provision, due to the difficulty and the challenges of delivery of care in such a context, and the growing influence of the insurance sector; however, risk management is not the primary aim of midwifery (Henley-Einion, 2009). Henley-Einion (2009) stresses the need for developing a social model of birthing that combines the obstetric model and interconnects it with the needs of all those requiring maternity care, whatever their associated 'risk'. Midwives are aware of risk and alert to the signs of changing wellbeing, but do not focus on all births as being inherently 'risky', since the majority of births will proceed in a physiologically normal fashion.

4.7.1. Medico-legal pressure and defensive practice

Some writers have argued that healthcare professionals are, or perceive themselves to be under great pressure to use interventions during childbirth to be 'on the safe side' and ensure they are beyond any legal blame. One of the reasons identified in the literature as affecting the use of interventions during childbirth is perceived medico-legal pressures and defensive practice. Johanson et al. (2002) argue in a commentary

paper that it is rational to ask whether professionals are encouraged to act defensively (especially as 70% of medical litigation in the UK relates to obstetrics). Most obstetric cases relate to labour ward practice, and 99% of these relate to “failure to intervene” or “delays in intervening” (Johanson et al., 2002, p.893). Thus, Johanson et al. (2002) argue that working in a blame culture can disempower healthcare professionals. Overall, it points to the issues that in a technocratic culture people are more likely to be sued for not intervening than for damage caused by intervening unnecessarily.

4.8. Power

“Power is everywhere; not because it embraces everything, but because it comes from everywhere” (Foucault, 1978; p 93)

A simple definition of the concept of power is the ability to do or to act (Oudshoorn, 2005). However, power is a very complex concept to define as Oudshoorn (2005) argues that many of the power definitions put forward conflict with each other. Therefore, it is very difficult to locate disparate power through research (Hewison, 1995).

Power may be considered as a possession of control, influence or authority over others (Du Plat-Jones, 1999; Hewit-Taylor, 2004). Most definitions of power, according to Oudshoorn (2005), are based around the idea that it is the ability to have some form of control over one's life, but Foucault suggested a more complex definition (Du Plat-Jones, 1999).

Central to Foucault's work is the relationship between power and knowledge. Foucault's theories addressed how they are both used as a form of social control through social institutions (Foucault, 1980). He was interested in how power and authority are exercised in the world. 'Knowledge' is used to uphold 'Power'. This is multi-dimensional knowledge: for example in the case of childbirth as it takes on many forms, such as the power of language, place, profession, evidence and so on. The relations between power-knowledge are not static; Foucault, (1978; p.99) described them as "matrices of transformations".

Danaher et al. (2000, p 26) clarify:

“Foucault argues that the knowledge and truth produced by the human sciences was, on one level, tied to power, because of the way in which it was used to control and regulate and normalise individuals... The state drafts policies and laws that determine legally who is normal and healthy, and who is morally or physically perverted and dangerous. However, these policies and laws are based on the knowledge produced by disciplines and institutions. In other words, knowledge, in a sense, authorises and legitimates the exercising of power”.

Foucault (1978) made the point that power moves around and through different groups, events, institutions and individuals, but that nobody owns it – it is relational and can be productive (McCourt 2009). Foucault (1978, p.140) developed the notion of 'bio-power', in reference to technologies developed by human sciences, and then used for analysing, controlling, regulating and defining the human body and its behaviour (Danaher et al., 2000). Bio-power according to Foucault (1978, p.140-141) is

“an indispensable element in the development of capitalism; the latter would not, have been possible without the controlled insertion of bodies into the machinery of production and the adjustment of the phenomena of population to economic processes.”

Foucault (1978) argued that there was a burst of several and different techniques for achieving the subjugation of bodies and the control of populations through the rapid development of various disciplinary institutions such as universities, secondary schools, barracks, workshops, and the appearance, in the field of political practices and economic observation, of birth rate problems, longevity, public health, housing, and migration. In the context of childbirth, modernization and capitalism have led to bio-power being used in hospital settings to control women’s bodies.

4.8.1. Panopticism

Panopticism, a social theory developed by Foucault (1995) in his book, *Discipline and Punish* was based on Jeremy Bentham’s design of a tower for continual observation in prisons. The major effect of the Panopticon stated by Foucault (1995, p.201)

“to induce in the inmate a state of conscious and permanent visibility that assure the automatic function of power”.

The image of a prison with a tower in the centre was used as a metaphor of how discipline and control can be exercised on people through surveillance in a range of institutions; in return, the prisoners exercise control and discipline over themselves (Foucault, 1995) The effects of the capacity for continual observation meant that self-

discipline would continue even if the instrument of surveillance was removed (McCourt, 2009).

Disciplinary power according to Foucault (1995) is power that comes from the overt monitoring and visibility of power structures. For example, in a medical setting, obstetricians may use the CTG machine to create fields of visibility. Because the woman knows she is being constantly monitored medically, she may feel increasingly disempowered, although she may find the surveillance with its promise of security reassuring (McCourt, 2009). In other words, the medical observation is a direct demonstration of the medical practitioners' power over the woman. Foucault (1995, p.202-203) has described the effect of visibility as:

“He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; he makes them play spontaneously upon himself; he inscribes in himself the power relation in which he simultaneously plays both roles; he becomes the principle of his own subjection.”

Foucault (1995) developed “panopticism” as a theory of how surveillance is vital to the exercise of the power. According to Foucault (1995, p.208) panopticism is

“the general principle of a new ‘political anatomy’ whose object and end are not the relations of sovereignty but the relations of discipline.”

Drawing on a Foucauldian analysis, Arney (1982) has identified ‘monitoring and surveillance’ as a new order of obstetrical control in which women and healthcare professionals are subject. The monitoring concept is an idea that informs obstetrics generally and that underlies a fundamental change in the modality of control exercised by obstetrics over childbirth (Arney, 1982, p.122) According to Arney

(1982) childbirth is medically redefined as a process which needs continuous surveillance or monitoring. The ‘monitoring concept’ signifies a change in the organisation of obstetric power and a new way of social control over childbirth, and has influenced technological developments because there is an increased desire to monitor all medical processes.

Foucault (1973) coined the term ‘medical gaze’ to indicate how in the dehumanizing medical model the patient's body is separated from the patient's person (identity). Arney (1982) argued that monitoring was responsible for changing the focus of healthcare professionals’ interest from the woman to the foetus and therefore warranted an extensive range of interventions. Arney (1982) refers to monitoring as a new order of obstetric control.

4.8.2. Authoritative knowledge

Authoritative knowledge is a well-documented concept in medical anthropology and sociology (Davis-Floyd and Sargent, 1997). Jordan defined it as:

“The knowledge that participants agree counts in a particular situation, that they see as consequential, on the basis of which they make decisions and provide justifications for courses of action. It is the knowledge that within a community is considered legitimate, consequential, official, worthy of discussion, and appropriate for justifying particular actions by people engaged in accomplishing the tasks in hand” (Jordan, 1997, p.58)

Jordan (1993) explored the role of technology and social interaction in the constitution and display of authoritative knowledge. The concept of authoritative knowledge arose from Jordan’s (1993) observation that in some situations, certain

kinds of knowledge count and others do not, regardless of the truth-values associated with them. Jordan (1993) stated that authoritative knowledge is the basis of decisions made in a given setting, by a given social group and distributed hierarchically. Thus, the power of authoritative knowledge resides not in it (necessarily) being correct but in that it counts.

Mead (1996, p.126) described authority as “*a powerful guide for practice, whether verbal or written*”, and provided by individuals (managers, consultants) or by documents (local policies and procedures, textbooks, statutory instrument, protocols, government reports).

Jordan (1993, p.60) observed that in some groups, authoritative knowledge can come into conflict with other forms; this is especially true when no allowance is made for constructing a joint view of reality. Jordan (1993, p.150) states that in any specific social situation authoritative knowledge occurs only when one form of knowledge becomes socially authorised, consequential, even “official”, gaining control and legitimacy, causing alternate types of knowledge to be undervalued or dismissed. Furthermore, those who adopt other systems of knowledge are likely to be seen as backward, ignorant, or naïve trouble makers. Jordan (1993, p.152) states that the reason behind some forms of knowledge gaining ascendancy over other kinds of knowledge is that they either explain the state of the world better in the light of the purposes at hand “efficacy”, or they are associated with a stronger power base “structural superiority”, although usually both.

Downe and McCourt (2008) examined four aspects of current authoritative knowledge in childbirth: certainty, simplicity, linearity and pathology. They claimed that it is necessary to see the world and the natural processes within it from the

perspective of a cyclical and complex paradigm, rather than through a simple, linear model that underpins most of the current authoritative knowledge applied in healthcare.

Because there is no research specifically on the role of knowledge and authority in the childbirth context in Saudi Arabia, it is difficult to say what the exact role of authoritative knowledge assumes in Saudi Arabia. However, because there are more similarities than differences between Western and Saudi Arabian approaches to childbirth, the same kinds of processes may apply. This forms a major line of enquiry within the present thesis.

4.9. Conclusion

Childbirth is affected by modernisation and in Saudi Arabia, as is the case elsewhere, the trend is toward hospital birth with increasing reliance on new technologies. This discussion of the theoretical literature demonstrates the global spread of biomedical models of childbirth. This chapter summarised key concepts and theories related to the use of routine interventions during the second stage of labour and discussed potential theoretical explanations of what might affect their use in the labour ward. It is clear that the literature is very extensive in relation to the use of interventions and the medicalisation of childbirth; however, there is no clear explanation of what encourages healthcare professionals to use interventions during the second stage of labour worldwide or in Saudi Arabia, although a general conclusion can be made that medicalisation of childbirth exposes low-risk pregnant women to increased use of interventions during childbirth. The literature suggests that the availability of technology, the risk management approach and the power of the medical profession have led to increased medicalisation of childbirth and the increased use of

intervention during childbirth. There is also some evidence to suggest that the birth environment has an impact (Harris 2005, Birthplace Collaborative Group 2011). However, most of this literature is focused on research in 'Western' contexts, and it is possible that the factors may differ in other social contexts. Therefore, this current study will offer an insight into the use of interventions and the factors affecting their use among healthcare professionals in a very different national setting - in Jeddah, Saudi Arabia.

Chapter 5: Design, methodology and methods

5.1. Introduction

The previous chapters have identified the theoretical and empirical background to the study. This chapter focuses on the design, methodology and research methods. The first part of this chapter focuses on the research design itself and discusses the philosophical assumptions underpinning the research, to explain the rationale for the selection of ethnography as an appropriate methodology to address the present research questions. It describes how decisions were made with respect to accessing participants, details of the sampling and the ethical considerations pertinent to the study.

The second part of the chapter focuses on the methods employed for collecting and analysing the data. It discusses the planned research process and describes the way in which the study was conducted, the difficulties encountered, the decisions made at each stage and the theoretical and methodological assumptions and perspectives underpinning the choices made. It describes the research setting, the approach to data analysis and the procedures followed to ensure the trustworthiness of the research.

The aim of this research was to explore the use of interventions during the second stage of labour among healthcare professionals and to identify what may influence their use in Jeddah, Saudi Arabia. The nature of the research question, in terms of exploring interventions during the second stage of labour, lends itself to an exploratory study based on qualitative research, using a holistic inductive, rather than a reductionist perspective to attain an adequate understanding of the use of interventions during childbirth.

Data collection took place over a period of four months: October 2011 to November 2011 at Kings Hospital, and May 2012 to June 2012 at City Hospital, in Jeddah, Saudi Arabia.

Section 1: Research design

5.2. Philosophical assumptions

Qualitative methods have been proven to be appropriate approaches for certain aspects of medical and midwifery research. They tend to be utilised in methodologies such as grounded theory, phenomenology and ethnography, which seek to explore people's understanding of their lives and, in the case of ethnography, patterns of behaviour in their social context (Holloway, 2005; Pope and Mays, 2006). Such approaches aim to make sense of reality, to describe and explain the social world and to develop explanatory models and theories (Morse and Field, 1996). Qualitative methodologies are commonly based on an interpretivist paradigm and a constructivist philosophy (Sale et al., 2002), emphasising meaning and an understanding of human actions and behaviour (Gerrish and Lacey, 2006). It posits that there are multiple realities or truths based on one's perception of reality which is socially shaped and so truth is constantly changing (Sale et al., 2002).

Inductive logic is the usual foundation when collecting information using qualitative research. Throughout the qualitative data collection process, the investigator is free to shift his or her focus (Bowling, 2014). In the case of this study, this allows for the researcher to gain a deeper understanding of healthcare professionals' views, attitudes, and practices than quantitative methods, because it allows the interviewer to get closer to the participants.

5.3. Rationale for the research design

Consideration was given to several methodological approaches, and this section will also explain how I arrived at the decision to apply qualitative methods. I had previous experience using quantitative methods during my Master's degree research project, which surveyed hospital policies and practices during normal childbirth and the extent of reported adherence to evidence-based guidelines in maternity wards in Jeddah, Saudi Arabia (Altaweli et al., 2014). I felt that to expand my knowledge of research methodology it would be beneficial to experience utilising a qualitative approach. More importantly, my Master's degree research findings indicated a need to discover factors that contribute to the medicalisation of birth, and the increase in the use of unnecessary medical interventions in maternity wards in Jeddah, Saudi Arabia, and this called for a more open exploratory approach.

Decisions about the research methodology stem directly from the research questions identified. In this case these are based on the need to explore the use of interventions during the second stage of labour with the aim of developing a better understanding of what influences healthcare professionals' practices during childbirth, and/or offer an explanation for them. As mentioned in Chapter 3, no clear or sufficiently detailed studies have focused on the use of interventions during the second stage of labour, which has led to the lack of a clear picture of the non-clinical reasons behind the use of interventions, particularly in Saudi Arabia. Therefore, given that the intention of this study was to develop an in-depth understanding of the interventions used, and to suggest what may influence their prevalence, an exploratory, qualitative study using an ethnographic design was employed. An interpretive design using qualitative methods is ideally suited to exploring a phenomenon that has not been studied in depth before (Creswell and Plano Clark, 2010), and is one that is most often

employed to explore problems about which reasonably little is known (Morse and Field, 1996).

Owing to the lack of prior research on this topic, I had no clearly defined hypotheses to test, and wanted to focus on questions such as, ‘what is going on here?’ I felt a broad exploratory perspective was needed to seek out the meaning and reasons behind the use of interventions during second stage practices among healthcare professionals in this setting. Furthermore, it was necessary to develop explanations for behaviour inductively, based on the information collected, rather than being confined by a restrictive lens of inquiry. The adaptability of an interpretive paradigm assisted this through the use of an exploratory statement of intent pursued with the aim of exploring interventions in the second stage of labour, focussing on what healthcare professionals do and why they do it.

There was also a need to ask, ‘what do healthcare professionals do during the second stage of labour?’, ‘why do they do it?’ and ‘what could influence their practice?’ since gaps may exist between formal guidelines and everyday practices. As a result of asking these questions this work provides a broad and exploratory study that relates to an area of obstetric and midwifery practices not previously investigated in this way.

Currently, most evidence for second stage practices has been collected following the positivist tradition. This approach, while providing relevant information on aspects of second stage practices, has failed to present a holistic view of influences on the obstetric and midwifery practices during the second stage of labour. An alternative approach is therefore needed to seek out the meaning informing practice, and to offer an explanation for why particular interventions are used in the second stage of labour

by healthcare professionals, thus reflecting an in-depth understanding of the issues involved.

In addition, as a midwife, I brought to the research field an insight into the topic being investigated. Using this approach allowed me to recognise the reasons informing the understanding I had already obtained in this field of practice and facilitated the use of a methodology that recognised researcher-participant interaction and its influence on the research process.

5.4. Choosing a methodology

After identifying the underlying paradigm on which this study was to be based, a review of the three key interpretive methodologies was conducted to choose the most appropriate one to adopt. The three methodologies considered were phenomenology, ethnography and grounded theory and it was challenging choosing between them given that there are a number of explanations for each approach that share common criteria, and ontological and epistemological assumptions, as well as some similarities in their data collection and analysis that are relevant for exploring obstetric and midwifery practice in the second stage of labour. However, differences in the approaches of these three traditions arise from the purposes associated with each one, which in turn, affect data collection, analytical procedures and the final product.

Initially, grounded theory seemed an ideal methodology for describing and understanding the obstetric and midwifery practices. A major component of grounded theory is the discovery of a core process that is central to explaining what is going on in a particular social group and describing and understanding the key social, psychological and structural processes within a social setting that generate broad

explanations of the phenomena grounded in reality (Polit and Beck, 2006). However, on further consideration, I felt that the emphasis on developing theory grounded in the data and on achieving an understanding of social interaction that takes place through the lens of inquiry restricted what could be investigated and apportioned to these elements. Whilst the understanding of obstetric and midwifery behaviours in which the second stage of labour is practised were important, other explanations for the reasons behind the use of such interventions and a rich description of what is happening in the practice could be relevant. Therefore, I did not want to be confined by a methodology that restricted the extent to which I could interpret participants' behaviour in its wider context, for example taking account of possible cultural influences.

Phenomenology was rejected for the following reasons. I did not want to restrict my focus to the lived experience of healthcare professionals. Although I see the importance of the personal interpretations that healthcare professionals provide for their actions in relation to their life experiences (Polit and Beck, 2006), I felt this would constrict the field of inquiry to only personally lived and subjectively perceived experiences.

5.5. Ethnography

Ethnography is an ideal methodology for investigating and describing the social world of obstetric and midwifery practices during the second stage of labour, while also facilitating exploration of the role of cultural beliefs and values (Morse and Field, 1996). Charmaz (2014, p.35) defines ethnography as 'recording the life of a particular group and thus entails sustained participation and observation in their milieu, community, or social world'.

Ethnography is a research approach which has its history within the field of cultural anthropology and sociology. It has been used as an approach since the early 20th century (Cluett and Bluff, 2006). Ethnography and ethnographic data can be one way in which to uncover the hidden cultural settings of childbirth to the world at large (Cluett and Bluff, 2006), by gaining access to the health beliefs and practices of a culture or subculture and by allowing the observer to view phenomena in the context in which behaviours occur (Morse and Field, 1996). Thus, ethnography could facilitate an understanding of those behaviours affecting health and illness (Polit and Beck, 2006). Cluett and Bluff (2006) suggest that midwives need to explore the cultural context, not only of pregnancy and childbirth, but also of maternity care.

Ethnography is naturalistic, as it allows researchers to observe interactions within their natural contexts, obtaining a holistic view of people in their physical and sociocultural setting, and then seeking an explanation of their behaviour and interactions within that setting (Cluett and Bluff, 2006; Polit and Beck, 2006). This may also involve providing a framework for studying the patterns and experiences of a specific cultural group (Polit and Beck, 2006).

An ethnographic approach is a learning process that describes people of a cultural group by learning from them, rather than by studying them (Spradley, 1979; Polit and Beck, 2006). This method has been used by investigators to understand and describe why a group of people do what they do and also how they view the world as they live it (Morse and Field, 1996; Roper and Shapira, 2000; Polit and Beck, 2006).

One of the main advantages when using ethnography is that it involves multiple methods of data collection, including participant observation, interviews and field notes, and it is also accompanied by other techniques, such as examination of available documents, records and chart data (Roper and Shapira, 2000; Polit and

Beck, 2006). Field diaries include the researcher's observations, feelings and understandings based on participant observation, interviewing and additional sources, which offer answers to the questions asked during the research project following data analysis (Roper and Shapira, 2000). Roper and Shapira (2000) advise researchers to keep a feelings diary relating to early observations, to serve as a coping mechanism.

The design of this study is ethnographic in nature, as it involved the collection of qualitative data from direct observation of practices during the second stage of labour and explored the different views and experiences of obstetricians, midwives and obstetric nurses, and allowed participants to provide answers in their own words via semi-structured interviews. Relevant hospital policies and guidelines relating to second stage labour practices were also examined. This use of multiple sources for data collection methods strengthened the study design and enabled a more comprehensive account of the context and use of interventions during the second stage of labour. Data collected using these types of qualitative methods are textual (or sometimes visual) and rich in meaning (Ring et al., 2011).

5.5.1. Studies using ethnography and observation in the labour room

Ethnographic research and use of observations is an increasingly popular approach in midwifery research in the labour room. A number of authors have used ethnographic research to investigate the culture within labour rooms. These included ethnographic studies of Free Standing Birth Centres (FSBC) (Annandale, 1987; 1988; Walsh, 2004), interactions between midwives and women on labour ward (Kirkham, 1987; Marshall, 2004). It has also been used to study user-centred maternity care (Brooks, 1990), childbearing women living in poverty (Hunt, 2001), the factors that influenced the move from home to hospital birth in the indigenous population of the United Arab

Emirates (UAE) between 1960 and 1975 (Forrester, 2008), midwives' emotion and body work (Rayment, 2011), midwives' discourses on vaginal examination in labour (Stewart, 2008) midwifery practices in relation to managing the risk of severe perineal trauma (Wheeler, 2014). Other studies used other research designs such as observation in the labour room. These observational studies investigated practice variation among midwives during the third stage of labour (Harris, 2005) as well as midwifery support of women during labour and childbirth (Ross-Davie, 2012). What appears to be missing in this body of literature however is an ethnographic investigation into the use of interventions during the second stage of labour.

5.6. Ethical considerations

As a midwife researcher, this study was bound by the ethical frameworks for research, and the ethical duty of care as a midwife identified by Beauchamp and Childress (2001) that includes respect for autonomy, non-maleficence, beneficence and justice. I considered issues of confidentiality, anonymity and autonomy of participants before embarking on fieldwork. A number of ethical issues had to be considered regarding the observation process and interviews being used as data collection methods. Participants should know why they have been selected for the research, what the study is about, the reason the information is required and what will be done with it. The hospital's as well as participants' rights to confidentiality should also be considered in the way data are handled, protected and reported. Finally, participants have the right to refuse to participate in the research, or to withdraw if they change their view.

5.6.1. Gaining approval from an ethics committee

This study required approval from an ethics committee for a number of activities: access to healthcare professionals for the collection of interview and observation data; access to women receiving care from healthcare professionals during the second stage of labour to collect observational data; access to the medical records of the women being observed and access to documents relevant to second stage hospital policies and guidelines, which were kept on hospital computer databases. This was achieved in a number of stages.

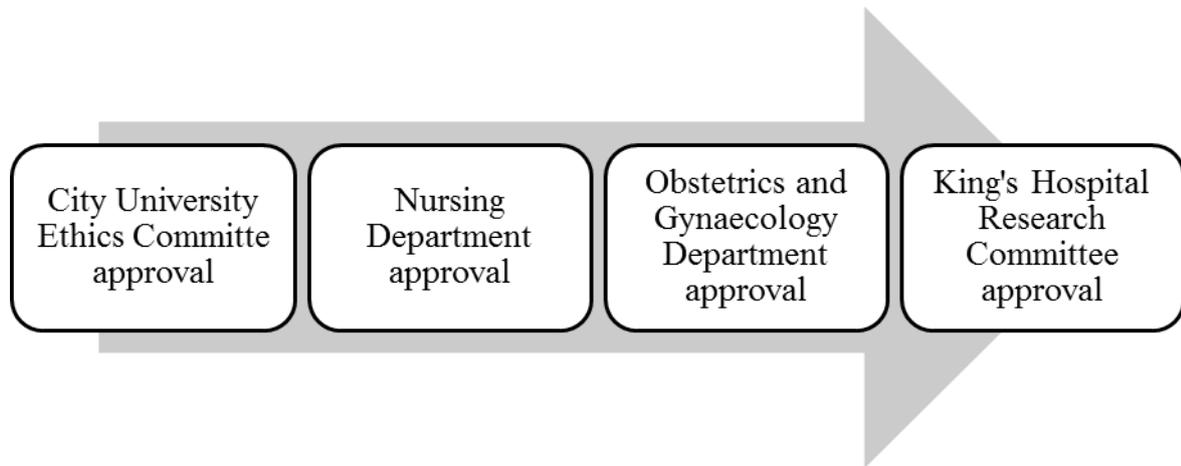
Ethical approval for the study was obtained successfully on first submission from City University's Research Ethics Committee on the 29.06.2011, Ref: PhD/10-11/07 (see Appendix 1). Following this, approval was sought from both the hospitals where data collection was carried out. A copy of the ethical approval obtained from each government hospital is not included in the thesis, in order to protect their privacy. However, the researcher provided City University's Research Ethics Committee with a copy of each ethical approval.

Ethical approval was granted from both hospitals on first submission, subject to the healthcare professionals responsible for care introducing the researcher to women during the observation period of the study, and that the information given to women be provided in the form of a request to take part in the study before consent was obtained.

Getting an ethical approval for the study was not that straightforward. The process of applying varied between both hospitals and took place over a six month period from May 2011. At King's Hospital, approval was required first from participating departments (the Nursing, and Obstetrics and Gynaecology Departments) before

making the application to the Ethics Committee. In addition, there was a requirement to appoint a co-investigator from King's Hospital to co-sign my application (see Figure 4).

Figure 4: Ethical approval process in King's Hospital



It took around 3 months in total to get the final official ethical approval from King's Hospital. Since I selected observation as one of my data collection method, I felt excited to start the observation in the labour room, the place that I had been away from for almost 4 years due to my postgraduate studies.

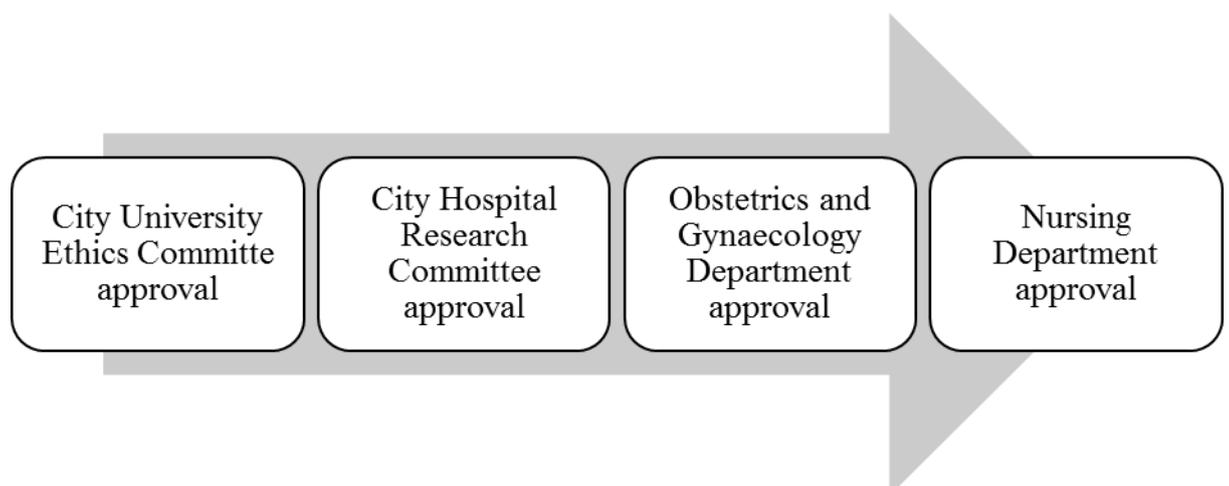
The data collection was started in King's Hospital where I was familiar with the hospital, having worked there four years before, and some of healthcare professionals working in the labour and delivery ward, who could remember me as a newly qualified midwife. The following extract from the field diary describes this:

I am glad that I started my data collection at King's Hospital because I feel I belong to this hospital as I did some of my internship placement and worked here for a year. I knew most of the staffs working in this hospital and knew the building and wards. I had good relationship with the doctors, midwives and nurses. They facilitated my access, they were happy to participate in the study and provided me with important information and they were cooperative during my presence in the field... I think that my presence in the labour ward (King's Hospital) would not be strange as I have been practising midwifery in this hospital for almost a year. But I am afraid that they could express different attitude as I come from the UK. King's Hospital-Diary notes.

The advantages and disadvantages of having previous experience in a study site are discussed in the following sections.

At City Hospital approval was sought from the Nursing, and the Obstetrics and Gynaecology Departments after receiving clearance from the ethics committee. After getting City University ethical committee approval I had to contact both hospitals to get their ethical approval for this study (see Figure 5).

Figure 5: Ethical approval process in City Hospital



It took around 5 months in total to get the final official ethical approval from City Hospital. However, this was not an issue as I was doing my fieldwork at King's Hospital while waiting for the approval. I was also somehow familiar with City Hospital as I did some of my nursing training there. However, I am not familiar with the working staff. After getting the ethical approval, I went to the labour ward, met the head nurse, who had been informed about my research with a memo from the obstetrics and gynaecology chairman. She asked me whether I would observe only and I confirmed that though made clear that I would be happy to help during first and third stage of labour if needed. She asked me to wait for the clinical instructor from the education department to inform her about my presence at the labour ward. I was warned from the nursing and midwifery clinical instructor to be sensitive with the staff as they might not be happy about my presence because they are overloaded with work. However, I was really welcomed by most of the staff.

5.6.2. Informed consent

Informed consent is considered one aspect of autonomy (Bowling, 2014). The intention was to be honest and open about the aim of the research, and to secure the development of cooperative principles between myself, as the researcher, and the women and staff who chose to participate. Both the healthcare professionals and the women needed to be able to make informed decisions about whether to participate in the study and the potential benefits and limitations to them as individuals of doing so. The important principle followed was not to put any pressure on the healthcare professionals and women to participate, but to provide relevant information as part of the study.

The labour ward is always busy, so it was difficult for some professionals to agree to being interviewed at a specific time. Therefore, when I was attending a shift I sought out staff who had already consented and who were free and I approached them to be interviewed. Thus, the interviews with staff were organised during working hours at times when they were not busy. The participants were given every opportunity to withdraw prior to and during the interview or observation, even after initial consent had been given.

5.6.3. Confidentiality and anonymity

All research participants' personal details were kept confidential and safe at all times in a locked cabinet in each hospital during the data-gathering phase and only I had access to the cabinets. The only confidential data obtained were names and contact numbers for organising the interviews, and these were kept securely in a separate place from the data. After the data collection had ended the data were transferred to City University facilities. I used pseudonyms for the interviewees and those observed. Real names do not appear in any of the interview data or field notes. The laptop used for the research analysis contained no personal information and it was secured with password access. To ensure confidentiality, as the researcher, I made sure that no individual could be identified either by name, or in any other way from the information provided in the final report. Anonymity of the hospitals where recruitment took place was achieved by not reporting hospitals' or participants' real names in the thesis, only codes or pseudonym were used.

Interview transcripts were kept confidential with only my supervisors and me having access to them. All the study materials and data were kept secure in my place of

work. Care was taken to ensure that the quotations used for illustration did not compromise anonymity.

The research Id was designed to help me categorising the participants and providing me quick information about them and to distinguish between quotations from different types of participants, the following codes are used (see Table 7).

Table 7: Participants' Id and codes	
Participants' Id	Codes
Obstetrician	OB
Midwife	MW
Staff Nurse 1	SN1
Staff Nurse 2	SN2
Nurse	N
Nurse-Midwife	NMW
Observation	O

According to the Data Protection Act 1998 and research, and in accordance with the university guidelines (City University London, 1998), interview transcripts were kept confidential at City University London with only me, as the researcher, and my supervisors having access to them. The Framework for Good Practice in Research, City University London, recommends the storage of primary data for at ten years followed by secure archiving.

5.7. My role as a researcher in the research process

I collected all the data for the project. Before starting this project, I understood the potential complexity of my role as a researcher in the research process, in some ways I was both a Saudi Arabian midwife (insider) and a researcher (outsider) (Burns et al., 2012). Because of this, I took extensive precautions to ensure that the balance between my role as an insider and outsider were maintained. I did not allow my role as a midwife to take over my role as a researcher. Before commencing my fieldwork, I documented my personal views, beliefs and assumption about interventions during childbirth. This helped me to identify and frame my own views and assumptions on 'what is going on' in the field, and included them in the field reflective diary. In addition, my supervisors provided feedback and helped me to reflect on my experience and learning during this research. This was an important element to meeting the challenges of being an insider and outsider before starting the data collection (Coghlan, 2003).

Being a midwife researcher conducting research in obstetrics and midwifery was both an advantage and a disadvantage. My 'insider' status as a Saudi Arabian midwife may have potentially enhanced the rigour of the data in the present research context. It helped me to obtain richer data and facilitated my access to the labour ward to observe the use of interventions during the second stage of labour.

Being a midwife allowed me to target key aspects of second stage of labour practice, which a non-midwife may not have been able to identify initially and made me aware when to participate and when not to. Also, it helped me to identify when the second stage of labour started and when it finished, and to judge what necessary and unnecessary interventions were used during the second stage of labour.

My professional role helped me build relations in the field with healthcare professionals and women. Being an insider researcher made me 'non intrusive', so people were less suspicious than they might have been if observed by an outsider (Coghlan, 2003). I was comfortable in the labour room as I was familiar with the surroundings and felt able to fit easily in the corner without making the healthcare professionals and woman feel uncomfortable. Comments by participants during interviews suggested that mostly they felt comfortable with me and that I provided an opportunity to talk more freely and fully on a subject of interest that they did not usually feel able to discuss so openly.

It may also be that because I am a midwife and considered 'one of them' and my position as being (although a PhD student with some attached status) quite young and not in a senior professional role, I was not higher in the hierarchy than those I was observing. Therefore, I did not seem so threatening so there was no need to fear my authority, and they behaved more naturally. In fact, I noticed that some healthcare professionals perceived me and treated me more like a pre-registration midwifery student or remembered me as a newly qualified midwife and some of them showed some interest to know the difference between the practices in the UK and Saudi Arabia. This is perhaps an advantage of being someone who straddles an insider/outsider role. I was kind of betwixt and between and can be a confidante, not only because of the promise of confidentiality but because I was insider enough for them to feel I might have empathy with their position, but outsider enough that they didn't assume I knew everything, and that they felt comfortable to talk to me.

However, I acknowledge the drawbacks of being an insider. I had previous experience of working in the labour ward at King's Hospital prior to the study. Familiarity with an environment can blind a researcher (Wagner, 2001; Walsh, 2012).

However, much of the organisation of the labour ward had changed since I practised there. Additionally, my long period of study in the UK meant that I had become accustomed to a different cultural and practice environment, and felt at more of a distance from everyday life in the labour wards in Jeddah.

Rabbitt (2003) examined the implications of conducting research in a small community where the researcher and the project respondents know or know of each other. Her paper was based on a study using oral histories. The aim of her study was to gain multiple perspectives of women's experiences of relocating to and living in a remote area. Rabbitt (2003) argued that local, previous knowledge between the researcher and the participants affects how the study participants are accessed and the type of information given, which runs the risk of creating expectations and preconceived ideas. Her paper provided strategies for maintaining credibility when conducting research interviews in one's home environment. She argued that disadvantages to insider research include prior knowledge, underlying personal bias and preconceived ideas. Rabbitt's (2003) prior knowledge of participants allowed her to contact women she knew personally rather than advertise for potential respondents. She choose to approach women who she considered would be willing to be involved in her study, on the basis that she had worked with them in professional paid employment or as a volunteer in community groups. This helped Rabbitt (2003) to shape the direction of her study, although it could have led to some selection bias. In the case of my study, the respondents were not personally known to me and were not selected on this basis.

Burns et al. (2012) explored the challenges of conducting an observational study of postnatal interactions, between midwives and women when the researcher was a midwife observing in familiar midwifery settings. Burns et al. (2012, p.52) found that

insider midwifery knowledge was useful for recruitment ‘getting in’, and being part of the research setting, ‘fitting in’. However, this also came with role ambiguity, and moral and ethical challenges. The researchers also argued that long periods of observation challenged preconceived notions about whether being an insider was advantageous or disadvantageous.

I must acknowledge that my familiarity with obstetric and midwifery routine practices may have caused me to miss or fail to question some aspects of second stage of labour practices due to my professional observation failing to focus on routine aspects of care. I tried to mitigate this at least to some extent, in the course of the observations, I made a deliberate decision to write down everything that occurred during labour, including the active first stage of labour, the second stage of labour and the third stage of labour, rather than focussing on what I thought was important. I tape-recorded the interviews for the same reason.

As an insider, in comparison to outsider, I may have assumed too much and therefore not probed deep, and participants may have assumed that I know answers so they may have not exposed as many of their current thinking (Coghlan, 2003). My interview approach attempted to deal with this. My interview focus progressed from description of usual practices through to professionals’ perspectives and opinions and then their feelings about the practices. My role in the interview data collection was to allow healthcare professionals to discuss their practice during the second stage of labour in depth, to clarify statements and seek more detail. I guided discussion, generally at first, then more specifically, seeking expansion of areas of interest as necessary.

I was aware that my presence within the labour and delivery room might have been awkward and distracting to woman and healthcare professionals (Lawton, 2000).

Therefore, I did not have any clinical duty and my participation was minimal. I did not participate in the key activities such as conducting birth of the baby. This was helped because I already had practice doing observations in labour wards and birth centres in the UK before starting my data collection without being able to participate clinically.

In this study I was also an outsider, as I was not employed in any of the hospitals studied at the time of research. This could have led to suspicion from participants because I was coming from the UK and doing a PhD in midwifery. As such, being an outsider could have distorted reports because participants knew that I had some international knowledge and was doing research, potentially introducing Hawthorne or observer effects.

The Hawthorne or observer effect means that participants can change their behaviour when they know they are being observed (Fox et al., 2008). The researcher should be cautious of the possibility of the Hawthorne effect throughout data collection and analysis. Rees (2011) argues that if participants receive full information regarding the study, there is a possibility of an 'observer effect' and changing behaviour through the course of the observation will be higher, thereby affecting the validity of the study's findings. However, Potton (1990) believes that prolonged exposure to observation in the study site decreases the 'observer effect' and participants are more likely to adopt their own natural behaviours. Furthermore, the second stage of labour context and practices meant that healthcare professionals were very focused on their work and seemed to barely recognise my presence and therefore it is less likely that they changed their practice.

As will be presented in Chapter 9, one male resident 1 (R1) after the participant observation asked me twice, '*would you give me 10 out of 10?*' as if he were being examined. He explained that this was only his second delivery, and he was anxious, even though he understood that non-judgmental research was being undertaken and had given his consent. However, my observation did not stop him from using routine interventions such as the use of lithotomy position and episiotomy. Another male registrar asked me during the participant observation as presented in Chapter 6 when I was sitting down and writing my fieldnotes '*are you writing everything down?*' and then continued to use interventions as before. Overall, it seemed that while my presence was clearly a factor, I did not notice any professionals refraining from the use of interventions during the second stage of labour as a result of this.

During the observations some women asked me questions as they saw the healthcare professionals were busy doing things, while I was watching them. Also as I speak Arabic it was often easier to ask me directly instead of asking the healthcare professionals. In some cases healthcare professionals did not respond to women's questions and then I replied spontaneously. As this will be presented in Chapter 6, for example, Sarah was ignored by the attending midwife when she asked: '*When will the pain go?*' I could not stop myself from answering and said: '*When you deliver*'. Then she asked again: '*What time will I deliver?*' and I said: '*God knows; just pray*'. I was trying to not be a stranger in the room so I tried to keep my participation to minimum by answering some questions by women in a manner that was not relevant to their care.

5.8. Gaining access

Being a midwife was very useful in gaining access to the research sites. The use of key informants is vital in gaining access to particular resources, populations, organisations, gatekeepers, etc. (Mack et al., 2005). Midwife managers of the labour and delivery wards in both hospitals were approached to help facilitate my presence on the labour ward and to gain access to healthcare professionals and women. They were particularly helpful in promoting the project and supporting me in the practice setting.

Being a female participant observer clearly helped me to fit into this largely female setting, and made easier relationship with women and most of the healthcare professionals, who were mainly women.

Both hospitals permit students to attend deliveries, which facilitated my observation of the second stage of labour without being intrusive. It is possible that participants may feel sensitive or uncomfortable with the observation process. I tried to resolve this to some extent when I was waiting for an observation opportunity, by releasing the case midwife or nurse for coffee breaks and offering them to contribute in the care of other women that were not under observation. I felt this may have won me support from staff members as I gained clinical credibility among healthcare professionals and was also seen by offering my help to giving something back as the same time asking for their participation in my research.

I was usually called into the birthing room at the onset of the active stage of labour. I positioned myself in a corner of the room where my presence was unobtrusive, whilst still having a clear view of the actions of the healthcare professionals and woman giving birth. I supported the case midwife or nurse by offering help with minor

practical jobs (bringing coffee, fetching things) in order to ‘fit’ into the scene without disturbing or interfering with their practice (Guest et al., 2013). As Creswell and Plano Clark (2010) state, the researcher needs to enter the site in a way that is respectful and does not interrupt the flow of events. I explained to the participants involved in the observations that they could ask me to leave at any time if they felt uncomfortable. I mentioned to the midwives present when I entered the birthing room that they could ask me for my professional help at any time during the observation period if it was really needed. This fulfilled my ethical duty of care as a midwife. If this occurred I planned to restrict my help to what they asked me to do rather than to make any decisions about care during the birth. This happened on some occasions when a case nurse or midwife needed translation between her and the woman, when medication or equipment needed to be prepared, or tea needed to be brought to the woman after delivery, or when she needed some support for the woman’s legs during delivery. This participation in care did not prevent me from writing observational field notes and I included it in my reflection diary to prevent any influence on the data. For example, during the observation of birth 9 at City Hospital:

The woman said ‘I am cold’, so the nurse-midwife asked me to ‘cover her’ and then told me ‘it is good you are here, so we can do everything properly’.

City Hospital-O-09

I had mixed responses from healthcare professionals. Some of them responded keenly by agreeing to arrange interviews and observations. Others were to some extent cautious and were afraid that their practices would be judged. Therefore, the aims of the project were stressed as being to explore practices undertaken during the second stage of labour. This was addressed by stressing at the beginning of the interview that the aim was not to assess the interviewee’s knowledge and practice regarding the

second stage of labour, but to record what actually happens in practice and the participant's own personal view of interventions. This seemed to reassure most of the professionals. However, it is not always possible to record interviews. Some individuals prefer not to be recorded, and in some cultures asking to do this can be regarded as threatening. Therefore, it is important to improve skills in note-taking and writing notes while listening actively. Only two midwives in King's Hospital refused to be interviewed officially or to be tape-recorded but they were happy to give me their views in non-official interviews. None of the healthcare professionals refused to be observed. Staff members seemed comfortable with my presence and seemed to agree to participate in the study without feeling they were obliged to do so. Reflections on the conduct of the project are presented in Chapter 10.

Healthcare professionals at both hospitals in this study were wearing scrubs suits in the labour and delivery ward. At both hospitals, obstetricians were free to choose the colour of the scrubs or the scarf during working the labour and delivery wards. At King's Hospital, the colour of scrubs for nurses and midwives depended on the area that the staff were working in. For example in the labour and delivery room light green scrubs were worn, while in the operating theatre they were blue. At City Hospital, nurses and midwives wore light purple scrubs and white scarfs and shoes in both the labour and delivery wards. Staff at both hospitals had to wear white lab coats when they left the labour and delivery wards.

During fieldwork, I wore a different colour scrub suit, dark purple, and a colourful scarf on my head. This made me easily to identify by participants as a researcher and to not be mistaken as a staff member. I wore a white lab coat to enter the hospital and then took it off when I entered the labour and delivery wards. Wearing a lab coat eased my access to both hospitals, where I was seen by security as a medical

professional. Some participants initially mistook me for a medical intern or doctor, as I was wearing different attire than the nurses and midwives. When this happened, I clarified my role immediately. Nonetheless, it is likely that participants (especially labouring women) perceived me during my fieldwork as an authority figure or one of the healthcare professionals. Although I explained to participants (professionals and women) before starting the fieldwork that I was not a staff member, would not participate in their care and I would only be present in the room as a researcher, what I wore (scrubs suit) likely had an effect on how they perceived me and possibly on the responses they gave.

5.9. Sampling and recruitment strategies

All the healthcare professionals working in labour and delivery ward in both hospitals were invited to participate in order to ensure that sufficient consenting staff members were on duty during the data collection periods. Information sheets for healthcare professionals (see Appendix 2) and consent forms (see Appendix 3) were placed in the staff pigeonholes on the labour and delivery ward. In addition, copies were distributed personally by the nurse manager in King's Hospital and the clinical instructor in City Hospital. They talked with the staff about the study and also handed out the information sheets. I briefed them about the work beforehand and I suggested they point anyone with questions directly to me. In addition, posters were put up by the labour and delivery ward managers, including an invitation letter in the labour and delivery ward, to let people know about me and about the study, and to remind them to participate. Professionals were able to decide to participate by consenting to be interviewed only, or by consenting to having their practice observed during the second stage of labour, or to be interviewed and be also observed. Consenting staff

completed their consent forms after I answered any question they had about the study. Written consent was obtained either at the start of each shift, following the handover, or immediately before the interview or observation. Then I re-confirmed their consent verbally at the start of each observation or interview.

Purposive sampling was used, and the healthcare professionals working in the labour ward were targeted as I knew they were working directly with women during labour and birth. The criteria for inclusion were determined as shown in Table 8.

Table 8: Staff inclusion and exclusion criteria	
<i>Staff inclusion criteria</i>	<i>Staff exclusion criteria</i>
<ul style="list-style-type: none"> • Aged 18 or over • Obstetrician, midwife or nurse • Working in the labour ward • Able to communicate verbally in English or Arabic • Providing obstetric care to women • Of any culture, background and gender 	<ul style="list-style-type: none"> • Not working directly with women in labour

Various healthcare professionals were present during the fieldwork, including obstetricians, nurses and midwives. Purposive sampling was necessary because some healthcare professionals were more ‘expert’ regarding the topic than others. Purposive sampling typically involves selecting which interviewee will generate and provide in-depth and appropriate data due to their experience with the main phenomenon in question, or the key concept being explored (Creswell and Plano Clark, 2010). However, convenience sampling was also used, as it was necessary to observe only consenting staff members, and on days when I could attend the hospital. It was clear that the labour ward is always busy, so interviews were conducted with the consenting healthcare professionals at a time when they had no woman in labour to care for or they were otherwise free to be interviewed.

In a qualitative study a statistical calculation is not used to decide on the number of participants. Data collection and analysis progress simultaneously (Marshall et al., 2013; Charmaz, 2014). The data emerging from the preliminary data analysis informed the decisions made about the need for further participants, using the principle of data saturation, which means the data being collected and analysed become repetitive and contain no substantial new ideas (Marshall et al., 2013; Charmaz, 2014). Saturation was judged to have been obtained when new properties of the categories were no longer emerging during data collection.

In total, 48 staff members consented to being interviewed and observed in both hospitals (30 from King's Hospital and 18 from City Hospital). Not everyone who provided consent was ultimately included in the study. Of the consenting staff, a total of 29 took part in the interviews, and 19 were observed. Included in these numbers are individuals who only completed interviews, only completed observations, and those who completed both interviews and observations - thus some participants are included in both values. In King's Hospital 16 participants were interviewed and 11 observed, and in City Hospital 13 were interviewed and 8 observed. The resulting sample was based on participants who gave written consent and were free when I was in the labour ward to be interviewed or observed.

For the observations, it was useful to have a larger number of consenting staff, as this facilitated my presence in the labour room as it was necessary for both the staff (all those present) and the woman to have given consent. At the beginning of each observation period, I discussed the project with all the healthcare professionals present on the labour and delivery ward and re-requested their verbal consent to participate in the study and their support to approach women in early labour. Staff members who agreed to participate approached the women who they were caring for

in early labour and who met the observation criteria (see Table 9). The midwife or nurse in charge of the labour and delivery ward was informed so that case study staff would call me when the woman reached the active stage of labour. Staff members used checklist for suitable clients for observation (see Appendix 4) and their clinical judgement about who they approached to participate in the study, excluding those who they felt were not suitable according to the observation criteria.

Women were approached in the hospital when they came into the labour ward for admission during early active labour (with 3 to 6 cm cervical dilatation) and if they had a single, vertex-presenting, full-term foetus i.e. only women with low risk pregnancies. No women with obstetric complications were included. Women who were identified as having high-risk pregnancies and anticipated complicated birth were excluded. This was for both ethical and methodological reasons, as the focus was on routine practices.

<i>Women inclusion criteria</i>	<i>Women exclusion criteria</i>
<ul style="list-style-type: none"> • Admission during active labour (with 3 to 6 cm cervical dilatation) • Had a single, vertex-presenting, full-term foetus i.e. only women with low risk pregnancies 	<ul style="list-style-type: none"> • High risk pregnancies and anticipated complicated birth

Before the active phase of labour started, I gave each woman an Arabic information sheet (see Appendix 6) about the project and asked if she would be interested in participating in the study and if she did so, I then approached her and if she was happy to participate gave her an Arabic consent form (see Appendix 8) to sign. Only one woman in King's Hospital was approached when she had started the second stage of labour and she agreed to be observed.

Women who expressed an interest in participating in the study were introduced to me by their midwife or nurse. Additional information on the project was provided, questions answered and written consent obtained. Written consent for the observation was also obtained from the obstetrician, midwife and/or nurse involved in the care of the woman.

Section 2: Fieldwork

5.10. The research location

Saudi Arabia is divided into 20 health regions based on the Health Statistical Yearbook of the MOH (2010). This research project was conducted in one of these health regions, Jeddah, which was chosen for the following reasons. It was convenient for me, and more importantly the area included two government hospitals providing maternity services in suburban and urban locations across the region. Women are cared for by hospital-based obstetricians, midwives and/or obstetric nurses. This environment provided an opportunity to explore obstetric and midwifery practice in depth in one area of Saudi Arabia. Both of these hospitals are typical of other hospitals in Saudi Arabia and represent the most widespread types of obstetric care.

Hospitals in Saudi Arabia are either government or privately owned. Data from the Health Statistical Yearbook, Saudi Arabia (MOH, 2010) indicate that there are 415 hospitals in Saudi Arabia, 42 of which are located in Jeddah. In Jeddah, there are 16 government hospitals and 26 private hospitals. Due to the lack of a complete list of private hospitals providing maternity services and the paucity of information available about them, as well as the likelihood that practices would differ

considerably from those in public services, only government hospitals were included. To gain a more complete picture, inclusion of a private hospital case study may have been interesting, but the aim within the limitations of doctoral study was to identify the practices in the public health system, and ensure some variability of settings within this mainstream system.

Government hospitals in Jeddah can be further broken down by regulatory body, i.e. 12 hospitals are regulated by the MOH and 4 by other government bodies. Only 10 of the 16 government hospitals provide maternity care (see Table 10).

Type of government hospitals	Number of hospitals	Number of hospitals with labour wards
Ministry of health (MOH)	12	6
Teaching hospital	1	1
Military hospitals	2	2
Specialist and research centre	1	1
Total	16	10

This study investigated two government hospitals in Jeddah providing maternity care, one regulated by the MOH (City Hospital¹) and the other regulated by other government agency (military government body) (King's Hospital²). This indicates the diversity of care provided by the two hospitals. The selection of these two hospitals was based on my Master's dissertation data, which indicated wide variation between MOH and other government hospitals in Jeddah in terms of some obstetric practices. My Master's degree research (Altaweli, 2010) showed that MOH hospitals had higher rates of medical intervention than other government hospitals, so I wanted to include both types. While not directly examined in the Master's dissertation, this difference could be due to varying approaches of care, different levels of EBP, staffing differences, different management styles, or different kinds of women giving birth.

¹ 'City Hospital' is a pseudonym for MOH Hospital.

² 'King's Hospital' is a pseudonym for the other government Hospital.

Specialist, teaching and private institutions were not included as they are less likely to be typical.

However, due to the high number of private hospitals in Jeddah (26 in comparison to 16 government hospitals), there could be an impact from the private healthcare system on the culture of public hospitals. Johanson et al. (2002) pointed out that one of the factors associated with increased obstetric interventions is private practice. Murray's (2000) study showed that private obstetrician care in Chile was consistently associated with higher rates of Caesarean section (range 57-83%) than those cared for by midwives or doctors in public or university hospitals (range 27-28%). In this thesis, I was unable to judge the influence of the private sector over public sector hospitals as there is lack of evidence on the childbirth practices in private sector (Ba'aqueel, 2009). However, it worth looking at these issues in future research.

Both government hospitals can be considered as big hospitals. These two hospitals have different settings, different childbirth policies and practices, and different characteristics in terms of the job descriptions of healthcare professionals and their responsibility for maternity care during the second stage of labour. The choice of study sites at King's and City Hospital was determined by their different approaches to work, different in management style, ease of access and location. They were selected for these reasons and because they are where the majority of births in Jeddah take place. King's Hospital is located in the rural area of Jeddah and has approximately 3,000 births per year; while City Hospital is in the city centre and is a much bigger unit with over double the birth rate of approximately 6,900 births per year.

King's Hospital only admits employees and their dependants. City Hospital, by contrast, is a public hospital that provide free care and accepts all Saudi Arabian women, employees and their dependants and with some restrictions to non-Saudi Arabian nationals. Despite these kinds of organisational and demographic differences however, the data collected during this study indicates that commonalities between how the second stage of labour was managed in these two setting were ubiquitous.

5.11. Organisations: Hierarchy and management

King's Hospital is regulated by the military government body whereas City Hospital is regulated by the Ministry of Health (MOH). The nursing department is separated from the medical department. Information about pay scales was not collected during data collection.

Both hospitals reported using a mechanism for evaluation. King's Hospital was dependent on the international organisation, Joint Commission International (JCI) and City Hospital was dependent on evaluation by the government committee, the Central Board of Accreditation for Healthcare Institutions (CBAHI).

King's Hospital's JCI is accredited. JCI is a private, independent, not-for-profit affiliate organisation founded in 1994 by the Joint Commission based in the USA. It is part of a global enterprise of non-profit organisations. The Joint Commission's own publicity material states that it is one of the leading non-governmental accrediting bodies in healthcare in the world. As an example of their impact, in the USA most states require their hospitals to be accredited by the Joint Commission in order to be eligible for medical insurance reimbursement. While this accreditation is not necessary in Saudi Arabia, it is likely that the hospitals see it as a Western gold-

standard of quality control. Its website states that it evaluates more than 20,000 organisations in over 90 countries, and partners up with hospitals, clinics, academic medical centres, health systems and agencies and government ministries, and helps healthcare leaders to improve quality, patient safety and efficiency as a shared goal through the provision of education and advisory services, and international accreditation and certification. In order for the hospital to be accredited with the JCI, JCI survey the performance of a healthcare organisation every 3 years to ‘make sure that the organisation meets the highest international standards for accreditation entities’ (JCI, 2014).

CBAHI is the official body authorised to grant quality certification to all government and private health facilities in Saudi Arabia. The council emerged from the Health Services Council and is a not-for-profit organisation. It mainly assesses healthcare facilities in order to determine the extent of their commitment to implementing standards of quality and patient safety designed by the council for this purpose.

5.12. Staffing

5.12.1. Staffing in King’s Hospital

In King’s hospital there are 26 nursing and midwifery staff (4 - 15% of them Saudi Arabian nurses; others from a range of countries) employed to work in the labour and delivery ward. During data collection in the Labour and Delivery Department of King’s Hospital, the following staff were noted (see Table 11). I found that they had 3 categories of nursing and midwifery staff (staff nurse 1, staff nurse 2 and midwife), and only the midwives had the authority to conduct deliveries. The incumbents of these positions had different educational backgrounds and job descriptions. Only

those who were midwives or staff nurse 1 could be in charge at any time, while staff nurse 2 worked as an obstetric nurse without any managerial responsibilities.

5.12.2. Staffing in City Hospital

City Hospital's Labour and Delivery Department employs 58 nursing and midwifery staff (39 - 67% of whom are Saudi Arabian). During data collection, the Labour and Delivery department in City Hospital had the following staff (see Table 11). I found that they had 3 categories of nursing and midwifery staff (nurse-midwife, nurse and midwife) all of whom had the authority to conduct deliveries. The only differences between them were their educational background and job description. A couple of staff mentioned that they all work in the same way. Nurses gained experience in this hospital to conduct birth so they were working exactly as midwives even though they were trained or recruited as nurses.

Table 11: Staffing of the labour and delivery ward		
Healthcare professionals	King's Hospital	City Hospital
Obstetric doctors ³	49 (33% male) (1 chairman, 11 consultants, 7 registrars, 20 residents, 3 staff physicians and 7 rotating medical interns)	75 (15% male) (1 chairman, 18 consultants, 10 registrars, 30 residents and 16 rotating medical interns)
Nurse Managers	1	1
Assistant Nurse Managers	1	0
Midwives	11	27
Nurses	13	17
Nurse-midwives	0	13
Patient care technicians (PCT) or Patient Aides	1	3
Unit assistants or ward clerks	4	4
Average birth per year	3000	6900

³ These obstetricians rotate between labour and delivery, gynaecology, antenatal and postnatal wards. They are employed under the obstetrics and gynaecology department

5.13. Methods of data collection

Multiple methods of data collection were used in this ethnographic study (see Table 12).

Table 12: Methods of data collection
<ul style="list-style-type: none"> • Semi-structured interviews • Participant observation • Field diary records/memos • Information taken from the medical records of women observed in labour • Policies and guidelines related to second stage labour practices

Data collection methods included participant observations of 19 labours and births and semi-structured interviews with 29 healthcare professionals from two government hospitals in Jeddah, Saudi Arabia. In addition, the hospital labour and delivery ward policies and guidelines from those hospitals were also collected. Table 13 presents a summary of the data collected from both hospitals.

Table 13: Total number of data collected from both hospitals			
Data collection tools	King's Hospital	City Hospital	Total
Participant observation	11 Births	8 births	19
Semi- structured interviews	16 interviews <i>7 Obstetricians</i> <i>5 Midwives</i> <i>4 Nurses</i>	13 interviews <i>3 Obstetricians</i> <i>7 Midwives</i> <i>2 Nurses</i> <i>1 Nurse-midwife</i>	29
Hospital policies and guidelines	Yes	Yes	Yes

5.13.1. Participant observation

Participant observation is a qualitative method that originates in traditional ethnographic research (Mack et al., 2005). It provides an opportunity for the researcher to observe actions systematically and also to participate personally in the activities of group participants to experience the flow and patterns of community life, their life routine and their culture (Roper and Shapira, 2000; DeWalt and DeWalt, 2011). Participant observation is a flexible and viable means of collecting data (Lawton, 2001).

Observation, in general, enhances understanding of complex behaviour and interpersonal interaction. Participant observation is useful for gaining an understanding of people's behaviours and activities (what people do, how frequently, and with whom), what is happening, what is involved, when and where things happen, how they occur, and why (from participants' perspectives). Things happen as they do in specific situations (Jorgensen, 1989). The rationale for using this observational technique was to discover what is actually provided in practice, so as to present a more nuanced picture of the situation than possible with just participant reports and written records. This method is also used when little is known about a phenomenon (Jorgensen, 1989) and is especially appropriate for collecting data on naturally occurring behaviour in its natural settings (Mack et al., 2005). The rationale for including observation is that it is difficult for professionals to be fully aware of what influences their daily practice and decision-making processes. The observational data complement the interview data, which provide the professionals' own perspectives on this and increase the validity and reliability of the study findings.

DeWalt and DeWalt (2011) presented two main advantages of participant observations to research regardless to the degree of involvement. Participant observation enhances the quality of data obtained during fieldwork and enhances the quality of the interpretation of the data. Therefore, they argue that participant observation is both a data collection and an analytical tool. I considered these benefits and limitations of participant observations before starting my fieldwork.

My degree of involvement changed during my observation. I was substantially a participant observer but my degree of participation was enacted at different levels depending on context, sensitivity of care and situation and I did not wish to be participating with any level of clinical responsibility. During the second stage of labour, I positioned myself in the corner of the room in order to help me to collect my data. However, when I was needed to assist I went and helped. I was viewed as part of the care team as well as a researcher.

It is well known that when exploring practice individuals often report one thing and do another (Mack et al., 2005) and interviews can only provide access to what people say or perceive they do, not what they do (Green and Thorogood, 2009). To address this issue, observation along with semi-structured interviews enabled me to explore what people do and compare this with what they say about it, thereby achieving a more rounded view of what affects them. The aim of the observation was to capture actual behaviour, rather than merely to gather information via self-reported action and to understand better the potential influence of the context on that behaviour.

As previously stated, the aim of this project was to explore practices during the second stage of labour. However, it is not possible to separate second stage practices from the first and third stages of labour. Therefore, I started each participant observation from the active first stage of labour and continued observing until the end

of the third stage of labour (for exception of one birth, where I started observation at the beginning of the second stage of labour) so as to achieve an idea of what might influence second stage labour interventions and routine practices. My supervisors advised me that it is always better to observe more than to observe less. When it comes to writing, all the issues related to and relevant to the second stage of labour interventions were explored. The second stage of labour occurs over a short period of time and behaviour is highly complex. There was little time, during the observation periods comprising labour and immediately after, to clarify with the healthcare professionals what they were doing and why, although this was more feasible in the slower first stages and sometimes this occurred naturally when professionals sought assistance or engaged with me like a student. Interviews provided the opportunity for professionals to describe practice in their own terms, but I did not seek to explore details of specific observed labours with them in the interviews but rather to ask them to describe typical practice.

My role as a researcher was that of a 'participant observer'. I was supernumerary, in the sense that I did not have any clinical duty, but I worked with the midwives and offered help with practicalities if required (translations between professionals and women, fetching things, bed-making and getting teas and hot milks to women after birth but not undertaking clinical duties) in order to 'fit' into the scene without disturbing it (Guest et al., 2013). I was aware that I had a professional sense of duty, and felt that I had a duty of care to give participants something back in the way of help and support while observing them. However, I avoided involvement in anything involving clinical decision-making or performing an intervention. My role was effectively similar to that of a midwifery student and some staff related to me in this manner, even though they had been given full information and consented to the study.

I only observed births where all the staff and the women in labour consented. All the staff members observed in practice were invited to be interviewed. When I was not observing I talked to the women and their families, or stood or sat observing the activity around me. When appropriate and feasible I also asked the professionals questions, particularly to discover exactly what they were doing. This approach is similar to the role taken by midwifery, nursing and medical students in practice.

Lawton (1998) carried out 10-month participant observation study within an inpatient hospice in Southern England. Lawton (2000) found that performing practical tasks during her observations in the hospice, such as making a bed, gave her an ideal excuse to enter a ward and make observations. This was particularly true for situations when it might otherwise have been too awkward and obtrusive to have a researcher present, like when one of the patients in the ward had just died. In my own study, it is possible that women found me to be a comfort because I acted as a translator and helped more generally.

This kind of participant observation can create a number of ethical dilemmas that stem from the role conflict and ambiguity inherent within an approach that demands a researcher work simultaneously as a participant and as an observer (Lawton, 2001). To correct this and to secure dominance of the research role De Laine (2000) advised researchers to remind the participants during research that they are performing fieldwork. Researchers are required to balance involvement with detachment, familiarity with strangeness and closeness with distance (De Laine, 2000). Similarly, Mack et al. (2005) advised being discreet when doing participant observations, by not standing out or affecting the natural flow of activity. Therefore, when conducting participant observation, I was discreet but open to the people I observed and interacted with, so they did not feel that my presence compromised their privacy but

was also mindful to the need to be a helpful presence as part of this. Similarly, my decision to be primarily an observer meant that I was intending not to compromise or affect the quality of care provided to participants but ethically it would have been difficult, for example, to not translate in situations where it was requested, or to simply refuse to answer peoples' questions or help in practical ways when asked.

Structured observation checklists and unstructured note-taking were used during the observation of labour practices. I planned to use two previously validated structured observation checklists on childbirth practices during the participant observation adapting these for my study context and focus on second stage practices (Sholkamy et al., 2003; Shaban et al., 2011). However, these checklists were originally developed and used to conduct quantitative research using non-participant observation.

The first observation checklist described the hospital policies and practices regarding normal delivery in Egypt, which was used to record actual health providers' practices by direct observation (Sholkamy et al., 2003). This checklist was available online in both English and Arabic. The second one was used to observe childbirth practices in Jordanian public hospitals (Shaban et al., 2011). The researchers for the second study sent a copy of their observation checklist to me via email and provided me with a consent form (see Appendix 9) so that I could use their observation checklist to help me conduct my own study in Jeddah, Saudi Arabia.

Initially, the intention was to use the resulting detailed structured observation checklist to record events (see Appendix 10 for details of the amended checklist). However, when conducting the first observations it proved difficult to follow the observation checklist as it distracted me from focusing on the events surrounding the birth. In addition, I missed relevant aspects of practice because I was busy looking for where to put data on the observation checklist. Consequently, a chronological record

of events was produced by hand so that everything necessary to complete the checklist would be available for later input, and so that wider or more subtle observations that were potentially relevant could be recorded. I recorded all the events that occurred from the active first stage of labour until the delivery staff left the room following delivery of the placenta and membranes, and the woman started to breastfeed her child. On several occasions after completion of observations, staff members pointed out, in informal conversation, important elements that affect their practice and I made a note of these in my diary to assist me in describing the context of care. I also followed the delivering obstetrician or midwife from the room into the corridor following the birth and asked brief questions about the birth and the reason for using some interventions during observation for clarification and made notes about this discussion. These questions were about observed events and interactions immediately after they happened. Such questions can allow a researcher to discover the meanings of specific activities to group participants (Roper and Shapira, 2000). I recorded their responses in my observation field notes and used them in my analysis to annotate my observation notes and sensitise and improve my understanding of the data.

Along with the field notes, additional information was collected from the women's medical records such as age of the mother, nationalities, educational level, and prenatal information. This information was used to complete a checklist after the observation. The checklist gave me guidance so I would not forget to record information about the woman that would be important for the analysis, including specific demographics and descriptions of interventions. Structured observation checklists help the researcher to remember what they are meant to observe (Mack et al., 2005). I clarified any matters where further information was needed with the

midwife or nurse on duty. Observational field notes were written during the observations and immediately after them (within 24 hours). Data were collected about specific events, social interactions, physical activities and the characteristics of the environment.

5.13.2.Semi-structured interviews

Interviews are one of the most commonly applied qualitative methods. They are a pre-prepared and guided form of conversation, and are probably the most common source of qualitative data for healthcare researchers (Green and Thorogood, 2009).

The study used semi-structured interviews with doctors, midwives and nurses. The semi-structured interview allows participants to most readily describe specific behaviour, and it is useful for supplementing data collected using other tools and for exploring the meaning of events in depth from participants' perspectives. When investigators require more specific information a semi-structured rather than totally unstructured format is used (Bowling, 2014). A semi-structured interview was chosen in this case as actual information was required to describe practice in conjunction with the collection of data to assess how healthcare professionals feel about interventions during the second stage of labour and their own personal experience of second stage practice. This approach provided some structure, while allowing healthcare professionals to discuss the issues they found most relevant in second stage intervention in a more narrative style. In this way the uniqueness of each individual healthcare professional's experience was acknowledged.

The interviews were conducted using a semi-structured interview topic guide (see Appendix 11). Many of the key areas to be explored were identified before the interviews took place, ensuring consistency across the interviews. Questions were

open-ended, and there was an opportunity for issues that were not part of the original list of key areas to be added into the interviews, if they were found to have particular significance. Some of the key areas explored, which were based around seven themes, are listed below (see Table 14). These themes were developed through discussion with my supervisors, from reading literature on the second stage of labour and by drawing on my personal experiences in terms of both practice and education. Interviews conducted in the early phase of data collection confirmed the appropriate themes, with minimal amendment required to the structure of some of the questions. Specific key points to be explored within these themes developed as the project progressed.

Table 14 : Seven themes in the semi-structured interview topic guide

1. Professional's background information such as nationality and current post.
2. Information regarding healthcare professional's training prior to qualifying as an obstetrician, midwife or nurse.
3. *Routine practices* during the second stage of labour: descriptive account
4. Healthcare professionals' *perceptions and their own explanations* of what influences practice and encourages the healthcare professional to use medical interventions during the second stage of labour.
5. Healthcare professional's *feelings* regarding interventions during the second stage of labour and their personal/professional values regarding childbirth and the second stage of labour.
6. Storytelling about a time when the healthcare professional needed to use intervention during the second stage of labour.
7. Hospital policy and guidelines on the second stage of labour management.

I began by asking the healthcare professionals to talk about their general practice during the second stage of labour and then, using prompting, guided them to provide more detail. This led to the collection of detailed descriptions about practice in the healthcare professionals' own words, with similar themes explored during each interview, whilst allowing for flexibility in the course of the discussion as theoretical concepts emerged. The length of the individual interviews varied between 20 and 60 minutes, and all the participants were assured of anonymity and confidentiality. The interview focus progressed from description of usual practices through to professionals' perspectives and opinions and then their feelings.

The time and place for the semi-structured interviews were decided based on convenience for the participants: either a private office or empty labour room at government hospital premises, where there would be no interruptions. Comfortable seating was arranged so that both the participant and I sat at the same level facing each other, to ensure eye contact between us. The tape recorder and my phone, as a backup, were placed on a desk or table to the side of the researcher out of the direct line of vision of the interviewee to avoid distraction. All interviews were tape recorded, with the permission of participants, using an Olympus WS 650S DNS digital voice recorder machine. Tapes were then labelled with a research ID code and date. To ensure confidentiality, a record of the names of the interviewees and their place of work was kept along with their identifying number in a separate place from the tapes, in a locked filing cabinet. All interviews were then transcribed, in line with the belief that an accurately transcribed audiotape is the most reliable record of an interview (Green and Thorogood, 2009).

I transcribed the majority of the audiotaped interviews *verbatim* and the remainder were done by a transcription company that provided me with a confidentiality

agreement. I listened again to the interviews with the transcripts to make sure the latter were correct. I found transcribing the tapes myself more beneficial as the process provided me with an opportunity to immerse myself in the data collected. This facilitated analysis of the data, as the theoretical concepts began to emerge as I transcribed. In the case of the interviews with the staff whose first language is Arabic, the interviews were conducted in English according to their preference, but I had to elaborate on some questions in Arabic for clarity of understanding, which was possible because my first language is Arabic. This elaboration did not apply to the medical terminology, which was spoken of and understood in English, as this is the official language used in the hospitals for speaking and documentation.

Informal interviews were also an option. This happened with the two midwives who refused to be interviewed formally and to be recorded. I recorded their comments and responses in my field diary and where used them in my analysis to sensitise and improve my understanding of the data.

5.13.3. Hospital policies and guidelines

I was able to review supplementary sources of information, including written reports, to obtain a comprehensive perspective of the people, setting, and research issues (Roper and Shapira, 2000). To enhance the description and evaluation of second stage labour practices, hospital policies and guidelines on second stage practices available on a computer database at King's and City Hospitals, were included in the study. The midwife manager at King's Hospital granted permission and assistance to access these documents and soft copies were collected based on relevance to second stage labour practices. The quality manager of City Hospital assisted me in collecting hospital policies and guidelines after permission was acquired from the hospital's

nursing director. Hospital documents (including policies and guidelines) provided evidence on policies regarding practices during the second stage of labour. These were triangulated with findings from the interview and observation data and prompted further lines of inquiry that helped identify contradictions between written policies and observed practices or staff descriptions of practices that would not otherwise have been apparent. Hospital policies and guidelines, like the interview and observation transcripts, were imported into Atlas.ti and used as data for thematic analysis.

5.13.4. Field diary

The purpose of a fieldwork diary is to record the fieldworker's experiences, ideas, fears, mistakes, confusions, breakthroughs and problems that arise during fieldwork (Spradley, 1980). It represents the personal side of fieldwork, including reactions to informants and the feelings sensed from others and supports reflection and reflexivity. I used the field diary alongside the semi-structured interviews and observations to record my thoughts during the data collection process and any interesting observations together with their potential meaning. Each diary entry was dated. Records of informal conversations were made in the research diary whereas I used the field diary to make comments and personal observations about the events witnessed, to record my reflections and to note the emergence of theoretical concepts. I noted my perceptions of how the observations and interviews had gone and the analytical notes were used to develop theoretical constructs. This diary included details provided by participating staff members and women in labour, study progress, field notes and memos made during and after data collection including comments on the quality of the data recorded. These notes in the field diary informed the process of data collection.

5.14. Profile of interviewed professionals

Table 15 show the profile of professionals interviewed by profession, nationality, year of experience and years at hospital and the total interviews conducted in both hospitals.

Interviewees	King's Hospital	City Hospital
Obstetricians	7	3
<i>Position</i>	1 consultant, 2 registrars (1 male), 4 residents	1 registrar, 2 residents (1 male)
<i>Nationality</i>	6 Saudi Arabian, 1 Jordanian	3 Saudi Arabian
<i>Years of experience</i>	mean = 6.6, range = 1-12	mean = 4.3, range = 3-5
<i>Years at hospital</i>	mean = 5.9, range = 1-10	mean = 3, range = 2-5
Midwives	5	7
<i>Position</i>	4 midwives, 1 labour ward manager	7 midwives
<i>Nationality</i>	1 Romanian, 3 South African, 1 Czech	4 Saudi Arabian, 3 Filipino
<i>Years of experience</i>	mean = 20.8, range = 10-30	mean = 12.4, range = 2-32
<i>Years at hospital</i>	mean = 7.4, range = 2-13	mean = 8.4, range = 2-21
Nurses	4	2
<i>Position</i>	2 Staff-nurse 1, 2 Staff-nurse 2	1 Nurse, 1 labour ward manager
<i>Nationality</i>	3 Filipino, 1 Malaysian	2 Saudi Arabian
<i>Years of experience</i>	mean = 22.2, range = 17-30	mean = 13, range = 8-18
<i>Years at hospital</i>	mean = 14, range = 7-20	mean = 13, range = 8-18
Nurse-midwives	0	1
<i>Position</i>	NA	1 Nurse-midwife
<i>Nationality</i>	NA	1 Sudanese
<i>Years of experience</i>	NA	37
<i>Years at hospital</i>	NA	24
TOTAL	16 (15 female, 1 male)	13 (12 female, 1 male)

The nationalities of the healthcare professionals interviewed varied across the two hospitals. All the midwives (n=12), nurses (n=6) and the nurse-midwife (n=1) interviewed were female, which is representative of the dominance of female nurses and midwives in Saudi Arabia overall and around the world. In terms of gender, the majority of obstetricians (n=8) interviewed were female; only two males were interviewed (one from King's and one from City Hospital), reflecting the gender balance in obstetrics in these hospitals. Due to the broad inclusion criteria and non-random purposive sampling, the healthcare professionals interviewed, including obstetricians, midwives and nurses, worked in a variety of models of care, had differing levels of expertise and lengths of service, had experienced different forms of training, cared for different types of women, and were working in two different government hospitals where they were employed in a variety of positions. As the researcher I was looking for a wide variety of healthcare professionals, of different nationalities and in various occupational positions and with wide-ranging experience within the hospitals, to gain a broad range of views and increase the transferability of the findings. Different levels of residents (obstetricians in the course of their 5-year training programme) were also included in the study, as well as more senior obstetricians, to see if they differed in their views, perceptions, attitudes and practices. The varied sample of professionals was reflected in differences in their views, attitudes and practice during the second stage of labour.

5.15. Profile of observed women in labour and birth

In total, 19 pregnant women were observed during this study (11 in King's Hospital and 8 in City Hospital). None of the women who were approached declined to participate. All were willing participants in the study. The 19 female participants observed represented a purposive sample of Saudi Arabian women whose ages ranged from 19 to 39 years who were in active labour, having uncomplicated births. Thirteen women had an antenatal booking, whereas 6 did not. Four of the women were nulliparous and sixteen multiparous. Of the 19 women observed during birth, 17 gave birth vaginally in the labour and delivery ward and two were transferred to the operating theatre for a Caesarean section during the second stage of labour and the observation was discontinued at this point (see Table 16). Only one observation at City Hospital was excluded, as this woman did not give birth during the fieldwork. I had to leave the observation while the woman was still in labour to attend another observation, but I have included all observation notes from this woman in my analysis.

Age	Parity	Education	Nationality	Antenatal booking	Vaginal delivery	Caesarean section
19-39	0 (4) 1 (6) 2 (2) 3 (3) 4 (2) 5 (2)	Primary school (1) Elementary school (2) High school (11) College (3) University (1)	Saudi Arabian (19)	Booked (13) Un-booked (6) ⁴	17	2

⁴ Not booked at this hospital

5.16. Data analysis

Ethnographic research produces a large amount of data because of the multiple methods used during data collection and their comprehensiveness. This section describes the approach taken to data analysis. Data analysis is the systematic examination of information collected in relation to a phenomenon to determine its parts, the relationship between parts, and their relationship to the whole (Spradley, 1979). There is no single right method for undertaking qualitative data analysis. The correct approach depends on the methodology, type of data and research questions. Ziebland and McPherson (2006) advise that qualitative data analysis should begin at an early stage in the data collection process and be highly systematic and continue through the transcription process and beyond.

All participant observations, field notes, interviews, the field diary and hospital documentation were recorded using a word processing package (Word 2010) and then transferred into qualitative data analysis software (QDAS) (Atlas.ti 7) which was used for organising and coding interviews transcripts, observations field notes and hospital policy documents (see an example at Appendix 12). The use of computer software can facilitate the qualitative data analysis (Thomas and Harden, 2008). Lewins and Silver (2007, p.10) confirm that the key benefit of using such software is that it increases access by the researcher to whole data files and parts of them to ensure “closeness” to data. In order to identify the themes for the study, data were organised in Atlas.ti and read independently in order to make sense of the whole picture that the research data presented.

The six phases of thematic analysis proposed by Braun and Clarke (2006) were used for the data analysis, supported by the software (see Table 17).

Table 17: Thematic analysis	
Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic ‘map’ of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Source: (Braun and Clarke, 2006)

I collected data from King's Hospital for two months and then followed this with a month of data organisation and analysis, continuing until sufficient data had been gathered to enable the themes to be explored sufficiently. I then came back to the UK to consider the implications of the data before commencing the second data collection phase. I read extensively about theories relevant to codes emerging from the first data collection. I also attended several courses to help me with analysing the qualitative data. After four months of reading and coding I went back to Saudi Arabia to collect data in City Hospital for two months followed by a month of data organisation and analysis, continuing until sufficient data had been gathered to enable the themes to be explored sufficiently.

Once the qualitative data had been collected from participants in both hospitals, I immersed myself in it in order to become completely familiar with it, and to develop an overview of the main ideas present in the data. This meant reading and re-reading the interview transcripts, observational field note and policy documents in order to gain a good level of understanding. This is known as the 'familiarisation process' (Furber and Thomson, 2010). Preliminary analysis began as soon as the first interview took place and proceeded for the whole period of the data collection. Mind mapping including hand-written and different software such as- <https://bubbl.us/>, <http://www.simpleapps.eu/simplemind/> and <https://www.gliffy.com/> were used to aid the data analysis. Examples of mind mapping of the preliminary analysis of the pre-themes and subthemes of the views, attitudes and reasons provided by healthcare professionals in regards the use of CTG machines, bladder catheterisation and episiotomy practice are provided in Appendix 13.

Qualitative data were reviewed to identify initial codes using Atlas.ti, which ensures the codes are linked to the related quotes. Initially I created descriptive codes and categories and then looked at potential higher-order (more abstract) codes and categories that come from the data but also make sense in relation to theory. This also facilitated reduction of the number of codes. Additional readings allowed for tentative grouping of codes into categories where links are made between codes that share meaning, differences and related ideas. Data were coded according to the previous codes identified from previous interviews, field notes and policy documents, with additional codes were also emerging added to the code list. Initial coding generated 340 codes, which was very descriptive, and after merging similar codes, 164 descriptive and analytical codes remained (see Appendix 14). Coding helped to organise all related data sections under the same heading, which can be retrieved with ease to make sure that the volume of data under each heading is both manageable and meaningful (Ziebland and McPherson, 2006). I compared data one with another in order to identify similarities and differences, and to generate codes and themes. Code were linked on the basis of similarity between these codes and then merged into 8 categories from which 2 core themes were identified. The data were analysed for common and conflicting themes. The qualitative data analysis process, therefore, involved breaking the data up and coding the different segments, then recombining and synthesising these in a more analytical form.

Qualitative studies often explore phenomena from participants' perspectives. Therefore, qualitative data analysis should not be limited to that which is relevant or important when studying 'anticipated themes' (Ziebland and McPherson, 2006). It should also seek information from the data raised by respondents directly or indirectly and topics not specifically asked about that are related to the 'emergent

theme' (Ziebland and McPherson, 2006). I created a reflection diary within Atlas.ti to explain the codes that emerged from the data at each stage, to keep a record of the themes in the reflective journal and to identify interesting and significant views or concepts arising from the data which later helped to develop the codes, categories and then themes. In the case of this study, combining interviews and observation in keeping with an ethnographic approach, the intention was also to go beyond participants' perspectives, to attempt to understand influences in relationship to the environment of their work.

The outcomes of the data analysis are presented in the following chapters. A framework proposed by DeVries et al. (2001) that distinguishes the macro, meso and micro levels of analysis were used in order to manage the diversity of the findings. Their analysis shows that maternity care is designed and shaped at different levels of society. Following this framework, findings have been reported in four chapters. Chapter 6 reflects the micro level analysis, Chapter 7 reflects the meso level analysis, while Chapters 8 and 9 reflect the macro level analysis. Micro and meso level analysis are relatively descriptive in nature. The macro level analysis illustrates the core themes that emerged during data analysis.

5.16.1. Rigour and trustworthiness of the data

Rigour refers to the strength of the research design and conduct, in terms of adherence to procedures, accuracy and consistency, as well as to several essential features of the research process. The researcher should ensure that research findings are as trustworthy as possible (Graneheim and Lundman, 2004). The trustworthiness and rigour of the data were established in different ways, principally through reflexivity and triangulation. Triangulation was achieved by using multiple methods

of data collection, different groups interviewed and observed. Observation checklists and unstructured field notes were compared to descriptions of second stage practice provided by the healthcare professionals interviewed and hospital policies and guidelines for labour and birth practices. The transcripts of interview and field notes for the participant observation were sent to both of my supervisors to confirm they met the aims and objectives of the study.

Qualitative research stresses the importance of reflexivity, whereby the researcher recognises that he or she has a social identity and background that have an impact on the research process. The subjectivity of an approach where the researcher and the research are closely intertwined means that reflexivity is an important part of the researcher's toolkit. In such circumstances the researcher needs to reflect on the impact that being a member of the same professional group as the study participants may have on all aspects of the research process, especially the interpretation of research findings. Reflexivity requires the researcher to reflect continuously on how their own actions, values and perceptions impact on the research setting and affect data collection and analysis. Reflexivity has some similarities and involves processes like those used in reflective practice (Bowling, 2014). A reflective diary was kept as a tool to enhance my reflexivity and to allow me to analyse the field experiences critically from my own perspective, thus identifying possible unwanted dynamics. The study findings were presented in context of my reflection through discussing my role as a researcher in the research process and my reflection on the research project.

5.17. Conclusion

This chapter has discussed how the research methodology was carefully chosen to investigate what healthcare professionals do during the second stage of labour and to explore possible reasons for the use of interventions during this stage. The design of this study can be described as qualitative and exploratory, following an ethnographic approach. Two government hospitals in Jeddah city were included, King's Hospital and City Hospital. Purposive sampling of healthcare professionals and women in labour was employed. A total of 19 women were observed during the second stage of labour (11 in King's Hospital and 8 in City Hospital), and 29 healthcare professionals were interviewed (16 in King's Hospital and 13 in City Hospital). Transcripts, field notes and hospital policy documents were organised and coded using Atlas.ti software. Data were analysed thematically using the framework of thematic analysis proposed by Braun and Clarke (2006). Rigour and trustworthiness of the data were established through reflexivity and triangulation. The next four chapters present the findings of the data analysis.

Chapter 6: Setting the scene-Sarah's story

6.1. Introduction

A vignette as presented in this chapter may help to get a sense of labour wards in the Saudi Arabian context, by exploring a case in-depth that illustrates how birth is completed in Saudi Arabia. This chapter sets the scene of this study by recounting the story of one mother's experience in the second stage of labour – Sarah's story and my perspectives and reflections on it. This story comes from observation field notes at King's Hospital in Jeddah, and gives the reader a flavour of how childbirth is managed in government hospitals. The story is used as an illustration of the use of various interventions during the second stage of labour. It presents a vignette of a typical 'case'. Sarah's story was chosen because her childbirth was representative of many other births I observed in both hospitals during the period of my fieldwork. This story is a useful starting point in that it provides a graphic picture of the number and consequences of the interventions that were used routinely in the majority of births observed in this study. Sarah's story is presented, reconstructed from my detailed notes, interleaved with additional notes from the entire observation data set on topics her story raised. This presents only a selection of issues in the labours observed, but was chosen because it characterises everyday practice well, and illustrates the routine uses of intervention and cascade of interventions and the professional-women relations that were common in my observations.

The chapter is largely descriptive in nature, which means that it sets the scene by presenting the micro level analysis (see Chapter 5). It also begins to introduce some of the key themes that will be examined more closely in later chapters. It provides an insight into the staffing, language, hospital policy and guidelines, companionship

issues, mobilisation, and adoption of different roles by healthcare professionals. All of these are important for understanding a woman's experiences of giving birth in the Saudi Arabian context. While the story used to frame this chapter cannot be considered to be representative of all births (because birth by its very nature is unique and uncertain), what it can do is paint a picture of the cultural environment in which this study took place. Overall, this chapter will help answer the first research question by providing a rich descriptive framework within which to examine the perceptions, attitudes and practices of obstetricians, midwives and nurses caring for a woman in Jeddah, Saudi Arabia. This chapter draws primarily on data from observation, supplemented by descriptive data from staff interviews and hospital documents. The story is presented through indented texts, using italics for actual quotes rather than my notes. As indicated above, the story text is interleaved with data from wider observations, presented without indentation. Pseudonyms are used for names throughout.

6.2. Sarah's story (King's Hospital-O-02)

Sarah (a pseudonym) was a 21-year-old Saudi Arabian housewife who had completed high school. On admission to King's hospital labour ward, she was 38 weeks pregnant with her second baby, with one previous miscarriage. She had no history of high-risk pregnancy but as she was not booked into this hospital although she had received antenatal care elsewhere, she was assigned to medical team care.

Antenatal care bookings in both hospitals include routine check-ups at the antenatal clinics with rotating doctors under the care of one of the consultants, including physical assessment, ultrasounds scans, blood and urine tests and checks of vital

signs, but not education or antenatal classes. Perceived lack of antenatal care booking emerged as an issue in both hospitals from the interviews, since many women came to the labour ward without having been booked in previously and with no previous medical record history with that hospital, having received antenatal care elsewhere. Of the 20 women observed while giving birth, 7 of them (3 King's, 4 City) were un-booked. Un-booked women are a major concern in both hospitals, and are categorised as high risk owing to the lack of records. This also decreased continuity of care. In Saudi Arabia, hospitals cannot refuse to take care of women who come to the hospital when they are in labour, even when they are booked elsewhere.

Across both hospitals, a few women including Sarah gave birth without attending antenatal appointments there, having booked their pregnancy and received care during their pregnancy in another hospital, either private or government. In these cases too, the women were admitted in labour to one of the study hospitals without bringing information about their pregnancy or obstetric history. Some women do not attend the antenatal clinic at King's Hospital because it is far from the city centre. Instead, from observation and interviews they see a private doctor throughout their pregnancy and follow up at a hospital near their home, but they come to the government hospital to give birth because of its good reputation and facilities.

Sarah was admitted through the Emergency Room as her cervix was 5–6cm dilated at around 6 am. She received her first intervention, a **vaginal examination (VE)**, in the emergency room as she was having painful strong contractions. She had a **second VE** in the labour room at 7:20 am, which revealed that her cervix was 7cm dilated. **Artificial rupture of the membranes (AROM)** was then performed by the doctor, resulting in clear

liquor⁵. The FHR showed variable deceleration, so the doctor decided to insert and attach an **internal foetal scalp electrode (FSE)** to the baby's head. At 7:30am, a **Buscopan intramuscular (IM) injection** was administered by the midwife to aid in cervical dilation to shorten the duration of first stage of labour. My observation commenced at 8am.

The Labour and Delivery Department was in the middle of the hospital, near the emergency room and operating room (OR). There were two doors in the labour room, one always closed and one usually open, and the curtains around the woman were closed. I walked straight into the room as the door was wide open, while a curtain around the bed covered the entrance to ensure privacy of the woman. Sarah was wearing green hospital gown (open from the back) and blue head cover, in a large, modern, clinical-looking room. The bed was in the centre of the room, and all the furniture was made of metal. I perceived a rather uncomfortable, clinical environment for giving birth. The room had no windows and was air conditioned and very cold.

Dealing with cold temperatures in rooms is a real issue at King's Hospital; the staff and women alike have complained about it. I observed that one nurse even had a portable heater. The professionals explained that this due to the central air conditioning being connected to the operating theatre; it cannot be reduced. If it is, and therefore becomes "too hot" in the operating theatre, then the staff there will complain. I observed that most of the staff wore jumpers over their scrub suits and the patients constantly complained and asked for extra blankets. This was not such an issue in City Hospital where, although some women did complain about the cold, the

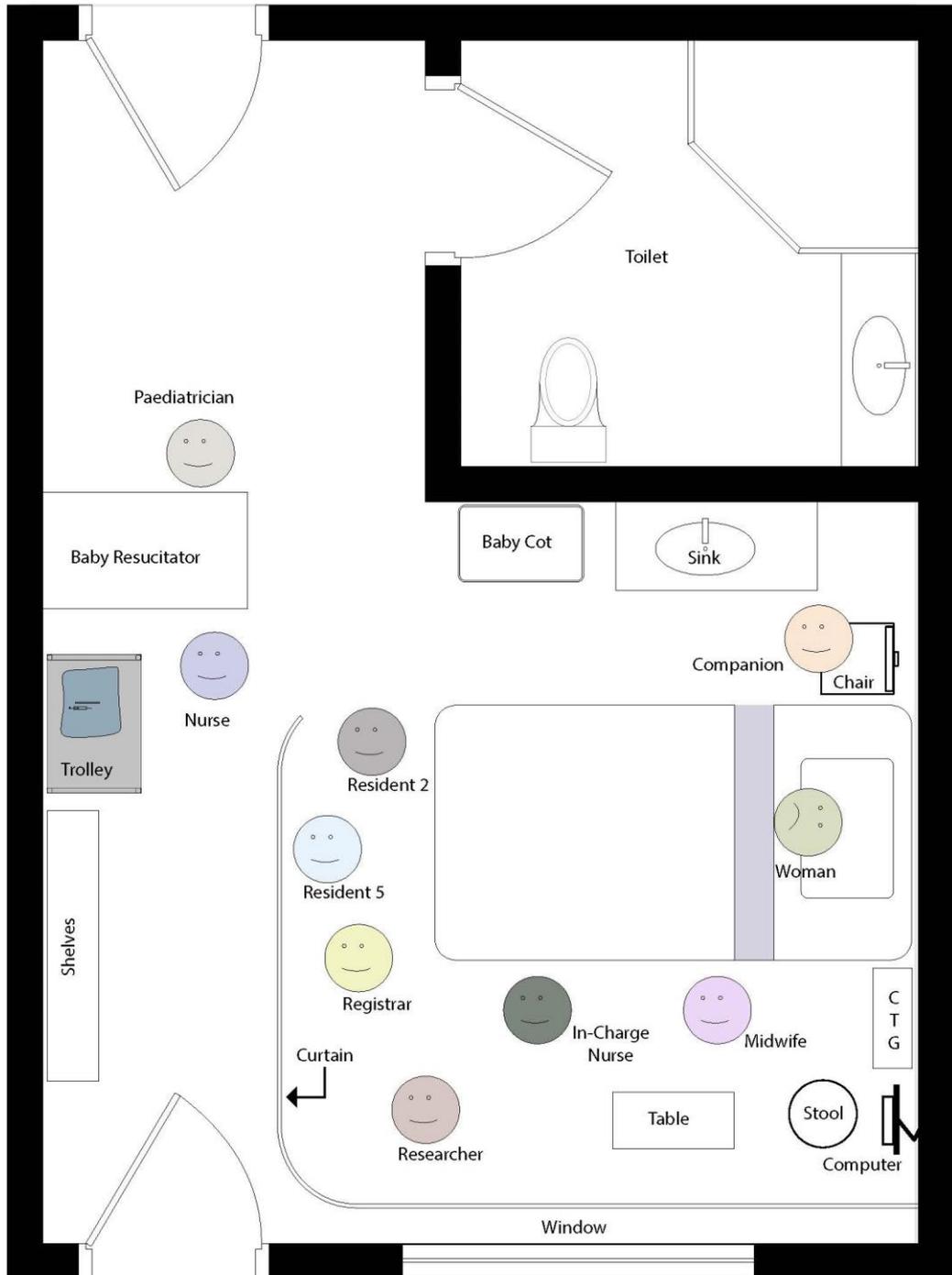
⁵ Amniotic fluid

temperature was regulated by the staff. Note that many women following birth also experience heightened feelings of coldness too due to blood loss (Kelley, 2005).

The midwife (Mary) covered Sarah with extra blankets when she complained of the cold. Artificial lighting was provided by recessed fluorescent tubes, and a large, mobile operating room (OR) light (turned off) hung over the bed. There was oxygen and suction equipment on the wall, and a big clock above the bed. A baby resuscitation trolley stood at the end of Sarah's bed. There was one washing sink, two chairs, an ensuite bathroom and a computer for staff use.

Figure 6 shows the layout of a hospital labour and delivery room in King's Hospital where Sarah gave birth. This layout is very typical of my observations at King's Hospital and was also similar to the delivery room layout in City Hospital. All healthcare professionals presented in the Figure were not in the room all the time during labour, but were in and out but during the second stage of labour, most of them were in the room to assist with the birth of the baby. I included all of them in the figure to reflect the busy environment during the second stage of labour.

Figure 6: Layout of the Labour and Delivery Room in King's Hospital



The hospital delivery beds in both hospitals were centrally placed in the labour rooms and were generally of obstetric design aimed to assist different interventions and procedures during labour and birth, such as the lithotomy position. The labour and delivery rooms were clinical and mechanical in appearance with minimal furniture, metal surfaces that are easy to clean, a baby resuscitation bed, a CTG machine, theatre lights and stainless steel trolleys with a delivery pack⁶ on them. With all this equipment in the room, the space is relatively small for the woman to move around or to feel comfortable. The birthing environment of both hospitals is crowded with staff and machines, and noisy with staff coming in and out and sounds coming from the CTG machine and baby resuscitation bed.

Both hospitals have an automatic door for the labour and delivery ward locked with security numbers. During the data collection I noticed that King's Hospital use a single bed for labour and delivery, whereas City Hospital has 3 separate beds for labour, delivery and postpartum care with women being transferred from a labour to a delivery bed when they are considered to be in active labour and ready for birth, and then transferred to a postpartum bed after the birth.

The midwife complained that the computer attached to the wall was too far away from the patient, so when she entered records into the computer, she was removed from the woman and could not stay by her side to give her support.

Documentation differs between the two hospitals. In King's Hospital, professionals, especially nurses and midwives, document records in a computer system whereas in City Hospital they document records in paper files. New computers with QuadraMed software were introduced this year to King's Hospital, which allows nurses and

⁶ Delivery pack contains: 1 Umbilical Cord Scissor, 1 Spencer Wells Forceps Straight, 2 Plastic Cord Clamps and 2 Trays.

midwives to write their notes directly onto the computer. However, obstetricians still write on the hard copy file and only make their medication orders through the computer.

One nurse (King's Hospital-SN1-10) during an interview complained about the volume of documentation required at King's Hospital as a distraction; she said that during labour and birth she is often busy writing down the progress of the woman on the computer. She stated: *I don't think it is necessary to monitor every 15 minutes. 30 minutes is okay. Every 15 minutes writing and putting here in the quadramed... because you are not concentrating on your patient anymore. You have to sit here and write on the quadramed.'*

Sarah was lying on the bed on her left side, covered by a sheet. Since admission to the labour room, she had been attached to a **continuous cardiotocography machine (CTG)** by two wires, one to record the FHR and one to record the contractions. I could hear the foetal heartbeat coming from the CTG machine.

The CTG machine sounded very loud in both hospitals, especially during the second stage of labour when the healthcare professionals purposely elevated the sound in most of the births observed. According to King's Hospital foetal monitoring in labour and delivery policy: *'The volume of the foetal heart rate monitor should be audible, but not loud, to alert the carer to change in the heart rate (i.e. bradycardia, decelerations, tachycardia).*

Sarah had also one line of **intravenous (IV) fluids (Ringer Lactate)** running into her hand. She had an **oxygen mask** attached on her face due to variable deceleration (FHR). A blood pressure cuff was attached to her left hand. The midwife decided to insert a **Foley urinary catheter** for continuous drainage of urine and for variable deceleration. Sarah's companion (her aunt, who was her father's sister) sat quietly in a chair on her right-hand side.

My observations in both hospitals suggested that during the active first stage until the end of the third stage of labour most women are not allowed to mobilise as the CTG is attached continuously, which means that they are normally confined to bed once they are in active labour. Space limitations also prevent women from mobilising freely. Some women were allowed to mobilise to go to the toilet, but in many cases as was the case with Sarah, bladder catheters were attached – continuously or in and out, and due to the nothing per oral (NPO) policy women were also attached to an IV line for fluids. One of the City midwives told me during the interview: *'Once she is in the second stage of labour, we will not allow it (mobilisation). She can sit, but she cannot walk. We can put her in a semi-sitting or sitting position and if the head is already crowning, we will put her in the proper position. But she is not allowed to walk.'* City Hospital-NMW-13

Sarah was in a lot of pain, and the midwife instructed her to 'take a breath'.

Sarah then asked her: *'When will I give birth?'*

The midwife replied: *'You are 7cm dilated. God willing, it will be soon.'*

*At 8:10am, the midwife opened a delivery pack on a metal table and unfolded a blue plastic sheet. The midwife said, 'I will wait for the foetal heart rate to recover, then I will give you **Entonox** for pain relief'.*

Although in pain, Sarah was quiet and followed instructions.

At 8:20 am, the female resident 5 (R5), Dr Nawal, entered the room with a male registrar, Dr Majed.

Dr Nawal told Sarah: *'I am Doctor Nawal, and this is Doctor Majed. How are you?'*

Sarah replied: *'There is pain. It comes and goes. Why?'*

The doctor said: *'I am just asking. Where were you booked for this pregnancy?'*

Sarah replied: *'Al-Jamaa Clinic (Private clinic).'*

Dr Nawal asked: *'Is everything OK?'*

Sarah said: *'Yes'*.

Although Dr Nawal speaks Arabic, she said in English: *'The CTG is not good. She has clear liquor. We have to call Dr Zaki, the consultant, for this lady'*.

Dr Majed said: *'In my opinion this lady needs a C-section'*.

Most women attending hospital for their births speak only Arabic, yet the official language is English in both hospitals. Professionals communicate with each other in English, as if the woman is not present in the room and is not relevant. Most of the women, if not all, do not speak English so the experience may be very alienating for

them. Interpreters and other Arabic-speaking healthcare professionals are readily available to assist the mostly expatriate healthcare professionals to communicate with the women. Language per se was not the main cause of limited communication, as in City Hospital with mainly Saudi Arabian staff they still did not communicate with the women much, using a similar approach.

The majority of nursing and midwifery staff working in King's Hospital are non-Saudi Arabian and their first language is not Arabic. Indeed, some of them speak little Arabic. Therefore, the hospital provides an Arabic unit assistant as an interpreter to help with interpretation on request. However, she cannot be present in every room to provide interpretation services and she also works as a clerk and does filing. Therefore, she is usually only called if a woman refuses something or has difficulty understanding a procedure. In some situations I was asked by nurses and midwives to interpret for them.

Dr Nawal told the midwife to insert a Foley urinary catheter to which the midwife replied: *'It is already in!'*.

The midwife started **Paracetamol IV**, in accordance with the doctor's request.

During the observations some women asked me questions as they saw the healthcare professionals were busy doing things, while I was watching them. Also as I speak Arabic it was easier to ask me directly instead of asking the healthcare professionals. In some cases healthcare professionals did not respond to women's questions and then I replied spontaneously.

Sarah was ignored by the attending midwife when she asked: '*When will the pain go?*'

I could not stop myself from answering and said: '*When you deliver*'

Then she asked again: '*What time will I deliver?*'

I said: '*God knows; just pray*'.

Sarah's aunt then talked to her, telling her to be patient and to ask God for forgiveness.

Observations showed that most of the time companions sat on a chair beside the woman and appeared to feel unable to get involved, and the professionals did not encourage them. For example, during the observation of one birth I felt that the woman was not supported much by her sister, as she was sitting behind the curtains away from her. However, some family companions were proactive, supportive and tried to be involved with the care. Most companions were observed to be supportive of the woman during birth, holding her hand, communicating with her, bringing water if they found she was thirsty, or helping her with the Entonox. Some requested healthcare professionals to provide pain relief when they saw that the woman was in pain or asked about the progress of the woman's labour. My observations showed that they provided emotional and practical support.

The midwife changed Sarah's position from a left lateral to a semi-sitting position and then changed the underpad. The female resident doctor returned to the room and said that the patient was ready for **amnioinfusion**. I asked her why this was being done and Dr Nawal explained that inserting a catheter and infusing it with normal saline would relieve pressure on the cord. The midwife

left the room, while the doctor stayed and wrote on Sarah's file. Sarah was distressed and screaming. Her aunt calmed her down and asked her to pray to God.

Despite the obvious importance of Sarah's companion in this story both hospitals took an ambivalent position to idea of women being supported in labour and birth by a friend or family member. Birth support companions can only be present with the doctor's consent. The companionship policy during labour and birth differs between King's and City hospitals. King's Hospital allows one companion to be in the room as hospital policy, whereas City Hospital policy does not permit a companion to be present with the woman during labour and birth. Despite this difference in policy there was evidence from both clinical settings that companions are considered to be somewhat of an inconvenience. For example, even though King's Hospital policy permits one companion during birth, some of the women or professionals preferred for there not to be companions: *'It depends on the doctors. Sometimes the doctors don't want a relative to be present.'* King's Hospital-MW-06

This negative attitude towards the role of a birthing companion however was more prevalent at City where there is no written policy to encourage the practice of allowing a birthing companion in the room.

Sarah was feeling the urge to push. Dr Nawal asked her: *'Do you want to push?'*

Sarah replied: *'Yes'*.

The doctor said: *'I hope the head is coming down'*.

Dr Nawal wanted to leave to attend to an elective Caesarean section for another patient, but before leaving she did a **VE with a sterile gloves** at 8:45am to make sure that Sarah was fully dilated.

The doctor said: *'The head is here!' and told Sarah: 'If you feel the urge to push, push'*.

Sarah replied (screaming): *'It is enough. Take it out'*.

The doctor left the room. I offered to help the midwife to prepare the Syntometrin injection, which she planned to give the patient. **Syntocinon 5 IU and Methergin 0.2 mg** were prepared for the third stage of labour.

I asked the midwife: *'who would conduct the birth if the doctor was in the OR?'*

She said: *'As midwives, we only catch the baby, and this patient is un-booked. So I try not to encourage the patient to push if the doctor is not around.'*

Dr Nawal re-entered the room.

The midwife asked her: *'who will conduct this delivery if you are in OR?'*

Laughing, Dr Nawal said: *'You'*.

The midwife replied: *'She is not booked.'*

The doctor said: *'That's why I will call Dr Rana (resident 2 – R 2)'*.

At 9:00am, the male registrar, Dr Majed, stood outside and asked if the patient was pushing.

The midwife replied: '*She is fully dilated*'.

The in-charge nurse entered the room, removed the empty bottle of Paracetamol and **restarted the Ringer Lactate IV**. Sarah was feeling the urge to push with contractions. Dr Majed came into the room and reviewed her CTG. He asked the midwife about the amnioinfusion.

She said, '*I prepared it, but it has not been given*'.

The midwife started to instruct Sarah in Arabic how to push while placing her hand on Sarah's abdomen during contractions: '*If there is pain, push like you would when you have a stool. If there is no pain, don't push. Without voice, push down, long, long. Excellent! Excellent! If there is pain push more*'. The midwife wrote on the partogram.

Dr Majed entered the room again and performed a **VE while wearing sterile gloves**. As I helped him, I noticed that his left hand was injured. During the VE, he encouraged Sarah, who was in a semi-sitting position with her head on her chest and her legs flexed, to push when she experienced pain.

Dr Nawal, the resident, told Dr Majed: '*I want you to take her over*'.

He replied: '*I can't. My hand is injured. You do the delivery.*'

Dr Nawal said: '*But you have to be in the room,*' to which Dr Majed agreed.

Dr Majed said: '*Put her in the lithotomy position,*' to which the midwife replied, '*she is pushing*'.

Dr Nawal said to Sarah: '*I want you to be in a straight line*'. Sarah was covered with disposable blue sterile surgical leggings.

Dr Nawal asked: *'How long ago was the patient fully dilated?'*

The midwife answered, *'At 8:45 am'*.

The doctor said: *'Let's wait for half an hour until the head is down. She is a very good pusher'*.

The doctor and midwife said to the woman, *'Take a breath and push. Hold your thighs from behind and straighten your back'*. Both doctors left the room.

A nurse entered the room wearing a blue plastic gown. She talked with Sarah in Arabic and instructed her how to push: *'Without voice, hold your breath and then push like you are passing a stool'*. The nurse prepared the newborn resuscitator, injections and file; Vitamin K and anti-Hepatitis B injections; and erythromycin ointment for the baby's eyes. The nurse in charge brought the baby weighing scales into the room. The midwife recorded progress on the partogram.

I asked her: *'Does the action line increase interventions during labour?'*

She said: *'No, as the doctor doesn't look at it.'*

The midwife examined the woman vaginally and said, *'There is the caput. The baby's hair is visible'*.

Dr Rana (junior resident) entered the room.

Sarah asked the midwife: *'Will it be soon or not?'*

The midwife said, *'It will be soon', and encouraged her to push.'*

Dr Rana wore a sterile gown and gloves **to perform a VE**.

The midwife said: '*I prepared a **Lidocaine injection** for you*'

The Foley urinary catheter is stretched on Sarah's thigh'.

Dr Rana told Sarah: '*You have to help us*', and then put Sarah's legs on the leg supports attached to the bed. She remained on her back in a semi-sitting position.

Dr Rana said to Sarah: '*My love, it is getting better*'.

Dr Majed asked Dr Rana to put the patient in the lithotomy position.

Dr Rana said: '*She is progressing*',

But Dr Majed replied, '*But the CTG is not reassuring*'. I was sitting down and Dr Majed asked me, '*Are you writing everything down?*'

Four staff members were in the room: 1 midwife, 1 staff nurse (SN1), 1 registrar and 1 resident 2 (R2) doctor. Most of them were encouraging Sarah to push. Dr Rana put Sarah in the **lithotomy position**, gave her a **Lidocaine injection** and prepared the scissors in case of an episiotomy. Both doctors had their hands on the woman's vagina.

The midwife asked: '*Dr Rana, can we remove the Foley catheter?*'

Dr Majed said: '*It is better to bring the ventouse as her baby's heart rate is showing decelerations*'.

The nurse in charge in the room told Dr. Majed that another patient in Room 6 was having late variables decelerations. The midwife brought the ventouse into the room.

The doctor said to Sarah: *'Don't push'*.

The midwife then said: *'Push'*.

The doctor left the room to see the other patient.

The midwife examined Sarah again and asked her: *'Are you in pain?'* Sarah said: *'No'*. The midwife used **K-Y jelly while doing a VE** and encouraged the patient to push.

I observed that women were routinely examined vaginally by several healthcare professionals, including midwife, registrar and residents, either to confirm each other's findings or for learning purposes without asking them for consent. I did not find anything in either hospital's documentation to indicate how frequently vaginal examination should be performed during labour or birth. King's Hospital did not have any policy regarding vaginal examination during labour and birth. However, City Hospital had one policy for vaginal examination stating the purpose, policy and procedure for use.

Dr. Rana entered the room. The midwife said: *'I am just giving moral support to the doctor.'* Dr Rana left. The nurse in charge again came into the room and asked to borrow the ventouse for the other patient.

The midwife told her: *'Leave this, and take the other one'*.

Sarah asked me again: *'When will the pain go?'*

I said, *'When you deliver'*.

The midwife said: *'I don't want to rush by encouraging the women to deliver, as the neonatal nurse is in ward 2. I don't want to be frustrated when she delivers'*.

The midwife called the doctors because of prolonged deceleration, saying it was *'Just for them to be aware'*.

Dr Nawal entered the room and asked: *'Where is the head?'*

The midwife said: *'Right here'*.

Dr Nawal said: *'She should deliver.'*

Sarah was still in the lithotomy position. Dr Nawal wanted to give her a **Lidocaine injection** in the perineum.

The midwife said: *'Dr Rana has already given her one'*.

The nurse in charge entered the room and said, *'The other room is using the ventouse, and the other CTG is worse than this one'*.

Dr Nawal said: *'Variability is now maintained'*.

The midwife said: *'My baby is going to deliver first'*.

This way of talking about women and their babies as possessions somehow belonging to the staff was not uncommon in both hospitals. My baby, my delivery, my woman/patient were all terms that staff used to describe the clients in their care. During the interviews one of things that struck me was that most healthcare professionals spoke about the women or mothers as 'patients'. During the questions

when I referred to the women as women the informants could become confused, asking me: whose women? This use of language shows how healthcare professionals perceive the woman's role in labour and birth. They deal with her as a patient that needs treatment.

Sarah was bleeding when the doctor **stretched her perineum**. I asked the doctor '*Why she was bleeding from her vagina?*'

The doctor said: '*As she is a primigravidae her vagina is fragile*'. The baby's head was advancing when Sarah pushed, and the doctor kept the scissors ready by the bed.

Dr Majed said: '*The ventouse in the other room had failed*'.

The midwife wiped Sarah's face with wet tissues.

The baby's head became visible. Dr Nawal said: '*No need for an episiotomy. The perineum is good*'.

At 10:25am, a baby boy was delivered, he cried and was put on a dry towel. The cord was cut, and the baby was given to the nurse who was in the room. The baby's birthweight was 2.904 kg, and he had a good Apgar score. **Syntocinon 5 units and Methergin 0.2 mg** were given IV. The doctor took cord blood. The paediatrician checked the baby in the room. Dr Majed and the midwife both asked about the baby.

Dr Nawal was trying to pull out the placenta with **controlled cord traction** (CCT) and asked the patient to push down. The placenta came out and was checked by the doctor. The midwife took the placenta, put it in a white plastic bag and then weighed it. Sarah's blood pressure was taken by the midwife.

The doctor said: '*She has first-degree tears,*' and asked for a suture kit and Lidocaine spray.

Sarah kept asking: '*Will I have pain? Will I feel it?*'

The doctor said: '*You will just feel my hand but no pain, as I gave you a painkiller*'.

Sarah was shivering due to the cold air conditioning. I offered her hot milk with sugar. The baby boy was in the resuscitator under the heater, wearing a diaper. The patient's aunt was sitting in a chair. After suturing, Sarah was given her baby to breastfeed.

6.3. Reflection on this birth observation

The observation started about 2 hours and half before the baby was born. Sarah was subjected to many (14) interventions (**in bold**) during the first, second and third stages of labour without asking for her consent. Sarah was not asked if she wanted any kind of intervention. She was given information only to explain the already decided-upon interventions, which is standard practice for women in both hospitals according to my observations during this study. During the first stage of labour, due to the foetal deceleration, Sarah was subjected to many interventions to accelerate labour. It appeared that foetal heart deceleration occurred because AROM was done, then doctors were attempting to solve this by using a further intervention, such as amnioinfusion. Such a series of increasing interventions is often referred to as a cascade of interventions (Tiran and Denise, 2012). Although there can be other causes for foetal heart deceleration such as cord around the neck or hyperthermia, it is generally agreed that performing amniotomy can in some instances lead to

decelerations (Smyth et al., 2013). Amniotomy therefore should only be performed when indicated rather than routinely as in this observations (Smyth et al., 2013). However, even if Sarah did not have the AROM, she would have still been subject to many other interventions, as observed in other births.

During the second stage of labour some of these interventions continued and some new interventions were used. During the second stage alone (01:40 minutes) she was subjected to 8 interventions (EFM; I.V.; Foley urinary catheter; vaginal examination; lithotomy position; directed pushing; perineum stretching; and Lidocaine injection) Although some of these interventions could be justified, I did not note in my observation any discussion or documentation of clinical indication for them being used.

The CTG appeared to be the main influence on all practices and interventions, especially during the second stage of labour. Sarah was in bed all the time during the observation attached to the CTG, flat on her back, did not have an opportunity to be mobile when she was admitted. She was not allowed to be mobile during active labour as she was connected to the EFM continuously through wires coming out of her vagina, to Foley urinary catheter and a blood pressure cuff. In addition, an I.V. line was running all the time into her hand, so she could not easily change her position. I saw that Sarah underwent many (5) VEs performed by different doctors and the midwife. During the observation I felt sorry for the woman as she had been examined by four different staff vaginally during the second stage. The use of CTG machine appeared to impact on healthcare professionals' behaviour in Sarah's case.

As Sarah was not booked in King's Hospital she was treated as high-risk pregnancy and was under medical care. However, from my observations it seemed that both booked and un-booked women were subjected to many interventions during labour and birth.

Sarah may have had the chance to deliver vaginally without using vacuum or Caesarean section because the doctor was busy with another woman seen as a more serious case and also I sensed that some doctors like to use intervention more than others. A busy labour room saved the woman from having a ventouse birth.

Sarah story is an example of the numerous interventions that can be used for any woman in labour and giving birth.

It was clear from observing Sarah's birth, the environment was not a home-like setting, it was a clinical setting, bright light, cold, crowded, many people coming and going. Labour and delivery room seemed a sterile area where all staff performing VE were wearing sterile gloves and also during the second stage of labour they wore sterile gowns and covered Sarah's legs with sterile leggings. This kind of environment is not comfortable to give birth, woman could feel strange in such a place and unable to relax.

There seemed to be little continuity in care. Different health professionals entered the room at different times to check on Sarah. From observing Sarah's birth, I noticed that many (7) healthcare professionals were involved in her care. During the second stage of labour, 5 staff were in the room including 1 midwife, 1 nurse, 1 registrar, 1 senior resident and 1 junior resident, most of them encouraging the woman to push.

A lack of communication between professionals and women was apparent in observations of Sarah's care. Communication emerged as a major issue within the

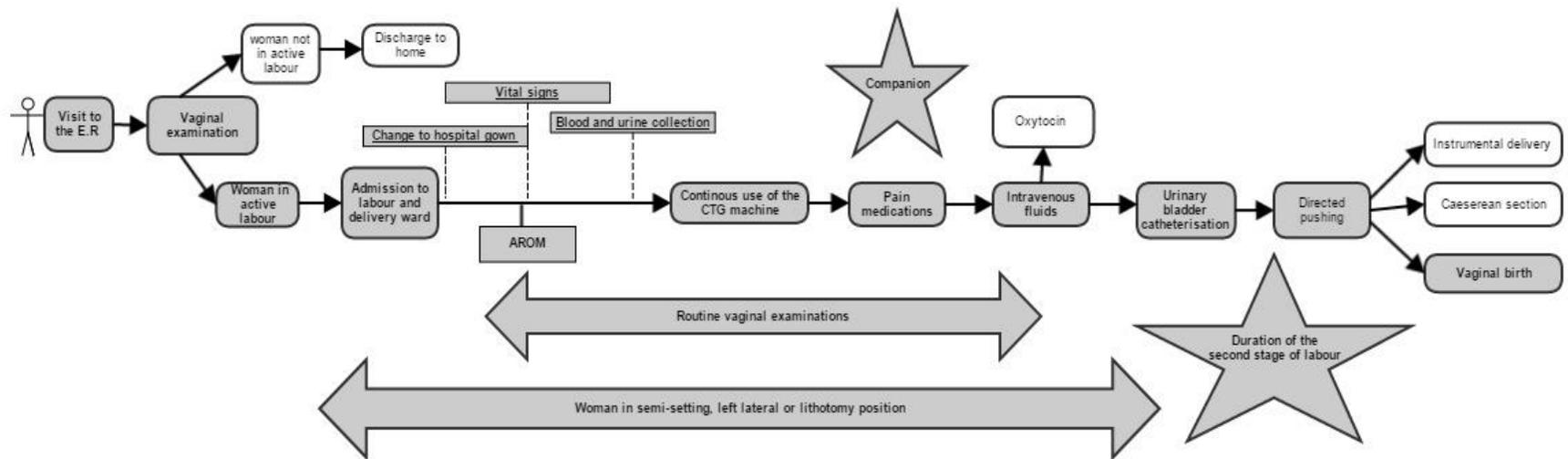
data collected, as professionals were observed to mainly communicate with women to give instructions. This was done providing a little information about what procedure they might use and detailed explanation was missing and consent was not sought except for Caesarean section. Aspects of communication observed during labour and birth include giving information, advice, and instruction, and coaching women. Healthcare professionals during the interviews perceived that these aspects of communication are important during the second stage of labour. However, I rarely observed information or moral support being provided to women during labour and birth; in both hospitals communication about the care between professionals and women was limited. Healthcare professionals were observed to only have a limited time in which to communicate with women as they were busy with documentation, and it was not treated as a priority.

My observation suggests that rather than doctors discussing cases, it was up to midwives to alert doctors to when their various sets of instructions repeated or contradicted one another.

As presented in Sarah's story, when professionals were discussing the care that women were receiving during the observations, they did so across the women and generally in English. During interviews professionals talked about informing the women, though they saw this as being more to educate the women. In my observations they did provide some comfort and supportive contact, such as advice to not worry and to pray. Nonetheless, from my observations, they spoke to the women very little, explained very little and did little to answer their questions. During my observation of Sarah's birth, the registrar informed the staff that she was fully dilated but did not inform Sarah.

Support during labour and birth can be provided by healthcare professionals (nurse or midwife), or a companion (the woman's husband, a family member or friend). Sarah's companion was supportive to her by trying to keep her calm. However, she was sitting beside Sarah on the chair quietly as she appeared to be intimidated by the scene. The clinical setting and behaviour of the clinicians may inhibit the capacity of companions to offer support. I will set out more details of all these points presented in my reflections on Sarah's birth in my subsequent chapters. Figure 7 shows the childbirth pathway that Sarah went through at King's Hospital.

Figure 7: Childbirth pathway (shaded boxes represent Sarah's pathway)



6.4. Conclusion

This chapter set the scene of this study by providing an illustration of one birth story from King's Hospital. The cascade of intervention was clear from the time Sarah was admitted to the labour room until she gave birth. This vignette was typical of everyday practices and illustrates the range of intervention used during the second stage of labour, which will be discussed in more depth in Chapter 7. Issues highlighted in this chapter include the problem of 'un-booked pregnancies' (not booked antenatally at the hospital, but booked elsewhere); staffing issues (large numbers of staff in the room and lack of clarity about professionals' roles); communication issues (women being treated as possessions and alienated from interaction); lack of encouragement of companionship during labour and birth; a clinical environment (including uncomfortable, bright, noisy, crowded and cold) and lack of continuity of care during labour and birth.

The next chapter will present the explanations or justifications which professionals gave in interview for use of interventions alongside my inferences, based in observations, of what may influence practice during second stage of labour.

Chapter 7: Professionals' understandings and justifications for the use of interventions

7.1. Introduction

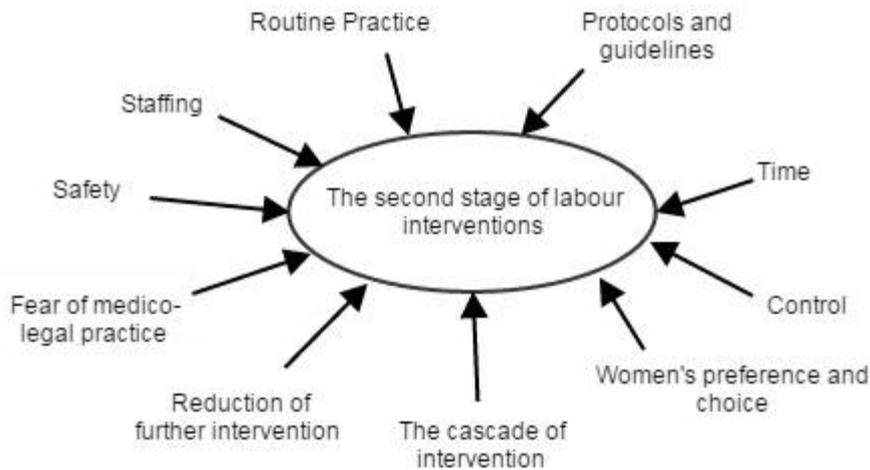
This chapter provides a detailed description of the various ways in which the second stage of labour can be managed, based on my observations, interviews with health professionals and documentary evidence from two hospitals. The structure of this chapter is based around the professionals' explanations and justifications for the practices observed and described. These explanations were at times inconsistent and even contradictory. Such shifts within the professional's explanatory frameworks was most notable when data from the different data collection methods were compared. The fluidity within the practitioners' talk and practice provides an illustration of the social complexities surrounding the management of the second stage of labour in King's and City hospitals.

This chapter is divided into 10 themes that are used to describe and frame the health professionals' explanations and justifications of the use of interventions during the second stage of labour. These themes emerged from my analysis, and were later examined in depth when merged into core themes. This chapter reflects the meso level analysis.

These themes include time, protocols and guidelines, routine practice, staffing, safety, fear of medico-legal practice, the cascade of intervention, reduction of further intervention, women's preference and choice, and control. Figure 8 provides an illustration of the diversity of influences as perceived by professionals, the propensity of which shift in importance depending upon the intervention itself and the social

circumstances in which this intervention is being used. The various interventions in the second stage of labour will be used to illustrate each of these themes.

Figure 8: Professionals' justifications for the use of interventions during the second stage of labour



7.2. Time

The health professionals' perception of time management and adherence to a strict duration of the second stage of labour has a significant influence on the interventions used in both hospitals. If a woman's labour exceeded the time allowed many interventions were used to accelerate the birth. Pharmaceutical products mentioned were Syntocinon (oxytocin), with 5 or 10 units as an intravenous (IV) infusion and Buscopan 20mg as an intramuscular injection (IM) or IV injection. Other techniques mentioned for hastening labour and birth were Artificial Rupture of the Membrane (AROM), directed pushing, change of maternal position, bladder catheterisation, episiotomy, stretching the perineum, instrumental delivery and Caesarean section.

Most healthcare professionals reported that they have to intervene in some way if the woman exceeds the time allowed for her during the second stage of labour. One

registrar in City Hospital stated that she has to interfere if two hours have passed for a primigravidae and one hour for a multigravidae:

Usually we interfere if multigravidae has taken more than one hour and for the primigravidae two hours. Look, the truth is usually after two hours I have to interfere, at least I start Synto infusion to make the contractions stronger. Some kind of interference will happen. Usually I don't leave them more than two hours without intervention. City Hospital-OB-12

The midwives at this hospital held a similar belief

There is a fixed duration for the second stage of labour. City Hospital-MW-09

Another obstetrician from King's Hospital stated that she cannot practice more than the allowed time for second stage of labour

It is 2 hours for primi and 1 hour for multi, I cannot practice more than this. King's Hospital-OB-02

The concern for time management and coherence to a strict duration of the second stage of labour described in these two quotes is consistent with the hospital's protocols. Both Kings and City hospitals have identical policies for the duration of the second stage of labour in their medical, instrumental delivery protocols.

Prolonged second stage: Nulliparous women: Lack of continuing progress for 3 hours with regional anesthesia or 2 hours without regional anesthesia... Multiparous women: Lack of continuing progress for 2 hours with regional anesthesia or 1 hour without regional anesthesia. City Hospital 'Performing an Instrumental Vaginal Delivery'

7.2.1. Time and the vaginal examination

Vaginal examination is a routine practice during childbirth in both hospitals to confirm the dilation of the cervix during the active stage of labour and during the second stage of labour. The findings from these examinations were crucial to confirming the length of the first and second stage of labour. This practice is used along with the partogram to confirm the progress of cervical dilation. Usually the second stage of labour starts when the healthcare professional confirms full dilation of the cervix via vaginal examination. As discussed in Chapter 3, there is a lack of clinical evidence to support time limitations in the second (or first) stage if the baby and mother are well. However, both hospitals have fixed time for the second stage of labour and routinely accelerate the first stage.

7.2.2. Time and maternal position

During the interviews most of the professionals reported that changing position of women during birth are used as interventions to accelerate childbirth when the baby is particularly big or the descent of the baby's head is slow. One obstetrician stated that:

If you think there is slow progress or the head has not descended very well, maybe you will change the position, putting the patient on all-fours or on her side....we use the all-fours position if the baby is large or the descent is slow.

Changing the position helps the descent and the pushing. King's Hospital-

OB-03

The most common positions I observed were semi-sitting and lithotomy, and changing the position was occasionally used to help the descent of the baby's head.

7.2.3. Time and bladder catheterisation

The reason for performing urinary bladder catheterisation in women during labour and birth was clearly stated by healthcare professionals during the observations and interviews as being that when the bladder is emptied this helps the head to descend as urine hinders the passage of the baby's head. Catheterisation therefore shortens the duration of birth.

It is very important to catheterise the bladder because it eases a lot by shortening the time, helping the head to descend. City Hospital-MW-09

Not allowing women to empty their own bladder, by mobilising them or allowing them to go to the toilet, seemed to be an unnecessary and inappropriate intervention in some of the cases I observed. The healthcare professionals did not seem to be aware of the negative aspects of catheterisation, being too focused on the duration of birth and the descent of the head and often ignoring more comfortable methods of emptying the bladder.

7.2.4. Time and episiotomy

Episiotomy was observed being used by some healthcare professionals as a routine practice for primigravidae and also to shorten the second stage of labour even when there were not concerns about the mother or baby's wellbeing.

Episiotomy is important if the patient is sick and the baby distressed, as you want to shorten the second stage...because you will not let the patient push for a long time. It is needed for a big baby, for instrumental delivery, for breech, for pre-term. In these cases you have to do an episiotomy. City Hospital-NMW-13

Time was observed and reported as one of the influencing factors to use interventions during the second stage of labour. Most interventions during the second stage of labour used such as AROM, directed pushing, change of maternal position, bladder catheterisation, Buscopan, Syntocinon, episiotomy, stretching the perineum, instrumental delivery and Caesarean section are to speed up the birth.

7.3. Protocols and guidelines

This section reviews hospital labour ward policies and guidelines based on a review of hospital documents, observation of practice and interviews with health professionals.

There are no Saudi Arabian government policies and guidelines published on the second stage of labour. Instead, each hospital has developed its own evidence-based policy and guidelines, which has resulted in variation in practice between the two hospitals. On reviewing the two hospitals' documented policies and guidelines, I found them to be based on the latest evidence, but they were not comprehensive, meaning that gaps exist and healthcare professionals seem to follow routine practices rather than hospital policy despite telling me during the interviews that they follow the policy. In fact, there is an issue about the unavailability of specific policies regarding some routine interventions used and professionals are not familiar with written guidelines.

In King's Hospital there are written guidelines for all interventions used during the second stage of labour and complications management. The content focuses on medical interventions, such as episiotomy and how the procedure should be done, but nothing is written about normal care during the second stage of labour.

In contrast, City Hospital has specific guidelines for the second stage of labour and also for every intervention, but, as will be discussed, not all of these policies and guidelines are followed in practice. Rather, most healthcare professionals work was based on non-written guidelines. Furthermore, the policy documents in both hospitals were outdated (2008-2011) and were in the process of being updated during the data collection period.

Despite limited availability of specific hospital policies and guidelines regarding some interventions, the use of interventions during the second stage of labour became virtually routine practice in both hospitals. For example, the use of lithotomy position, intravenous fluids and urinary catheterisation. However, some areas of care are standardised through local, evidence based hospital policies and guidelines.

The next section falls into two discrete parts. The first looks at the influence protocols have on the standardisation of care in both clinical settings. The second by contrast looks at how despite these guidelines still some healthcare professionals instead follow what they understand to be acceptable routine practice.

7.3.1. Complying with the protocols set by the institution

The data collected during this study indicates that some hospital policies and guidelines are followed in practice. For example, all the healthcare professionals observed and interviewed in both hospitals follow hospital policy regarding the duration of the second stage of labour and allowed two hours for primigravidae and one hour for multigravidae, allowing an extra hour if the woman has had an epidural and the FHR rate is reassuring. Two senior obstetricians stated:

Yes. We have IPP or guidelines for the second stage. Primigravidae, two hours without epidural, three hours with epidural, multi or previous section, with one hour in the second stage without an epidural and two hours with an epidural. King's Hospital-OB-09

In our centre we don't allow the second stage to go on longer than two hours. It's difficult for me to break this rule. I know I could; it's doable, but it's not in the books. It's done sporadically, it's not witnessed or protected by any of the literature, so I don't do it. King's Hospital-OB-12

Recently, episiotomy practice has changed in King's Hospital. Most healthcare professionals in this hospital state that they follow recent evidence on restrictive use of episiotomy as hospital policy. I observed only one episiotomy done during my data collection due to foetal distress in this hospital. King's Hospital policy indicates that there is no absolute indication for episiotomy except when dealing with a difficult case of shoulder dystocia, breech presentation, instrumental delivery and to expedite delivery, when required such as foetal distress. etc. King's Hospital policy is very clear about not performing episiotomies routinely according to the EBP.

Episiotomy should not be performed lightly. King's Hospital episiotomy policy

Although many healthcare professionals in City Hospital referred to a new protocol which indicates that episiotomy should not be performed routinely on primigravidae women, some healthcare professionals still performed it routinely on all primigravidae women. However, it was not clear from the City Hospital policy whether it should be done routinely. As for my observations, I witnessed one birth at City Hospital where episiotomy was done as a routine practice for a primigravida.

I observed all women in both hospitals during labour and birth kept NPO to comply with the institutional policy. King's Hospital policy states that "*Patients must remain NPO*" during the second stage of labour. Similarly, City Hospital's policy states that "*The patient is kept nil by mouth throughout the course of her labour*".

7.3.2. Bypassing the protocols

Bypassing the protocols appeared to influence healthcare professionals to increase the use of interventions. In many cases when there were written evidence-based protocols these were ignored by professionals, who used interventions more routinely. For example, some healthcare professionals still expressed a preference for using episiotomy routinely, as they believed it will prevent anal sphincter tear or multiple tears and that a straight cut is better than tears, regardless of hospital policy and clinical research evidence. For example this midwife during her interview showed how she does not follow the episiotomy protocol:

When I was new here, all primigravidae, were given episiotomies. Nowadays it's in the protocol not to give episiotomy even if the woman is a primigravidae, to avoid infection. But I think it's better...in my assessment, I want to give episiotomy, especially if the perineum is very tight....I would rather give an episiotomy to avoid a tear, up and down. I think episiotomy is better if you know how to do it. It also helps to hasten the delivery. City Hospital-MW-06

An obstetrician reported his preference for the use of episiotomy regardless of the new evidence.

In the new recommendation there is no place for episiotomy anymore. But for me, I prefer to do episiotomy rather than to get a tear. City Hospital-OB-01

In the case of episiotomy, where there had been a change in protocol, this suggested that some professionals may not be fully aware of or comfortable with the evidence and changing familiar practices. In other cases, which will be discussed later in the thesis, staff were fully aware of evidence or understood the issues based on their experience but still did not feel able to use interventions more selectively.

7.3.3. Written and unwritten protocols

During the observations and interviews most healthcare professionals said that their practice was based on hospital policies and protocols, but protocols that only existed in the collective consciousness; they are imagined and don't really exist in material form (such as written guidelines), although they are lived in everyday practice. These practices include the routine use of EFM, episiotomy, urinary catheter and intravenous infusion.

In both hospitals, I observed all women are attached to two belts, one to record the FHR and one to record the contractions from the start of the active stage of labour until the birth of the baby. I observed also the case nurse or midwife was strongly preoccupied with the CTG machine. The CTG machine was positioned at the bedside in such a way that the nurse or midwife can check it, while at the same time looking at the woman. I found from observations and interviews that no one can work in the labour ward without using the CTG machines. Professionals interviewed in both

hospitals mentioned that the routine continuous use of CTG for EFM is hospital policy.

Because it is hospital policy, once someone is in active labour we need to put her on the CTG and monitor the foetal heart rate every 15 minutes. King's Hospital-SN1-10

I think this is the protocol which is followed here in the hospital, especially if the patient is in active labour. Then we have to do continuous foetal monitoring. City Hospital-OB-01

Following hospital policy was stated by healthcare professionals to affect the use of interventions. For example, one midwife explained that the hospital policy of continuous monitoring and keeping the woman confined to bed made using the toilet not an option:

As patients are kept in bed here, because you know the policy is once a woman is more than five centimetres dilated the patient cannot leave the bed, so I prefer to give them the bedpan, but most of the patients are still not able to void. King's Hospital-MW-06

However, King's Hospital's written policy recommends using intermittent auscultation with a Pinnard Stethoscope or Sonicaid for one minute for low risk patients, referring to recent evidence that this has no detrimental effect for low risk patients, as the outcome is the same as it would have been had they been monitored continuously with CTG.

The policy clearly states that:

Foetal monitoring of low risk patients may be by auscultation with a Pinnard Stethoscope or Sonicaid for one minute...The CTG trace may be intermittent in low risk pregnancies, to allow for review of the foetal heart trace combined with more mobility for the patient in labour...Studies show that intermittent auscultation for low risk patients has no detrimental effect, as the outcome was the same as it would have been if they had been monitored continuously by CTG monitoring...Continuous foetal monitoring is recommended for high risk patients and when oxytocin is being used for induction or augmentation of labour. King's Hospital foetal monitoring policy.

Despite the hospital policies and guideline that recommend the use of intermittent auscultation for low risk pregnancies based on evidence, that the benefits and risks of continuous EFM routinely are not justified, I did not observe any birth where the healthcare professionals used it or the CTG machine intermittently. Intermittent auscultation using a stethoscope (fetoscope) or a hand-held ultrasound device (doptone) was not an option in the hospitals involved in the study.

The data suggest that several of the healthcare professionals were not familiar with the existing hospital policy and guidelines and instead justified their practice by alluding to unwritten protocols. Although King's Hospital policy indicates that episiotomy should not be performed routinely, one midwife interviewed said that routine episiotomy for primigravidae is a hospital policy.

Well, like I said it's [routine episiotomy] mostly because of the policy. If a primigravidae needs an episiotomy she'll have it. King's Hospital-MW-06

Some professionals seem more able than others to ignore accepted practice – perhaps because they are more senior and have more experience giving them confidence to make their own judgements. For example in direct contradiction to the hospital's protocol an obstetrician stated:

look actually there is no policy here regarding the position, it is like they found what the previous people do and they follow it and do the same, they found the previous people did lithotomy, they do the same, but I have never see in any place written to put the patient in lithotomy position, I did not see it, but it is hereditary, everyone doing like the other. City Hospital-OB-12

7.3.4. Contradiction in written protocols

As described in Chapter 6, City Hospital has separate nursing/midwifery policies and guideline and medical policies and guidelines. Each policy document is written for a different health professional audience. One is written to standardise the care of obstetric care, the other the nursing and midwifery care. While reviewing City Hospital's CTG monitoring policy and procedure documents (medical and nursing), I found that there are contradictions between the medical and nursing documents. The medical guidelines clearly stated that:

Intermittent monitoring is sufficient if the labour is low risk. Continuous foetal monitoring (EFM) is required if the labour is high risk or if the woman wishes to be monitored. City Hospital foetal monitoring medical policy

However, City Hospital's second stage of labour nursing policy has clear policy that CTG machine should be used routinely during the second stage of labour. It states that:

FHR [Foetal Heart Rate] and uterine contractions should be monitored and recorded. Continue monitoring the patient with the cardiotocograph (CTG) to evaluate uterine contractions and foetal status. City Hospital second stage of labour, nursing care

City Hospital policy is not consistent and such inconsistency may partly explain the differing views that healthcare professionals have in regards the use of CTG machine. This inconsistency may also reflect the culture of care and the hierarchical system, and raises further questions as to why and how these policies are contradictory.

Similar to the CTG machine contradicting policies, most healthcare professionals referred to the new episiotomy protocol that recommends restrictive episiotomy practice. City Hospital has two very different protocols regulating the practice of episiotomy in the second stage of labour. City Hospital medical policy indicates that the main purpose of episiotomy is to expedite delivery when required. It also states that episiotomy can be used to prevent excessive trauma to maternal tissues due to a tight or rigid perineum, in cases of previous third- and fourth-degree tears, to reduce the incidence of trauma to the foetal head in premature labour, when required, breech presentation where required or instrumental delivery where required.

However, City hospital nursing protocol by contrast indicates that the purpose of episiotomy is to routinely prevent overstretching and traumatic tear of the perineal floor muscle and fascia, to shorten the second stage of labor. In other words, the

practice of episiotomy should be part of routine nursing management of the second stage of labour.

The nursing policy states that:

Episiotomy- is a clean incision of the perineum made to facilitate delivery rather than to sustain traumatic tear or laceration. City Hospital episiotomy nursing policy

Contradiction in policies gave the healthcare professionals opportunity to be selective in performing interventions during the second stage of labour, but alternatively may mean that professionals feel powerless to use clinical judgement. For example, this midwife states that there is no protocol in regards restrictive episiotomy use.

We try to practise [restrictive episiotomy] but there is no protocol in our hospital. So, they control that one. They say it is better to have a cut than a laceration. City Hospital-MW-02

This statement is in direct contradiction with the local nursing protocol at City Hospital suggesting that practitioners can be creative in the way they merge contradictory protocols and select what they are going to follow and how they understand it. Some professionals may be in favour of routine interventions, while others may be more selective, and this appears to vary according to the intervention.

Also, from reviewing the documents, the obstetric protocols seem more evidence based and allow for a more selective use while the nursing protocols appear more routine. It seems likely that this reflects the power hierarchy that enables obstetricians to feel more free to make judgements and to be selective, whereas nurses often do not

feel they have power and must follow whatever they perceive is the established way of doing things, whether written or unwritten policy.

7.4. Routine practice

As suggested above, following routine practice is one of the influencing factors that healthcare professionals perceived as encouraging them to use interventions. The routine practice in both hospitals is to use interventions during the second stage of labour such as CTG machine, pain management, I.V. cannula and fluids, lithotomy position, directed pushing and episiotomy. For example, one obstetrician stated that:

Usually here all the second stage we are using the intervention in the second stage. Every day, and mostly - most of the patients we do intervention, started from the IV cannula, IV fluid, the pain management and the episiotomy. Regarding the instrumental unless it's indicated, but all our patients here in the second stage we did intervention. King's hospital-OB-15

The use of CTG machine in second stage, to monitor the FHR and uterus contraction, was also perceived as being a routine practice in both hospitals:

The thing is in our hospital that once the patient is fully dilated, even before she is fully dilated, she will be put on CTG so we will be monitoring the foetal heart rate routinely. King's Hospital-MW-01

To be honest, I disconnect the CTG when the patient is fully dilated. I love to make the patient comfortable. I wish everyone would apply this, but here they do what is routine. It's said it is routine, but it could be changed. City Hospital-N-04

According to most of the healthcare professionals interviewed intravenous fluids are routinely administered. As one midwife at City explained:

The giving of IV fluids is routine in our hospital. When a patient is admitted to the delivery room, we start IV fluids...Also, this is needed in case oxytocin is given later...The line is also opened in anticipation of the patient being NPO because maybe they will have a Caesarean. City Hospital-MW-06

When directly asked to describe their hospital's routine practice during the interviews several participants instantly replied placing the woman in the lithotomy position and then encouraging her to push, without asking the woman what position she would be comfortable with.

First, we put the patient in the lithotomy position...If the patient becomes fully dilated; we put her in the lithotomy position and prepare her for delivery. City Hospital-MW-09

Yeah the position [lithotomy position] has an effect on the head but if we change the position there may be a change in the foetal head itself. It helps the head to descend more. But the lithotomy position is routine here. City Hospital-N-04

Many staff also stated that the routine practice is to direct the woman to push during the second stage of labour.

The routine in this hospital is push, push! (laugh). City Hospital-N-08

One midwife from City Hospital described how episiotomy is routinely performed on primigravidae.

Episiotomy is routine for primigravidae. City Hospital-MW-02

What this data suggest is that health practitioners adapt their practice to conform to what they understand to be routine practice in their hospital. In some instances routine practices were consistent with hospital protocols but in others they were not and similarly may or may not be consistent with the professional's own knowledge of best practice. A shared tacit understanding of routine practice was used as a justification for a range of practices surrounding the management of the second stage of labour.

7.5. Staffing

Staffing has organisational and interpersonal elements. Organisational features include workload and staff shortage, as well as the mix of different professions, seniority and hierarchy. Interpersonal components such as individual's level of expertise, personal preference and convenience were some of the factors that were perceived by the staff that affected the use of interventions during the second stage of labour.

7.5.1. Workload and staff shortage

The issues of workload and shortage of staff were expressed during the interviews and observations. Workload according to healthcare professionals affects the use of interventions during labour and birth but contradictory views were given about the direction of the influence. As the following quote indicates this relationship between

bed state and intervention rates is something that is recognised and openly discussed, but the assumption that high workload means more intervention can be questioned by professionals in some instances:

No, I don't feel that when there is a low workload we don't use many interventions. You will still basically be busy with this and that. I feel that when cases decrease interventions increase. City Hospital-OB-11

Similarly, a midwife commented that when the labour ward is full of cases, staff don't accelerate birth, so that they can pace the work more easily and don't take cases one after another.

I feel that the staff in general, if it was full house they don't want their patient to deliver fast so they don't take second, third or fourth patients. City Hospital-MW-07

Conversely, many professionals thought staff shortage is a *problem* as it prevented them from intervening to speed up the second stage of labour. For example a midwife said during the observations of birth 2 at King's Hospital:

I don't want to rush by encouraging the woman to deliver as the baby nurse is in ward 2, I don't want to be frustrated when she delivers. King's Hospital-O-02

In other instances, high workload was described as increasing the use of interventions to accelerate labour. When I discussed with the chairman of King's Hospital the routine labour practices including AROM, he said:

AROM is done because the workload of the staff, they cannot wait so long for women during labour. King's Hospital-Diary notes.

Another obstetrician stated that workload encourages professionals to interfere earlier to finish her work

I believe yes but not here, or not with us here, even in the workload you will do the same thing but I believe in general the workload will let you interfere earlier to finish before your shift. King's Hospital-OB-12

One midwife also provided an example of having to use unnecessary interventions to manage two births at the same time:

I remember once I was looking for two patients in...both of them were fully dilated ok and one of them it happened to deliver, I mean she was pushing more nicely than the other one so I put her on lithotomy position, why I put her on lithotomy position? she was pushing but like the time when I put her on table, the contraction gone and she was pushing, but not that strong as I expected another patient in the bed she was pushing and I was just the only midwife so let's say to hurry up the process of delivery I just performed episiotomy to bring the baby quick outside then I can deliver another patient. So it was like nurse patient ratio you see, if the patient in active labour fully dilated should be 2 midwives to attend the patient you cannot let the patient unattended you know so should be one nurse one midwife especially in the second stage. King's Hospital-MW-04

Some professionals suggested that workload had little impact on the use of interventions. A midwife stated that:

The workload is not much of the thing which that influence the intervention, because even we busy I will be still facing one patient. King's Hospital-MW-01

I found from my observations in both hospitals that whenever there was a busy labour room the woman would be subjected less to interventions, such as in Sarah's birth. Chance and a busy labour room appeared to lead to fewer interventions, whereas fewer women in labour was associated with more interventions. Much of the interview data, however, provided mixed stories indicating that for some of the health professionals involved in this study a quiet shift increased routine intervention in the second stage of labour where others indicated that busy shifts increased the use of interventions.

7.5.2. Individual's level of expertise, training and education

This section shows how professionals' experience, training and education affected the use interventions. I observed obstetricians lack of familiarity and confidence with normal birth. Obstetricians do not necessarily want to take an interventionist approach, but most described being unfamiliar with normal physiological labour. They reported that they are not trained to deal with normal pregnancy and birth, and do not feel confident to practice without using continuous CTG machines:

I think that because unlike midwives we did not receive direct training concentrating on mothers in labour, we lack this, but I got it from experience, from midwives, not from reading a medical book. I've seen many cases

managed by midwives during my training. Then I added self-directed reading to this. I feel that to decrease intervention is the way to go, leaving things natural. King's Hospital-OB-12

Although professionals' lack of experience, particularly in physiological labour, tended to intensify the medicalisation of birth, this is not always the case. For example, resistance to the medicalisation of childbirth was revealed in an interview with a registrar from City Hospital:

By reading evidence-based research, I decide what to follow, and I find that this way I am more comfortable. More training is needed for the midwives and junior doctors, especially about how to deliver and when to interfere. Teaching them to have patience is very important. They need to learn to wait and see, they need more training about delivery, what is normal and what is abnormal. Sometimes they are busy learning advanced techniques and forget the basics in which they need training. City Hospital-OB-12

The data show that the more senior the obstetrician the greater sense of autonomy and wider knowledge and confidence they may have. They are confident but something is holding them from challenging things. The observational and interview findings indicated that the higher the doctor's position the more confident in using fewer interventions. An obstetrician mentioned how experience affects the use of interventions:

I think the more experience you have, the less the interventions because you know how and when to intervene, but with little or no experience you don't know what is beneficial and what is not beneficial. You're just following whatever people are doing. King's Hospital-OB-13

Healthcare professional's level of expertise was also one of the reasons that were perceived by the staffs to affect the use of interventions. Doctors' use of instruments selected to assist births when necessary for example depends on the experience and training they have had:

We don't have experience in instrumental deliveries here. Only a few doctors perform them...Yes...I use vacuum more of course, but sometimes I use forceps when it is suitable for the situation. City Hospital-OB-12

Vaginal examination during the second stage of labour is always combined with stretching the perineum to stimulate the woman to push. The reason given by most of the healthcare professionals for performing perineum stretching was to encourage the woman to push and to hasten the birth. The midwife for example, showed tacit knowledge that influences her to use stretching the perineum during birth:

It [stretching the perineum] encourages delivery as it makes the patient feel there is something that needs to get out; it stimulates contractions; that's why we do it. City Hospital-MW-07

A midwife based her decision to use episiotomy for primigravidae on her previous experience. She believed that it is very rare for primigravidae to give birth without episiotomy or at least an injury:

If I am absolutely sure that it's really stretchable and the baby is small, okay I don't need to do it, but as I said my ten years of practice showed me that really the primigravidae hardly ever deliver without an episiotomy or at least without any injury. I had a couple of cases of primigravidae with an intact perineum, but hardly ever. King's Hospital-MW-06

In this example the midwife's personal expertise and experiential knowledge guided her decision making around the routine use of episiotomy in the second stage of labour, but this suggests that experience does not always lead to more selective intervention, as this may depend on the context within which the professional gains experience and develops their expertise. It was her understanding of the physiology of birth, an understanding gained through her previous experience that gave her expertise and confidence in performing routine episiotomy. Put another way, it was this midwife's expertise that intensified the medicalisation of the second stage of labour, but her expertise had been developed in a particular practice context.

Most healthcare professionals talked in terms of being able to read the situation in order to make judgements on when to intervene in the second stage of labour. This ability to read the situation depended almost exclusively on the level of professional knowledge and confidence. For example, the following midwife highlighted the importance of understanding timing when using lithotomy:

Timing is important! The head may still be very high, so why put the woman in the lithotomy position because she may be left like this for more than one hour before she needs to push. Whereas when you see she is ready to push, you can put her in the lateral position, or whatever position you see will encourage the head to descend and then afterwards you can put her in the lithotomy position. King's Hospital-MW-01

Expertise, training, and education clearly have important influences on the types of interventions used by healthcare professionals and the interpersonal dynamics within the labour and delivery room and the ways in which this influence unfolds are complex.

7.5.3. Individual's personal preference and convenience

Preference also appeared to influence healthcare professionals to either increase or to confine the use of interventions such as lithotomy position, directed pushing, episiotomy and oxytocin. Individual's personal preference appeared in the interviews to affect the use of interventions during the second stage of labour. As one obstetrician argued:

We prefer to let them push only when they have the urge to. We ask them to push, but if they don't have the urge, then they are instructed not to. You will ask them to push when they reach the plus two station, which means they will have the urge to push. When they have this feeling we tell them to. King's Hospital-OB-15

I noticed a contradiction in lithotomy statements at King's Hospital. There was a note attached on the obstetric emergencies' notice board in the middle of the labour ward corridor at King's Hospital stating "*Lithotomy, not for me: Radiographic studies proved that pelvic diameters are least favourable in the dorsal lithotomy position*". While I am unsure who posted the note, given the technical language and location, it is likely this was posted by the midwife manager or the chairman obstetrician of the labour ward. It suggests that someone, probably someone senior, is trying to change the routine practice. Despite this note, a midwife stated that lithotomy position is preferred in King's Hospital.

Here...they prefer lithotomy position. King's Hospital-MW-08

One nurse mentioned that the administration of oxytocin depends on personal preference and on the consultants on duty as they have mixed attitudes towards it.

Oxytocin, they like it here! Yeah, they really like it here. And there are some consultants, that when they're on, they don't wait. But there are some consultants who wait a bit. But once the patient's membrane has ruptured, they will just give her Synto straightaway. King's Hospital-SN1-11

Preference can also influence healthcare professionals' decision not to use interventions.

I don't like early pushing at all. I usually like to give the mother time in the second stage...I don't like early pushing in the second stage. I like to give the mother time and avoid pushing until she is ready, the head is very down and she has an irresistible urge to push. King's Hospital-OB-12

In addition to this, convenience was perceived by the healthcare professionals to influence their decision to use interventions. For example, convenience was cited by some as a reason for performing episiotomies and the lithotomy position.

I prefer to have an episiotomy than a tear because the episiotomy is easier to fix and even the repair of the episiotomy is better. King's Hospital-OB-13

It is convenient because if you deliver in the side-lying position, or whatever... (laughter)... it is difficult for them and also difficult for the one who assists the delivery. That's why lithotomy is advisable for the patient. City Hospital-MW-10

Professionals seemed to use wider life experiences to justify their preferences for using or not using interventions during birth, and they reported that personal preference and convenience could affect their use of interventions during the second stage of labour.

7.6. Safety

Most of the interventions are done with the intention of saving the baby's life, and although these interventions may not be evidence-based and may inflict injury to the mother this is rarely explicitly acknowledged. For example many professionals held negative attitudes towards the use of instrumental births and preferred to have Caesarean sections because of the trauma that instruments can cause to the baby.

But for me, instead of going for a vacuum, I go straight for a Caesarean section. I don't think it's very safe with the baby, especially for the baby. For the mother it's not that much of an issue because if a patient has an episiotomy, if the mother has a tear, you can suture it, and that's it. But if the baby has any problem with the vacuum, it will cause the baby a lifelong problem. King's Hospital-SN1-11

Some obstetricians expressed a more negative attitude towards the use of instrumental delivery because of the damage that it can cause to women. However, the assumed alternative was seen as a Caesarean section, with relatively little awareness of other routine interventions which may have been contributing to a need for more assisted births.

I notice that cutting or decreasing the number of instrumental deliveries leads to an increase in the number of Caesarean sections, because if you're avoiding instrumental deliveries then the next option is Caesarean sections. And that's what happens, which unfortunately is not good because our patients like big families, and we are now dealing with women who have had two, three, four and even five previous Caesarean sections. King's Hospital-OB-12

Nonetheless, there was a tendency for professionals to not question the safety benefits of using routine intervention, although this did sometimes occur in interviews.

7.7. Fear of medico-legal practice

I noted an atmosphere of fear and tension in my observations in both hospitals. Fear is evidenced in the labour ward in many forms. I observed that the professionals often become panicked before the second hour allowed for primigravidae to complete the second stage of labour. Fear of medico-legal issues was also revealed during my interviews with healthcare professionals. They favoured using interventions 'to prevent any complications during childbirth'.

Medico-legal issues were perceived by most healthcare professionals to affect the use of interventions. An obstetrician stated that staff shortages and medico-legal issues are reasons for using routine continuous monitoring.

Look, it is the routine... because of the staff shortage, to use the Doppler or to use intermittent auscultation, this is not applicable here but I think it will be better if we use it....mainly it's a medico-legal practice here and shortages of staff prevent its use. City Hospital-OB-12

From my observation, the CTG machine was used continuously whether it was a busy or quiet day and whether there were many or only few staff available.

Fear of medico-legal issues was evident in both hospitals, such that internal hospital policies and procedures (IPP) affect the duration of the second stage of labour. Professionals follow the IPP because they do not want any medical legal problems.

They do not allow more than two hours for the second stage even if the FHR and contractions are normal. One registrar said:

Our consultants do not want a headache and they do not want medico-legal issues, so they stick to whatever is in the IPP. If I were to allow a patient more than 2 hours, and anything happened deviating from what is normal, whether related to the labour or not, and anything happened to the baby all fingers would be pointed at me having allowed the time to exceed 2 hours. Can you imagine this, even if it was just 15 minutes over? King's Hospital-OB-02

Even obstetricians who view birth as a normal process fear medico-legal issues could lead to unnecessary medical intervention:

In normal deliveries there shouldn't be interventions, or at least they should be kept to a minimum, but medico-legal problems make us interfere sometimes when we shouldn't do so. I feel the less the interventions the better the outcome. City Hospital-OB-12

Many healthcare professionals reported that they are following hospital policy and cannot go beyond this. For example, a nurse from King's Hospital stated that she would be disciplined if she did not follow hospital policy:

Here, in King's Hospital, most of the staff (I would say 99% of the staff) are doing things the same way, because we are following the IPP (Internal Policy and Procedures) [hospital policy]. You cannot go outside the IPP or else you will get into trouble. So if an IPP says to do this, this is what we do. King's Hospital-SN1-11

Fear of failure to conform to written policies was observed to affect childbirth practices in both hospitals. The knowledge and experience of healthcare professionals is not considered valid as a basis for decision making:

The policy of the hospital is the main factor influencing practice. Mostly you cannot use your skills according to your experience, but it has to be according to the policy of the hospital. King's Hospital-MW-01

The contradiction between actual and perceived hospital policy could be due to a number of different reasons. Midwives and nurses may assume that routinely used interventions are written into hospital policy, such as the use of CTG machines, particularly when they are instructed to use them by practitioners working in superior positions. This could lead to staff not questioning or double-checking actual policies out of fear or assumptions that the superior staff are correct. Alternatively, practitioners may intentionally or unintentionally not follow the written policies as much as they adhere to unwritten customs and practices.

7.8. The cascade of intervention

The observation and interviews data shows evidence for a cascade of intervention, one intervention leading onto another such as CTG leading onto confined maternal position thus forming an important factor influencing intervention in the second stage of labour.

During the labour and births that I observed every woman was confined to the bed so that the medical profession can use all kinds of interventions to finish this critical stage. This medicalisation of birth started with the direct and close supervision provided in one-to-one care, monitoring and sometimes ending up with Caesarean

section. When the woman was attached to the EFM, she was restricted in her position and was not able to mobilise. This was routinely followed by interventions like IV fluids, urinary catheters and confinement to bed directly all of which were related to the continuous application of the CTG machine.

As discussed in Chapter 3, the evidence shows that the routine use of continuous monitoring lead to a significant increase in Caesarean sections and an instrumental vaginal birth. The CTG machine was perceived by many professionals to be a major influence on all practices and interventions, especially during the second stage of labour, and this was supported by the observation data. The use of continuous CTG monitoring was observed to be the most influential practice among interventions during the second stage of labour regardless of the condition of the woman and the foetus and this was confirmed in the interviews. Two obstetricians stated:

Definitely, I believe that the CTG increases the rate of every intervention, of Caesarean sections, of operative deliveries...and it restricts mobility and increases foetal heart abnormality and then the woman cannot push at all. It's definitely true. Kings Hospital-OB-12

For low risk patients, there is no difference between continuous and intermittent CTG. Regarding the outcome, and I'm talking about the outcome, the intervention with continuous CTG is more. But regarding the outcome there is no difference because we monitor patients closely, even if they are low risk. But we are monitoring more closely, observing patients more. King's Hospital-OB-15

Most of the staff reported negative or at least mixed attitudes and concerns about the use of continuous CTG monitoring during labour and birth.

I am against it, I feel it is useless during second stage. City Hospital-OB-11

Exactly, I hate, I hate CTG. I am a person who hates CTG but this is the only modality that is practical. Although in my personal opinion hooking the patient to EFM is one of the things that prevents the head descending in primigravidae. King's Hospital-OB-02

The CTG technology is a major influence on birthing position as this may be changed in order to catch or improve the FHR on the CTG machine. One nurse mentioned during the interview:

You have to do the sitting position, left lateral, whatever is best according to the CTG. The CTG monitoring can make things really difficult because you may want a patient to be in a particular position, but the CTG will not record when she is that way, so she has to shift position. King's Hospital-SN2-16

Despite this however none of the professionals interviewed classified CTG as an intervention. In their accounts, they talked about the use of CTG acting as a kind of protection from interventions: as long as the CTG is okay, women are not going to have any interventions like Caesarean sections or instrumental deliveries.

Some healthcare professionals talked about use the lithotomy position during birth to facilitate further interventions. One midwives rationalised her preference for this position to facilitate interventions.

...We use the lithotomy position for instrumental deliveries and if we are performing episiotomies it is better too because women can stay longer in that position because of support from the bed and 1st and 2nd degree tears are very easy to repair in that position. King's Hospital-MW-04

A range of clinical decisions were made on the basis of further interventions being necessary in the future without regard for the evidence that this position is associated with greater need for intervention (see Chapter 3). Put another way, professionals' anticipation of medical interventions that had not yet taken place, those interventions at the end of the cascade of intervention, underpinned decisions to undertake other interventions in a kind of self fulfilling prophecy.

7.9. Reduction of further intervention

In contrast, some healthcare professionals showed resistance to the idea of a cascade of intervention. For example, several professionals reported that changing a woman's position helps the baby's head to descend to prevent other interventions.

I feel that helps a lot, especially when the head is high or she has an anterior rim that does not go when you change the patient's position from left to right or from right to left or put her in a sitting position that will make the baby move, and rotate the baby to change its position. City Hospital-N-08

We used all the different positions, left side, right side, back, leg down, every position...we did it because it was the last 15-minute chance for her to deliver naturally, otherwise we would have had to opt for a Caesarean. So we used every position and it succeeded. King's Hospital-OB-14

Some professionals encouraged the woman to push to avoid having a Caesarean section.

We therefore try to get the patient to push, to deliver normally while the head is down as this is better than delivering by Caesarean. You understand, for example, the doctor's decision for the patient to have a Caesarean, but we encourage the patient to try and avoid this by pushing well. City Hospital-MW-09

A few professionals expressed a positive attitude about instrumental births as a means of avoiding the more serious intervention of abdominal delivery. One obstetrician argued that how instrumental delivery is used to prevent Caesarean section.

I thank God we have this instrumental delivery intervention. Either ventouse or forceps can be used. Even if we have different types of ventouse, I talk only about the cup. We have different types of cup and usually it will give us a good result, and avoid the patient having a Caesarean section. It's good that. Here we don't have a lot of complications from the instruments. King's Hospital-OB-15

7.10. Women's preference and choice

One of the factors that influence the use of different birth positions reported by healthcare professionals is the woman's preference. They argued that some women do not want to give birth in particular positions.

A few patients like to stand up, sit or squat to do the pushing. Most of those who do like this are fit, of average size, and relatively young, factors that are likely to encourage them to move. However, if a patient doesn't want to move we leave them in the most comfortable position for them, and most of them choose to be on their backs. King's Hospital-OB-03

From my observations women did not choose to be on their back continuously during labour and birth, but were instructed to do so and confined by the CTG. A few healthcare professionals talked about variable labour and birthing positions in terms of meeting the individual needs of women.

I like to let the woman freely choose her position in labour. She can be on all fours or she can be in a sitting or squatting position...The mother should have freedom to choose. King's Hospital-OB-12

Yeah it's not that I recommend the lithotomy position for all deliveries because, you know, when a patient feels that she is going to deliver, she will choose her position. She will be the one who knows which position is best for her to push, so not all patients deliver in the lithotomy position. In fact, most of them deliver in the normal position in the bed, I mean lying on their backs with open legs. King's Hospital-MW-04

In my interviews some staff indicated that they would be open to women being more mobile and active. However, in practice it is not being facilitated or even allowed for most of the women. For example, in Sarah's story, she was not allowed to be mobile because she was connected to so many machines.

7.11. Control

Control is a theme that appeared in the data that is more prevalent than respecting women's autonomy. This last theme will show how interventions can be used to gain compliance from women, with the intent of controlling the birth process. For example some interviewees believed the lithotomy position is used to control the woman if she is not cooperative.

...it is much better for me to put a patient, who is not very compliant with the lithotomy position because in this position they cannot do anything about it because they are already in position. King's Hospital-SN1-11

I don't like lithotomy unless I need to do an instrumental delivery or if I think the patient is not cooperative in opening her legs because I think it's a painful position for them later on. King's Hospital-OB-14

When there is foetal distress and especially if the patient is not pushing or she is not as cooperative as we want her to be, and she's not pushing well enough, this is when you really have to intervene with the vacuum or forceps. King's Hospital-OB-13

Other ways healthcare professionals were observed to control women during labour and birth were by the administration of pain relief medications. Labour pain relief medications are frequently used in both hospitals. I observed various types of medications used during labour in King's Hospital, such as IM Pethidine, IV Paracetamol, epidural and Entonox. However, City Hospital has limited choices of pain medication, with only IM Pethidine and Entonox being used during labour and birth. Doctors order pain relief directly according to how they perceive the woman's distress, even if the woman has not requested it, starting with Paracetamol and ending up with epidural. The woman is not asked if she wants to have pain relief medication.

I observed that professionals gave pain relief medication directly when a woman became distressed or complained of pain, but I rarely saw any kind of professional support for the woman to help her cope with the pain or become more comfortable, despite research evidence about its benefits.

I like the epidural; it's relaxing. Patients, especially primigravidae need to be relaxed so they can communicate with us. King's Hospital-OB-14

During the observation of birth 6 at King's Hospital, the registrar said to the woman:

'We will be forced to pull the baby out with ventouse. Woman replied 'I am taking a break'. The doctor said 'do you want us to pull your baby out with the ventouse' woman said 'No' Doctor said 'ok go ahead' King's hospital-O-

06

7.12. Conclusion

The aim of this chapter is not to indict Saudi Arabian birthing practices but rather to describe routine practices, and through this to show what happens when intervention-dependent knowledge becomes hierarchically distributed. As knowledge is valued most when provided by those in positions of power, it disempowers midwives and nurses and prevents an equal distribution of knowledge and decision-making.

Invasive interventions such as IV cannulation and IV fluids, urinary bladder catheter and episiotomy are used frequently and routinely for women in labour and birth during the second stage of labour. A high level of interventions in the first stage of labour was found to continue to the second stage, including CTG, IV fluid, urinary bladder catheterisation, sedation, oxytocin and many vaginal examinations. Healthcare professionals working in these two hospitals work in a circle of interventions, one after another. All interventions used during the second stage of labour are related to each other. The study suggests that healthcare professionals feel obliged to follow hospital policies and guidelines and they reported that they did so. However, ironically the study also suggests that few of the respondents knew the written guidelines and that the implementation of the guidelines involved a creative process of translation. Compliance to protocols was one of many reasons the health professionals gave during the interviews as their justification for using interventions during the second stage of labour. This chapter has outlined ten.

Although women's choice was considered to be a justification for decision-making in the management of the second stage of labour this theme was not very prevalent in the data set. On the contrary observations showed that women were rarely consulted

in the decision making to use these interventions. Typically, neither consent nor informed consent was obtained and women's views were not sought.

The main intervention used routinely in both hospitals was continuous EFM. It is important to note that current practice in both King's and City hospitals is centred around CTG, which influences every step of the birthing process. This is because CTG is considered the safest option, even though this is neither evidence-based nor hospital policy.

Reviewing the interventions used during the second stage of labour revealed that various interventions were used routinely. The analysis revealed that professionals' views of birth are quite complex and mixed. While some expressed positive views and attitudes toward the use of interventions others had more critical views, while a few offered no opinion. It is also important to understand that many professionals hold all of these views, and the interviewees moved between different explanations and attitudes during the interviews and in their everyday practice. This is influenced by many factors. Factors influencing the use of interventions from the professionals' perspectives were multifactorial and included time, protocols and guidelines, routine practice, staffing, safety, fear of medico-legal practice, the cascade of interventions, reduction of further intervention, women's preference and choice, and control.

Chapter 8: Ways of seeing childbirth

8.1. Introduction

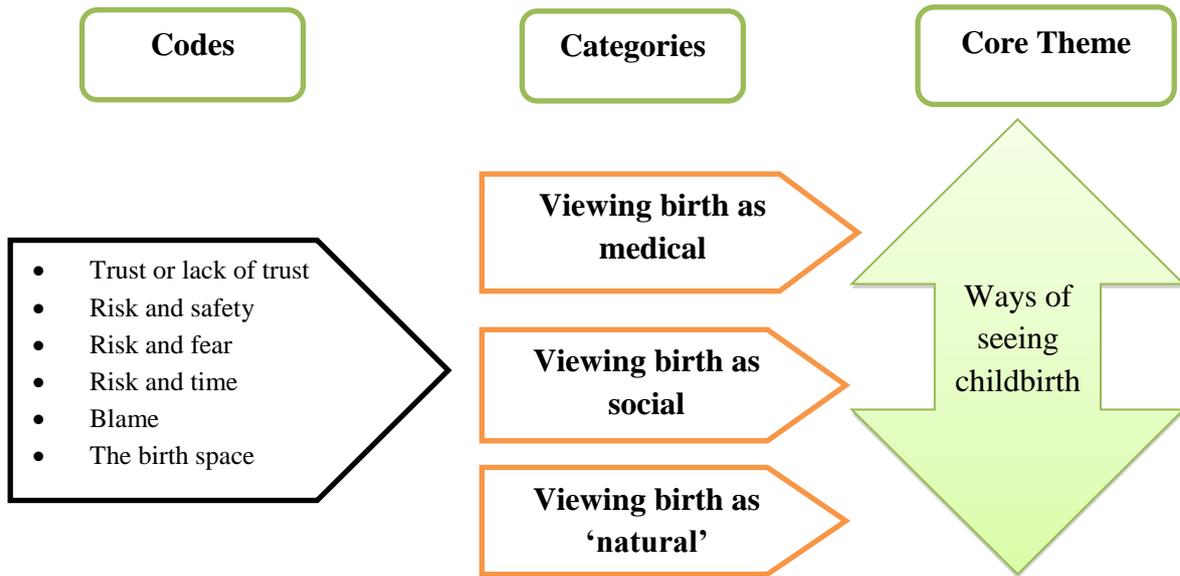
Having looked at the ways health professionals explain or justify their actions when managing the second stage of labour this chapter will add further analytical clarity by exploring how practitioners selectively filter their experiences through a process of active meaning making. These filters reflect specific belief systems which can, paradoxically, be both stable and consistent and at the same time fluid and contradictory, depending on the context.

The core theme of this chapter is ‘ways of seeing childbirth’. This suggests how the healthcare professionals interviewed and observed for this study filtered their experiences through a specific value and belief system when deciding how to manage the second stage of labour. This reflects the complexity of healthcare professionals’ views of childbirth generally, and the second stage of labour in particular. I will argue that this process of meaning making plays a key role in the ways of managing birth and illuminates understanding of the level of routine intervention described in Chapters 6 and 7, despite the existence of written labour guidelines that are more evidence based. This chapter is based on the macro level of analysis where I have identified key emerging themes.

The ways of seeing childbirth theme are outlined in the following three sections.

- 1. Viewing birth as medical**
- 2. Viewing birth as social**
- 3. Viewing birth as ‘natural’**

Figure 9: Codes, categories and themes arising from the data: ways of seeing childbirth



The chapter's structure follows my analytical framework. First I provide an overview of the core theme in terms of the dominant way of seeing childbirth: the 'medical model'. I then discuss the 'social model' and 'natural model' which are also present in professionals' accounts to some degree, but tend to be subordinated to the dominant medical model. I then set out the findings in relation to the themes set out in Figure 9, which were merged into the core theme.

8.2. Viewing birth as medical

A medicalised model of childbirth, as discussed in Chapter 4, clearly guides practice in both hospitals. When interventions are practised routinely, they become the norm, and professionals stop seeing them as invasive. During the interviews one obstetrician at King's Hospital, with a positive attitude towards the use of interventions during the second stage of labour, emphasised continuous close observation and follow-up:

... usually our interventions are not that invasive. Rarely, some of them are invasive but not all of them are. In my experience at King's Hospital, all our interventions are in the second stage ... I'm happy with these interventions because they are successful. Occasionally there are complications But I think it is the same as other hospitals, especially tertiary centre hospitals. And here in our hospital I think it's excellent, not good. During management of the second stage, we are over-caring towards the patient. In other hospitals, although they manage them there is not continuous follow-up or close observation as there is here. King's Hospital-OB-15

8.3. Viewing birth as social

A social/midwifery model, where birth is seen as normal physiological biosocial process and important life event (Wagner, 1994; van Teijlingen, 2005) was mainly absent in this study; there was no evidence from my observation that this model was present in everyday practice. However, there were a few healthcare professionals that acknowledged the social model of childbirth during interviews, showing an understanding of the psychological and social aspects of giving birth, including building trust between the midwife and the woman, and providing reassurance, as this quotation shows:

Of course she [the woman] is the main actor in this movie... because you see.... the woman will give you good results in the end... I believe the midwife should be very close to her patient. I mean the patient should feel protected and safe with the nurse, so everything proceeds smoothly, with no complications. King's Hospital-MW-04

Despite this awareness on the part of some, health professionals still follow the medical model, assuming that birth is a medical event rather than a life event.

8.4. Viewing birth as ‘natural’

Despite the dominance of the medical model, as observed in everyday practices and as described in professional interviews, some of the professionals interviewed also argued that birth should be viewed as a natural healthy event. For example, one obstetrician expressed the belief that women should progress naturally and argued that health professionals intervene too much:

Sometimes I feel that we intervene too much given that childbirth is a natural process and that maybe if we just let the patient be and let her progress on her own without too much intervention, it would be better than all the things we are doing. For example, we do not have to encourage the patient to push as soon as she is fully dilated. We should just let the patient progress on her own. The other thing is, for example, stretching of the perineum and massaging it. Again, I would rather the patient did it on her own. So, I feel that we’re intervening too much and at the end of the day, it’s just a natural process.

King’s Hospital-OB-13

In addition, another obstetrician stated that they should decrease intervention to make everyone relaxed:

Especially with low risk patients, if we decreased our intervention it would be relaxing for me, for the doctor, for the staff, the nurse, and even for the patient. King’s Hospital-OB-15

This view was echoed by many of the midwives and nurses who were interviewed:

Pregnancy is a very normal thing, it's nothing to be worried about and we should be happy. That's why I said let's look at labour as something normal from God. King's Hospital-MW-04

When it comes to delivery I prefer nature to take its course. Just wait and help. What I'm saying is wait and see when it's time for the baby to be delivered. Obviously when the contractions come it will push the baby, and the perineum will stretch on its own. King's Hospital-MW-08

Improve second stage of labour practices! If only they would do less VEs and allow labour to progress itself. They should remember that labour is a normal process. CTG is fine as long as it is reactive and allows less intervention, not to perform episiotomy early and not unless it is indicated. King's Hospital-SN1-07

The nurses and midwives working in King's Hospital come from various countries that manage labour and birth differently. When they come to work in Saudi Arabia, in a very different context, they typically put aside their previous experience and views of birth, and follow routine hospital procedures. A European midwife, nonetheless expressed her disappointment with the medicalised model of birth:

I came from a country where we like alternative management for the second stage. This means the patients are not fixed to the bed. So I was kind of disappointed when I came here and saw all these patients in the bed pushing, and especially with the epidural, they cannot move, they cannot leave the bed. What I like to do with the patient is to take them from the bed and to get them

to push in the standing position, and to change the positions they adopt, for example to the squatting position, kneeling or on all fours. This is what I like. But we are limited here in Saudi Arabia because it's not standard, it's not normal. King's Hospital-MW-06

Some healthcare professionals in the study expressed concerns about the use of the CTG machine, explaining that it is not comfortable for women in labour. They complained particularly about the use of continuous CTG monitoring, saying, for example:

It is a burden for the patient. City Hospital-MW-06

Patients tell you that it is bothering them and increasing the pain. In this case, if everything is good, the foetal heart is good and the contractions are still far apart, why can't I give patients a chance to rest and to walk about? ... When everything is said and done, the woman walked around for the 9 months of pregnancy without the CTG and was fine. So, when I put it on her, maybe you do see bradycardia...but perhaps that was happening during the 9 months. You just don't know... so why not put it on for half an hour and then leave it off for 3 to 4 hours and then reapply it again? Why is it necessary that I put it on when a patient enters the DR [Delivery Room] and leave it on until she delivers? City Hospital-N-08

As described in Chapter 7, the interviews and observations data indicated that few healthcare professionals try to keep childbirth as natural as they can by reducing the cascade of interventions. However, the following themes emerged from analysing the data as to indicate how seeing childbirth affected the way healthcare professionals practice and what could affect their ways of seeing childbirth. The following sections

discuss the themes that show how trust, risk and the birth space affect the way childbirth is seen. These themes fed into the core theme of ways of seeing childbirth. Despite healthcare professionals' concerns about the medicalisation and the use of interventions during the second stage of labour, they rarely try to change their practice in this setting.

8.5. Trust

The issues of trust and a lack of it were expressed during the interviews and observations. The data show that midwives have limited autonomy in their practice. All the interviewees mentioned issues that had occurred leading to lack of trust in midwives, but no specifics were available. In both hospitals midwifery care is not independent and midwives and nurses always follow the orders of doctors, including calling the doctor into the room not only if there is any complication, but even simply to review the CTG machine if there is any kind of foetal heart deceleration. When a woman has completed one hour of the second stage of labour, the doctor must be notified to come to review the woman and establish what can be done to accelerate the birth. Midwives cannot practice independently without orders from doctors.

The findings indicate that doctors do not trust midwives to take care of women during birth. Midwives are restricted in the practice of their midwifery skills. Midwives in both hospitals are also given less power in cases involving primigravidae.

One midwife stated that in King's Hospital there are midwife cases and medical cases, it is the responsibility of the midwife to make the decision in the midwifery cases.

In our hospital, you know, we have two types of cases: we have the midwife cases, and we have the medical cases. If it's a midwife case, and everything is going well, just as the midwife wants, and there are no complications, it's the midwife who will decide. But if it's a medical case, it will be the doctor who decides. King's Hospital-MW-08

However, in King's Hospital, it is the responsibility of the resident to assign cases to midwives. The residents who are still under training are responsible to allocate roles to a qualified person (midwives). Once the resident who is responsible evaluates the case, he/she will assign the case to a midwife if the women met all criteria set by the organisation, which as in the UK where midwives are formally autonomous divides cases into those with or without medical or obstetric complications. The exception was the many cases of women who had not had their antenatal care at this hospital and who were then treated as 'un-booked' and high risk:

All un-booked patients will be Medical cases and managed by Obstetric Team on duty. King's Hospital Criteria for midwife case assignment.

However, a number of professionals in King's Hospital stated that:

You will rarely find midwife cases, because the nursing director of the hospital has stopped recruiting midwives. King's Hospital-Diary notes.

Additionally, many professionals did not simply apply the high/low-risk criteria but demonstrated a lack of trust in midwives' ability to manage low-risk cases. They attributed their lack of trust in midwives to the complications that happened before when they conducted deliveries. One of the obstetricians explained the reasons for

there being fewer 'midwifery cases' as being based on midwives inadequate expertise in CTG interpretation:

The main reason why there is no trust in midwives is the complications which happened after they conducted deliveries, like episiotomy complications, foetal complications, not cerebral palsy, but low pH and low Apgar score, because their way of interpreting CTG readings is different from what we have learned. King's Hospital-OB-02

She argued that another reason for there being fewer midwifery cases is a fear among midwives of medical litigation, which means that they avoid taking responsibility:

If you go into the delivery room you will hardly find one case. In most cases that we refer to the midwife, the midwife finds a way of returning them to us... yes I am telling you, she will say 'this baby is big, I cannot conduct this delivery', or 'come and see the CTG'. She calls the resident every minute to see the CTG, so the resident asks 'why am I giving myself trouble? I will assign her to my medical care, then I will know about her progress, I will know about her CTG and no one will call me every 5 minutes. I will go myself every 15 minutes or half an hour'. This is a big issue in medical and midwifery cases. King's Hospital-OB-02

Contradictions are apparent. Obstetricians state that midwives refuse to take on responsibility, but the data also demonstrated that midwives are not allowed to take on responsibility, or may be blamed for problems, thus leading to a lack of willingness to do so.

The data shows evidence not only of interprofessional lack of trust but also resentment. According to one of the obstetricians, midwives do not complain about having very few midwifery cases, as they are subject to no medical litigation, and are working as nurses but getting midwives' salaries:

Okay, because it is a medical case, she does not want to take any responsibility or risk ... the physician is responsible but they are losing their skills and we have lost trust in them gradually ... they are practising like nurses with the full salary of a midwife... the midwives have found this is good for them because they finish their duties with less headaches and less effort, but with the same salary as a midwife and with no medical litigation or anyone questioning them about why they did this or that, so in the end they act like regular nurses, but with a higher salary and that's why they are happy.

King's Hospital-OB-02

During the observations, one registrar revealed her belief that the midwife does the job better than her in using different position during labour and birth to facilitate birth. I saw during the observation of birth 6, the midwife changed the woman's position to all-fours to help the head to rotate, then when the male doctor came to the room she covered the women for privacy and changed her to semi-sitting position. Therefore, when the female doctor came in she saw this woman on semi-sitting position and asked the midwife why she is not using different position as she believe that it will help the rotation of the head and midwife knows better how to use these positions. In this case she trusted the midwife in using her midwifery skill to help facilitate birth, yet the midwife may have assumed she would not:

When the female registrar came into the room, she asked the midwife 'why don't you change the woman's position as you know how to do your job better than us, you are the one who taught us different positions that help during the second stage?'. The midwife replied, 'because the male doctor was in the room I changed her from all-fours to the semi-sitting position'. The registrar then said, 'in our culture people don't accept different positions'. The midwife replied, 'everything is determined by the outcome'. King's Hospital-O-06

However, as stated in Chapter 7 and reflected above, some doctors look to the midwives to learn from them, as the junior doctors have no experience of the physiological birth process.

King's Hospital permits midwives to take care of primigravidae and perform episiotomies, but not to suture (as they once did). This indicates that the responsibility of midwives has been reduced in recent years. A small number of King's Hospital interviewees explained that this was the result of a patient complaining to a consultant when visiting a postnatal clinic, concerning an episiotomy suture she had received. This led to the consultant ordering all sutures to be performed by doctors, even if the episiotomy was performed by the midwife. However, midwives still perform suturing when doctors are not available.

I questioned resident 4 (R4) in King's Hospital, after the observation, concerning the reason for no longer allowing the midwives to suture episiotomies. R4 said:

A patient attending a postnatal clinic complained to the consultant about the episiotomy suture she had had done, so she sent a memo that all sutures were to be done by doctors only. King's Hospital-Diary notes

I discussed episiotomy practice with the chairman of King's Hospital, including the fact that episiotomy suturing is no longer undertaken by midwives. He stated:

The issue is due to the fact that some foreign midwives, who were not experienced in suturing, made mistakes in the past, which were discovered by the doctors in the postnatal clinic. So I suggested that doctors should supervise or observe midwives while suturing to establish the defects in their practice. The midwives refused and did not want to perform suturing at all if they were to be observed. King's Hospital-Diary notes

The chairman therefore represented the midwives as unreliable and preferring to relinquish their power in this regard.

Additionally, at City Hospital it has also recently been established that midwives no longer have the authority to conduct births for primigravidae or to perform sutures after episiotomies:

Once a primigravidae patient is fully dilated you should inform the doctor because there is a memo in our hospital that primigravidae's babies should be delivered by a doctor, as well as if there is a previous scar or a risky patient.

City Hospital-MW-05

Here primigravidae's babies are usually delivered by the doctor. So when the head is crowning the doctor is called. We put her in the lithotomy position and encourage her to push, that's all. City Hospital-OB-11

One Saudi Arabian midwife stated that she had previously delivered primigravidae without episiotomies with intact perineum, but she had not been permitted to deliver primigravidae during the past year, due to the memo that all first-time mothers should

be delivered by doctors. She explained what influenced the hospital to adopt this policy as being related to lack of professional trust in midwives' skills. However, she also mentioned that when all the doctors are busy in the operating room (OR) there is no choice but for the midwives to deliver primigravidae:

In my first three years, I delivered all primigravidae and I can deliver them intact without an episiotomy. They are very nice with the patients here...They changed it because there have been some problems when staff have delivered the babies of primigravidae, such as a problem with the baby, like a fracture or an injury when they did episiotomies. After that, they said that all primigravidae must be delivered by a doctor....We asked why, and they said '... you are creating this problem... and even when we pointed out that this problem would happen with a baby like this whoever delivered it, they say that primigravidae should only be delivered by a doctor'.... If the problem is going to happen, it will happen both with a doctor and other staff. They believe that by using doctors this will solve the problem. One consultant said: 'okay, for us it is not a problem'. We call the doctor and one usually comes. There are two resident doctors at any one time, but situations have occurred when I call the doctor and one is in the OR and the other is busy. So, if they do not come, I assist the delivery. What else can I do? City Hospital-MW-03

Midwives state that they have the skills to manage primigravidae births without episiotomies. However, since City Hospital changed its policy they have not been able to use their midwifery skills fully:

Primigravidae's episiotomies are done by a doctor and their babies are delivered by doctors all the time. City Hospital-MW-05

One nurse explained that she recognised the importance of obstetrician attendance during birth if there is any complication, but she does not understand why obstetricians have to conduct primigravidae birth as midwives and nurses are used to conduct primigravidae birth for many years.

No, the delivery is not done by the midwife, but by a doctor. I feel it is the same, but, okay, if there is any complication it would be enough if the doctor attends the delivery. I don't know if the doctor should do the delivery. But it has been like this for a long time. For many years they have worked like this and the midwife or nurse has conducted primigravidae deliveries. City

Hospital-N-04

Midwives are accountable despite the fact that in City Hospital they are not given responsibility to take care of primigravidae, except under medical direction. The data below appear to suggest that it not just the doctors who do not trust the midwives, but the organisation. The midwife quoted stated that she would be questioned if she conducted a primigravidae birth, as a hospital memo states that midwives are not allowed to deliver primigravidae's babies and if anything happened to the woman she would be blamed:

Why was she delivered by a midwife? She is a primigravidae. There is a memo in our hospital... After that if anything happens, she would be asked why she delivered that baby. City Hospital-MW-05

One City Hospital nurse questioned the lack of trust in midwives conducting primigravidae births alone, reporting that midwives and nurses typically conducted primigravidae birth without direct observation by doctors:

Primigravidae! We don't conduct their deliveries any more, but it is okay; we still deliver them, the doctor comes to you and tells you 'I am near you if anything happens'. What will happen? (laughing) What is the difference? They said primigravidae don't deliver here! Is this because they need an episiotomy, but para 2, para 3 etc may need episiotomies too. What is the difference? You will deliver here and there and you will give episiotomies here and there. What is the difference? City Hospital-N-08

Therefore, although at City Hospital midwives and nurses are not allowed to conduct primigravidae birth, when the labour room is busy the midwives will have to do so. Medical observation is not direct- the doctors are around but not observing. Therefore, the midwives carry the authority. It is rather token medical supervision in effect, especially when labour ward is busy as discussed in the previous chapter.

The evidence suggests that doctors in both hospitals do not trust nurses and midwives enough to do intermittent auscultation or to read CTG traces. However, despite this they reported an informal trust, such that they delegate tasks like performing and suturing episiotomies for primigravidae and expect the midwives to monitor when they are busy in the operating theatre. Some doctors trust and want midwives to teach them different positions during labour. Also, some junior doctors are supervised by midwives when they attend a birth. These contradictions will be discussed further in Chapter 10.

The lack of trust and removal of power from midwives is partly a consequence of Saudi Arabia lacking its own midwifery programme. A corollary of this is that there is no proper education and regulation system for midwives, suggesting the role is not valued highly or seen as autonomous. Reliance on overseas midwives adds to

variability in midwifery care, according to the variation in standards of education and competencies based on country of origin. These factors combine to create a lack of consistency and reduce trust in midwifery skills, further embedding medical dominance. However, these factors could be said to result from midwifery not being fully valued and training not being made available to support a Saudi Arabian midwifery profession. The issue of the structure, regulation and education of midwifery was discussed in Chapter 2.

A number of midwives in City Hospital mentioned that the status of midwifery is perceived as lower than nursing, noting that it has only recently been recognised as a profession:

We don't have competent midwives, and no midwifery college, as it is part of nursing studies. City Hospital-Diary notes

The data demonstrate that midwife autonomy is restricted and in turn the midwives refrain from taking responsibility to avoid any blame or dispute from obstetricians. As discussed in Chapter 2 midwives in Saudi Arabia are not autonomous in their midwifery practice due to lack of midwifery education and support systems. Most doctors believe that the midwives are qualified to take care of low risk pregnancy but afraid to delegate responsibility to them because the different ways of seeing childbirth that inform the ways both professions practice.

As presented in the previous chapter, despite that obstetricians are aware of the evidence, it was clear that theoretical knowledge alone was not sufficient to change their practice and to trust midwives to take care of women during childbirth. One registrar, for example, stated that midwives cannot be trusted to make mobilisation a

routine practice, as their level is 'below average' and too few have adequate experience to do so:

... I am aware that there are many studies because I did a literature review for one of my presentations about EFM. I prepared 4 lectures about EFM and its benefits, disadvantages and advantages, and one of the things I came across in the comparative study was between intermittent auscultation and EFM in low risk pregnancies. There is no difference, and I was happy. This is good because at least we will get off this CTG machine and the patient will be relaxed; but we do not have midwives who are sufficiently expert to do this, even though I would love to do it with my patients. I don't think we have expert midwives who I can trust to do this task ... the level of our midwives is below average. King's Hospital-OB-02

The observation of Sarah's birth, which was presented in Chapter 6, shows the lack of trust between professionals and the issue of midwives taking or not taking responsibility. It illustrates the paradox faced by midwives: they are not officially allowed to take responsibility, yet they are expected to do so when a doctor is not available. During the observation of Sarah's birth, a junior resident took over from the midwife because the woman was un-booked, which meant she was automatically considered high risk.

As discussed in the previous chapter, a busy labour room led to fewer interventions. As in Sarah's story, the midwife did not want to encourage the woman to push to wait for the doctor to attend the birth. Lack of trust led the midwife to avoid taking responsibility and therefore most did not challenge the medical model of birth in

practice; only when medical staff were not available did midwife-led care enable reduction in the use of interventions.

8.5.1. Trust in technology and visual evidence

This section shows how the various senses are used selectively. For example, visual representation is generally trusted more than what the professional hears. The machine (CTG printout) is perceived as more reliable, and not subject to human mistakes or distortions. Professionals shield themselves behind the medical model, as they feel it protects them. During an informal interview, the chairman of King's Hospital mentioned that

It is difficult to use intermittent auscultation as there is no evidence of recording for everyone to see and compare with previous auscultation and to assure foetal wellbeing by documenting re-assuring FHR patterns. King's Hospital-Diary notes

This explanation, does not obviously explain the use of continuous CTG monitoring, however, as it is possible to use a CTG machine intermittently and allow the women to mobilise and change position freely.

One nurse stated that:

Doctors always rely on what they see on the machine. King's Hospital-SN1-

11

In contrast, one obstetrician stated that she does not depend on CTG trace readings. Instead, she bases her decisions on the sound of the monitor.

I use the CTG but I don't depend on the trace itself, what I'm seeing on the paper. I depend on the sound that I hear.....that's what you notice. That is why we increase the sound sometimes. City Hospital-OB-12

Despite the critical views expressed in many interviews, the idea to use intermittent auscultation was observed to be not acceptable to healthcare professionals working in hospital. They have to see with their own eyes the trace of the FHR but when it comes to the uterine contraction they have to palpate to feel the contraction.

To see the foetal heart. The contraction we don't see it with CTG as much as we see it through the abdomen, but it is better to see the foetal heart through the CTG maybe because we did not use the old things, we don't know how to use it, that's why the CTG is the only way because we don't see anything with our eyes, with the CTG we see the foetal heart, baseline and how the deceleration early or late and so on through the CTG. But, I don't like the CTG that much, it let us into many complications, and the baby get out very good, they use instrumental delivery and let the patient into...instrumental delivery because the CTG is wrongly applied, maternal pulse, these things.
City hospital-MW-07

All of the healthcare professionals interviewed stated that they do not trust the CTG to record the uterine contractions during labour and birth and instead have to palpate the uterus to feel and record the contractions because they state that palpation is more accurate than the CTG machine.

The CTG will not tell you how - it will tell you the length of the contraction, but it will not tell you how strong or weak the contraction is. So, it's very important for someone to palpate the contraction. King's Hospital-OB-13

When it comes to uterine contractions, I don't depend on the machine. I prefer doing it manually with my hand. King's Hospital-MW-08

It is interesting that healthcare professionals trust the CTG machine when it comes to monitoring the FHR, but when it comes to uterine contractions they say it is not accurate and they have to palpate by hand. This suggests that professionals do have the skills and use them, but they do not uniformly regard them as valid or authoritative (see Chapter 4 for a discussion of the concept of authoritative).

Evidence obtained in this study suggests that some professionals do trust other senses than visual, such as sound and touch, based on long experience, yet this kind of trust is not authorised in the same way – they discount this in favour of other forms of knowledge that are less embodied and more technologically driven.

Lack of trust was also evident between healthcare professionals and the women, partly due to the fear of litigation. Therefore, they maintain social distance from the women and use mechanical interventions for all. This casts the women as outsiders during labour and birth.

8.6. Risk

The concept of risk was evident within the data when some of the professionals talked about childbirth and how they view birth as a risky event, in addition to the observations of risk-management focused practice in both hospitals. When birth is viewed through a medicalised lens, pregnancy and birth are categorised as either high or low risk. Whilst all the women whose care was observed in this study were considered to have low risk pregnancies, healthcare professionals consider monitoring and regulating of the labour process to be an essential part of their care.

One obstetrician reported that they use continuous foetal monitoring to know when to use intervention:

We usually put all patients in active labour and high-risk patients, even if labour is not active, on continuous foetal monitoring. This is done firstly because we need to know when intervention is needed and we also need to monitor labour and progress. Since most of our patients are moderate to high risk, we need the monitor most of the time. King's Hospital-OB-03

8.6.1. Risk and safety

Professionals in both hospitals explained routine practices in terms of risk and safety. Most professionals stated that interventions are routinely used to avoid the complications that may occur in the later stages of labour and childbirth. They anticipate complications, then normalise them by taking precautionary measures. All midwives are prepared for complications before they happen in terms of watchful waiting, but in this way of seeing birth, they take action on anticipated complications before they happen. They are prepared for complications before they happen, e.g. all women are obliged to have an open IV line with the largest cannula size in case they later need a Caesarean section, IV fluids or blood transfusions. Therefore, for safety reasons, all women are treated as if they are, or are going to become high risk. When birth is considered a risky condition or disease, the potential for problems is a paramount concern. Instead of encouraging the birth to be as natural as possible, it is treated as an illness, and all parties fear the worst. This negative perspective puts people on high alert for problems, and increases anxiety, making the birth process a more stressful experience than it needs to be.

The findings from the observations and the interviews show that actually healthcare professionals *do* often know that the CTG doesn't make things safe really but just monitors. The issue is that despite this knowledge that most do in fact have, they act as though they believe the CTG is making things safe. Healthcare professionals feel obligated to ensure the safety of the mother and more importantly her foetus. One obstetrician said:

This [CTG] is the best available monitoring for the baby. We don't have another ... It's not very accurate; false negatives and false positives are very high, but this is the best element we have to date. King's Hospital-OB-09

A nurse-midwife stated:

If there is any deceleration, any abnormality, you can detect it early and you can treat it. If you remove it [CTG] and the patient has deceleration, you don't know what type of deceleration she has, if it is early, late or variable. So, a CTG will show you, so you can take action. So it should be continuous. City Hospital-NMW-13

Routine reliance on the use of technology suggests that practitioners are unable to view births as low risk within the context of their hospitalised working environment due to the fear that something could go wrong at any minute. As one obstetrician explained:

Until the delivery is complete you cannot say if it's low risk or high risk. Okay, there are patients who are high risk, but you cannot judge patients during active labour as they will be low risk. Active labour means we are focusing on the baby and the mother together. In OB/GYNE [Obstetrics and Gynaecology], there is actually no low risk or high risk. Yesterday, a patient

came from another MOH Hospital, and delivered SVD [Spontaneous Vaginal Delivery], but now you can go into the medical ICU and see that she is intubated and de-saturated. City Hospital-OB-01

This view was not confined to obstetrics. For example, one obstetrician stated that the nursing department also refuses to take any responsibility for risk.

This is unfortunate because due to quality management they look for a lot of triggers and a lot of cases ... we are a high-risk referral centre, we are a referral hospital and we get a lot of high-risk cases. Most of our cases are either high risk or have a small risk and there is a list of criteria and if patients have any of these risks they are automatically transferred to medical care and not continued with a midwife. These risks or indications are very strict. I have tried to change them but I find a lot of resistance from midwives, from nursing, from the head of nursing. She doesn't want the nurses to look after any patient who has even minimal risk, for example a haemoglobin count of eight. They say they should not take on any risk. King's Hospital-OB-12

8.6.1.1. Mother versus baby safety

Some of the data suggest that mothers' wellbeing may not be valued as highly as that of their infants in the medical model of childbirth. This means that practitioners believed that it is safer to use interventions (which evidence suggests may harm the woman – as discussed in Chapter 3) than to allow the woman to have spontaneous childbirth. For example, one obstetrician resident (R2) stated that they do not expose the baby to risk. However, the professionals did not comment on the risk that women can be exposed to during a Caesarean section:

In infertility cases, we do not give them a chance to take a long time. Even if a woman is fully dilated and 24 hours have passed without deceleration or anything, we take her for a Caesarean because she is considered to have a precious pregnancy. Even though there is nothing to say that a precious pregnancy should be delivered by Caesarean, we do not expose the baby to risk. City Hospital-OB-11

On the rare occasions when women decline medical interventions the professionals emphasised that they cannot take such risk and respond by shifting the responsibility onto the women. Practitioners insisted that the women take the risk by requiring them to sign ‘against medical advice’ (AMA) forms in case anything happens to the baby. This suggests that they are primarily concerned about the hospital and professionals’ safety and reputation. One registrar said:

If she does not want a Caesarean section and I cannot do an instrumental delivery because the head is high we call the patient’s husband. I am talking here about foetal distress, not failure to progress. If a foetus is at a risk we have our ways. First we call the patient’s relations as I mentioned, then we call another consultant, and, finally, we ask the woman to sign an against medical advice form stating that she and her husband will take full responsibility if anything happens to the baby. I cannot take her for a Caesarean without her consent. King’s Hospital-OB-02

The same registrar reported that she cannot take responsibility to delay taking the woman to have Caesarean section when her knowledge is telling her that the woman doesn’t need an immediate Caesarean section and the women will most likely give birth soon, but she is too fearful of risk to act on her knowledge and goes through a

kind of ritual of seeking a Caesarean section for the woman, while hoping it will be delayed. She said:

I have had cases where I was planning to take a woman for a Caesarean section because I was feeling very pressurised– such as not wanting the baby to have a low Apgar score or a low pH, but on the other hand I wanted to give her 15-30 minutes more in case she delivered in that time. However, I could not guarantee that she would deliver and I did not want to take the responsibility of delaying in case the baby came with a low pH or low Apgar... So, I contacted the consultant who said 'go ahead', but then I wanted her to come to delay the process for half an hour and then I would call her again... but she did not come... Then luckily, when we phoned the main theatre they were busy so they wanted us to move to the main OR. However, it took us 15 minutes to prepare the woman there and by that time, I found the head was down having done massage or what is called perineum stretching and lithotomy, so she delivered naturally. I knew she would deliver but I could not take this responsibility. King's Hospital-OB-02

8.6.2. Risk and fear

As discussed in the previous chapter fear of medico-legal practice were perceived by professionals to affect the use of interventions during birth. As a result, healthcare professionals felt more comfortable about using CTG machines to monitor labour and birth, which some perceived as a strategy to defend themselves later if any complications arose. Their fears may exceed the actual risk, but fear drives their practice. One affected child may tarnish the reputation of the obstetrician involved:

We know that the true positive outcome from CTG is a very small percentage, but having one affected child in your career – I think it's too much for any obstetrician. King's Hospital-OB-12

As discussed earlier in this chapter, because doctors constantly use interventions they do not have a sense of what is normal in childbirth, which makes them panic whenever they see deceleration during the second stage of labour. This is despite the fact that evidence, as well as experience, indicates that this is normal (NICE, 2014). The quotations below illustrate how different ideas about birth interface:

Prolonged deceleration can occur because the head is pressing the perineum. So you can expect the CTG to show prolonged bradycardia. It is normal, because of the second stage... but some doctors panic and say, 'Get the vacuum ready'. King's Hospital-SN1-10

During the observation of a birth at King's Hospital, the midwife showed her concern about obstetricians causing problems when they panic:

They [doctors] do not leave the primigravidae alone. They want them to push, and then they get decelerations. They come after an hour to review the women and then they panic. King's Hospital-O-06

This registrar stated that when she was a resident she acted out of fear of the senior doctor, in particular what might happen if he/she found out that the woman had not delivered within the recommended time:

In the past when I was a resident I did not want my senior to come and see a patient who had not delivered within the stipulated time. I used to sit with the

patients and instruct them to push as soon as they were fully dilated. King's Hospital-OB-02

One midwife explained the sanctions that could occur if a family complained about something happening to their baby:

They don't terminate your employment; they perform disciplinary action, such as making a salary cut, carrying out an investigation, going to court and things like that, especially if a baby's family makes a complaint. City Hospital-MW-07

The fear culture can create a blame culture, where everyone blames others they perceive as being responsible for any complications. A blame culture became apparent in both hospitals during the interviews. Most healthcare professionals stated that if a complication occurs, they will be blamed. One obstetrician stated:

...Now if anything bad happens to this baby and the family complains no one will be responsible except me because when they review the file they will find I am the person who took the decision to bla bla bla. They will spread out the CTG printout and see the time frame and in the end they will blame me because of the delay and all fingers will be pointed at me. King's Hospital-OB-02

Hence, one of the reasons preventing healthcare professionals from using intermittent auscultation is the fear of consequences, complications and the unknown. Fear of the unknown leads them to try to monitor constantly to understand what is happening with the baby inside the uterus.

Especially during the second stage, you cannot tell what is going on. For example, if the cord is wrapped tightly around the neck and the woman is pushing, this could result in neonatal death. City Hospital-NMW-13

Waiting is not considered appropriate within the medical model of care. Doctors are not accustomed to a wait and see approach; they have to use active intervention:

So that's when we decide. Usually it is at that moment you decide, while the head is coming. Most of the time we have active interventions, even if there is no foetal distress, but because the CTG is recording you may have some kind of deceleration when the head's crowning or coming, maybe because of loss of contact, maybe because the head's very low, maybe because the cord is around the neck. So you do not want to wait and just see what will happen because this is the most important time – the baby could suffer hypoxia, for example. King's Hospital-OB-03

As described above, interventions during the second stage of labour were observed despite recognition by some professionals that the use of CTG can increase the rate of Caesarean sections, and their knowledge that certain changes are normal rather than pathological. One obstetrician stated:

We know that foetal heart rate normally changes in the second stage of labour. But recording it with the CTG makes you stressed because you are seeing it actually happening. But it's a normal feature that is expected in the second stage of labour. King's Hospital-OB-12

However, most of the healthcare professionals interviewed for this study filtered their experiences through the medicalised context of childbirth when deciding how to manage such issues.

8.6.3. Risk and time

As described in Chapter 7, the observations indicated that obstetric technology and medical procedures were treated as essential, and interventions were used routinely to hasten childbirth. A time limit clearly influences healthcare professionals to use interventions. An obstetrician argued that the labour ward is full of high risk patients, and therefore, she has to manage labour quickly by sweeping the membrane and undertaking AROM (artificial rupture of membrane), mobilisation, using a urinary bladder catheter, and giving Buscopan to accelerate delivery and end risk:

Each case is individual, with its own risks. How you manage your labour ward and the cases you have depends on whether you have low risk patients or high risk ones, and if it's only one patient, it's different from having a full ward of high-risk patients. So you have to manage them quickly so you will know the timing of each one. To manage everyone properly and give each one healthcare ... you are trying to accelerate the delivery by not using anything except maybe ... sweeping the membrane, by doing AROM, by asking the patient if she can mobilise, so you can accelerate the delivery. Even emptying the bladder helps to accelerate delivery sometimes. Sometimes we use Buscopan, as it helps with effacement. King's Hospital-OB-03

When birth is viewed as a medical event, timing is always an issue. Healthcare professionals feel they cannot go beyond the fixed duration of the second stage of labour, and in line with the medical model.

8.6.4. The birth space

The data suggest that healthcare professionals tend to see childbirth through a sense of place. This is a filter through which professionals make sense of their experiences. Some obstetricians in King's Hospital stated that it is a tertiary referral hospital, noting that it is regarded as an acute setting, so they only receive high-risk pregnancies requiring medicalised care of women in need of constant monitoring. As discussed earlier, in my observations and interviews healthcare professionals tended to perceive women to be high-risk or treat them as high-risk (un-booked cases), although all the women I observed appeared to be low-risk medically, as far as I could tell. Also, contrary to staff perceptions, I perceived King's Hospital to be a fairly typical hospital with a mix of risk levels.

One obstetrician (resident 4) stated that the number of high risk cases leads to the use of a number of interventions and the assignment of medical care. She said:

Recently we haven't had a lot of midwifery cases, because they put a lot of restrictions on midwives... only the low risk patients can be delivered by a midwife. And we do not have these here in our tertiary hospital; we do not have a lot of low risk patients... I think you will find it is different if you compare us with the other Ministry of Health centres or other non-tertiary institutions. You will find a difference I think ... the high risk patients mean you have to interfere. You cannot let them deliver as you would a low risk patient. You have to interfere! King's Hospital-OB-15

The impact of birth setting on how practitioners see birth is particularly problematic in Saudi Arabia as hospital is the only option for Saudi Arabian women as they cannot have their babies in primary level hospitals, midwifery-led units or at home. The evidence from this research suggests that this fact has further increased the widespread medicalisation of the natural birthing process in Saudi Arabia.

The example below shows how one midwife encapsulated all the issues I have discussed in the chapter. An interview with a midwife who did not want to be recorded summarised all the issues, illustrating the complexity of the situation and competing demands. She argued that the way of seeing birth related to the culture of the unit. With a medical model, there is an emphasis on obstetrician's training needs:

They want junior doctors to have experience with normal births. It is cultural; it depends on the hospital, country and the midwife's background - either they promote natural or active childbirth. King's Hospital-Diary notes

She also argued that patients' expectations reflected this model and added to it: that the patients have no faith in midwives and always ask where the doctor is. She concluded:

We are controlled by the doctors. They want patients to be on CTG. Specifically, doctors have an attitude meaning you cannot practice midwifery skills. Pain is not acceptable to people who audit our files. King's Hospital-Diary notes

She recognised different attitudes among doctors and said it is easier to work with male than female doctors.

Some residents have the attitude 'I want to learn from you,' while others feel 'I am better than you'. King's Hospital-Diary notes

She complained about the Joint Commission International (JCI) paperwork, which is an Americanised system, as it focuses on documentation with no nursing or midwifery care and is difficult to change.

8.7. Conclusion

This chapter has focused on how childbirth is viewed by healthcare professionals in two government hospitals in Jeddah in relation to how birth is supported in the public hospital setting in Saudi Arabia. A key finding is that health professionals appear to devalue their own skills and knowledge to fit in with this culture of medicalisation. The interventionist/medical model of care exists among the healthcare professionals working in both hospitals in this study. The data also show that the natural model is subordinated and the medical model is dominant, and that this dominance is reflected in their practices, where the natural model is rather absent and the social model was pretty much absent. Although most of the healthcare professionals understood the consequences of the natural and medical models of childbirth, their thinking, their accounts and my observations suggest that they dismiss the natural model to follow hospital policy and to avoid medico-legal problems. Thus, despite their personal opinions and experience, they are limited by their position in the hospital hierarchy, and their feelings of impotence to challenge institutional power.

This chapter has demonstrated that although professional views are complex, in the dominant model birth is usually seen as a medical event and interventions are used routinely to limit fear, perceived risk, and blame, and to compensate for lack of trust between professionals. It was shown how perceptions of birth shape the model of care currently on offer, and how, in turn, everyday practices help to shape the professionals' perceptions of birth.

The data further show that midwives are limited in their practice as they are not allowed to conduct primigravidae births or to suture their episiotomies in one of the hospitals.

Chapter 9: Power

9.1. Introduction

A key theme that has underpinned the discussion in both Chapters 7 and 8 has been the issue of power. Power was introduced as a complex concept in Chapter 4. Through the application of the social theory of power, this chapter drills down to reveal how power impacts upon the management of the second stage of labour. Focussing upon the power of the medico/technocratic discourse of childbirth the chapter will show how power can operate to both confine and facilitate medical interventions in childbirth in Jeddah.

This chapter examines medical power in relation to both healthcare professionals and the women in the study, as perceived by healthcare professionals and as observed within the hospital settings. Drawing on the findings from the fieldwork at King's and City Hospitals, some of the issues affected by power during the second stage of labour are established. In particular, the ways that healthcare professionals perceive and respond to the use of interventions during the second stage of labour, and how power affects the care provided to the women are highlighted.

This core theme emerged through reading and re-reading the transcripts, field notes and hospital documents, using Atlas.ti, as discussed in Chapter 5. This chapter is based on the macro level of analysis where I have identified key emerging themes. The power theme influences the roles of doctors, midwives and nurses within the medical context of care, as outlined in the following three sections.

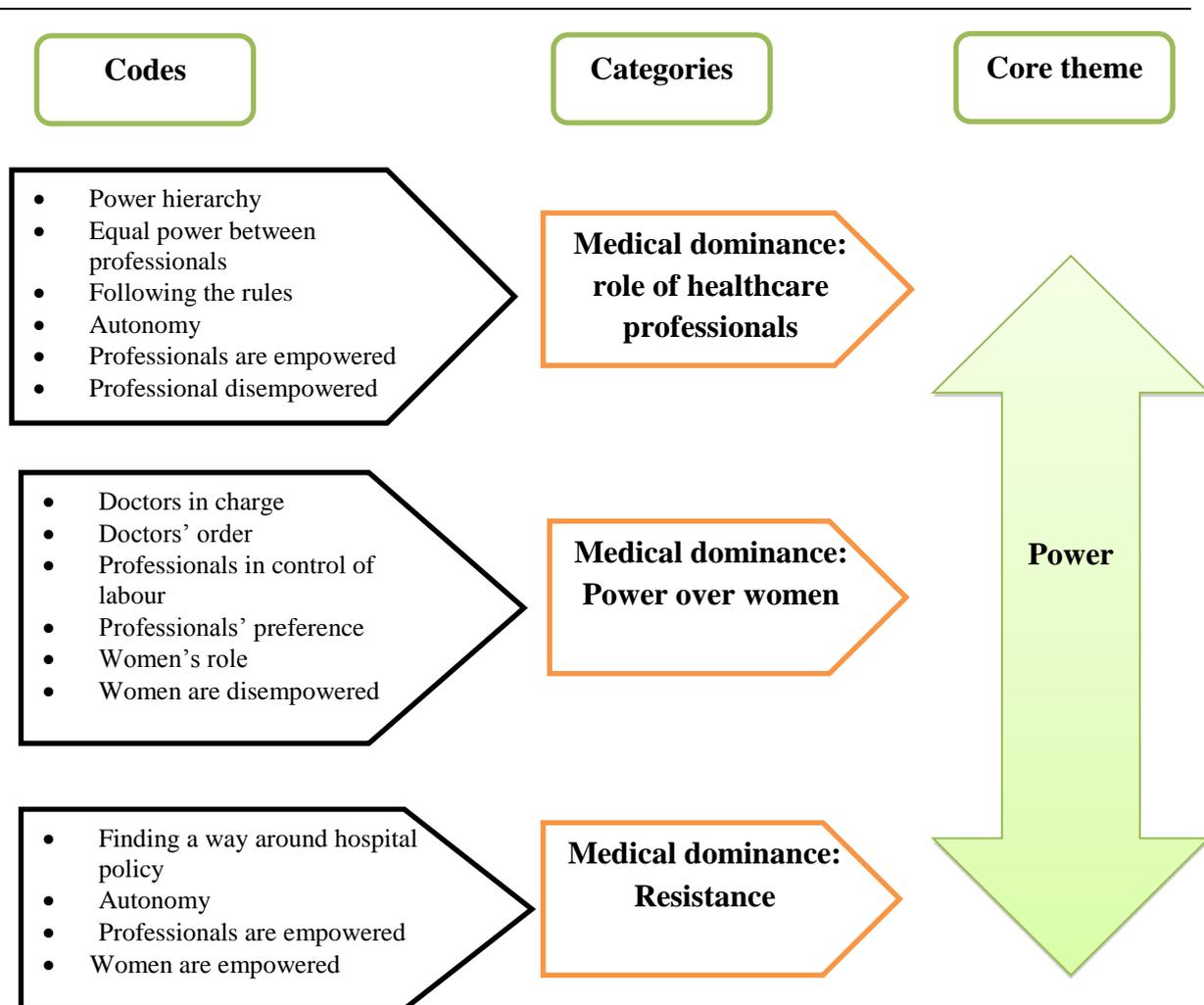
1. Medical dominance- role of healthcare professionals

2. Medical dominance- power over women

3. Medical dominance- resistance

The codes, categories and themes arising from the data in relation to power are shown in Figure 10.

Figure 10: Codes, categories and themes arising from the data: power



9.2. Medical dominance: Role of healthcare professionals

This section discusses professionals' roles and medical dominance in relation to the data collected. As discussed in the last chapter, in Saudi Arabia, as in many other countries, the medical model is the accepted model for childbirth. In this model, the doctor is expected to take control of everything in the labour room, even if this means by delegation. Obstetricians act as gatekeepers, being informed, giving orders, and even signing a form that permits a midwife to have a woman under her care. This does not mean that doctors consistently pursued the medicalisation of birth and as I will discuss, midwives did not consistently resist the medicalisation of birth. Power operated in more complex and diverse ways in this ethnography.

9.2.1. Power hierarchy and the exercise of power

Some of the interviews with midwives and nurses indicate that they have little power during labour and birth, spending their time following doctors' orders. A straightforward example of the hierarchy of power is presented in the interview comments made by a midwife at King's Hospital who expressed her negative attitude towards doctors when they disregard her experience as a senior midwife:

We need permission from the doctor. This unit is sort of medically managed because if you are a midwife, whatever you do, you are still under the doctor's control... You find that junior doctors are supervising each other in medical cases and also the medical staff. It's as if they do not consider you as an experienced person when you are there. Even if I explain something, they listen to their own superior and not to the midwife, and then something goes wrong. King's Hospital-MW-01

Another midwife stated that:

We are just following doctors' orders. City Hospital-MW-10

As also described in Chapter 7 and 8, CTG machine was used during the second stage of labour as a symbol of power and an instrument of medical control. Obstetricians exert their control over the midwives and also over the women as shown in the example below. Discussing the CTG machine during the observation of birth 6 at King's Hospital, a midwife stated:

You'll find that we work as doctors want. Some doctors would like the patient to be on CTG all the time and some of them like mobilisation and different positioning. King's Hospital-O-06

Power does not simply play out in the labour rooms of Jeddah through the interpersonal relations between the multidisciplinary maternity care team. Power operates in ways that are much more complex. For example, the data also suggest that, despite the limitations placed on midwives by the medicalisation of childbirth and the doctor's role in the management of the second stage of labour, in some contexts midwives themselves are keen to draw heavily on the medical model of birth to ensure they maintain power over women in their care. The example below shows how the midwives can feel powerless to manage care on their own professional judgement and controlled by the doctors' preferences.

One midwife reported:

It's all by doctor's order, I cannot do any intervention without the doctor's order. Just a normal delivery. Even a midwife case, even a nurse she cannot administer any medication without a doctor's order. City hospital-MW-03

For medical events, such as inserting a urinary bladder catheter, performing an episiotomy and giving oxytocin are medical procedures that midwives are qualified to administer, but that they must seek permission to do. This is not entirely an issue of power because a midwife following a midwifery or physiological model of birth would encourage the woman to go to the toilet and not catheterise, unless the woman is having serious complications. In serious situations she would go with this instead, in which case care would be discussed with the doctor. However, these interventions are given so routinely that in practice midwives need to administer them frequently. As one of the midwives in City Hospital shows she used to catheterise the bladder without obtaining an order from the doctor, but now she needs to ask for the doctor's permission to catheterise after she has evaluated the bladder.

I usually do it, but before it was routine. We did not wait for the doctor. If I had a patient, and especially, if it was not a primigravida, I would not ask the doctor...I would evaluate the bladder and if it was full, I would evacuate it. But nowadays, without a doctor's order, we cannot. But actually, it should be at least every 40 minutes or 1 hour that you evaluate the bladder. That's why I ask the doctor, so I can catheterise. City Hospital-MW-06

Less medicalised interventions do not require an order from a doctor. These are still considered components of midwifery practice, including vaginal examinations, the use of the CTG machine, administering IV fluids, Entonox, placing women in the lithotomy position, directed pushing and stretching the perineum.

In some cases midwives are trying to exert power over both women and doctors and can feel sandwiched between them.

First of all, sometimes we deal with an uncooperative patient and secondly, some doctors give us a lot of orders while we are very busy with a patient. They give orders, and you know how is it when there are 3 or 4 doctors in the room, and that affects the delivering midwife, in contrast to when you are delivering alone in the room and you know exactly what are you doing. City Hospital-MW-07

Midwives did not take the opportunity to access inter-professional power when it did present itself. For example, midwives had a role in teaching junior doctors. During an observation in City Hospital, I noted a midwife teaching a male resident 1 (R1) how to give local anaesthesia, perform an episiotomy and deliver the baby. However, I felt very sorry for the woman, as the resident was not sufficiently experienced to handle the birth and the mother had not been informed that he would be undergoing training during the delivery of her baby. Infiltration was not done properly, which caused bulging of the perineum, but as an observer it was impossible for me to comment. The resident doctor asked me twice, ‘would you give me 10 out of 10?’ as if he were being examined. He explained that this was only his second delivery, and he was anxious, even though he understood that non-judgmental research was being undertaken and had given his consent.

Midwives have a role in teaching the junior doctors, who acknowledge this in some of my interviews. Yet, the midwives are not teaching the doctors in training less medical techniques that they could use if the woman and baby are well. The midwives also do not take any authority when dealing with the doctors, despite having been involved in teaching them, but remain relatively powerless. This is despite individual doctors being willing to share power and sometimes listening to midwives.

During the interviews, one midwife mentioned that the doctors had begun to listen to midwives, even changing their practice, such as trying different positions:

You will find, for instance on the matter of position, that we are starting to let women change, and the doctors are starting to listen... they are starting to say 'okay, let's listen to midwives'. King's Hospital-MW-01

One consultant expressed a strong desire for trained midwives to get involved in teaching the residents in King's Hospital and also to decrease interventions during the second stage of labour:

One day I hope we will achieve one-to-one nursing care with very well trained midwives who teach our residents. By getting involved in teaching we will lessen interventions in the second stage. King's Hospital-OB-12

9.2.2. Following the rules

Complying with the protocols and guidelines set by the institutions was reported by healthcare professionals in Chapter 7 as one of the factors to influence the use of interventions during the second stage of labour in both hospitals. Healthcare professionals trained in a medicalised health system may fear that they cannot work outside the hospital rules and, therefore, hospital's policymakers would have the ultimate power. However, following hospital rules reduces their power across professional boundaries. In an example where the obstetrician spoke about the duration of the second stage of labour it is evident that both professional groups find their clinical discretion impeded by 'rules'. It is interesting as it suggests that power operates over and above any of the social groups involved.

The department decides on a certain pathway to manage the second stage of labour. This is then something we all have to follow. So...this will influence our practice. King's Hospital-OB-13

9.3. Medical dominance: Power over women

Aspects of 'medical control' were apparent in both hospitals, exercised not only by doctors, but by midwives and nurses too. This section discusses medical control over women's bodies. Using the examples of pain management, foetal monitoring, vaginal examination, urinary bladder catheterisation, AROM, positioning, instructed pushing and Caesarean section, it will be possible to see how power is exercised over women's bodies through the application of the medical model and the technologies of this model. It is believed that women must not be left to birth spontaneously without medical surveillance and intervention.

What is the benefit of becoming a doctor or obstetrician and then leaving the patient to deliver on her own? First of all, we want a good outcome for both the mum and baby... So we don't - we are not allowed to leave the patient to deliver naturally without anything. And that's why obstetricians work in the delivery room. King's Hospital-OB-15

Pain, an inevitable part of childbirth, is treated as unacceptable in the medical model. Medical intervention within this context is perceived as protecting women from pain, which is seen as negative.

The second thing for me, after a good outcome and the wellbeing of the mum and baby, is the pain. No one likes to see someone in pain, so we have to interfere, especially during the second stage. King's Hospital-OB-15

Through the antenatal care period healthcare professional's intolerance of the pain associated with childbirth is passed onto the women in their care. Women arrive at the hospital with the expectation that pain must be treated and that childbirth should be pain free. Interview and observational data indicate that women are routinely instructed in King's Hospital to request an epidural when they experience pain:

When they [women] come to the labour ward they ask 'where is the doctor to put something [epidural] on my back so I will be pain free?'. Why? Because they were told by the doctor in the clinic that labour should be pain free, and somebody will put the catheter like this. Most of them ask when they come here. King's Hospital-SN1-10

Professionals seem not to notice that the interventions are making birth more painful and therefore increasing the 'need' for a medical approach to manage the pain.

Despite some of the doctors acknowledging the evidence on benefits of mobilisation they still wanted women to have an epidural to decrease pain. The solution to this potential tension is solved by technological developments. Although the physiological advantages of an upright birth can be acknowledged this way of giving birth is facilitated within the framework of the medical model where interventions are used to control pain. As one obstetrician explained:

A combined epi-spinal will be available in the future. This is an epidural and spinal block so the patient will be free of pain but still able to walk. King's Hospital-OB-02

Doctors seemed to want to exert their power over women body by using more interventions and technology to control women's pain by using combined epi-spinal.

Women are seldom asked whether they wish to have a childbirth related intervention, such as EFM or CTG, which are the de facto standard of care in both hospitals. One of the reasons that were presented in Chapter 7 why CTG monitoring is said to be used is for the convenience of professionals despite the fact that it gives women less freedom to choose a position during labour and birth. This failure of health professionals to consider the women's comfort during the second stage of labour was a finding that ran through the data set. For example, during the observation of birth 4 at King's Hospital:

The midwife changed the woman from the right lateral to left lateral position.

The woman said 'I don't feel comfortable like this'. The midwife ignored her and kept her in that position. King's Hospital-O-04

On one occasion during the observations, a female R2, was in the room writing in a woman's file behind the curtains. I understood that the male doctor was an R1 and needed training, and that he ignored a request made by the woman in order to give him a chance to examine her and conduct her delivery.

The male doctor was in the room with the case nurse. The woman asked 'don't you have a female doctor?' (i.e. she wanted a female doctor to examine her). He replied 'Doctor Rana (female) is busy, I am here with you'. King's Hospital-O-03

The below example shows how women being powerless and midwife using the technologies of medicalisation to disempower women. During one of the observations, the midwife exerted her power over the woman to insert the urinary

catheter without her consent, and did not allow her to mobilise to go to the toilet to urinate, stating that she might give birth in the toilet.

The midwife was preparing a sterile (in and out) urinary catheter to empty the bladder. I asked her: 'why'?

She replied rudely without looking at me: 'it is my preference, I see the patient is distressed'. She told the woman: 'I will remove the urine now'.

The woman replied, 'I want to go to the toilet'.

The midwife said: 'you will push your baby in the toilet'.

The woman said: 'I promise you that I will not push the baby in the toilet'.

The midwife ignored her and continued to insert the catheter and asked the woman to take a breath. The woman said: 'I want to go to the toilet please! I don't want the tube. I want to go to the toilet'. The urinary catheter was inserted. King's Hospital-O-04

In the course of being interviewed, another midwife explained how successful pushing in the second stage of labour was dependent upon the most adopting the correct position. She commented that in King's Hospital the midwife and doctor take responsibility for positioning the woman the way they feel she should be:

The patient needs to be instructed to push during a contraction and how to push and to position herself. Where it is correctly done, the patient needs to choose which position to take during labour. Here the midwife and doctor are the ones to position the patient the way they feel she must be. King's Hospital-MW-01

Position during childbirth is another illustration of the power exercised by healthcare professionals over women's bodies.

These examples above show how complex the exercise of power is in practice and illustrates healthcare professionals' power over women. Although the medical model is dominant, the midwives are far from powerless in relation to the women, even though they may feel themselves to be so in relation to other groups. They sometimes draw heavily on the technocratic discourse of birth to exert authority over women. Midwives position themselves relative to medicalisation in complex and contradictory ways. In some instances aligning themselves with technological interventions provides midwives with professional status and power; at the same time however this can erode their professional autonomy.

It was evident during the interviews and observations that throughout labour and birth, women's knowledge and experiences were discounted. The woman is not even involved in the birthing position. This midwife stated:

It is not very common for the patient to decide the position. King's Hospital-
MW-05

Women are disempowered during labour and childbirth, and medical decisions are more valued than the woman's own. She is expected not to interfere with medical practice and decision-making but to co-operate. As one of the obstetricians in King's hospital stated:

Medically, she's not allowed to interfere with our medical decisions at that point. I don't mean she's not allowed, but we need to explain all the complications to her and we need her to agree with what we are doing, and if it is not agreed and the problem happens, she will not stop blaming herself.

So, it's better to explain that thoroughly to her and then finally we follow our decision rather than hers. King's Hospital-OB-09

The above quote suggests the doctors are viewing this as protecting the women from the burden of making decisions. However, it is not clear whether the women want to be so protected. My observations do suggest that some women at least were not wanting to be so passive. The management of birth seems designed to render the women as passive but they did try to resist this in my observations.

Even when healthcare professionals do make an effort to provide women with the options so that they can make a choice about their care in the second stage of labour they appear to limit the choices in such a way that takes away a woman's ability to make fully informed choices about the care she receives. She will be informed about their decision and she is expected to accept it without any argument. In addition, the lack of choice is rationalised as taking pressure and burden of choice away from women in a protective fashion.

The majority of healthcare professionals ignored the wishes of the women and continued to do whatever they believed they should do, by using persuasion, or even force, even if the women did not agree or started to cry because they felt disempowered.

A lidocaine injection was given by the resident in case she needed to do an episiotomy. The woman was asking, 'what are you doing?' Nobody replied and she started to cry! City Hospital-O-04

As presented in Chapter 7 the reduction of further intervention and time restriction placed on women during the second stage of labour in particular that seem affected the way healthcare professionals behaved. They argue they are forced to expedite

births in order to avoid the use of interventions. During the observation of birth 5 at King's hospital:

The nurse called the doctor R2 in-charge for labour and delivery ward. R2 performed VE same findings she said 'good 5cm stretchable cervix' she ordered Pethidine for her.

The doctor assigned the case to a midwife as the woman was booked in this hospital and it was a night shift and the doctor wanted to go to sleep and it was a quiet shift:

R2 said: 'I will assign this case as a midwife case', so I can go and sleep'

After the woman received the Pethidine and Plasil, the CTG paper was showing deceleration with the contraction.

The midwife said to the woman: 'baby heart rate is reducing, we have to know if you have delivery or no, if you don't have delivery we will remove the urine with catheter and then break your baby's water to see the colour of the water'

Midwife said: 'She is pushing'.

Woman is refusing VE. Midwife said: 'Please let me examine you'

Woman said: 'I don't feel my leg'

Membrane was bulging, AROM done by midwife clear liquor. Midwife said 'patient is fully'. Midwife encouraged the woman to push and said to her 'you have to help us the baby head is here'. Midwife covered the woman abdomen and legs with the sterile blue cover. Midwife said: 'Let's deliver her. If we call

the doctor because of deceleration, they will use ventouse. The head is low. We have to deliver her very fast'. King's Hospital-O-05

The above illustration of midwife exerting inter-professional power by using interventions to alter spontaneous physiology (something usually thought of as medicalised). The midwife was trying to exert her power by using interventions to accelerate birth to not to defer to medics. She was trying to avoid calling the doctors for the foetal heart declarations to avoid more medical intervention such as instrumental delivery, so she maintains power over women under her care. Even though this midwife is determined to present herself as an autonomous practitioner, she has to concede power when decisions are going to be made by doctors.

By aligning themselves with medicalised birth practice midwives are able to exert power. However, the danger of this alignment is that doctors then have the right to control this pattern of birth management. If midwives use technocratic techniques to gain authority in the birthing room then they risk losing autonomy and their scope of practice as routine care becomes more medical.

However, when a woman refuses an intervention, she may still be convinced by healthcare professionals to have it, and in the end she has to accept it as, typically, no alternative is offered. Many women do not feel empowered to challenge healthcare professionals' decisions. The excerpt from an interview with a midwife below shows how healthcare professionals aligning their power through cooperation to secure power over women.

I try to explain the positive side and negative side to her. But, if she still insists not to have this [intervention], I will ask the doctor to come and

counsel the patient. If she continues to resist, her signature is taken to confirm that she refused to have this procedure. City Hospital-MW-02

If the woman exercises her right to say no, or to reject an intervention, doctors attempt to convince the woman. If she still refuses to have it, they speak to her husband, who has considerable influence over her decisions in Saudi Arabian society; they persuade him to make her agreeable to accept the intervention.

When a patient rejects whatever the doctor is saying, the doctor speaks to her husband, who is not the one in pain! I mean, he will just say, 'yes, okay, you just carry on'' And you know, the women listen to their husbands. This is what's happening here. King's Hospital-SN1-11

When healthcare professionals exercise their power over women's body, this may influence the women to feel powerless to challenge healthcare professionals' authority, which may in turn influence the use of interventions during the second stage of labour. It appears from these examples that women often felt disempowered. While many women did not attempt to fight this, a number of women did attempt to assert their wishes during birth. However, this was difficult for them as the professionals appeared to ignore their views and failed to acknowledge that they had a view. On a number of occasions during the observations, the women stood up for themselves by refusing a proposed intervention entirely, or physically rebelling.

During the observation of birth 7 at King's Hospital, the woman was refusing a Caesarean section, but then she changed her mind and agreed to have the procedure:

The woman was lying on the bed in the semi-sitting position as the nurse said 'that will be improving the descent of the head so the gravity will help'. The woman was attached to continuous CTG monitoring. The nurse then said

'she got pathological CTG'. The woman was on epidural (Ropivacaine 0.1%+ Fentanyl 2mcg/ml) total volume of 100 ml started with rate 12 at 5:30am then increased to 14 ml/hr). The nurse said 'we increase it because of the increase of pain'. The woman was accompanied by her mother-in-law, who was standing on her right. The woman was on I.V. Fluid (Ringer Lactate 500 mls) running 152ml/hr. The case nurse taking care of the woman during labour was shifting between palpating the woman abdomen and documenting it on the computer. The nurse said to me 'this patient has a low pain threshold, many pain relief (Pethidin and Tramal⁷) but she is still in pain'.

The Registrar in the room, reviewed the CTG, and was not happy of the deceleration she had, did a VE and said caput +1 and then said: 'we have to take her for section'. Then he asked for the Foley Urinary bladder catheter to be inserted. R3 and registrar did VE, the cervix was 8cm dilated, R2 in the room, The woman was refusing Caesarean section, and the Consultant in the room was trying to convince the woman to do a Caesarean section as the baby may die or get mentally retarded as the brain was not getting enough oxygen. The woman wanted a chance to go for a normal delivery as she believed that she was 8 cm and that was near to fully dilated. At the end, after negotiation with her husband and mother-in-law, she agreed to do a Caesarean section. The woman went for a Caesarean section at 09:30 am, the Baby intubated, flat for 6 minutes and went to the Neonatal Intensive Care Unit (NICU). King's Hospital-O-07

In this example the woman initially refused a Caesarean section. It illustrates that women do attempt to refuse interventions and assert their power at times, but the lack

⁷ A non-narcotic powerful pain reliever used to relieve moderate to severe pain

of communication by professionals makes this difficult as professionals are often under the impression that they should instruct and the women should not question and just agree. The woman clearly did not see why she needed a Caesarean section when she was nearly at the second stage, while the professionals felt she genuinely needed it, but did not explain to her why. Instead of explaining the necessity, the doctors negotiated with the woman and only highlighted potential complications associated with not undergoing the procedure. The lack of communication was unnecessary and exemplified a misuse of the doctors' power. This woman had many interventions (CTG, I.V. fluid, Pethidine, Tramal, epidural anaesthesia, urinary bladder catheter), she was confined to bed all the time, and was in the semi-sitting position. There was an evidence of cascade of interventions. Although caesarean sections are sometimes a vital intervention all these prior interventions and the lack of support may have increased the risk for the foetal heart deceleration, and therefore increased the risk for Caesarean section.

As presented in Chapter 7 lithotomy position and other interventions was used by healthcare professionals to control women during childbirth interventions and to gain compliance from women. Healthcare professionals perceive that pregnant women in King's Hospital should be more cooperative to avoid being put in the lithotomy position during the second stage. One nurse stated that women are allowed to deliver without being in the lithotomy position if they are cooperative, willing to push and listen to advice. However, in her view lithotomy is better for those who are uncooperative, obese, refuse to open their legs, or have a big baby, to help the head of the baby descend. As discussed in Chapter 2, the clinical evidence indicates that use of this position is not helpful for descent or the wellbeing of the baby. This highlights

that healthcare professionals are more likely to select the lithotomy position to control those they perceive to be less cooperative women.

I believe lithotomy helps a lot. It depends on the patient type. If the patient is petite but very cooperative and is willing to push, and listen to your advice, then they are allowed to deliver the baby on the bed without being in the lithotomy position. King's Hospital-SN1-10

It depends. When I have a midwife case, if the foetal heart rate is okay and the mother is cooperative, it means she will be willing to listen and I even take them off the bed. King's Hospital-MW-06

9.3.1. Women's role

Some healthcare professionals are unfamiliar with women having a 'role' or choices. Most healthcare professionals in both hospitals perceive that the woman's role during labour and birth is simply to push out the baby, under instruction.

*In the second stage? Push (laughs). To push well, that is the woman's role!
City Hospital-MW-07*

What role does she play? She is the one pushing. King' Hospital-SN2-16

However, some believe that the woman has no role at all:

They do not have any role. King's Hospital-MW-01

The patient? Here she has no role. City Hospital-N-04

One obstetrician stated that the woman has no role, as they don't give her a choice.

You want the truth? There is no role. We don't give her a choice about the position she wants or anything else. City Hospital-OB-12

Additional examples of medical control arise when healthcare professionals make decisions that are questioned or challenged by women in a way that causes distress. They then either have to reluctantly accept the use of the intervention, and adopt the professionals' decision, or refuse the intervention.

The women cannot decide on their own. Here in King's Hospital, in labour, they don't. Whatever the doctor says, and whatever the staff say, they have to follow. King's Hospital-SN1-11

So, they have their role; but of course, you are the one who is there. You know what to do. So you are the one who will decide. City Hospital-MW-10

Of course her role in decision making is important, but not in all cases. For example, if there is a position that she prefers, or she wants to deliver in, whatever position makes her comfortable is going to be the best position for us, because this is the position that's going to make her most cooperative and make her push. So, in certain situations, her role is very important. Her role may be the primary role in the decision-making. But in other situations, for example if the baby's heart rate is decelerating and she doesn't want us to use a ventouse or she does not want an instrumental delivery, her role is not important. This is a doctor's decision. It is a medical decision. King's Hospital-OB-13

Most of the professionals require women to cooperate with them during the course of the birth by listening to them and following their instructions:

As soon as the patient is fully [dilated] and she is in the second stage, usually we start by positioning the patient....We drape the patient well, and we explain to the patient that right now she has to cooperate and she has to push with us. We examine her and we let her push with the contraction and deliver after that. King's Hospital-OB-13

Yeah. It is the most important thing, for women to listen to you and be cooperative. King's Hospital-OB-13

She should listen to what we order and our instructions, and she has to follow them. If she does, she will deliver successfully. City Hospital-NMW-13

One obstetrician stated that the majority of women are submissive. However, in the example she provided (i.e. position during birth) she cannot ask them what position they would like, as she would not be able to offer it, since the routine practice is the lithotomy position:

Firstly, most of the patients are submissive; they accept anything (laughing). If you can't offer her something you will not do it, right or wrong. For example, I can't ask her what position she wants, then deliver her in the lithotomy position anyway. That's why I don't think they don't have a contributing role except in pushing (laughing). City Hospital-OB-12

This attitude towards the role of women in childbirth was most extreme when health professionals felt that the women were failing to follow their expert advice, when women challenged the authority and power of those responsible for caring for her. Some healthcare professionals for example tended to view women as uncooperative,

disempowered, lacking in interest, submissive and passive, despite my observations of women attempting to be active:

Oh goodness, no. They don't decide anything here. They just do whatever you tell them. And actually they are not interested in anything. They just want you to do it... It's like they are very passive here, they don't want to decide, they just want you to get the baby out and do whatever you need to, saying 'I don't want it to hurt, to be more painful, I don't want any pain, just get the baby out of me'. You know, this is what they say: 'I want an operation. I just don't want to feel anything. I want to sleep'. So they are very passive; they don't usually make any decisions, such as 'I want to push in this position'. King's Hospital-MW-06

You know, I observe that the women here are very submissive to the health workers. Submissive means whatever the doctors want ... they will say, 'Yes, okay, yes'. Yes, passive. They will say it like this: 'okay, okay'. They will not suggest anything. King's Hospital-SN1-10

Healthcare professionals provided justifications for assuming women have no role. During the interviews healthcare professionals spoke about women in Saudi Arabian society being ignorant and needing education about birth. They typecast them as passive and not wanting to make choices.

Here, in our society, most patients are not well educated. So they leave everything to the nurse and the doctor, and they do not interfere with us in any decision making. Even with major decisions (like the woman having a Caesarean section), most patients leave the choice up to you. However, some

patients are well-educated, and they (and even their relatives) discuss decisions with you. King's Hospital-OB-15

Actually, here in Saudi Arabia, patients do not know how to deliver. Even with multigravidae. They don't know how to deliver. If there were classes before delivery, the patient could go to them and learn how to deliver or to see some patients deliver to understand the mechanism of labour and what they want to do. This would encourage the second stage of labour and delivery. They do not know anything (laughing). City Hospital-OB-01

Not surprisingly it is also important to women to trust the professionals taking care of them, and this is reflected in the professionals' views regarding women's perceived passivity. One obstetrician explained that because the woman has trust in the physician they give her permission to do anything to her:

I don't know, women in labour have a lot of trust in the physician so they will give you permission to do anything to enable them to deliver vaginally as quickly as possible. King's Hospital-OB-02

...most of the time patients listen to the doctor, because they usually trust the doctor and know that he or she is doing what is good for them. But if we encounter some resistance we try to change this, by explaining more about the reasons for what we recommend. We try to simplify any reason so that the patients can understand. King's Hospital-OB-03

Many justifications were reported by healthcare professionals to explain why women have no role in this medicalised context of childbirth. Although many professionals perceive that women have no role during childbirth or their role is limited to push the

baby out, some did consider that women should have a more active role during childbirth.

Rather than see education as a means for empowering women and increasing their power and autonomy, professionals mainly saw the role of education as a way to foster cooperation and strengthen their control over childbirth. A number of professionals commented on the importance of antenatal education to improve the second stage of labour, with an emphasis on women's cooperation during birth. For example, they suggested the importance of informing women before they go into labour about the second stage and what they and the doctor will be expected to do. Education would be aimed at shaping women's expectations, rather than challenging unsatisfactory practice:

... I think it is very important beforehand for her to know about the environment during the second stage and what she is expected to do. King's Hospital-OB-13

Education is especially important. Without education in the clinics the lack of antenatal classes or courses makes it very hard to teach patients how to push during the second stage. In other countries they have antenatal classes that both mothers and fathers attend and they practise how to push. Here it's a little bit too late to explain to women how to do this when they are already in labour. And then when you want her to deliver quickly, and you're saying, 'push, push', she can't respond properly because she doesn't know how to push. King's Hospital-MW-06

Even those professionals who saw antenatal education as a way for women to improve their birthing experience did not see it as a way to empowerment or to

enhance autonomy, rather education was a way to overcome the inadequacies most women had.

When a patient is in the second stage of labour, we start by educating her about how she should behave. However, that is a job that should have been done during the antenatal period. Instead, I assist the patient by informing her about what she needs to know and what she wants me to help her with. Here, the midwife is still in control of labour, not the woman herself. So, here you find that instead of the patient taking control of labour (such as how she wants to position herself, or if she feels like pushing), the midwife or doctor is the one who takes control. Therefore, we manage the second stage of labour, not the patient herself. King's Hospital-MW-01

In particular, professionals' expectations that women will or should be passive appeared related to a view that the woman cannot be trusted to make decisions or know anything about her body and cannot be trusted to give birth.

As presented earlier in this chapter, I observed women trying to make some decisions or resist some interventions, and furthermore alternative health professional views, assuming the woman having a more active role, coexisted with the more dominant view that women had very little to contribute within the context of birth that had to be medically managed. These more egalitarian views where power was more equally distributed between the healthcare professionals and the women included:

I even say it to them, 'this is your moment; if you want to do it, you can do it' because if she wants she can quit trying in that moment; nobody can push her. She is the one who can push. She is the one who can communicate with us... I

think the mother plays the major role in the delivery. We are only the assistants. King's Hospital-OB-14

Okay, my personal practice is to give women a little bit of freedom and share in what we are doing. King's Hospital-OB-12

Of course the patient is the main actor in this process ... because you see ... the woman will give you good results in the end and I believe that the midwife should be very close to her patient. I mean the patient should feel protected; she should feel that she is safe with the nurse. King's Hospital-MW-04

One professional also recognised that women are more frightened if they lack knowledge, and saw a need for informing women to potentially empower them.

Most of our patients need antenatal classes... because it seems that when they come here they are very distressed...They need to be educated in the outpatient clinic. King's Hospital-SN1-10.

One midwife felt that while women should have the right to participate in the decision making process, sometimes doctors do not listen to women's wishes:

Yes. Well, actually we should at least ask about the patient's wishes, because they are the ones involved ... Here, sometimes our doctor will talk to the patients about what they want. Sometimes, they will not listen to the patient. They will be the ones to decide. City Hospital-MW-06

The above example shows that the medical model is prevalent and disempowers women even when professionals try to provide women with a voice. Some healthcare professionals during observations and interviews were trying to give women voice in a way of empowering them, and some women were observed as wanting to have

more say in what happened to them, but this is limited by the context and culture of care.

9.4. Medical dominance: Resistance

The data show a resistance at sometimes to the dominant power structures by healthcare professionals and women. As discussed earlier in this chapter, healthcare professionals generally feel they cannot work outside the hospital rules but some healthcare professionals do feel empowered to circumvent these. They find a way around the policy for the benefit of the women, i.e. allowing them to make their own way to the toilet during the active stage of labour, and permitting them to change positions when they believe it will benefit the woman and assist the head of the baby to descend. While sometimes women ask to go to the toilet instead of using a bed pan or catheter, and they complain the CTG belt is making them uncomfortable, some women do not request mobilisation. It only occurs if an individual professional believes that she has the power to do as she wishes by giving the woman the freedom to choose her own position, and believes that she will not experience any resistance:

I: What make you decide to use other positions?

P: First of all I'm not convinced that lithotomy is the best position. The other thing, it won't make a difference, contrary the lithotomy could be worse in many things even for us the doctors, many doctors say that is more comfortable for them to put her on lithotomy position, but this is not correct, it is comfortable for me that she deliver in a right way and foetal heart rate is ok and she is comfortable, that is for me more comfortable also you will have less tears and perineal tears in other positions, it is better.

I: What do you think about a companion during delivery?

P: I always fight, they should have a companion, they should! When I deliver I want a companion with me, I always fight in this subject I let the companion in during my duty if you notice, I let them enter. City Hospital-OB-12

One nurse provided an example of mobilisation when she asked a woman if she wanted to go to the toilet. She reported stopping the CTG and asking the woman to make her way to the toilet. She clearly stated this in her documentation, so that no one would question why the CTG was not recording at that particular time.

...it's better to allow mobility, because it really helps.... Yes. It was my decision, and I just put (in the notes) that the patient went to the bathroom.

King's Hospital-SN2-16

One midwife referred to authorities that do not allow her to deliver grand multigravidae unless in the lithotomy position. However, she ignores this rule:

... Even if she is a multigravidae, they tell you to put her like that, but we ignore it, we don't listen (laughs). City Hospital-MW-09

Something that is striking about these quotes is that they came from people at all levels in the hierarchy, not just those higher up. This can help our understanding of how sometimes people make independent decisions. It also demonstrates that a few of the midwives feel empowered to use their midwifery techniques to avoid the use of interventions, especially when they can use less invasive interventions to avoid more invasive ones.

During the interviews, one midwife perceived that she used her midwifery technique to avoid the use of interventions during labour and birth:

... So, the doctors evaluate the patients, and they allow us to give some of the oxytocin to help encourage the patient to push. And in our practice as midwives, we have some techniques. Even without Syntocinon we can encourage the patient to reach the height of her contractions. City Hospital-MW-02

The examples above show how some healthcare professionals resisted the medicalisation of childbirth, by finding a way around hospital policy to benefit the women.

One nurse from City Hospital felt generally empowered and stated that no one can affect her decisions. However, when it comes to a doctor ordering a Caesarean section she cannot influence the decision and has to follow the doctor's orders:

For me, no one can affect my decisions. But, as I told you, it's the doctor's decision if she writes an order for the patient to have a Caesarean. Otherwise, there is nothing that affects my decisions. City Hospital-N-08

Overall, it seemed that there was a constant cognitive and verbal acknowledgement of the rules, but their behaviour often seemed contradictory. It was as though midwives understood the power dynamics but sometimes behaved in more independent ways than were prescribed for them, putting them in an ultimately more powerful role with regards to final birth decisions than anticipated. While they sometimes circumvented or ignored what they perceived to be the rules, more often they did not. As discussed in Chapter 7, staff often follow the unwritten rules about how things should be done

that they learn by experience working in that context, rather than always basing it on empirical support or hospital policies that are in some respects more evidence-based.

The data show an evidence of nursing and midwifery resistance to power of doctors. One nurse during the interview, stated that she tries to challenge doctors' orders, but the doctor will disregard her opinion:

No, it's always the doctor. I don't have any problem with the staff; it is the doctors. And when the doctor says, 'I want this, I want that' and I say, 'but doctor, this is out of' He or she will reply, 'No, no, no, but the patient needs it. I want you to listen to me and go with whatever I say'. So who am I to say no? King's Hospital-SN1-11

One nurse from City Hospital felt that doctors should involve her in decision-making as she is the one who stays with and takes full responsibility for women during labour and birth. This nurse wanted to have the power to practice more autonomously when the labour and birth are normal i.e. to have more control over her own work:

And of course the doctor should be more collaborative with you. Such as 'am I allowed to take the patient from A to Z?' You should be allowed to make your own decisions, you understand me? I feel that doctors should get us involved in the decision making. We are the ones staying with the patient, not them. She [the doctor] just comes to give an order and then leaves. I feel that I should participate in decision making, as I am the one spending more time with the woman. I am the one talking to her. I am the one giving her medications. I am the one seeing to everything. I am the one listening to the CTG, and maybe it registers incorrectly, but I am always hand checking, you understand me? I feel I am the third person responsible for her, and I should

come after the patient and her family and before the doctors. City Hospital-N-08

The quotes above show how some healthcare professionals were using their power, power gained from experience and knowledge, to challenge hospital rules and authority to avoid the use of interventions during childbirth.

The observations and interview data show that some women are empowered to refuse or request interventions during the second stage of labour. This section gives examples of how women try to control matters by refusing or requesting interventions during labour and birth. Women's experiential knowledge of giving birth gave them confidence to express their opinion to challenge childbirth interventions. A midwife from City Hospital reported that some women express their rejection of intervention physically, ignoring the possible consequences:

During an episiotomy some patients close their legs, or tell you 'no, I don't want the CTG', and remove it from their abdomen, or 'I don't want the IV fluid' and remove it from their hand, making the site bleed. Many things happen to the patient. City Hospital-MW-07

One midwife provided an example of a woman who refused to deliver on the bed:

There was a patient who came to the labour ward fully dilated but she refused to deliver on the bed; she refused totally. She walked around the room. We told her to sit down. She got up from the bed and delivered on the floor. We put a blanket on the floor and the instruments were sterile....while she was lying down her buttocks were up. I don't know, it was a weird delivery, but we did an episiotomy and with good support the patient delivered safely. City Hospital-MW-09

There were reports during the interviews that some women refused the use of interventions. For example, they refused CTG monitoring, the presence of male doctors, to be given an episiotomy or to give birth on the bed. At times some women also refused to be sutured. During the observations, I witnessed a number of women refused interventions such as Caesarean section or bladder catheterisation:

There are more patients refusing the CTG, and refusing a male doctor. If the female doctor is busy, sometimes they refuse to let anybody examine them and there are patients who refuse suturing if they have a tear. City Hospital-MW-05

But some are like this educated one. They say things like: 'Doctor, I don't want an episiotomy', or 'Doctor, I don't want it to be like this and like that'. King's Hospital-SN2-16

An example was provided by one of the nurses at City Hospital of the ways in which women can be assertive about their decisions:

Once I conducted a delivery on the floor. The woman came to me and she swore to God that she would not deliver on the bed and she wanted to deliver in a squatting position. She said: 'all my deliveries were like this'. We asked her why she came to our hospital. She said 'I want to try your delivery'. So we told her, 'okay, get on the bed for us to show you our delivery', but she said: 'it will not come out except in this way'. She was para 17 or 18. She said: 'no, I am like this, I just want you to press on the perineum from the back during the delivery'. And she delivered like this... for her she was relieved this way. City Hospital-N-08

It is clear that women sometimes override the medical model and assume power for themselves – as exemplified by their refusal of interventions, exerting their personal autonomy to challenge healthcare professionals’ decision to use medical interventions. However, as discussed earlier, professionals generally assume women to be passive and to accept all interventions recommended by the doctor, and doctors may assert their power to make this happen.

The majority of the healthcare professionals reported that women often requested interventions, mostly episiotomies, epidurals and Caesarean sections and some gave this as a justification for the common use of interventions. During my observations a few women requested interventions to accelerate labour and birth; it appeared from my observation that they felt frightened and vulnerable because of the lack of support and information. When women expressed their personal autonomy through requests for medical interventions (rather than resistance to these routine interventions), they were also more successful in their bid for power. This again seems to illustrate how the dominant discourse of medicalised childbirth can be used by all the social actors involved to gain power.

Sometimes, even multigravida patients want an episiotomy; but... of course, you have to assess the perineum to see if that is needed or not. If they can deliver without an episiotomy, why would you do an episiotomy? City Hospital-MW-10

I think our community takes having a Caesarean section lightly. They don't know that they may have more complications in the future, and even put their life in jeopardy. At the moment they're requesting Caesareans in any situation. King's Hospital-OB-14

While all the examples above are quotes from professionals, so we cannot be sure that this is not just a professional rationalisation of interventions, they seemed to be blaming the women for their excessive use of interventions, although the reality is that except for pain-related concerns few women directly ask for any interventions.

For some birth observations in both hospitals, I noted the women requesting interventions such as Caesarean section or epidural.

The woman is saying “take me to operation” the doctor replied “God will choose the best for you”. City Hospital-O-05

Woman is saying “don’t make me lay down, I can’t anymore, doctor don’t go” the specialist said “ok”, then the woman said “I want operation”, the doctor said “has the Caesarean been better for you, we should have done it from the beginning”. Woman said “I want to sit”. The woman is saying “doctor, take me to operation, I am really so tired” The doctor asked the midwife “put the catheter and keep it in, will take her for C/S, send notification”. Woman went for Emergency C/S due to failure to progress. City Hospital-O-05

Most of these observations indicate that the women were not supported enough and sounded frustrated with their pain, making them want to expedite the birth. This was added to by other routine interventions such as being made to lie on their backs, which added to their discomfort. Therefore, they were looking for something to end their distress. The ability to request interventions seemed as important to the women as their ability to refuse interventions, and they were met with the same kinds of difficulties in making their voices heard and gaining power to decide the course of their birth. Similarly, as discussed in Chapter 8, doctors sometimes claim that they do

not allow midwives to complete certain tasks because of patient complaints, despite lack of evidence of these complaints. The reality between the power exercised and blame attributed by the doctors does not always seem to correspond with the evidence.

9.5. Conclusion

The data reveal the complexity of power in the medical context of childbirth. In both hospitals, during the course of the observations and interviews it appeared that healthcare professionals hold limited power, or perceive their power as limited in the face of ‘hospital protocols and guidelines’. This is the norm when working within a medical model of care. Institutional anxiety is prevalent, limiting autonomy among professionals because of an unwillingness not to adhere to the rules. However, as discussed in Chapter 7, the professionals’ concepts of hospital protocols and guidelines are not always accurate and they tend to assume a uniform medical model, even when written guidelines are more evidence-based. This illustrates that the medical model is dominant in this context, even though professionals’ own views and experiences are much more varied.

The data show how women are often not given any choice and are not seen as having any rights. Yet, sometimes what they have said or complain about is used to exercise power in a political way. As discussed in Chapter 7, statements such as, ‘*we don’t do this because women complained*’ are common and in this chapter, we have seen how women are described as all passive at times, but also described as sometimes demanding interventions that are not medically necessary.

In this medicalised context of childbirth, healthcare professionals are motivated to ensure that women have access to some knowledge that then informs the way they see childbirth. However, professional's comments and the observation of care indicate that education for women is limited and the education desired fits the medical model. Staff described wanting women to know more, but this appeared as being mainly to ensure their co-operation, and more infrequently to decrease their fear, but not so that they can take any control over the experience of birth.

Chapter 10: Discussion

10.1. Introduction

This chapter discusses the fundamental findings from Chapter 6 to 9. These include significant issues raised from the qualitative findings regarding the influences prompting healthcare professionals to use interventions, presented here in relation to the research questions. The discussion in this chapter answers the following research questions:

- 1 What are the perceptions, attitudes and practices of obstetricians, midwives and nurses caring for women in Jeddah, Saudi Arabia in relation to the use of interventions during the second stage of labour?
- 2 What influences healthcare professionals' decisions to use interventions during the second stage of labour?

Comparative references will also be made to existing literature concerning the use of interventions during the second stage of labour. This chapter draws on relevant concepts and theories with the aim of explaining the issues highlighted, and to achieve a more in-depth understanding of why interventions during the second stage of labour persist, despite contradictory evidence (which many professionals are aware of) and written policies (which are reasonably evidence-based). The interview and observation data presented will offer a theoretical explanation of the use of interventions during the second stage of labour.

This chapter is divided into four sections, building from the micro level, through the meso level, to the macro level of analysis. The first section concerns 'the role of practice context', and builds on the micro level analysis of the role of the labour ward

environment on the use of interventions during childbirth. The second section concerns ‘professionals’ understandings of the use of interventions during childbirth’, and builds on the meso level analysis, evaluating the justifications and explanations professionals give for using interventions during labour and birth. The third section is ‘drivers to use of interventions during childbirth’, and builds on the macro level analysis establishing the wider influences informing the use of interventions during childbirth in Jeddah. This is followed by reflections on the research conducted, and the strengths and limitations of the study.

10.2. The role of the practice context: Clinical setting

This section summarises the micro level analysis, considering the role of the practice context in the use of interventions during childbirth. As shown in Chapter 6, the labour room is designed to facilitate the use of interventions during the second stage of labour. It is replete with technology; e.g. CTG machines, automatic beds, IV machines and baby resuscitators. This clinical setting makes the woman a “*guest in the house of medicine*” (Arney and Neill, 1982, p.7). All the applications, uniforms and medical explanations make it clear that science, medicine, and doctors dominate this setting, leading to the woman’s disempowerment (Squire, 2009).

It was indicated by Sarah’s story in Chapter 6, and my observations, that the clinical environment/setting is sterile, uncomfortable, bright, noisy, crowded, and cold during labour and birth. Physiological and psychological evidence shows this kind of environment has the potential to adversely affect both the labour and the birth process psychologically and physiologically (Hodnett et al., 2012) and may have also an impact healthcare professional feelings, attitudes and practices (McCourt et al., 2014). When women give birth in a clinical setting, they are removed from their

familiar surroundings and usual support systems. This environment can be perceived as threatening and unwelcoming (Squire, 2009), and prompt women to relinquish control (Enkin et al., 2000). Blaaka and Eri (2008, p.350) found that in a noisy room in which the birthing process is tied to a medical time frame it is difficult to recognise the value of ‘doing with women’ (doing skilled midwifery for the birthing woman), and midwives fear losing this key value. A survey of women’s experiences and views by Newburn and Singh (2003) revealed that (94%) of participants thought that the physical environment affected how easy or difficult it was to give birth, with (48%) agreeing strongly that the birth environment is a factor. It appears then that many contextual elements play an important role in the birthing experience.

This environment might also be contributing to the atmosphere of fear and tension as was described in Chapter 7. Dahlen (2010, p.156) stated in her commentary:

“We cannot hope to begin to deal with women’s fear of childbirth unless we are willing to examine our own, and recognise how we can and do contribute to women’s fear”.

Fear and tension have been studied for women – such as Lamaze (Tournaire and Theau-Yonneau., 2007) and also work on birth trauma such as Ayers (2004) but little work has been done on the impact on professionals, although there has been some work on midwives’ fear (Dahlen and Caplice, 2009) cited by Dahlen (2010).

10.2.1. The birth space

The evidence described in Chapter 8 suggests that the healthcare professionals involved in this study tend to see childbirth through a sense of place. This is a filter through which professionals make sense of their experiences (see Chapter 8). Healthcare professionals tended to perceive women to be high-risk or treat them as high-risk (un-booked cases). The findings of this research are similar to Harris's (2005) study of midwifery practice in the third stage of labour. Harris (2005) study shows a relationship between the birth environment and the third of stage of labour practices. When healthcare professionals work in a high-risk environment, they tend to use more interventions during childbirth. Harris (2005) found that when midwives worked in a high risk, technology driven, medicalised environment, they do not often express their value and beliefs about non-intervention for the third stage of labour care. Her study showed that environment has influence on the use of interventions during the third stage of labour practices. Midwives in her study even if they had a strong belief about the normality of childbirth, over time could be influenced by the environment in which they worked to adopt a more interventionist style of third stage care.

Harris (2005) found in her study that midwives working in hospital within medicalised interventionist culture were more likely to adopt an interventionist approach to care. Midwives in her study felt powerless to action non-interventionist decisions without being criticised and challenged by a medically dominated establishment which adopted unwritten interventionist guidelines and policies. These findings are echoed in the present study, in a different national setting.

The impact of birth setting on how practitioners see birth is particularly problematic in Saudi Arabia as hospital is the only option for Saudi Arabian women as they cannot have their babies in primary level hospitals, midwifery-led units or at home. The evidence from this research suggests that this fact has further increased the widespread medicalisation of the birthing process in Saudi Arabia. Furthermore, healthcare professionals in this context tend not to recognise the social model of care, neither they do not have a sense of place or space as mattering to the woman and her birth (see Chapter 8). Therefore, the environment and companionship are not seen important in this context.

10.2.2. Companionship

I choose to discuss companionship in particular, as it is clear from the literature that companionship is central for women managing pain in childbirth. It helps women cope without the need for intervention. In both hospitals, companionship was limited. It is a crucial element of the social model that is missing in the routine practice observed in this study. Because healthcare professionals in both hospitals do not have social model of birth, or if they do, this model is not authoritative, the birth environment is not conducive for companions to be present. Women are going through a sensitive and intimate time during childbirth in a public space. The effectiveness of companionship in labour and birth has a strong evidence-base (Hodnett et al., 2013). In the current study, as discussed in Chapter 6, the companionship policy during labour and birth differs between King's and City hospitals. The King's Hospital policy permits one companion to be present in the labour and delivery room, while City Hospital policy does not. My previous study (Altaweli et al., 2014) found that only 2 out of 9 government hospitals surveyed in Jeddah allow a companion to attend labour and birth. These restrictions were

discussed in Chapter 2 in reference to the fear that companions could cause interference with healthcare provision (Al-Shahri, 2002).

Despite variance in policy and practice, evidence from both clinical settings suggested that companions are perceived to be an inconvenience to the professionals. The current study suggests that the clinical setting and the behaviour of professionals may additionally inhibit the capacity of companions to offer support. For example when family companions were present, they typically sat quietly beside the woman on a chair and appeared to be intimidated by the scene. These hospital practices were often contrary to evidence-based recommendations, which suggest that companionship during birth is beneficial to the woman.

Highlighting the importance of companionship, a recent prospective cohort study carried out by Al-Mandeel et al. (2013) in three tertiary government hospitals within Riyadh, Saudi Arabia showed that almost half (45.3%) of participants preferred the presence of a companion during childbirth, but only (14.2%) reported having a supportive companion during any of their previous childbirths. The most preferred person as a childbirth companion by the interviewed women was the mother (58%) or husband (51%). Interestingly, more than one-third of participants (35.9%) thought that the presence of a companion as support during labour would not be beneficial. The most common reason stated for not wanting the presence of a companion during childbirth was preferring that no one see them during childbirth and fear of being physically exposed to their companions (64.1%). Al-Mandeel et al. (2013) argue that Saudi Arabian women elect not to have companion support during childbirth, both because they lack understanding of the positive role of a companion during childbirth and for cultural reasons. In the current study many healthcare professionals recognised the importance of the presence of a companion during childbirth, but some

feared the companion might interfere with their practice or invade the privacy of other women in labour.

10.3. Professionals' understandings of the use of intervention during childbirth

This section examines the data gathered concerning the current use of interventions in the two studied hospitals and contextualises it within the relevant literature. It summarises the meso level analysis regarding the perceptions, attitudes and practices of obstetricians, midwives and nurses caring for a woman in Jeddah, Saudi Arabia.

A review of the interventions used during the second stage of labour revealed that some were used in a routine and at times coercive fashion. However, the analysis revealed that the professionals' views of birth are complex and mixed. Some expressed positive views and attitudes toward the use of interventions, but others had more negative views, and a few offered no opinion. Many professionals hold all of these views, and the interviewees offered different explanations and attitudes during the interviews and displayed flexibility in their everyday practice. Professionals' justifications and explanations influencing the use of interventions were multifactorial as shown in Figure 8 in Chapter 7 and included 10 reasons: time; protocols and guidelines; routine practice; staffing; safety; fear of medico-legal practice; the cascade of interventions; proactive reduction/avoidance of further intervention; women's preference and choice; and control. In depth examination of these findings led to several inconsistent and even contradictory explanations and justifications during the interviews and observations about the use of interventions. Such slippage within professional's explanatory frameworks was most notable when the data collected using different methods was compared. For example in the current study,

healthcare professionals commonly cited adherence to hospital protocols and guidelines as a motivator. However, although during the observations and interviews many healthcare professionals spoke of hospital policies and protocols, these protocols often only existed in the collective consciousness. These practices included the routine use of EFM, episiotomy, urinary catheter and intravenous infusion. These justifications that professionals use to argue for the use of interventions during the second stage of labour illustrates the social complexities surrounding the labour and birth management in King's and City hospitals. The next section outlines prevalent themes in professional's understanding of childbirth including the routinisation of interventions, staffing, and the variations in professionals' perceptions, attitudes and practices. Other relevant explanatory themes will be discussed in depth as part of later macro level analyses.

10.3.1. Routinisation of interventions

The perception that they are following routine practice is influential in affecting healthcare professionals' use of interventions. This routine practice is not necessarily supported by the hospital's written protocols and guidelines, and may or may not be consistent with the professional's own knowledge of best practice. However, a shared tacit understanding of what is accepted as routine practice has been used to justify a range of practices surrounding the management of the second stage of labour.

The case of Sarah, and my other observations found that there are frequently a series of very intense and cumulative interventions in the first stage of labour, which continue into the second stage; including CTG, I.V. cannulation, I.V. fluid instead of drinking for hydration, AROM, use of I.V. oxytocin, urinary bladder catheterisation, sedation, enforcement of lithotomy position for birth and repeated vaginal

examinations, even in the second stage of labour. The routine use of interventions in both hospitals differs from EBP as reviewed in Chapter 3. The studies reviewed found that, although the risks outweigh the benefits for most obstetric interventions when used routinely, women with straightforward pregnancies are often subjected to routine continuous CTG monitoring and interventions to speed up the first stage of labour and episiotomy, directed pushing and lithotomy during the second stage of labour (Maimbolwa et al., 1997; Khayat and Campbell, 2000; Abdulsalam et al., 2004; Turan et al., 2006; Hatamleh et al., 2008; Sweidan et al., 2008; Altaweli et al., 2014).

Chapter 3 reported that the routine use of continuous CTG is associated with a significant increase in Caesarean sections and instrumental vaginal birth without benefit (Alfirevic et al., 2013). However, the observation data shows the CTG machine was a major influence on many professionals, and affected all practices and interventions, especially during the second stage of labour. Nonetheless, none of the professionals interviewed classified use of the CTG as an intervention. They spoke about the use of the CTG as a kind of protection against interventions; if the CTG remains within limits, women will not have interventions such as Caesarean sections or instrumental deliveries.

The observation and interview data reveals a cascade of intervention; e.g. CTG leading to confined maternal position, which in turn influenced intervention in the second stage of labour. Munro et al. (2002) examined midwives' views and found that continuous CTG monitoring interfered with the relationships between midwives and women and often led to additional intervention. Although previous studies have shown that midwives might resist routine intervention, owing to concerns about a possible cascade of intervention, they tended to resort to covert resistance, which is

arguably ineffective at bringing about overall change (Kirkham, 1999). However, Kirkham (1999) argued, in a study of the culture of midwifery in the NHS in England, that to bring about overall changes in maternity care strategies, the culture of midwifery must be addressed (Kirkham, 1999).

Some midwives in this current study explained that they preferred to speed things up to avoid interventions, although this usually involved some kind of intervention (possibly midwives perceive these interventions as different, i.e. as midwifery interventions or low-tech). Similar findings were presented in an ethnographic organisational study by McCourt et al. (2014), which investigated the ways that alongside midwifery units (AMUs) in England are organised, staffed and managed. They found that AMU birth centre midwives were pressurised by obstetric unit (OU) midwives to use interventions to speed up labour and avoid unnecessary transfers.

Participants in this study spoke of monitoring to police the boundaries of normality. This was consistent with Annandale's (1987, 1988) analysis of birth centres in the USA. She observed that midwives used interventions strategically to preserve the possibility for normality. Stewart (2008) studied the use of vaginal examinations by midwives, and found they strategically altered the record of their vaginal examination findings concerning cervical dilatation to protect women from unnecessary interventions. Stewart (2008) notes that when midwives change the findings of their vaginal examinations, they are using their power over women's bodies to construct an experience of women's labour at the expense of the woman in their care. Overall, it seems that practitioners are more comfortable doing routine practices that are familiar within the hospital setting, even if they are empirically contradictory or against hospital policy.

10.3.2. Staffing

10.3.2.1. Workload and staff shortage

Professionals expressed the view that workload and staff shortage affects the use of interventions during labour and birth to accelerate labour. However, the interview data provided mixed stories; indicating that for some a quiet shift increased routine intervention, while for others it was a busy shift that made interventions more likely. However, my observations in both hospitals found that whenever there was a busy labour ward with few staff available, the women were subjected less to interventions, as illustrated in Sarah's birth. When there were fewer women in labour there was a higher probability of more interventions. Although the number of observations were small, so that quantitative inferences could not be drawn, the data did not support the theory that a shortage of staff or high workload increases intervention. Smith et al. (2012) reported that busy clinical environments were used to justify difficulty to the use intermittent auscultation of FHR. However, in the current study, the use of continuous CTG was universal, and commenced on first admission in labour for all women. There was no opportunity for staffing shortages or workload to influence monitoring practices in either direction.

10.3.2.2. Individual's level of expertise, training and education

Expertise, training, and education may influence the types of interventions used by healthcare professionals and the interpersonal dynamics within the labour and delivery room. Obstetricians lack familiarity and confidence with normal births; so although they do not necessarily want to take an interventionist approach, most are unfamiliar with normal physiological labour. They are not trained to deal with normal pregnancy and birth, and do not feel confident about practicing without using

continuous CTG machines. The more senior the obstetrician the greater their sense of autonomy and the more confidence they have about using fewer interventions. Some, however, were reluctant to challenge established practice, despite their more senior status and level of power in the maternity system. The data also show that some midwives used previous experience and tacit knowledge to justify the use of interventions during the second stage of labour. In Belizán et al.'s (2007) study, healthcare professionals reported the rejection of new practices, especially selective episiotomies because they feel more comfortable with familiar techniques, or do not have the requisite skills to perform new ones. In the current study most healthcare professionals reported feeling more comfortable about using interventions. They spoke in terms of being able to read the situation to make judgements about whether to intervene in the second stage of labour. This ability to read the situation depended almost exclusively on the level of professional knowledge and confidence.

10.3.2.3. Individual's personal preferences and convenience

The use of technology and intervention can provide convenience and ease to healthcare professionals (McAra-Couper et al., 2011). While preference and convenience are not the same, in many instances in the present study convenience was perceived to influence preferences. The professional participants in the current study revealed that, preference and convenience also resulted in the use of interventions during second stage of labour in the hospital setting. The professionals seemed to use experience to justify their preferences for using or not using interventions during birth, and they reported that personal preference and convenience could affect their use of interventions during the second stage of labour. Graham (1997) claimed in her socio-historical analysis of the use of episiotomy that a

hospitalisation rate for birthing women of close to 100 per cent resulted in increased uses of episiotomy, typically for birth attendant convenience.

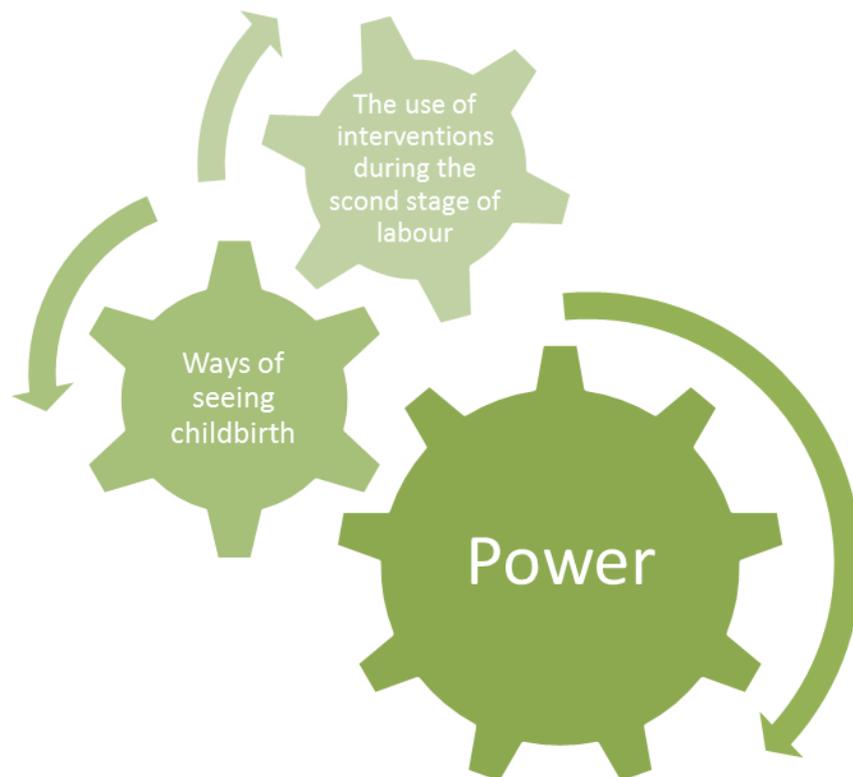
10.3.3. Variations in professionals' perceptions, attitudes and practices

The current study found variations in healthcare professionals' views, attitudes and practices during the second stage of labour, revealing that the ways healthcare professionals view childbirth is complex. Views of childbirth differ between healthcare professionals. Some view birth as a medical process and others as a natural one, whereas others hold a mixed attitude. However, regardless of personal views most practitioners end up practicing according to the medical model – apparently because this is the most established and accepted way of working. In addition, practices during the second stage of labour varied across both hospitals and between healthcare professionals. Similar findings have been obtained worldwide as discussed in Chapter 3 (Pel et al., 1995; Stamp, 1997; Shorten et al., 2002; Tincello et al., 2003; Alfirevic et al., 2004; Graham et al., 2005; Harris, 2005; Hartmann et al., 2005; Viswanathan et al., 2005); variations occur in healthcare professionals' views and attitudes, and obstetric intervention rates within and between countries.

10.4. Drivers of the use of interventions during the second stage of labour

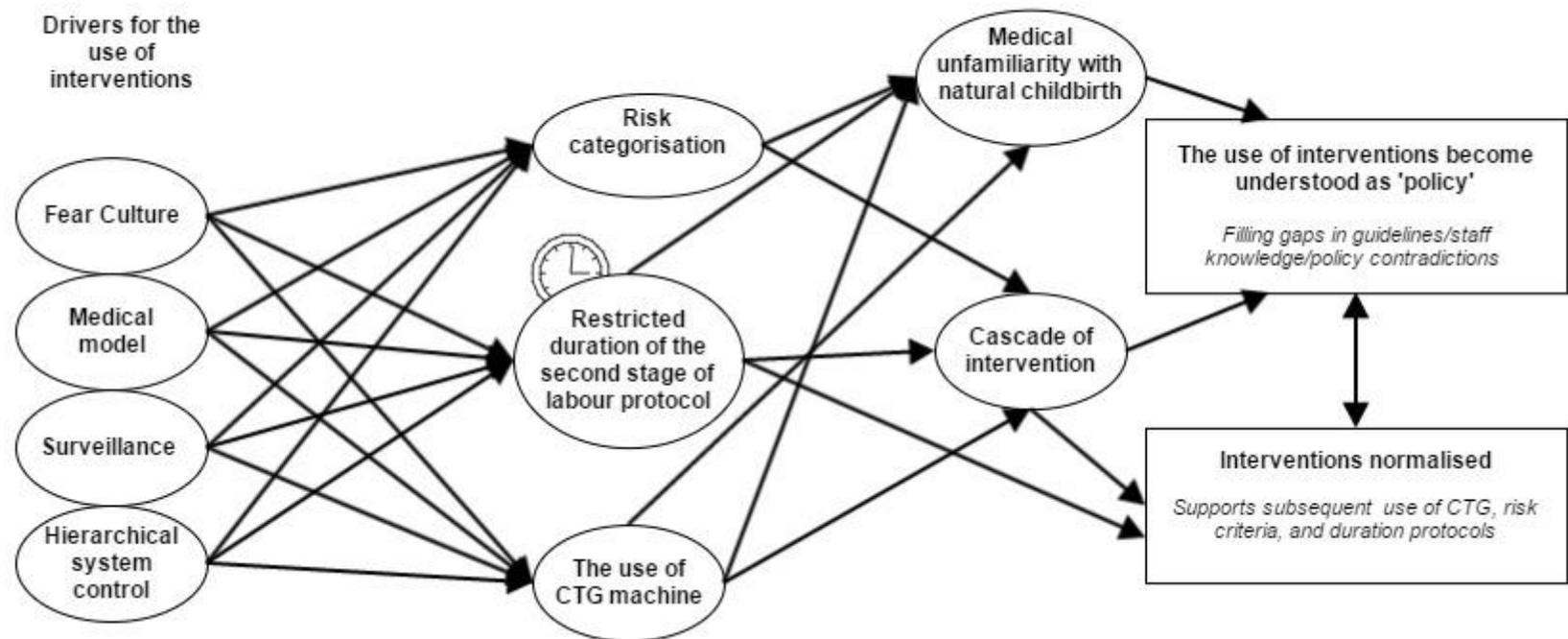
This study found that multiple reasons influence the decision to use interventions during the second stage of labour. This section discusses the main influences. The macro level analysis illustrates two core themes, within which, influences on decisions and practices during the second stage of labour can be organised into, *ways of seeing childbirth* and *power*. This section aims to examine *why* the interventions observed during the second stage of labour occur. The relationship between these core themes and the use of interventions is represented schematically in Figure 11. Figure 11 shows how power, as a theme, is the fundamental driver influencing ways of seeing birth, thereby influencing the use of interventions.

Figure 11: Core themes



The core themes emerged from a set of themes presented in Chapters 8 and 9. The synthesis of these themes and their relationships in terms of drivers for intervention are represented in Figure 12 below. This figure demonstrates how fear culture, medical model, surveillance, and hierarchical control affect the use of interventions during the second stage of labour. These drivers influence the criteria for risk categorisation, restrict the duration of the second of stage of labour protocols, and introduce the use of CTG machines. One intervention can trigger a cascade of intervention, and professionals become unfamiliar with natural childbirth, intervention practice becomes understood as 'policy', and interventions are normalised to support subsequent use of CTG, focusing on risk criteria and protocol for the duration of second stage.

Figure 12: Drivers for the use of interventions in Jeddah



10.4.1. Ways of seeing childbirth

10.4.1.1. Medical model of childbirth

My study rests upon an understanding that birth practices are context bound, and both socially and biologically constructed. Perceptions of birth shape the model of care and everyday practices. According to Davis-Floyd (1992) views of childbirth as held and shaped by medical and social models follow from underlying societal assumptions about health. Much of the obstetric and midwifery care in both hospitals was organised according to biomedical rather than a bio-psycho-social model. Medical and social/midwifery models of care were discussed in Chapter 4, and the dominance of the medical model leaves limited scope for other ways of perceiving and managing childbirth. As apparent from Chapter 8, while some healthcare professionals, including obstetricians, view childbirth as a natural healthy event, the medical model of childbirth dominates in both hospitals. Viewing birth as a medical event affects the way healthcare professionals deal with childbirth, leading interventions to be viewed as preventive or necessary. As described in Chapter 7, the study observations indicated that obstetric technology and medical procedures were treated as essential, and interventions were used routinely to hasten childbirth or ‘prevent’ problems.

This study found many obstetricians, regardless of gender, experience, and rank treated birth as a medical event rather than a social one. Their concern was to prevent any risk, and to ensure the safety of mother and baby they treated birth as a pathological condition to be monitored and regulated. Thus, they were more likely to apply medical interventions to *avoid* complications promising safety through

monitoring. Lazarus (1997) observes that this then enables intervention at the earliest stage of disease, since risk prediction and selection is not then possible.

“When the controlling focus is on deviancy, the norm for normalcy is narrowed. Safety and security are bound to material things, technology and expertise” (Blaaka and Eri, 2008, p.345).

Thus, the medicalisation of childbirth through obstetric care increases the use of medical intervention (Smeenk and ten Have, 2003).

The findings reveal most healthcare professionals are well educated and aware of the latest evidence, yet they do not practice it. Education and experience may encourage adherence to a medical model, which influences practice despite awareness of clinical evidence on the effects of interventions. Keating and Fleming (2009) argue that the medical model influences the culture of the hospital birth environment. They contend that it is unlikely that obstetricians will accept evidence challenging their own medical beliefs. The midwives' narratives in their study revealed that EBP in relation to normal birth was not encouraged within obstetric-led units. Turan et al. (2006) argue that healthcare professionals are unlikely to change their practices readily. In the present study, while healthcare professionals sometimes accepted the evidence, in theory at least, they did not always modify their practice accordingly. They were unable to challenge routine practice or the medical culture of the hospital birth environment. This is appeared to be more a problem of accepting, or acting on, evidence that challenges accepted ways of doing things, and authoritative knowledge. The current study identified that most written policies about the second stage of labour in the hospitals studied are evidence based, although many practices are not. As discussed in Chapter 3, the application of EBP is challenging and complex, as

barriers exist preventing healthcare professionals from responding to the evidence even where they are aware of it. This is supported by Keating and Fleming's (2009) study which suggests that it can be difficult to incorporate evidence into practice, especially when it conflicts with authoritative knowledge that is valued within the practice setting.

The medical model also raises moral problems regarding the autonomy of the pregnant women; women can feel helpless, and experience a loss of control over their experience of health and illness (Shaban et al., 2012) and they may also be stereotyped as passive. Medicalised processes can be considered to infringe on women's autonomy (Davis-Floyd, 1987; Smeenk and ten Have, 2003), leading to a technocratic model of birth, which has now become the norm in most Western and non-Western cultures. Typically, technocratic models of care are medical and male-centred, objectifying women (Davis-Floyd et al., 2009), emphasising mind-body separation, and treating the body as a machine (Stephens, 2007). Davis-Floyd et al. (2009) emphasises the high iatrogenic cost to women of medicalised controlled birth, even when they choose it. The majority of professionals in the present study, obstetricians as well as midwives and nurses, were women, but this did not alter the fact that the model and system of care was male-centric. Even for female doctors the training and socialisation to succeed in medicine pushes women doctors to think and behave in 'male' ways. Even when carried out by women, and when it is pertaining to female-specific issues such as childbirth, it is argued it focuses largely on 'male' interpretations and recommendations of the event. The ways in which gender had influenced childbirth over time was discussed in Chapter 4.

To obtain a deeper understanding of the use of interventions during the second stage of labour, it was vital to review the medicalisation of childbirth theory discussed in

Chapter 4. The discussion of medicalisation explains how a scientific knowledge of medicine can be applied to a range of behaviours not self-evidently medical or biological, but over which medicine can exert control (White, 2009). Henley-Einion (2009) notes that the process of medicalisation has turned childbirth into a primarily medical event rather than a social one. Medicalisation of childbirth as discussed in Chapter 4 refers to the increasing trend for hospital birth within a medical setting, combined with an increased tendency to turn to technology and interventions in childbirth (Coppen, 2005; Smith et al., 2012).

Chapter 8 described the role of the birth space, and described that healthcare professionals tend to perceive women in the medical setting as high-risk (un-booked cases). The impact of the birth setting on how practitioners see birth is particularly problematic in Saudi Arabia, as a hospital birth is the only option for Saudi Arabian women; they cannot have their babies in primary level hospitals, midwifery-led units, or at home. This has further increased the widespread medicalisation of the natural birthing process in Saudi Arabia. A medical viewpoint encourages more use of hospital and excludes the possibility of home birth.

10.4.1.2. Social/midwifery model of childbirth

Social/midwifery model of childbirth was discussed in Chapter 4. Wagner (1994) suggested the term ‘social model of childbirth’ as representing another way of seeing birth. The social/midwifery model of childbirth is where childbirth is seen as a normal physiological biosocial process and important life event (Wagner, 1994; van Teijlingen, 2005). The profession of midwifery traditionally acknowledges elements of the social model, such as the importance of companions during labour. However,

as discussed earlier in this chapter, this model is not authoritative, the birth environment is not conducive for companions to be present.

Historically, until recent generations, women in Saudi Arabia, including my mother, have mainly given birth in the home. Although there is very little documentary evidence to explain the movement from home birth to hospital birth in Saudi Arabia, there is from comparable countries that rapidly modernised such as the UAE (Forrester, 2008). According to Forrester (2008) the UAE similarly has adopted an American influenced system of health care and this has adversely affected how the maternity services are delivered. Forrester (2008) found that the reasons for using hospitals in the UAE included the availability of hospitals, peer pressure and the facilities that were considered to offer safety to women and their babies at hospitals. Therefore, birth in the UAE became medicalised, midwives lost their role in society and women appeared to have lost any choice in place of birth (Forrester, 2008).

A few healthcare professionals acknowledged the existence of a social model of childbirth. As such, they referred to the psychological and social aspects of giving birth, including building trust between the midwife and the woman, and providing reassurance. Despite this awareness, health professionals in this study continued to follow the medical model and the social/midwifery model was mainly absent. Healthcare professionals overwhelmingly treated birth as a problem rather than a social event.

Chapter 8 reported there was very little evidence of social or midwifery models of childbirth in operation in this study, despite the employment of midwives. Although, nurses and midwives working at both hospitals (especially King's Hospital) came from countries that manage labour and birth differently, when they came to work in

Saudi Arabian context, they typically put aside their previous experience and views on birth, and follow routine hospital procedures.

Despite strong evidence supporting the benefits of midwife-led care (Hattem et al., 2008), it is not available in Saudi Arabia as obstetricians are the main providers of healthcare for childbearing women. Cragin and Kennedy (2006) found the midwifery model of care could create equivalent or better outcomes than those associated with the biomedical model. Their findings revealed that appropriate (selective) rather than routine use of technology is associated with more optimal outcomes, such as increased rates of spontaneous vaginal delivery. Regardless of the evidence available to support the benefits of the midwifery model of care, midwives are restricted in practicing their midwifery skills, due to lack of trust in midwifery and the dominance of the medical model, as will be discussed further in the section below.

The following sections discuss how trust, risk and the birth space affect the way childbirth is perceived. These themes fed into the core theme ways of seeing childbirth. Despite healthcare professionals concerns about medicalisation and the use of interventions during the second stage of labour, they do not try to change their practices.

10.4.2. Trust

Trust is an essential component of what it means to be a 'professional' (Frowe, 2005). Issues of trust and the lack of it were expressed during interviews and observations. The data show that midwives have limited autonomy, and cannot practice independently of doctors due to a lack of trust. However, in practice, when the labour and delivery ward is busy, doctors do expect midwives to be more autonomous and carry out midwife-led care, although this is not formally recognised. Thus, midwife-

led care effectively remains hidden, causing frustration when midwives reject the additional responsibility. As detailed in Chapter 7, although obstetricians are aware of the evidence, theoretical knowledge alone was not sufficient for them to change their practice and trust midwives to take care of women during childbirth. For their part, midwives also refrain from taking responsibility to avoid blame falling on them. Doctors in this study believe that midwives are qualified to take care of low risk pregnancy but are afraid to delegate responsibility to them, because of the different ways of seeing childbirth that inform both professionals and practice. As discussed in Chapter 4, midwives' experiences of autonomy and decision-making could be reduced when working within a medically controlled healthcare system, causing them to experience a loss of skills and confidence (Shaban et al., 2012).

In City Hospital, midwives and nurses are not permitted to conduct primigravida births, unless the labour room is busy, when this is unavoidable and they do so without direct doctor observation (the doctor is in the area but not necessarily available). In such cases doctors carry the authority. Evidence suggests that the doctors in hospitals do not trust nurses and midwives sufficiently to do intermittent auscultation or to make mobilisation a routine practice. They attribute their lack of trust in midwives to fewer 'midwifery cases' and complications that have happened previously when midwives were conducting deliveries without supervision. They also cite midwives' perceived inadequate expertise in CTG interpretation. The data appears to suggest that this is organisational distrust, as the data shows informal trust between doctors and midwives. Some doctors trust the midwife to use their midwifery skills to facilitate birth and some looked to the midwives in order to learn from them, as the junior doctors have no experience of the physiological process of

birth. The issue of lack of trust in the decision-making across midwives in obstetric and AMU settings was also identified in McCourt et al.'s (2014) study of the AMU.

This contradiction is evidenced in the relationship between doctors and midwives/nurses. The data shows a complex mix of trust and lack of trust between professionals over the issue of midwives taking or not taking responsibility. This illustrates the paradox faced by midwives: they are not officially allowed to take responsibility, yet are expected to do so when a doctor is not available and criticised for any lack of willingness to do so.

Arguably, the lack of trust and removal of power from midwives may be partly a consequence of Saudi Arabia lacking its own midwifery programme (see Chapter 2). This lack of a proper education and regulation system for midwives suggests the role has not been valued highly enough. Midwifery is not regarded as an autonomous profession requiring a dedicated programme. Instead, it is treated as a branch of the nursing profession. Reliance on overseas midwives adds to this variability, and relates to the variation in standards of education and competencies based on country of origin. These reasons combine to create a lack of consistency and reduce trust in midwifery skills, further embedding medical dominance. The issue of structure, regulation and education in midwifery was discussed in Chapter 2, and will be discussed further in the concluding chapter. These are also reasons differentiating Saudi Arabia from the other countries in which research has been undertaken. In Saudi Arabia, confidence and scope for practice are routinely undermined by organisational scapegoating, protocols restricting the scope of their practice and the low status of the profession generally (no local education available).

10.4.2.1. Trust in technology and visual evidence

The findings of this study, as discussed in Chapter 8, suggest that professionals often selectively trust their senses based on experience. However, they often discount them in favour of other forms of knowledge that are more technologically driven and more highly valued culturally. Machines (such as the CTG and its printout) are perceived as more reliable, and not subject to human mistakes or distortions. Technology shields professionals behind the medical model, but also affords continual surveillance.

Dover and Gauge (1995) found trust in, and over-reliance on technology in a study of midwives' attitudes to foetal monitoring. They found that a CTG printout was a necessity for many midwives, whether for their own benefit or as a requirement of the hospital. This displays a lack of confidence in midwifery monitoring skills, despite the clinical evidence of effectiveness discussed in Chapter 3. A systematic review and thematic analysis by Smith et al. (2012) found that EFM offers professionals reassurance, because they perceive it as providing the hard copy 'proof' of FHR surveillance. However, they found that professionals also recognised the false sense of security offered by EFM and not all professionals depended on the CTG to ensure a good neonatal outcome. Similarly a qualitative study by Chaillet et al. (2007) found that obstetricians described continuous EFM as reassuring because EFM paper strip represents a strong evidence of good practice in case of litigations. A survey carried out by Sinclair (2001) found that midwives reject any idea of reliance on machines in their practice. Sinclair (2001) observed that some midwives fear technology is de-skilling them. However, midwives who trust machines are more willing to use them, and perceive them as reliable.

Healthcare professionals did not classify use of CTG machine as an intervention. EFM is both a security and a threat simultaneously. In Munro et al.'s (2002) study, midwives spoke of contrasting elements, in which the CTG is both a tool of reassurance and an instrument of anxiety. EFM offers reassurance to healthcare professionals, but can hinder communication, reduces patient mobility and increases the need for pain relief and trust in technology (Munro et al., 2002).

The general increase in use of technology, and the enthusiasm for it in Saudi Arabia was discussed in Chapter 2. Rapid advancements in technology continue. Surprisingly, in a culture that is so religious, there is little faith that everything will go well. Therefore, emphasis is placed on equipment and personnel to respond when it does not. Professionals were observed encouraging women to draw on their faith if they became distressed during labour; however, it is important to note the Quran does not simply advocate passive faith, but directs humans to use their knowledge and abilities to improve their wellbeing, such as through the use of technology.

All the healthcare professionals interviewed in the current study stated that they do not trust the CTG to record uterine contractions during labour and birth. Instead, they palpate the uterus to feel and record the contractions, finding that palpitation attains a more accurate result than the CTG machine. It is interesting that healthcare professionals trust the CTG machine when it comes to monitoring the FHR, but not for uterine contractions. This suggests that professionals do have the requisite skills and need not rely on CTG technology for monitoring, although they uniformly regard it as valid.

10.4.3. Risk

As discussed in Chapter 8, the concept of risk was evident within the data when some of the professionals spoke about childbirth and how they view birth as a risky event. The medical model of childbirth views it through a prism of risk, focusing on safety, fear and time management. Despite the fact that the use of interventions during childbirth carries more risk to women and babies, and interferes with childbirth as a personal and family event (Wagner, 1994), the approach of risk-orientation in hospitals contradicts this.

10.4.3.1. Risk and safety

Professionals explained routine practices in terms of risk and safety. Most professionals anticipated complications, then normalised them by taking precautions. Healthcare professionals, therefore, treat all women as if they are or will become high risk. Instead of encouraging birth to be as natural as possible, it is treated as an illness, with all parties fearing the worst. This negativity places people on high alert for problems, and increases anxiety, adding unnecessary stress to the birth experience. Midwives are typically alert and prepared for risk, but do not intervene to prevent complications, as obstetricians do in the medical and actively managed model, as described by the watchful waiting concept in Chapter 4, where midwives often use skills to monitor and to detect problems in a timely manner if they develop, without needing to jump in precipitately (Carlson and Lowe, 2014).

The findings presented in this thesis reveal that many healthcare professionals use the CTG as if it ‘makes things safe’; however, it is simply a monitoring device. Safety relies on appropriate professional observation and responsiveness to any problems as they develop. Healthcare professionals are obligated to ensure the safety of the

mother and more importantly her foetus, and the routine reliance on the use of technology suggests that practitioners are unable to view births as low risk within the context of the hospitalised working environment. Offering options for, or distinguishing between types of FHR surveillance based on opinions of risk as influenced by feelings of safety and reassurance can pose challenges for healthcare professionals in clinical practice (Smith et al., 2012).

10.4.3.2. Risk and fear

The fear of medico-legal practice and litigation was frequently raised in the current study as encouraging healthcare professionals to use interventions during the second stage of labour. I noted an atmosphere of fear and tension at both hospitals; professionals often become extremely anxious before the second hour permitted for primigravidae to complete the second stage of labour commences. The constant use of interventions means doctors do not have a sense of what is normal in childbirth, leading to panic whenever they see deceleration during the second stage of labour. Medico-legal issues are given as the reason for routine continuous monitoring. Fear of litigation was also mentioned in the wider literature as a reason for continuous foetal monitoring (Walsh, 1998; Symon, 2000).

Healthcare professionals in this study were generally afraid to deviate from the hospital norm and routine practices, although written evidence-based guidelines suggested use of more selective interventions. This may have been driven by fear of sanctions or medico-legal action. Fears may have exceeded actual risk of such sanctions, but it also drove their practice. Walsh (2008) argues that despite lack of clinical evidence and safety benefits, continuous CTG has become the most common

obstetric technology and the centre of attention in a birthing environment dominated by risk and fear of litigation.

The atmosphere of fear can create a blame culture, where everyone blames others, whom they perceive as being responsible for any complications. As discussed in Chapter 8, the existence of a blame culture emerged during the interviews at both hospitals. Most healthcare professionals stated that if a complication occurs, they would be blamed. Hence, one of the reasons preventing healthcare professionals from using intermittent auscultation is the fear of the unknown, i.e. consequences in the form of complications. Fear of the unknown leads practitioners to try to monitor constantly to understand what is happening with the baby inside the uterus.

10.4.3.3. Risk and time

When birth is medicalised, control and time are always an issue, as waiting is not accepted within the medical model of care. Healthcare professionals fear going beyond the fixed duration of the second stage of labour, as discussed in Chapter 7. A watchful waiting approach is not customary among doctors, who feel they have to use active intervention. Thus, the time limits placed on the labour process heavily influence use of interventions to accelerate labour. Despite a lack of evidence concerning the duration of natural first or second stage labour, time restrictions are often imposed on the duration of the second stage of labour in labour ward protocols internationally. In the current study, this was observed to lead to frequent vaginal examinations, and to dismissing the woman's preferences, which can lead to complications and cause discomfort to the mother.

10.4.4. Power

To obtain a deeper understanding of the use of interventions during the second stage of labour in the labour and delivery room, in order to explain the issues highlighted in this study, it was crucial to review theoretical literature regarding the emergent core theme 'power'. Foucault (1973, 1995), Arney (1982) and Jordan's (1993, 1997) work on power explains how power is exercised in the labour and delivery ward. Aspects of 'medical control' were apparent in both hospitals; exercised not only by doctors, but also by midwives and nurses, and will be discussed in this section. Analysis of the data, as described in Chapter 4 confirms that power results from pursuit of the medical model within an institutional context.

10.4.4.1. Following the rules and disciplinary power

Many of the healthcare professionals included in this study mentioned institutional protocols and guidelines to explain their use of interventions. They referred to the importance of compliance, although some healthcare professionals expressed a preference for resistance or only selectively following protocols. Occasionally, practitioners claimed to be following protocols that did not exist in hospital documents at all. Contradictions between nursing and medical guidelines were found at one of the hospitals, reflecting issues regarding the hierarchy and power dynamics between departments, especially concerning the routine classification of women as high risk because they had not received antenatal care at the hospital.

On balance, although written guidelines may appear to be an important rationale informing practice, the analysis presented in this study suggests they play only a small part in influencing healthcare professionals' decisions and practices during the second stage of labour. Healthcare professionals feel unable to work within what they

perceive to be hospital rules; however, as discussed in Chapter 7, these rules are rather abstract, not based on guidelines that are written down, which are more evidence-based. Henderson (1984) cited by Dover and Gauge (1995) in her study of midwives and the factors influencing the decision to rupture the membranes, suggested a difference between written and unwritten policies. Henderson (1984) cited by Brooks (1990) recognised from her observation and interviews that the midwives were not aware of their compliance with routine, but believed they were acting with more autonomy and reliance on judgement.

In the current study, it was observed that disciplinary power was inscribed in practice, as were interventions governing healthcare professionals and women. According to Foucault (1995, p.26); power is '*exercised rather than possessed*', therefore, women and healthcare professionals have a specific position in the obstetric hierarchy, by virtue of their status.

“Power is not exercised simply as an obligation or a prohibition on those who ‘do not have it’; it invests them, is transmitted by them and through them; it exerts pressure upon them, just as they themselves, in their struggle against it, resist the grip it has on them”(Foucault, 1995, p.27)

10.4.4.2. Authoritative knowledge

The medicalised view of childbirth establishes which healthcare professionals possess authoritative knowledge, and subsequently, legitimate decision making power. The study findings correspond to Jordan's (1993; 1997) construction of 'authoritative knowledge', in which medical knowledge carries the most weight. As discussed in Chapter 4, in any social setting multiple ways of knowing exist, but where these different types of knowledge are contradictory, one kind of knowledge often

dominates. The concept of authoritative knowledge relates to Foucault's (1980) theory of power and knowledge. Decision and action are both motivated by authoritative knowledge. Foucault's (1980) main proposition was that scientific knowledge (especially medical knowledge) and power are strongly connected. Medical knowledge replaces and delegitimises other potentially relevant sources of knowledge (such as a woman's prior experience and knowledge about her body) (Jordan, 1993). This delegitimation of non-medical sources of knowledge is common at Saudi Arabian hospital births, which resemble American ones in this regard. During the interviews and observations it became evident that throughout labour and birth, women's knowledge and experiences are discounted.

As was presented in Chapter 9, during one of the observations, a midwife exerted her power over a woman to insert a urinary catheter without her consent (even when the woman was trying to resist), forbidding from going to the toilet to urinate, stating that she might give birth in the toilet. Thus, midwives in this study were observed to exert their power over women, despite their own feelings of disempowerment. The midwives are, therefore, far from powerless; they employ the technocratic discourse of birth to exert authority over women and access cultural scripts of authoritative knowledge as tools of subordination.

10.4.4.3. Surveillance, monitoring, and control over childbirth

The medical surveillance of women during the second stage of labour through hospital confinement was evident in the study, as was the medical surveillance of all professionals. To achieve a more in depth understanding of the use of interventions during the second stage of labour in maternity units in Saudi Arabia, Foucault's (1995) description of the "Panopticon" was used. Foucault referred to the theory of

panopticism as having wide relevance to the medical model of care in childbirth contexts (Walsh, 2008). The use of the CTG machine in the labour room encapsulates and exemplifies the image of a prison panopticon that Foucault (1995) used to illustrate his theory of disciplinary power and self-regulation through observation (McCourt, 2009).

In the labour and delivery room within the hospital setting, the panoptical system can be seen as categorising and assigning roles for individuals in relation to each other (Foucault, 1995).

"Under this new regime no distinction between normal and abnormal exists. Instead of births being categorised for the sake of obstetrical intervention, interventions like induction of labour become part of integrated systems of control arrayed around a new conceptualisation of pregnancy and childbirth." (Arney, 1982, p.85).

Surveillance directed at the foetus, can be used to control the woman by restricting her movement and surrounding her with anxiety (Walsh, 2008). It can also be used to control healthcare professionals by dominating their attention, distracting them from being wholly present with women in other ways (Walsh, 2008). Moreover, Foucault (1995) claimed that individuals can be part of a hierarchy, in which people who perform surveillance in one setting can be the object of that surveillance in another. Therefore, individuals discipline themselves, contributing to their own subordination.

In this study, the women were subjected to routine continuous monitoring using the CTG, regardless of the written policies at both hospitals. Continuous monitoring is a means of controlling the birth and the woman (Arney, 1982; Arney and Neill, 1982); the obstetrician is a somewhat more remote manifestation of that control (Arney,

1982). Arney (1982) argues that monitoring permitted the extension of obstetrical visualisation to all births, permitting the withdrawal of disciplinary, adverse classifications of birth, and of the practices such classifications adopted.

Arney (1982) also explained that monitoring and medical technology can be experienced by medical professionals as a tool for monitoring and controlling them, leading to self-discipline and self-monitoring. Monitoring is described by Arney (1982, p.123) as:

“a Janus-faced structure with one face watching over women and their births, the other watching over physicians”.

In my study clear evidence of the medical ‘gaze’ (Foucault, 1973) is evident for those giving birth in the labour ward setting. Not only does it increase the use of interventions during birth, but also effects professionals, who modify their own actions and comply with routine interventionists practices, despite their discomfort and their awareness of clinical evidence. The most common manifestations of these gazes were the CTG machines, IV fluids and other interventions that confined women to bed.

10.4.5. Choices and informed decision making

The choices made available to women during labour and birth are restricted by medical professionals and hospital policies. Although statements about informed choice and consent are all-pervasive in post-modern cultural contexts like the UK, they are far less so in a rapidly modernising but socially traditional country context like Saudi Arabia. McAra-Couper et al. (2011) claim that social changes have resulted in popular and professional belief that a woman’s informed choice is always

the right choice. However, in reality, such a choice does not exist in neutral terms, as it is in fact shaped, constrained and limited by the options available. Choice is always situated, and powerfully influenced (even pre-determined) by the context and milieu in which women give birth. This is not a reason to abandon choice, nor does it reduce the significance of a choice that is informed. However, in the context of the current study, choice (or lack of it) is shaped by the socio-cultural context of Saudi Arabia and by its health system, as will be discussed in the third part of this chapter.

The MCWP (2007) states that it is essential to respect a woman's desires and needs, and that they are able to make informed decisions about their care. The observations made in this study show that women were rarely asked whether they wish to have childbirth related interventions, such as EFM, which is the de facto standard of care in both hospitals. Typically, neither consent nor informed consent was obtained, and when the woman attempted to make a choice the healthcare professionals were not comfortable with, they found reasons not to acquiesce. Doctors always made decisions concerning interventions without considering the woman's views; the woman's willingness that the intervention take place was not a requirement, she was expected to agree without argument. The only information provided related to the intervention and the reason behind it. In addition, the limited concept of choice was used strategically by professionals to justify their use of interventions and to restrict the midwife's autonomy. Although women themselves were not interviewed as part of the study, some women were observed attempting to resist interventions, and none demanded or requested them. Although some cried for relief in the active first and second stages of labour, the comfort offered was in the form of faith and prayer, and professionals did not adjust the use of interventions such as the CTG machine to increase the women's physical comfort.

These findings are reminiscent of Kirkham's (1983) study of labour ward interactions, where, on most occasions, women are not consulted, but merely told what is going to be done. In the current study's observations, only limited information was given to women concerning this. A small descriptive study by Henderson (1984) cited by the Royal College of Midwives (2012) found no discussion with women about interventions prior to the rupturing of membranes.

There is evidence that women sometimes override the medical model and take power for themselves; as exemplified by some women's refusal of interventions. However, when a woman refuses an intervention, healthcare professionals attempt to convince her to have it, and ultimately she has to accept the intervention, as typically no alternative is offered. Nurses, utilise 'persuasion' extensively as a means of linguistic control to get patients to do things without offering them a choice, or by issuing direct instructions to ensure patients adapt their understanding of what is appropriate behaviour (Hewison, 1995).

The ability to request interventions was as important to the women as their ability to refuse interventions. Such requests encountered the same kinds of difficulties; it was hard to make their voices heard to gain the power to decide the course of their births. Some healthcare professionals in the study were unfamiliar with the idea of women having a 'role' or choices, as was reflected in the confused interview responses to my question about women's role in decision making. Indeed, some healthcare professionals characterised women as uncooperative, disempowered, lacking in interest, submissive, passive and assumed to be ignorant. This is despite my observations of women attempting to be active, by trying to make some decisions or resist some interventions, or physically rebelling despite being overruled, ignored or persuaded (often with reference to prayer).

10.4.6. Saudi Arabian context

Lack of women's choice is an issue that permeates the institutional and socio-cultural context within which this study took place. As discussed in Chapter 2, Saudi Arabian society is male gendered, where women are under the control of men. While there have been dramatic changes in the power that women have in Saudi Arabian society, largely due to rapid modernisation and increased involvement in the workplace, the power men exert over women is far more visible. The dissemination of strict gender 'apartheid' (as used in this context by Ratner and El-Badwi (2011) in Saudi Arabia, including the exclusion of women from most areas of civil life through institutional rules, cultural concepts and artefacts is highly prevalent and was discussed in Chapter 2.

This study shows how this gender segregation in Saudi Arabia plays an important role in shaping the maternity care system. While in this study there were prevailing notions of privacy and the separation of men and women during labour and birth, these were at times in conflict with medical practices involving male doctors working with women. In particular, there were issues with regards to male obstetricians, as they were not able to examine the women without a mentally competent adult, either a male or female relative or other female healthcare professional, being present (Al-Shahri, 2002). Additionally, the general lack of authority granted to women was reflected in the context of childbirth where women did not have the power to decide aspects of their care during labour and birth in medicalised settings. If a woman refused an intervention, professionals often spoke to her husband, as he had influence over her decisions. Typically, they persuaded him to make her accept the intervention. If culture demands women relinquish control in their daily lives it is

unsurprising that they acquiesce to the demands of health professionals or husbands on the subject of how to behave in labour and birth.

While the patriarchal tenets are disempowering, other elements of Saudi Arabian culture are actually quite empowering to women during childbirth. As discussed in Chapter 2, Saudi Arabian society's core value system is strongly oriented towards religion. Bawadi (2009) advised that childbirth itself must be explored in the context of religion. Islam looks at childbirth in a very positive way, where Muslims believe that prayers in the form of supplications are accepted and responded to during childbirth. This makes prayer a source of perceived strength to a woman in labour. Additionally, in Muslim culture birth and death are generally viewed as natural events that are controlled by Allah, potentially lessening the fear associated with the loss of a child. Finally, in Saudi Arabian culture pain is not viewed as a problem but as a normal part of childbirth. More generally, pain and suffering are seen in Islam as one way to erase the sufferer's sins. This sets it in contrast to the medical model, which emphasizes pain-free labour, and at times uses pain-relief medication as a mechanism for sedating and controlling women.

The rapid modernisation of Saudi Arabia is largely due to exponential economic growth, and has facilitated the desire and possibility to keep up with the advancement of technologies in Western societies. This has directly impacted the healthcare system, where it is clear that technology is increasingly used, and Western medical values towards consistent monitoring and medicalisation of childbirth have now become the norm. Easy access to information and medical evidence through widespread use of the Internet has also allowed a rapid shift from more traditional practices to modern scientific practices. Modernisation also appears to have facilitated a generally increased pace of life in Saudi Arabia, which has translated into

expectations in hospital practices where birth is as accelerated as possible and is expected to be no more than two hours.

These complex and at times contradictory influences help us understand the ethnographic context within which a highly patriarchal and religious Saudi Arabian system continues to influence (both positively and negatively) the use of interventions in the second stage of labour.

10.5. Reflections on the research process

Conducting an ethnographic study is a challenging and rewarding experience. This reflection was a combination of hand written diary, completed during fieldwork, and the use of Evernote software to record my thoughts during the research process. This data was later transferred into a word document using Atlas.ti. Reflecting on how the study was conducted gave me the opportunity to learn from the process and determine what I would do if the situation arose again.

Although I was certain that I wanted to observe childbirth practices, to confirm my Master research findings, it was challenging to find a suitable research methodology. Initially, I felt excited, and was ambitious about overcoming the problem of unnecessary interventions in Saudi Arabia. Nevertheless, I also felt nervous and self-conscious, feeling that I did not have enough knowledge or experience of conducting qualitative research. However, I was eager to carry out this ethnographic research.

During my Masters research, I completed the ethical application process required in Saudi Arabia and by City University, which involved seeking 5 approvals from different ethics committees. As a midwife, I also felt content and confident about attending hospital births and observing practices. On reflection, I realise that without

my intrinsic motivation and the trust and encouragement of my supervisors I would not have been able to conduct this research.

I have previously lived and practiced nursing and midwifery in various health systems in several regions within Jeddah, Saudi Arabia. This has enriched my awareness of various Saudi Arabian subcultures, yet my awareness is definitely far from complete.

My initial focus was a concern with the high rate of episiotomy and the lithotomy position, but I feared that my expectations might be wrong. Therefore, before starting my application to the ethical committee, I discussed the issue with one of the nurses in the hospitals where I used to work. She told me that episiotomy and lithotomy positions were frequently used previously, but now they are changing, and the lithotomy position is now used only when there is ventouse delivery and suturing. For episiotomy, the current practice was only if needed, and this was especially common for primigravidae, which was a change from former practice.

Thus, my assumptions and the results of my 2009 survey of labour ward practices had to be questioned. I understood that by conducting an ethnographic study, I would be exploring issues beyond decision making about episiotomy practice, but I was afraid that if I found a rate of episiotomy below 30%, I would waste time waiting to observe decision making about episiotomies. Therefore, I had to question whether I should retain a narrow focus on episiotomy, or take a broader focus to observe second stage of labour practices, in general, and the role of healthcare professionals during this stage; in particular, examining issues around the use of interventions, whether they were routine or selective.

10.6. Strength and limitations of the study

It is essential for researchers to recognise the strengths and limitations of their studies, in order to offer a greater understanding and to help correct the limitations identified or to take account of them in their interpretations, as well as to make recommendations for future research.

10.6.1. Strengths of the study

To my knowledge, this is the first ethnographic research conducted in the labour room in Saudi Arabia. It is also the first to document the interventions used during the second stage of labour and the reasons for their use in this context. The ethnographic approach was a strength of the study, as it provided in-depth understanding of healthcare professionals' practices during the second stage of labour, and the gaps between policies, theories (or perceptions) and practices. This approach made it possible to use multiple data collection methods (interviews, observations and hospital documents), and is the first to focus on interventions during the second stage of labour using an ethnographic approach in this cultural context.

The use of multiple methods overcome the limitations of using an interview alone, and also encourage comparisons between what is said, what is written and what is done. The use of multiple methods aided exploration of the use of interventions by different healthcare professionals during the second stage of labour in the complex environment of the labour and delivery unit, in two different settings. The use of the different data sources to compare perspectives on reality helped to reach a deeper and more critical level of understanding. Additionally, an ethnographic approach demands that the researcher rationalise their observations in relation to their social and cultural context, and wider as well as local influences on beliefs and practices.

This research allowed me to compare observations of practice with healthcare professionals own justifications of the use of interventions during childbirth, and then compare this information with broader evidence, to understand the underlying or hidden reasons that might influence professionals' use of interventions. Healthcare professionals cannot fully explain what is happening in their practice, as the problem of using interventions is complex and culturally situated.

The findings from this research provide rich data to develop understanding of the use of interventions during the second stage of labour. This informs current debates on the impact and the influence of the ways that childbirth is seen, and medical power and the implications of EBP for childbirth practices.

10.6.2. Limitations of the study

However, there were also limitations to the study. The first limitation was that this research did not explore the perceptions of women during childbirth. Thus, the study was confined to healthcare professionals' actions and opinions, focusing on their perceptions and observing their practices to uncover aspects of obstetric and midwifery culture in labour and delivery units. The limited time allowed for a PhD, and the focus of this research on healthcare professionals did not allow the opportunity to include women in the interviews. Additionally, interviewing of women in this social context might have posed challenges, as women are not accustomed to being asked their views about services provided to them, and they may have been reticent in sharing criticisms with a researcher. This potential was echoed in my experiences when seeking consent for the observations; despite my offer to explain the research and provision of the information sheet, women asked me few questions and none declined consent to participate.

A second limitation was that the perceptions of healthcare professionals were explored through my own critical lens. I have described earlier how I attempted to ensure the rigour of the study, and to question and examine my own assumptions and beliefs. However, the findings are influenced by my worldview as a female researcher, nurse and midwife, who has grown up, studied and worked in Saudi Arabia, but also studied elsewhere.

A third limitation was the time spent on the observations. I spent only two months in each hospital. The main aim was to observe practices during the second stage of labour, which is normally a short period of time. To overcome this limitation, I observed morning, night and weekend shifts to determine if the time of shifts affected use of interventions. I also commenced my observations in the first stage of labour, to ensure I fully understood the process undergone by women before entering the second stage.

The findings of the study were difficult to generalise in terms of the wider population because data was collected from only two government hospitals in Jeddah. However, it should be noted that it was not the intention of the current study to generalise findings to a wider population; the main aim was to understand and explore the use of interventions during the second stage of labour among healthcare professionals, and what affects their use. Theoretical generalisation is possible, as evidenced in this chapter, which has discussed how my findings resonate with those from studies in other countries, as well as having distinct features relating to the Saudi Arabian context.

10.7. Conclusion

This ethnographic research has provided an understanding of healthcare professionals' attitudes and perceptions concerning the use of interventions. This has included their stated justifications, their explanations of what influences their practice, and potential underlying or broader reasons. Without a better understanding of the reasons influencing the use of interventions during the second stage of labour, efforts to decrease their routine use are unlikely to succeed.

Healthcare professionals may not wish to be seen to challenge the authority of the organisation within which they are employed, however, although written guidelines may appear to be an important reason, in practice they only minimally influence healthcare professionals' choices and actions, and may be perceived rather than actual.

The findings of this ethnographic study reveal excessive use of interventions during labour and childbirth, contradicting the findings from EBP. The findings also revealed that neither professionals nor the women themselves are necessarily comfortable with this situation, but do not feel empowered to change it.

The current issue within the Saudi Arabian hospital setting is not simply the use of interventions during the second stage of labour; the problem is the treatment of the birthing process as a pathology. Interventions are a manifestation of the power dynamic in the healthcare system, based on the medical model, which requires intervention as a preventative measure to avoid possible future problems. This approach to practice has a huge impact on the way the women respond to care.

Almost as soon as women become pregnant, healthcare professionals begin to introduce doubts based on medical concerns. My observations showed that the routine use of interventions during the second stage of labour can be a dehumanising process, wherein women lose control of their bodies, and their wishes and goals are disregarded.

Chapter 11: Conclusion

11.1. Introduction

This ethnographic study provided an opportunity to explore the use of interventions during the second stage of labour among healthcare professionals in Jeddah, Saudi Arabia. The findings reflect the complexity of the use of interventions during the second stage of labour and the multiple influences on healthcare professionals to use these interventions. A range of theories and concepts have informed the analysis. This chapter provides a review of the findings and explains how the thesis contributes to the larger body of knowledge. At the end of this chapter recommendations and implications for improving practices during the second stage of labour in Saudi Arabia are discussed.

11.2. Review of the findings

A key finding is that health professionals appear to devalue their own skills and knowledge to fit in with a dominant culture of medicalisation. This is in line with a worldwide shift from home births to hospital birth, and more women giving birth within a hospital setting (WHO, 2006b). When birth occurs in the hospital, the woman is automatically subject to more interventions (Coppen, 2005; Smith et al., 2012). The interventionist/medical model of care exists among the healthcare professionals working in both hospitals in this study. The data also show that the natural model of birth is subordinated and the medical model is dominant, while a social model is not applied. This dominance is reflected in professionals' practices. Although most of the healthcare professionals understood the consequences of the natural and medical models of childbirth, their thinking, their accounts and my

observations suggest that they dismiss the natural model to follow hospital policy and to deal with their fears of medico-legal problems or undefined sanctions. Thus, despite their knowledge, personal opinions and practical experience, they feel themselves limited by their position in the hospital hierarchy, and their feelings of impotence to challenge institutional power. These feelings appear to apply to obstetricians as well as to midwives and nurses, and even to more senior obstetricians, despite the clear professional hierarchies which are present. One of the most visible hierarchies was the male dominant culture within the hospitals. The majority of professionals in this study, obstetricians as well as midwives are women, but this does not alter the fact that the model and system of care is male-centric. A professional hierarchy is also clearly present, with doctors at the top of the hierarchy, followed by midwives and by nurses. It is also clear that there are hierarchical differences due to medical experience and training, with registrars being more conservative and less confident in making independent decisions than consultants. Adding to the complexity are nationality differences, due to differential nursing and midwifery contracts.

The data reveal the complexity of power and surveillance in the medical context of childbirth. In both hospitals, during the course of the observations and interviews it appeared that healthcare professionals hold limited power, or at least perceive their power as limited in the face of 'hospital policy'. The data suggest that even the more senior clinicians defer to authority, but this authority is not reflected in the hospital written policies and guidelines. Institutional anxiety is prevalent, limiting autonomy among professionals because of an unwillingness not to adhere to the rules. Those professionals then, in turn, limit the autonomy of the women they care for.

Obstetricians also feel that they cannot be confident in midwives' skills because they come from so many countries. Some midwives have had a higher level of training than others, and some of them come from countries where they have not learned how to suture. If Saudi Arabia had a midwifery training programme, or if hospitals were to provide in-service training to ensure comparable skills levels, this might become less of an issue. There is no such programme because midwifery is not regarded as an autonomous profession requiring a dedicated programme. Instead, it is considered a branch of the nursing profession. There are contradictions, however, in that some obstetricians state that they have learned a lot of midwifery skills (such as positions) from midwives, and junior doctors are often supervised and trained by senior midwives and in practice obstetricians often expected midwives to lead care autonomously when the unit was busy, commenting in interviews that midwives are not willing to take responsibility.

Although professional views are complex, in the dominant model operating in this context birth is mostly seen as a medical event and interventions are used routinely to limit or manage fear, perceived risk, and blame, and to compensate for lack of trust between professionals. It was shown how perceptions of birth shape the model of care currently on offer, and how, in turn, everyday practices and their underlying models help to shape the professionals' perceptions of birth.

The data show how women are often engulfed in a culture of fear. Some of the primary fears of healthcare professionals include fear of birthing complications, fear of not following the rules, fear of time limits, fear of the unknown, and fear of medico-legal litigation. This is seen to be one of the primary motivators for surveillance and a reason why women are often not seen as having any rights or even any place in decision-making. Nevertheless, statements such as 'we don't do this

because women complained' are common. It appeared that what women have said or complained about is used rhetorically to exercise power in a political way, to justify policies that restrict midwifery roles and model of care, despite the evidence for their safety (Sandall et al., 2013).

In this medicalised context of childbirth, healthcare professionals are motivated to ensure that women have access to knowledge that then informs the way they see childbirth. However, professionals' comments and the observation of care indicate that education for women is limited and the education desired for women fits the medical model. While staff described wanting women to know more, this appeared as being mainly to ensure their co-operation, not so that they can take any control over the experience of birth.

Overall, my analysis clearly demonstrates the influence of hierarchical system control, the impact of the medical model, and the role of power in medical surveillance and fear culture.

11.3. Contribution to knowledge

This study builds on existing knowledge and adds to the theoretical body of knowledge on understanding healthcare professionals' practice during the second stage of labour.

The study revealed the presence of contradictions between what is said, observed and written in regards to the use of intervention during the second stage of labour. The fluidity within the professionals' talk and practice provides an illustration of the social complexities surrounding the management of the second stage of labour in both hospitals in this study.

This study adds to understanding what the barriers are to more EBPs and hence the kind of strategies that are more likely to be effective. Barriers identified by previous researchers in Chapter 3 consisted of restrictions created by EBP systems themselves, human factors, and the organisations within which patient care is delivered. My study further supports these as barriers, but adds a deeper understanding of these issues. My study found that fear culture, hierarchy system control, perceptions of the medical model, and a surveillance culture were far more impactful on the implementation of EBP during the second stage of labour. Previous research has applied interventions to encourage the use of EBP (Chaillet et al., 2006; Chaillet and Dumont, 2007; Althabe et al., 2008; Kulier et al., 2008; Thorp, 2008; Iyengar et al., 2014), but these interventions often fail to generate lasting effects (Bick and Chang, 2014). It is likely that these previous strategies tried and failed because they were based on assumptions about the issues, and often proposed technical solutions that did not address the actual underlying barriers to implementation.

In considering barriers to and facilitators for implementing evidence-based healthcare, the views, attitude and practice of healthcare professionals concerned directly with those interventions are important because exploring individual views can offer insight and understanding that might not be captured by experimental research, which focuses primarily on clinical outcomes. Furthermore, it may offer some explanations, from a user's perspective, on the use and choice of FHR monitoring modalities in practice, especially when this is contrary to current recommendations. However, implementation of EBP into obstetric and midwifery practice remains challenging.

Careful consideration of professionals' views, attitude and practice is required as part of the process to ensure the implementation of EBP and appropriate practice change in the use of interventions during the second stage of labour. This study shows professionals' views, attitudes and practices are significantly socially constructed; they are deeply embedded in Saudi Arabian culture through Islam, gender, customs and education that all have huge influence on Saudi Arabian society and healthcare system. While the study was conducted in Saudi Arabia, the findings of the research could be applicable to other cultures where there is an increased use of interventions during childbirth, specifically in hospital settings. Due to the increase in technology use and modernisation, many western and developing countries share similar aspects of interventions during childbirth as Saudi Arabia. This study adds to the body of knowledge on how society and health systems play an important role in shaping the maternity care culture. In the context of the current study, the use of interventions during childbirth is shaped by the institutional and socio-cultural context of Saudi Arabia as well as by its healthcare system.

This study contributes to the body of knowledge by showing that in the hospital setting and medicalised culture, the social model of childbirth is mainly absent, where the use of technology and interventions during childbirth ignore the fact that birth is a social event rather than simply a medical event. Although nurses and midwives working at both hospitals (especially King's Hospital) came from countries that manage labour and birth differently, when they came to work in Saudi Arabian context, they typically put aside their previous experience and views on birth, and follow routine hospital procedures. The analysis suggested that professionals came to devalue other types of knowledge, even their own, which are not authoritative in this setting.

My findings echo in many ways the findings from more post-modern contexts like the UK. However, while there are many similarities between a modernising Saudi Arabia and modernised Western countries, Saudi Arabia (as discussed in Chapter 2) also presents many unique cultural features. It is a wealthy country that has undergone more rapid social change than many Western countries, modernising rapidly and embracing new technologies while also holding onto traditional social values that are very patriarchal.

This study also presents a new way of conceptualising the culture of maternity wards where interventions occur during the second stage of labour. It illustrates two core themes - ways of seeing childbirth and power. These core themes influence the drivers for interventions, which include fear culture, use of the medical model, surveillance, and a hierarchical system control. By identifying both the drivers and their underlying causes, this study provides a novel conceptual model that explains how these drivers may directly impact the use of interventions during the second stage of labour in hospital setting (Figure 12).

Finally, this study highlights the structures and mechanisms at the organisational level which underpin the medicalisation of birth and principally restrict midwives from practicing their skills. It supports previous research which shows that institutions and hierarchies impact on the decisions midwives make, with midwives often being limited in their practice and being less satisfied with their job (Blix-Lindstrom et al., 2008). Place of birth thereby seems to have a huge impact on midwives perceptions of power and control, and the decision-making processes regarding their use of interventions during the second stage of labour is heavily affected. Midwives often seem aware of EBP, but may feel disempowered to practice according to EBP in the hospital setting. This can lead to routinisation and

normalisation of interventions, leading midwives to potentially implement a cascade of unnecessary interventions. This is further exacerbated by imbalances in the power exerted by doctors, who are often unfamiliar with natural childbirth and require the use of these interventions. This means that a focus on professional knowledge and attitudes is clearly not sufficient and attention must be given to the health system, health professional education and the institutional context of birth, which all influence professionals' attitudes and practices. In this sense, consideration can be given to the findings of research inclusive of the reasons for not adopting EBP within clinical practice.

11.4. Implications and recommendations

From this ethnographic research a number of implications and recommendations can be derived that can help to develop standards and strategies to guide education, policy and regulation, clinical practice and the research of healthcare professionals in the maternity units. As part of this thesis, a number of avenues have been utilised to disseminate the findings, including a number of UK and international conference presentations. Future plans include presentations to disseminate results locally within the two government hospitals, and relevant findings will be submitted to academic journals.

11.4.1. Education

The findings from this ethnographic research have implications for obstetric, midwifery and nursing educational initiatives. The development of educational programmes are needed to promote healthcare professionals to focus on midwifery

philosophy, woman- centred care, continuity of care and the facilitators and barriers for a normal physiological childbirth.

In particular, this study identifies a pressing need for a dedicated midwifery educational programme, which currently does not exist in Saudi Arabia. This programme would help to regain and create trust in midwifery skills and also might help to make midwifery an autonomous profession. This, in turn, could lead to lessening medical dominance. It would also help to reduce the reliance on overseas midwives, which currently add to variability in midwifery care in Saudi Arabia, as these international professionals work according to the varied standards of education and competencies from their country of origin. Almost all midwives in Saudi Arabia are expatriates. A direct entry undergraduate midwifery programme is also needed by colleges and universities in Saudi Arabia to encourage Saudi nationals to study midwifery.

In addition to a dedicated midwifery programme, educational strategies are required to ensure the implementation of EBP. While awareness and understanding of EBP appears to be common in the labour and delivery wards, the actual implementation of EBP is more complex. There are ways in which the existing knowledge could be enhanced so that professionals have more depth of knowledge and more confidence in it; also more critical appraisal skills to underpin EBP. Studies such as this one can help to evaluate the specific barriers to the implementation of EBPs in maternity wards within a hospital setting, ultimately increasing the use of EBP and reducing the use of unnecessary interventions.

11.4.2. Clinical practice

This research has implications and recommendations that can translate into improved clinical practice for obstetricians, midwives and nurses. My ethnographic study supports the idea that healthcare professionals should develop the ideology of ‘with women’ rather than ‘with institution’ to provide the best care for women during childbirth.

One way this can be achieved is by changing the labour and delivery room environment from a clinical setting to a more woman-centred, home-like, and comfortable environment. This is in line with EBP, which suggests powerful effects of place of birth on the rate of intervention and women’s satisfaction of the birth experience (Birthplace Collaborative Group, 2011, NICE 2014). This type of environment will enable women to take more control of their birth, and reduce stress and anxiety, which can facilitate more positive birth outcomes. It also reduces physical barriers for the woman, and enhances the engagement of midwives to practice in ways that support women during childbirth and support physiological birth processes.

A change in the attitude and views of healthcare professionals towards childbirth is also desirable, shifting them from a medical model towards a more social model of care. Healthcare professionals should understand with more confidence that childbirth is a physiologically normal event and therefore does not require any medical intervention unless there is a medical need for it. When the beliefs of the healthcare professionals shift to a more social model of care, it will become important to also provide the women with clear information that explains that labour and birth are a natural part of a woman’s life rather than just a medical event. Healthcare

professionals in the hospital setting should facilitate and discuss birth plans with women antenatally to help her make informed decisions about her care during the second stage of labour. This is especially vital in the Saudi Arabian setting where the use of unnecessary interventions during childbirth is high. This would require changes in the organisation and delivery of antenatal care and providing suitable antenatal classes.

The notion of being ‘with woman’ is in line with midwifery models of care (Blaaka and Eri, 2008), so it is recommended that midwives be at the forefront of decision-making that supports childbirth in hospital settings. To do this, I recommend that the position of Saudi Arabian midwives concerning childbirth should be improved because in Saudi Arabia midwives do not practice independently from obstetricians, unlike in other countries. The position of midwives would be improved by implementing hospital-based midwifery units, akin to the hospital-based midwifery programmes in the UK (Birthplace Collaborative Group, 2011). This would lead to an empowering of midwives and nurses, who could then help to empower women to challenge practices that are against their wishes. This empowering of both the women working in the wards and the women giving birth would help circumvent the problems associated with the dominant medical model of care.

11.4.3. Policy and regulation

This ethnographic study has implications and recommendations that can help in developing policy and regulations based on EBP, and to improve the obstetric system. These policies should be written with an understanding of the childbirth contexts, and should always be relevant to the Saudi Arabian culture.

The present study established that currently there are no standardised guidelines for normal childbirth in Saudi Arabia. Instead, each hospital has their own set of written guidelines - which are often incomplete, outdated and focused on interventions rather than normal births. Instead, in order to facilitate the use of EBP I recommend developing Saudi national policy and guidelines for normal childbirth. This should be based on high quality evidence, promote the normality of childbirth from an evidence-based midwifery perspective, and provide guidelines for the appropriate use of technology and intervention during childbirth. In addition, I recommend initiating a separate midwifery association or council, to advocate specifically for midwives and contribute to the national development of policies and regulations for practice. This would empower midwives, and encourage decision-makers, leaders, managers and stakeholders of maternity services in Saudi Arabia to acknowledge and recognise midwifery expertise. Once generated, hospitals need to ensure that the policies for normal childbirth are followed by health care professionals, and that the policies in their maternity departments are updated regularly according to the best available evidence.

The simplistic conceptualisation of 'normal birth' in Saudi Arabia, focused on the mode of birth rather than type of interventions used, is also seen as an area in need of improvement. I observed this as a problem in both of the hospitals I visited in Saudi Arabia. I recommend adopting a precise working definition for normal birth in Saudi Arabia to enable accurate comparisons to be made between similar women using different services and models of care. In order to better define birth normality, I recommend the development of a national database on maternal and infant morbidity and mortality, interventions rate such as EFM, episiotomy, induction, AROM, epidural, instrumental birth, and elective and emergency Caesarean section. While at the moment there is a database, it only covers government hospitals and very

selective private hospital information, and does not include specifics about the types of interventions used during labour and birth. A more complete database would help healthcare professionals conduct research to quantify the use of interventions and to identify possible concerns and areas in need of improvement.

The normalisation of hospital birth has made homebirths very uncommon - with government statistics showing the overwhelming majority of women giving birth in hospital settings. However, from an evidence-based perspective, homebirths are often as safe as hospital births (Birthplace Collaborative Group, 2011) and should be considered a viable alternative. However, the health care system provides women in Saudi Arabia with little information about the impact that place of birth can have on the safety of the birth process. Urgent attention is therefore needed to share this information with women, to empower them by giving them the ability to make more informed decisions.

11.4.4. Research

This study provides a novel conceptual framework which highlights the drivers for the use of interventions during the second stage of labour. This model proves a foundation for future research, as additional studies can further explore the specific roles of fear culture, medical model, surveillance, and the hierarchical system control in understanding the use of interventions. This model was designed to be useful for different cultures and contexts, however the actual generalisability needs further validation.

This study only examined the model from the perspective of healthcare professionals, so it would be useful to undertake a study to capture women's perceptions of the use

of interventions during the second stage of labour and its relation to dominant ideology in the medical and midwifery settings. Additionally, interviewing of women in this social context may have posed challenges in that women are not accustomed to being asked their views about the service provided, and they may have been reticent in giving any critical perceptions to a researcher. Researchers could investigate how best to involve women in giving their views and stories, and whether it fits with the model proposed in this study. A phenomenological study is needed to explore women experiences of the use of interventions during the second stage of labour in hospital settings.

As part of the proposed conceptual framework focuses on the medical model, it is recommended that the medicalisation of childbirth is studied qualitatively by investigating the attitudes and preferences of women, and the community outside the hospital context. This would add further clarity to what has driven this medicalisation, and highlight women's attitudes to current practices and their own personal experiences. Further exploratory research could also be carried out to explore how we can move from a situation in which authoritative knowledge is hierarchically distributed, into situation where it is horizontally distributed. The latter involves all healthcare professionals and women in childbirth contributing to the store of knowledge and the basis on which decisions are made. Also, qualitative research should be undertaken to explore how we can move towards a more social view of childbirth and less medically controlled childbirth, while providing women more freedom to make informed decisions about their care.

The findings of this study also suggest the need for a larger scale investigation across Saudi Arabia, as little is known about the hospital practices in Saudi Arabia regarding childbirth and also including private sector hospitals. This would also allow

researchers to test the generalisability of the model proposed by this study to other hospitals in Saudi Arabia, and to further understand the current birth climate and possible concerns. There is also need for further investigation of the culture of healthcare system hierarchy and organisational structures in Saudi Arabia, as this was not investigated in the present study.

Following this study, similar studies are also required in other Middle Eastern, Arab, Asian and Western countries within a variety of childbirth settings, including hospital, midwife-led units, and home and also in rural, urban and remote context to compare findings with this ethnographic study. This would also allow testing and refinement of the proposed model of drivers for the use of interventions during the second stage of labour.

11.5. Conclusion

This chapter discussed the contribution to knowledge, review of the results, recommendations, and implications of the research. This thesis provides a unique contribution to knowledge about the use of interventions during the second stage of labour in Saudi Arabia. It offers an understanding about Saudi labour and delivery ward culture, and professionals' views, attitudes and practices that influence the use of interventions during the second stage of labour.

The findings of this study demonstrate that maternity care in Saudi Arabia reflects a medical model in which midwifery practice remains in the control of obstetricians, with an emphasis on risk and disease. Midwives in this study were not able to use their midwifery skills within the medicalised model of care, they had to typically put aside their previous experience and views on birth, and follow routine hospital procedures to fit within the labour ward culture. This led to deskilling of midwives

and variation in perception, attitude and practice in relation to the use of interventions during the second stage of labour.

This ethnographic study has uncovered some of the reasons why labour ward culture may develop resistance to practice change and to the use of EBPs. Routinisation of interventions and the use of non-evidence-based practice have the potential to affect the quality and safety of childbirth practices. Therefore, it is essential to consider features within an organisational culture that may influence healthcare professionals' decisions to use interventions during childbirth. The identification of midwifery social identity is needed to help the change in practice and promote quality of maternity care to improve childbirth outcomes and reduce the use of interventions during the second stage of labour for all women.

This ethnography helped to show the education, clinical practice, policy and regulation, and research which currently shape our understanding of interventions during the second stage of labour in Saudi Arabia. The findings of this ethnographic study will echo with healthcare professionals in Saudi Arabia that work in hospital based labour wards and highlight that transformation is needed across sectors related to labour and birth. Ideally, there would be a move towards developing midwifery models that combine the uniqueness of the Middle East philosophy with elements of Western models.

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Appendix 1: Ethical approval from City University London



School of Community and Health Sciences

Ref: PhD/10-11/07

Research Office
20 Bartholomew Close
London EC1A 7QN

29 June 2011

Tel: +44 (0) 20 7040 5704

www.city.ac.uk

Dear Roa

Re: Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Thank you for forwarding amendments and clarifications regarding your project. These have now been reviewed **and approved** by the Chair of the School Research Ethics Committee.

Please find attached, details of the full indemnity cover for your study.

Under the School Research Governance guidelines you are requested to contact myself once the project has been completed, and may be asked to complete a brief progress report six months after registering the project with the School.

If you have any queries please do not hesitate to contact me as below.

Yours sincerely

[Redacted signature]

Research Governance Officer

[Redacted contact information]

Appendix 2: Staff information sheet



School of Health Sciences, City University London

Study Title:

Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Invitation

My name is Roa Altaweli; I am a midwife and PhD student in the School of Health Sciences at City University London. You are being invited to take part in a research study which is being carried out as part of my research for a PhD. Before you decide, it is important for you to understand why the research is being done and what it will involve. As principal investigator, I will go through the information sheet with you and answer any questions you have. This should take about 10 minutes. Please take time to read the following information carefully and discuss it with me. And feel free to contact me if you would like any further information, or if there is anything that is not clear. You may wish to talk to others about the study.

What is the purpose of the study?

Routine practices during second stage of labour have not been studied in depth in Saudi Arabia. I would like to understand more about the points of view and experiences of staff working at the labour ward, caring for women expecting to have normal delivery. The study is to explore the ways healthcare professionals manage the second stage of labour in Jeddah, Saudi Arabia, and what factors may be influencing their practice.

This project aims to:

1. Describe the routine care of women during the second stage of labour.
2. Explore obstetricians', midwives' and nurses' attitudes, perceptions and practices in relation to the use of interventions during the second stage of labour in Jeddah, Saudi Arabia.
3. Explore the variations in attitudes, perceptions and practice during the second stage of labour.
4. Explore the influences on practice and what encourages healthcare professionals to use interventions during the second stage of labour in Jeddah, Saudi Arabia.

Why have I been chosen?

You have been chosen to take part in the study because you are an obstetrician, midwife or nurse working in the labour ward and you have understanding of interventions and routine practices during second stage of labour. I intend to invite all healthcare professionals working in the labour ward at this hospital to participate in this research study.

Do I have to take part?

Taking part in the study is entirely voluntary. You are free to withdraw at any time of the study or refuse to answer any of the questions without giving a reason. If you withdraw from the study, I will

destroy all your identifiable information, but will need to use the data collected up to the point of your withdrawal. Declining to take part will not have an adverse impact on your position at work. If you decide to take part it is important that you are as open as possible in your replies during the interview. You can rest assured that all the data will be anonymised so your comments will not be identifiable.

What will happen if I decide to participate?

If you agree to participate you can help in two different ways. You may want to consent just to one or all of the proposed activities:

- 1) You could agree to be interviewed by me. The interview will last about an hour.
- 2) You could agree to let me observe the care provided during labour.

The fieldwork at the hospital will last a maximum of six months. Your participation is unlikely to exceed one interview and the observation of three shifts. I might ask a few participants to do a follow up interview once I have started analysing the data.

The **participant observation** will focus on the care provided during second stage of labour. After observing a shift, I will write field notes, which I will then analyse. At the beginning of my observation I will observe all aspects of obstetric and midwifery practice but as the observation develops I might restrict my observations to second stage of labour practices. I am not focusing on individual obstetricians, midwives or nurses but on practices, which are shared by the group. This will help me in understanding and exploring the specific practice shared by a group.

If you agree to be **interviewed** we will set a mutually convenient time when you are off work. The interview can take place at the hospital in convenient private place. The interview will be based on themes such as: your professional background, your experience during second stage of labour, personal values about childbirth and the second stage of labour, factors, in your opinion, that influence practice and reasons or indications that encourage healthcare professionals to use medical interventions during second stage of labour in Jeddah, Saudi Arabia.

What will I have to do?

Any observation of practice will be previously agreed with you. If you agree to participate in the interview we will set a mutually convenient time for the interview. The interview will take place at private room at the hospital. If you agree to participate in the focus groups, participants will set a time convenient to all.

What are the possible disadvantages and risks of taking part?

When conducting interviews there is always the risk of uncovering topics which may be sensitive for the people being interviewed. If, at any point in time you feel distressed, I can suggest discontinuing the interview or you can discontinue if you wish.

The observation of the second stage of labour practices will be unobtrusive. It is possible that the observation process may make some participants feel sensitive or uncomfortable, however. In that case, you could ask me to leave without needing to give me explanations. I hope however that with my role being that of a 'participant observer', the risk of feelings of intrusion will be minimal. I will support the healthcare professional by offering help with minor practical jobs, such as making coffee or fetching things in order to 'fit' into the scene without disturbance.

What are the possible benefits of taking part?

Experience in previous research projects has shown that many healthcare professionals have enjoyed interviews and focus groups and found them interesting and stimulating. I also hope that the results

of the research will be useful to you as a member of staff in informing practice at labour ward. I cannot promise the study will help you individually but the information I get from this study will help the hospital to improve obstetric and midwifery practice and the care for women during second stage of labour.

Will my taking part be kept confidential?

Yes. I will follow ethical and legal practice and all information about you will be handled in confidence.

What will happen to the information I provide?

I will follow ethical and legal practice and all the information about you will be handled in confidence. Your name will only appear on the consent form, which will be kept secured in a locked cabinet in the Midwifery Department of City University London. Only my supervisors and I will have access to this data. Interviews and field notes will be entered onto a computer for analysis using a pseudonym. Your name will be kept safe and not appear at any time in the research data or in the report. Data will be stored securely at City University London for the duration of the study and after the study is finished. Any information you share with me will be seen only by myself and my academic supervisor to ensure confidentiality. Your anonymity will be maintained in the final report which will be submitted as part of my course work.

The only personal information which I shall collect about you during the course of the research is the information on the consent form. The consent form will be kept strictly confidential, separate from the data and only anonymised information will leave the hospital. You can rest assured that I will never interfere in the care you provide to the woman. The only cases in which I will have the duty to breach confidentiality will be if I have concerns about the safety of a woman or her child.

What will happen to the results of the research study?

The results of the study will be submitted as a PhD thesis as well as being made available more generally to people concerned with obstetric and midwifery care locally and more widely. Presentations will be organised to disseminate findings locally within the hospital. Relevant findings will also be disseminated via journals, conferences at national and international level. If you are interested in the research findings I will be very pleased to invite you to a presentation held in the hospital and forward you a summary of the research findings.

Who has reviewed this study?

Ethical approval has been given by City University London Research Ethics Committee. In addition, this study has been authorized by the Research Ethics Committee of your hospital.

Who can I contact if I have any question or concern?

If you have a concern about any aspect of this study, you should ask to speak to me and I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this via City University has established a complaints procedure via the Secretary to the Research Ethics Committee. To complain about the study, you need to phone 004420 7040 5763. You can then ask to speak to the Secretary of the Ethics Committee and inform them that the name of the project is: interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia. You could also write to the Secretary at: [REDACTED], Secretary to Senate Ethics Committee, CRIDO, City University, Northampton square, EC1V 0HB, London. Email: to [REDACTED]

Alternative local Saudi Arabian complaint contact to complain about the study call [REDACTED]
[REDACTED]
[REDACTED]

Who do I contact for further information?

If you would like more information about this study and what is involved then please contact me or my supervisor through email and telephone: Roa Altaweli Tel# [REDACTED] or [REDACTED] or Prof. Christine McCourt (Researcher's supervisor) Tel# [REDACTED] or [REDACTED]

Thank you for taking the time to read this and I look forward to hearing from you

Yours sincerely,

Roa Altaweli

Appendix 3: Staff consent form***Title of project:***

Interventions during the second stage of labour: an exploration of what may affect their use in Jeddah, Saudi Arabia

Principal Investigator: Roa Altaweli

Please **initial box** to indicate agreement

1.	I confirm I have read and understood the information sheet dated..... for the above study which I may keep for my records. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
2.	I understand that my participation is voluntary that I can choose not to participate in part or all of the project and that I am free to withdraw at any time, without giving any reason, and that this will not have an adverse impact on my position at work.	
3.	I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation.	
4.	I understand that relevant sections of any of the anonymised data collected during the study may be looked at by responsible individuals from City University London, where the data are relevant to my taking part in this research. I give permission for these individuals to have access to my data.	
5..	I agree to take part in the above study and to let the researcher observe the care I provide at the labour ward.	
6.	I agree to be interviewed as part of the above study.	
7.	I consent to the use of audio-taping to record the interview or group discussions and I understand that there is a possibility of anonymised direct quotations being used in reports and journal articles.	
8.	I agree to take part in the above City University research project.	

Name of Participant

Date

Signature

Roa Altaweli
Investigator

Date

Signature

Appendix 4: Checklist for suitable clients for observation

Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Your help and support in finding suitable women to participate in this project is greatly appreciated. This is a guidance sheet to help you to identify those women who are suitable to be included and what further action to take.

- The first thing to do is to check whether I am going to be on duty today. The midwife in charge will also know whether I am due to come in and how to contact me. If I am already on duty come and have a chat and I will talk you through the process.
- The second thing to do is to identify a suitable client whom you are caring for. Suitable clients are those women admitted to labour ward who you are expecting to deliver vaginally.
- Please give the women a client information sheet and ask if I could come and talk to them about the project.
- I will then provide both yourself and the client with any additional information.
- If the client verbally consents, I will ask her to sign a consent form.
- If you are familiar with the project and are happy to do so, you may wish to provide additional information about the project and obtain written consent from women in my absence. This form should then be attached to the outside of medical records.
- If I have not already met the client (i.e. you have given the information sheet and obtained written consent), at a convenient moment I will introduce myself to her and answer any further questions about the research.
- As soon as the onset of the first stage of labour has been confirmed, please can I ask you to call me into the birthing room. I will then remain in the room at a discreet distance until the second stage of labour is complete. I will not participate in care except in an emergency, and will be taking notes during this time. However, if you need some practical help, such as fetching some equipment, or to make tea, please just ask me.
- Once the birth is complete, if you are happy for me to do so, I will ask you a few questions about the second stage of labour and your perception of events.
- I will also take some notes from the client's medical records.

Thank you so much for helping with this project. Without the women and your help this project would not have been possible.

Appendix 5: Women's information sheet

City University London: School of Health Sciences

Study Title: Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Invitation

My name is Roa Altaweli; I am a midwife and PhD student in the School of Health Sciences at City University London. You are being invited to take part in a research study which is being carried out as part of my research for a PhD. Before you decide, it is important for you to understand why the research is being done and what it will involve. As principal investigator, I will go through the information sheet with you and answer any questions you have. This should take about 10 minutes. Please take time to read the following information carefully and discuss it with me. And feel free to contact me if you would like any further information, or if there is anything that is not clear. You may wish to talk to others about the study.

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3. Explore the variations in attitudes, perceptions and practice during the second stage of labour.
4. Explore the influences on practice and what encourages healthcare professionals to use interventions during the second stage of labour in Jeddah, Saudi Arabia.

Why have I been chosen?

I intend to invite all women who are expecting to have normal childbirth with uncomplicated pregnancies in the labour ward at this hospital to participate in this research study.

Do I have to take part?

Taking part in the study is entirely voluntary. You are free to ask me to leave at any time if feeling uncomfortable or withdraw at any time of the study without giving a reason. If you withdraw from the study, I will destroy all your identifiable information, but will need to use the data collected up to the point of your withdrawal. Declining to take part in the research will not affect the quality of the maternity care you will receive.

What will happen if I decide to participate?

If you agree to participate you can help in one way to let me be present during your labour/birth.

The **participant observation** will focus on the care provided during labour. After observing a shift, I will write field notes, which I will then analyse. At the beginning of my observation I will observe all aspects of obstetric and midwifery practice but as the observation develops I might restrict my observations to the labour and birth. Also, some information will be taken from your medical notes

in regards to care provided to you by healthcare professionals.

If you agree for me to be present during your labour and the birth of your baby, I will be called by the case nurse or midwife to attend your birth and will do my best to be there. In some cases, for instance if I am not in the hospital or I am observing another women, I might not be able to guarantee my presence for your birth.

What will I have to do?

Any observation of your care will be previously agreed with you. If you agree for me to be present during your labour the midwife or nurse attending your birth will let me know when the labour has started and I will meet you at the labour ward.

What are the possible disadvantages and risks of taking part?

My observation of your labour/birth care will be unintrusive. It is possible that the observation process may make some participants feel sensitive or uncomfortable, however. In that case, you could ask me to leave without needing to give me explanations. I hope, however, that with my role being that of a ‘participant observer’ the risk of feelings of intrusion will be minimal. I will only engage in non-professional support type behaviours, not clinical activity, and as appropriate – e.g. make tea, hold hand, fetch something for midwife or you.

What are the possible benefits of taking part?

I cannot promise the study will help you individually but the information I get from this study will help the hospital to improve obstetric and midwifery practice and the care for you during labour.

Will my taking part be kept confidential?

Yes. I will follow ethical and legal practice and all information about you will be handled in confidence.

What will happen to the information I provide?

I will follow ethical and legal practice and all the information about you will be handled in confidence. Your name will only appear on the consent form, which will be kept secured in a locked cabinet in the Midwifery Department of City University London and I will not be recording any personal details about you in my notes, as my focus is on the professionals’ work. Only my supervisors and I, will have access to this data. Field notes will be entered onto a computer for analysis using a pseudonym. Your name will be kept safe and not appear at any time in the research data or in the report. Data will be stored securely at City University London for the duration of the study and after the study is finished. Any information I record will be seen only by me and my academic supervisor to ensure confidentiality. Your anonymity will be maintained in the final report which will be submitted as part of my course work.

You can rest assured that I will never interfere in the care provided by your midwife or nurse, unless I have concerns about the safety of you or your child.

What will happen to the results of the research study?

The results of the study will be submitted as a PhD thesis as well as being made available more generally to people concerned with obstetric and midwifery care locally and more widely. Presentations will be organised to disseminate locally within the hospital. Relevant findings will also be disseminated via journals, conferences at national and international level. If you are interested in the research findings I will be very pleased to invite you to a presentation held in the hospital and forward you a summary of the research findings.

Who has reviewed this study?

Ethical approval has been given by City University London Research Ethics Committee. In addition, this study has been authorized by the Research Ethics Committee of your hospital.

Who can I contact if I have any question or concern?

If you have a concern about any aspect of this study, you should ask to speak to me and I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this via City University has established a complaints procedure via the Secretary to the Research Ethics Committee. To complain about the study, you need to phone 004420 7040 5763. You can then ask to speak to the Secretary of the Ethics Committee and inform them that the name of the project is: interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia. You could also write to the Secretary at: Anna Ramberg, Secretary to Senate Ethics Committee, CRIDO, City University, Northampton square,

EC1V 0HB, London. Email: to anna.ramberg.1@city.ac.uk

Alternative local Saudi Arabian complaint contact to complain about the study call [REDACTED]
[REDACTED]
[REDACTED]

Who do I contact for further information?

If you would like more information about this study and what is involved then please contact me or my supervisor through email and telephone

Roa Altaweli - [REDACTED] or [REDACTED]

Prof. Christine McCourt (Researcher's supervisor) [REDACTED] or
[REDACTED]

Thank you for taking the time to read this and I look forward to hearing from you.

Yours sincerely,

Roa Altaweli

Appendix 6: Women's information sheet (Arabic version)

ورقة المعلومات

عنوان البحث: التدخلات خلال المرحلة الثانية من الولادة: استكشاف ما يؤثر استخدامها في جدة، المملكة العربية السعودية

اسم الباحثة: رؤى الطويلي
دعوة: انا الباحثة رؤى الطويلي احضر درجة الدكتوراه في القبالة و التوليد في بريطانيا، ادعوك للمشاركة ببحث علمي سيجري في غرفة الولادة في مستشفى [REDACTED] بجده. حيث انه من المهم أن تعرفي المزيد عن البحث وما يمكن أن تتوقعه إذا كنت قد قررت الانضمام إلى الدراسة. الرجاء قراءة ورقة المعلومات بعناية والتي سوف تفصل كل ما تحتاجين معرفته حول قبل أن تقرري المشاركة بالدراسة. لا تترددي في طرح أي سؤال أو استفسار حول البحث. الرجاء أخذ الوقت الكافي لقراءة المعلومات التالية بتأن قبل أن تقرري إذا كنت تريدين المشاركة أم لا، بإمكانك طلب إيضاحات أو معلومات إضافية عن أي شيء مذكور في هذه الاستمارة أو عن هذه الدراسة. إذا كان لديك الرغبة في المشاركة، الرجاء التكرم بالتوقيع على استمارة الموافقة المستنيرة المرفقة. جميع الردود ستعامل على أنها سرية .

ما هو الغرض من مشروع البحث؟

هذه الدراسة هي جزء من برنامج درجة الدكتوراه في القبالة و التوليد. وارغب في عمل استكشافي وصفي وعددي وهدف الدراسة معرفة واستكشاف التدخلات والممارسات الطبية المتبعة خلال المرحلة الثانية من الولادة في المستشفيات الحكومية في جدة و ما يؤثر على ممارستها عن طريق مشاهدة الممارسات في غرفة الولادة.

هذه الدراسة تهدف لتحقيق الأمور التالية:

1. وصف الرعاية الروتينية للنساء خلال المرحلة الثانية من الولادة.
2. استكشاف تصور، موقف وممارسة الأطباء، القابلات والممرضات خلال المرحلة الثانية من الولادة في جدة.
3. استكشاف الاختلافات في التصورات، المواقف والممارسات خلال المرحلة الثانية من الولادة.
4. استكشاف ما يؤثر على المتخصصين في الرعاية الصحية للتدخل الطبي خلال المرحلة الثانية من الولادة في جدة.

لماذا تم اختياري للمشاركة؟

لقد طلب منك الانضمام الى الدراسة لأن الباحثة تود الحضور وقت الولادة لمشاهدة الممارسات الطبية المتبعة خلال المرحلة الثانية من الولادة. وأعتزم أن أدعو جميع النساء اللواتي يتوقعن الولادة الطبيعية في جناح الولادة في هذه المستشفى على المشاركة في هذه الدراسة البحثية.

هل لا بد لي من المشاركة في هذا البحث؟

المشاركة في هذه الدراسة هو أمر تطوعي . وإذا قررتي المشاركة فسوف تحصلين على ورقة يتم التوقيع عليها في حالة الموافقة. ولكي الحرية التامة في عدم الإجابة على أي سؤال أو الانسحاب في أي وقت دون التعرض لأية جزاءات.

ماذا سيحدث لو قررت الاشتراك في البحث؟

موافقتك على المشاركة في البحث تعني السماح لي أن أكون حاضره أثناء المخاض / الولادة.

والملاحظة تركز على الرعاية المقدمة أثناء المخاض. بعد مراقبة المخاض والولادة، وبدوري سأقوم بتدوين الملاحظات الميدانية. في بداية ملاحظتي سوف ألاحظ وأدون جميع جوانب الممارسة التوليد والقبالة ولكن ملاحظاتي ستتركز على المخاض والولادة. سيتم اتخاذ بعض المعلومات من الملاحظات الطبية فيما يخص الرعاية المقدمة لك من قبل المتخصصين في الرعاية الصحية.

إذا كنت موافقة على أن أكون حاضره أثناء المخاض وولادة طفلك، سيتم دعوتي من قبل الممرضة أو القبالة لحضور ولادتك، وسوف أبدل قصارى جهدي لأكون هناك.

ماهي التأثيرات السلبية أو رداد الفعل التي يمكن أن يسببها الاشتراك في هذا البحث (جسدية، نفسية، اجتماعية، اقتصادية)؟

الملاحظة للمرحلة الثانية من ممارسات العمل تكون غير مزعجة. فمن الممكن أن عملية المراقبة قد تجعل بعض المشاركين يشعرون بعدم الارتياح أو الشعور بالحساسة، ولكن. في هذه الحالة، يمكن أن يطلب مني ترك الغرفة دون الحاجة لإعطائي اي تفسيرات. ومع ذلك أمل أن دوري كمراقب مشارك سوف يكون الاحساس بالتدخل ضئيلا للغاية.

وسوف ادعم الرعاية الصحية المهنية من خلال تقديم المساعدة العملية مع وظائف بسيطة، مثل صنع القهوة أو جلب أشياء من أجل التواجد في غرفة الولادة من دون ازعاج.

كيف يمكن أن أستفيد من هذه الدراسة؟

لن تكون هناك فوائد مباشرة للمشاركين. ومع ذلك، فإن نتائج هذه الدراسة ستساعد زيادة الوعي لدى العاملين في مجال الصحة مع النتائج المحتملة لتحسين الرعاية الصحية للمرأة. في المملكة العربية السعودية وهذا يمكن تحسين نوعية ممارسة التوليد والقبالة

هل مشاركتي بالبحث سرية؟

جميع المعلومات في هذا البحث ستحظى بسرية تامة.

ماذا سيحصل بكل المعلومات التي سيتم جمعها أثناء الدراسة؟ وما سيحدث في نهاية البحث؟

سيتم الاحتفاظ لمحتويات الملاحظة بسرية تامة بين الباحثة والمشرفة فقط. وسوف تكون البيانات التي استعرضتها الباحثة غير قابلة للنسخ والاستخدام لغير الغرض المتفق عليه، من دون معرفة هوية أي من أصحابها حيث سيتم استخدام الرموز بدلا من الأسماء. خلال البحث والدراسة ستكون جميع المواد والبيانات في مكان آمن ومضمون.

يمكنك أن تطمئني بأنني سوف لن تتدخل في الرعاية التي تقدمها القابلات أو الممرضات، ما لم يكن لدي مخاوف بشأن سلامتك أو سلامة طفلك.

ماذا سيحدث لنتائج دراسة البحث؟

سوف تنشر نتائج هذه الدراسة في شكل تقرير (بحث دكتوراه في القبالة والتوليد) في جامعة سيتي لندن. بإمكان المشاركات الاتصال بالباحثة والحصول على نسخة من نتيجة الدراسة.

كيف يمكنني الانضمام إلى الدراسة؟

سوف يتم تزويدك بنموذج الموافقة المرفق مع ورقة المعلومات هذه، وإذا كنت على استعداد للمشاركة في هذه الدراسة، يرجى التوقيع على استمارة الموافقة وإعادتها إلى الباحثة. وسيتم منح جميع المشاركات في الدراسة نسخة من هذه الورقة ونسخة موقعة من استمارة الموافقة للاحتفاظ بها.

الموافقة على الدراسة؟

لقد أعطيت الموافقة الأخلاقية من قبل لجنة أخلاقيات البحوث بجامعة سيتي لندن. بالإضافة إلى ذلك، وقد أذن هذه الدراسة من قبل لجنة أخلاقيات البحوث بمستشفى [REDACTED]

لمن يمكنني الرجوع إذا كان لدي أسئلة أو حاجة إلى مزيد من المعلومات حول الدراسة؟ كيف يمكنني تقديم شكوى عن الدراسة؟

إذا كان لديك قلق حول أي جانب من جوانب هذه الدراسة، يجب عليك أن تبادري بسؤالني وسأبذل قصارى جهدي للإجابة على أسئلتكم. إذا كنت لا تزال غير سعيدة وترغب في تقديم شكوى رسمية، يمكنك القيام بذلك عن طريق التحدث [REDACTED]

وستقوم البروفيسور كريستين ماكورت، محاضرة في جامعة سيتي لندن، بالإشراف علي في جميع مراحل عملية البحث. الرجاء عدم التردد في الاتصال بي أو بمشرفتي للرد على أي أسئلة أو لمناقشة أية تفاصيل تخص أي أمور أخرى. وبإمكانك رفع أي شكاوى عن الدراسة إلى المشرفة الأكاديمية.

تفاصيل الاتصال بالباحثة:

رؤى الطويل هاتف: [REDACTED] البريد الإلكتروني: roa.altaweli.1@city.ac.uk

تفاصيل الاتصال بالمشرفة:

البروفيسور كريستين ماكورت هاتف: [REDACTED] البريد

الإلكتروني: [REDACTED]

شكرا جزيلاً على مشاركتكم.

Appendix 7: Women's consent form*Title of project:*

Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Principal Investigator: Roa Altaweli

Please initial box to indicate agreement

1.	I confirm that I have read and understood the information sheet dated....., for the above study which I may keep for my records. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
2.	I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my maternity care or legal rights being affected.	
3.	I understand that any data collected during the study will be viewed by the research team only and will be stored securely. I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.	
4.	I agree to take part in the above study and let the researcher be present at my labour/birth.	
5.	I agree to take part in the above City University research project.	

Name of Participant

Date

Signature

_Roa Altaweli
Investigator

Date

Signature

Appendix 8: Women's consent form (Arabic version)

الموافقة المستنيرة

عنوان البحث: التدخلات خلال المرحلة الثانية من الولادة: استكشاف ما يؤثر استخدامها في جدة، المملكة العربية السعودية

اسم الباحثة: روى الطويلي

الرجاء وضع علامة تدل على الموافقة

1	أقر بأنني قد قرأت وفهمت ورقة المعلومات في تاريخ / / والتي بإمكانني الاحتفاظ بها في سجلاتي للدراسة المذكورة أعلاه، وأقر بأنه تم شرح هدف الدراسة بوضوح من قبل روى الطويلي.
2	أتفهم بأن مشاركتي تطوعية، وبإمكاني عدم المشاركة في الدراسة، كما أنه بإمكانني الانسحاب في أي مرحلة من مراحل الدراسة دون إبداء أي أسباب وأن العناية التي ألقاها لم تتأثر بهذا الانسحاب وإنني سوف أزود بنسخة عن هذه الوثيقة.
3	أتفهم بأن المعلومات التي أقدمها هي معلومات ذات خصوصية وسرية، وأنه لن يتم الكشف عن أية معلومات يمكن من خلالها تحديد هوية أي فرد في أي من تقارير الدراسة، ولن يتم نشر أي بيانات شخصية محددة. ولن يتم إطلاع البيانات التعريفية مع أي منظمات أخرى
4	أوافق على المشاركة في البحث أعلاه وأسمح للباحثة بالتواجد خلال ولادة طفلي.
5	أوافق على المشاركة في البحث أعلاه والموجه لجامعة سيتي لندن.

التوقيع

التاريخ

اسم المشاركة

أؤكد أن المشاركة أعلاه متفهمه للدراسة وتعطي موافقتها طوعياً .

التوقيع

التاريخ

روى الطويلي
اسم الباحثة

1 نسخة للمشاركة و 1 نسخة للباحثة

Appendix 9: Author's consent form

I hereby consent **Roa Altaweli** using of my instruments **Observational Checklist_Intrapartum Dataset**, I would appreciate receiving a reprint of your research finding in the future

Main Author: [REDACTED]

[REDACTED]

Email: [REDACTED]

Appendix 10: Observational checklist form

Serial #

Hospital:

Observer's name: Roa Altaweli

Date of observation:

Beginning of observation:
.....End of observation:
.....Mother number from file:
.....

1. Age of mother:

2. Nationality:.....

3. Level of education: a. High school
 b. College
 c. University
 d. Other4. Employment status: a. not working
 b. Working5. Antenatal care booking a. Yes
 b. No

6. Admission time:

7. P.V on admission

Prenatal information

8. Gravida -----9. Parity-----10. Miscarriage--
--

11. Living Children ____

12. Gestational age at birth (weeks)
.....

13. Reason for Admission to labour room

- Contractions
 Ruptured membrane
 Hemorrhage
 Others _____

14. Risk indicators during this pregnancy

- no
 persistent anemia (Hgb<10)
 previous C/S
 hypertension in pregnancy
 gestational diabetes
 urinary tract infection/s
 preterm labor episode/s
 smoking \geq 1 cigarette/day

- situational
 stress/anxiety/depression
 domestic violence
 other

Labor and birth data

15. Nutrition/fluid intake in labor

- NPO
 Cannula without IVF
 NPO and IV fluids
 Clear liquids/ice chips
 Light solid (liquids) foods
 Regular diet

16. Fetal heart monitoring method

- intermittent (*fetoscope, doppler*)
 periodic electronic monitoring
 continuous external EFM
 continuous internal EFM

17. Augmentation of labor

a. Yes b. No

18. Methods of augmentation

- castor oil/enema
 nipple stimulation
 AROM alone at-----cm
 Oxytocin alone
 AROM and Oxytocin
 All
 Others -----

19. Indication for Augmentation

- As a routine
 Shortening duration of labor
 Other _____

20. Mother's mobility in labor

- Allowed
 primarily allowed by choice
 primarily allowed per provider
 Not allowed

Reason _____

21. Non-pharmacologic methods of pain relief

- none used*

- breathing exercise by verbal order from the provider
- position change
- therapeutic touch
- distraction method
- back massage
- local application of heat or cold
- hydrotherapy (baths, showers, Jacuzzi)
- music therapy
- other _____

22. Pharmacologic methods of pain relief

- none used*
 - tranquilizers/sedatives (IM or IV) as -----
 - narcotics (IM or IV) as -----
 - others-----

23. Problems during labour

- none*
 - notable fetal heart rate abnormalities
 - meconium-stained fluid
 - fetal malpresentation
 - prolonged latent phase
 - prolonged/dysfunctional labor
 - hypertension (onset of labor)
 - prolonged rupture of membranes>24 hr.
 - maternal temperature ≥ 37.5 c°
 - *other
mention _____

24. Rupture of membranes

- Spontaneous at _____ cm at.....hr
- Artificial at _____ cm athr

25. Partogram use

- Yes
- No

26. How many different staff examined the lady vaginally in the second stage of labour?

- _____

27. Routinely moving laboring woman to a different room at onset of second stage

- Yes
- No

28. Was the lady covered except for perineal area during the delivery?

- Yes
- No

29. Were partitions closed?

- Yes
- No

30. Did the delivering doctor check the fetal heart during this stage? (the second stage)?

- Yes
- No

31. Method of delivery

- NSVD
- vaginal breech
- vacuum
- forceps
- VBAC
- C-section, primary
- C-section, repeat

Reason for intervention? _____

32. Birth canal lacerations and episiotomy

- None or not repaired
- 1st degree
- 2nd degree
- 3rd degree
- 4th degree
- Episiotomy at crowning
- Episiotomy before crowning
- Other _____

Why was an episiotomy performed? (write the delivering doctor's/midwife's own words)

33. Perineal management

- none used*
- manual support / counter pressure
- verbal instructions/directed pushing
- perineal massage
- Other -----

34. Did the delivering doctor/midwife ask the lady to push down?

- Yes
- No

35. Did anyone explain to the lady when and how to push?

- Yes
- No

Who?

- the delivering doctor/midwife
- the nurse

36. Was fundal pressure applied?

- Yes
- No

37. Maternal position for birth

- sitting/semi-sitting (no stirrups)
- lithotomy with stirrups
- lateral/side-lying
- other (squatting, birth chair, etc.)

38. Length of labor

- a. ____ hr. ____ min. Stage 1 active labor
- b. ____ hr. ____ min. Stage 2
- c. ----- hr. ____ min. Stage 3

39. Problems at delivery

- none
- terminal fetal bradycardia/severe decals
- shoulder dystocia
- maternal exhaustion
- hemorrhage (EBL > 500 cc)
- retained placenta
- *other _____
*abruption, cord prolapse, PIH severe, PIH with eclampsia

40. Who conduct the delivery

- midwife
- Doctor
- Doctor & Midwife
- Consultant / Specialist
- other _____

41. Other attendant for delivery

- NONE
- Midwife/nurse
- Obstetrician
- Trainee/Student

42. Companion permitted to attend labour

- Not allowed
- Always allowed
- In special cases as doctor decides

Immediate post-delivery data (1st 24 hours)

- 43. Birth weight _____
- 44. Sex of infant
 - male
 - female

- 45. Apgar score
 - a. done
 - b. not done
 - c. ____Apgar 1min
 - d. ____Apgar 5 min

46. Baby given to mother within half an hour of birth

- Yes
- No

47. Newborn procedures

- bulb suction only
- Light suctioning
- deep suctioning
- endotracheal suctioning
- bag and mask
- intubation for ventilation
- full CPR

48. Rooming in allowed

- Yes
- No

49. Mothers helped to initiate breastfeeding

- Yes
- No

50. Newborn complications

- none
- meconium aspiration
- congenital anomalies
- birth trauma/injury
- NICU admission
- reason _____
- Clinically apparent seizures
- Others -----

Comments

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Appendix 11: Semi-structured interview topic guide

Study Title: Interventions during the second stage of labour: An exploration of what may affect their use in Jeddah, Saudi Arabia

Introduction

Good morning/ afternoon/ evening. My name is Roa Altaweli. I am a midwife and PhD student in the School of Health Sciences at City University London. This study aims to explore the ways healthcare professionals manage the second stage of labour in Jeddah, Saudi Arabia, and what factors may be influencing their practice. In order to do this the interview will focus on your views and experience toward second stage of labour practices and what you might think that could influence your practice.

Although I will ask you some questions, there are no right or wrong answers I am simply interested in hearing your views. As information sheet stated, this interview will be treated in full confidence, and nobody's name will be mentioned in the report. The length of the interview should take no longer than one hour. As you agreed that the interviews will be tape recorded. During the interview, if you want to stop the interview or audio-recording for whatever reason, please let me know and feel free to ask question at any time.

1. First of all I would like to ask you some questions about your background

- Nationality
- Current post
- Years of experience
- Years at hospital

2. Healthcare professional training before qualifying as an obstetrician, midwife or nurse

- Where did you study?
- Type of course.
- Length of time since qualifying.

3. Description of routine practices during the second stage of labour:

- Describe in your own words what is “the routine care of women during second stage of labour”?
- **Checklist of when and why they will use these below practices during second stage of labour:**
 - i. *Mobility*
 - ii. *Oxytocic use*
 - iii. *Intravenous infusion in labour*
 - iv. *Pushing*
 - v. *Length of second stage*
 - vi. *Use of continuous electronic foetal monitoring (EFM)*
 - vii. *Position of woman during delivery of infant*
 - viii. *Companion during delivery*
 - ix. *Checking uterine contraction*
 - x. *Stretching the perineum during the 2nd stage of labour*
 - xi. *Perineum support during the appearance of the head*
 - xii. *Use of episiotomy*
 - xiii. *Instrumental delivery*
 - xiv. *Bladder catheterisation*
 - xv. *The management of the foetal head at the moment of birth.*

4. Healthcare professionals' perceptions and their own explanations of what influences practice and encourages the healthcare professional to use medical interventions during the second stage of labour.

- What factors, in your opinion, influence practice and reasons or indications that encourage healthcare professionals to use medical interventions during second stage of labour?

Probes: Time, duration, workload

5. Healthcare professional's feelings regarding interventions during the second stage of labour and their personal/professional values regarding childbirth and the second stage of labour.

- What are your feelings about the second stage of labour practices?

Probes:

- Feelings about episiotomy
- Feelings about not to perform episiotomy.
- Feelings about lithotomy position during second stage of labour.
- Feelings about different positions during second stage of labour
- What are most common complications during second stage of labour?
- What are the contributing factors for these complications?
- What do you think would improve second stage of labour practices?

Probes: EBP training and education

- Role women play in decision making about second stage in your practice
Information given on second stage

6. Storytelling about a time when the healthcare professional needed to use intervention during the second stage of labour.

- Can you tell me a story about the second stage you can recall in which you need to use intervention during second stage of labour?

7. Hospital policy and guidelines on the second stage of labour management.

- Is there a policy and guidelines on second stage of labour?

Further Questions

Anything else you would like to say about the issues of intervention during second stage of labour? Do you have any question?

Closure

Thank you very much for giving up your time to take part in this study. It is very much appreciated and your comments have been very helpful.

Appendix 12: Coding

second stage of labour project - ATLAS.ti - License expired 25/01/2015 - 28 days left until trial mode

Project Edit Documents Quotations Codes Memos Networks Analysis Tools Views Windows Help

P-Docs P40: HA-OB-02.rtf Quotes Codes Accuracy (13-0) Memos data analysis (0-Me-F) - Roa

P40: HA-OB-02.rtf

error so this number one , Number 2 most of the cases the indication for forceps is different than ventouse I cannot apply forceps at +2 station while I can apply ventouse to +2 station now this +2 station forceps is abandoned and it is not used in obstetrics because of the complication, so the only one is outlet forceps and our cases, most of the cases that we faced is +2 station indicated instrumental delivery.

030 **I: What is the reason for instrumental deliveries?**

031 P: I will tell, I told you that I did research comparing the ventouse and forceps while I am doing my data collection I discovered that most of the cases is foetal distress or non-reassuring foetal heart.

032 **I: So depending on CTG result you will use ventouse?**

033 P: Of course there is another indication which is failure to progress in the second stage of labour but mostly is foetal heart deceleration.

034 **I: What about pushing? do you encourage woman to push during second stage?**

035 P: Yes now this is important thing in the past when I was resident I used to because I don't want to my senior to come and see that this patient that did not deliver I used to set with the patient and instruct her to push as soon as she is fully dilated then with time I reviewed this in the literature I found interesting study comparing early push and late push in the second stage of labour and early push reduced the rate of instrumental delivery and c/s in the second stage of labour but it was not good quality study but I discovered that what I used to do was not wrong at least I have a good intention but it was not wrong and after I graduated as I told you I am not the first person who is being called when the patient is fully dilated but I discovered that now my resident they know that I want to know about the fully dilated cases when they called me sometime I am not free on spot but later after like one hour I can see the head is high but if it is LOA I used to instruct the patient to push and I found it like a magic just few push and this labouring woman she deliver and she give a birth.

036 **I: So you think you will go to every woman who is fully dilated if it is a midwife case or only to medical cases?**

037 P: No, I used to go only for medical cases but I am telling you that almost nowadays we don't have midwife case. All the cases were medical

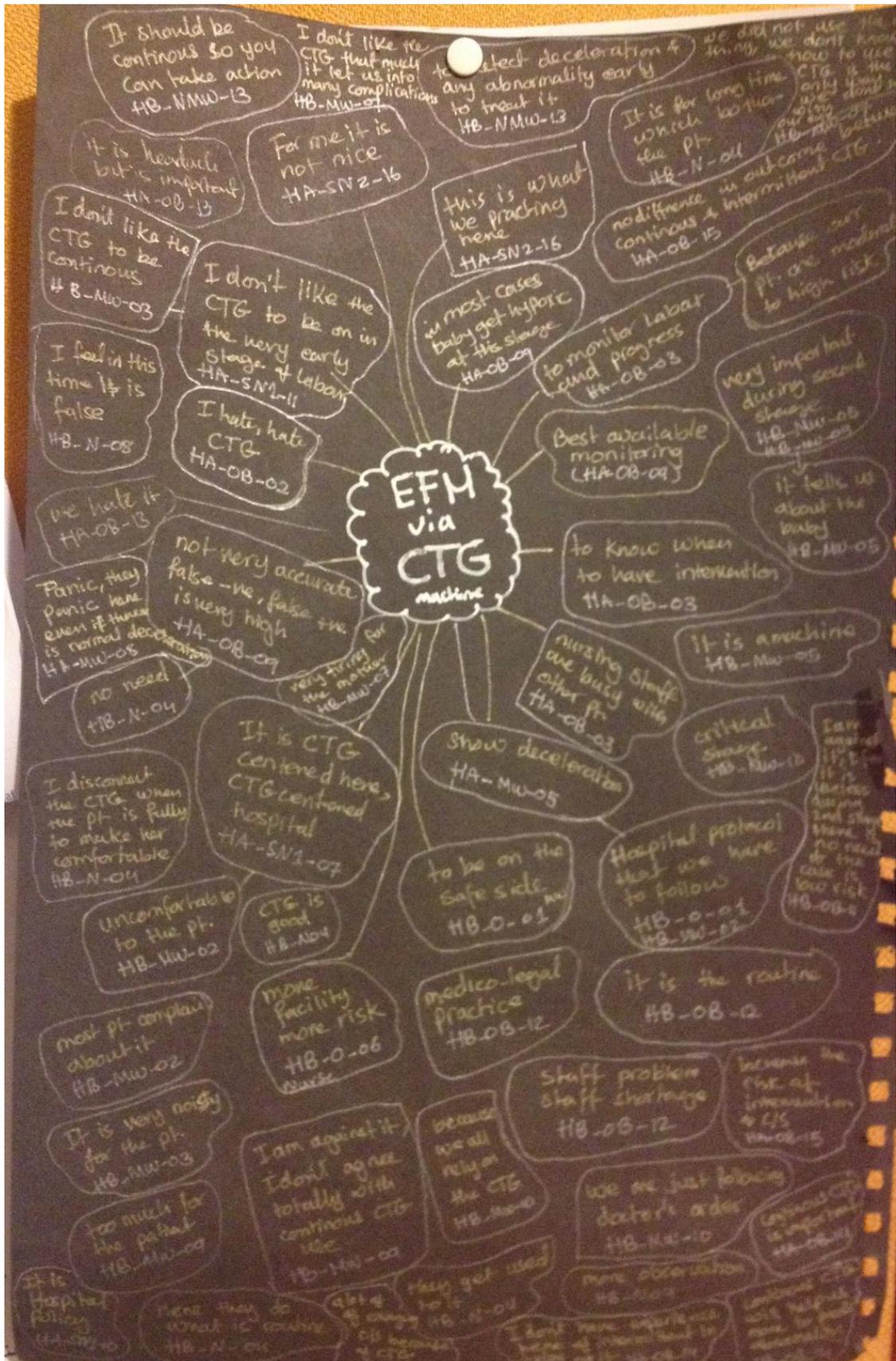
038 **I: Why?**

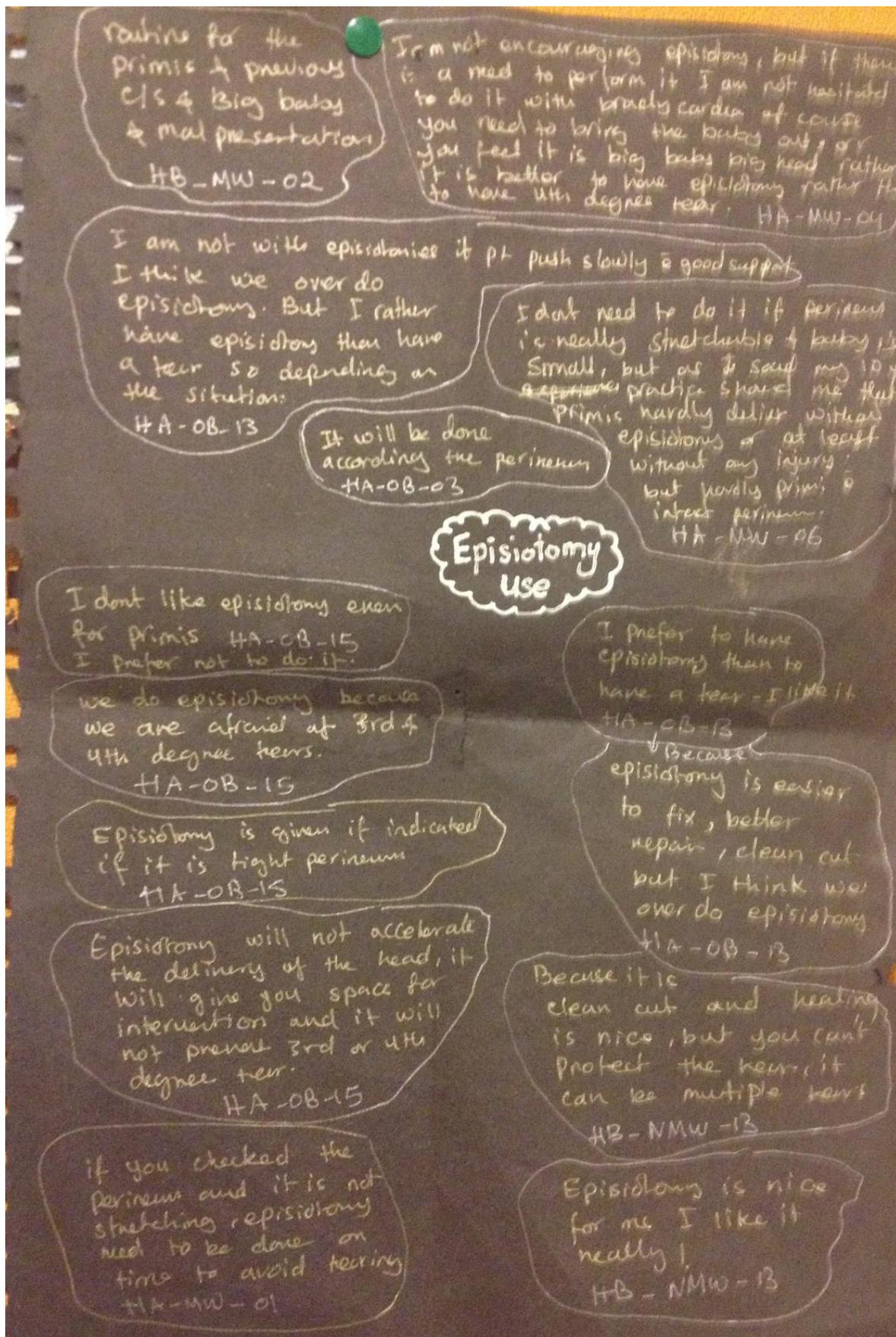
039 P: It is a big, big, big topic if you have time later I will tell you about the reason many reasons

- Foetal heart deceleration
- Int::Instrumental delivery
- Failure to progress
- Foetal heart deceleration
- Staff justifications to use intervention
- Doctors seniority
- Fear~
- Giving instruction
- Evidenced based practice
- Int::Directed pushing
- Int::Directed pushing
- Int::Caesarean section
- Int::Instrumental delivery
- Giving instruction
- Int::Directed pushing
- Time
- Doctor in charge
- Midwives cases

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Appendix 13: Examples of mind mapping exercise undertaken during data analysis





Routine for the primis & previous C/S & Big baby & mal presentation
HB-MW-02

I'm not encouraging episiotomy, but if there is a need to perform it I am not hesitant to do it with brachy carder of course you need to bring the baby out, or you feel it is big baby big head rather it is better to have episiotomy rather than to have 4th degree tear. HA-MW-04

I am not with episiotomies if pt push slowly to good support I think we over do episiotomy. But I rather have episiotomy than have a tear so depending on the situation.
HA-OB-13

I don't need to do it if perineum is really stretchable & baby is small, but as I said my 10 y experience practice show me that Primis hardly deliver without episiotomy or at least without any injury but hardly Primis & intact perineum.
HA-MW-06

It will be done according the perineum
HA-OB-03

Episiotomy Use

I don't like episiotomy even for primis HA-OB-15
I prefer not to do it.

I prefer to have episiotomy than to have a tear - I like it
HA-OB-13

we do episiotomy because we are afraid of 3rd & 4th degree tears.
HA-OB-15

Because episiotomy is easier to fix, better repair, clean cut but I think we over do episiotomy
HA-OB-13

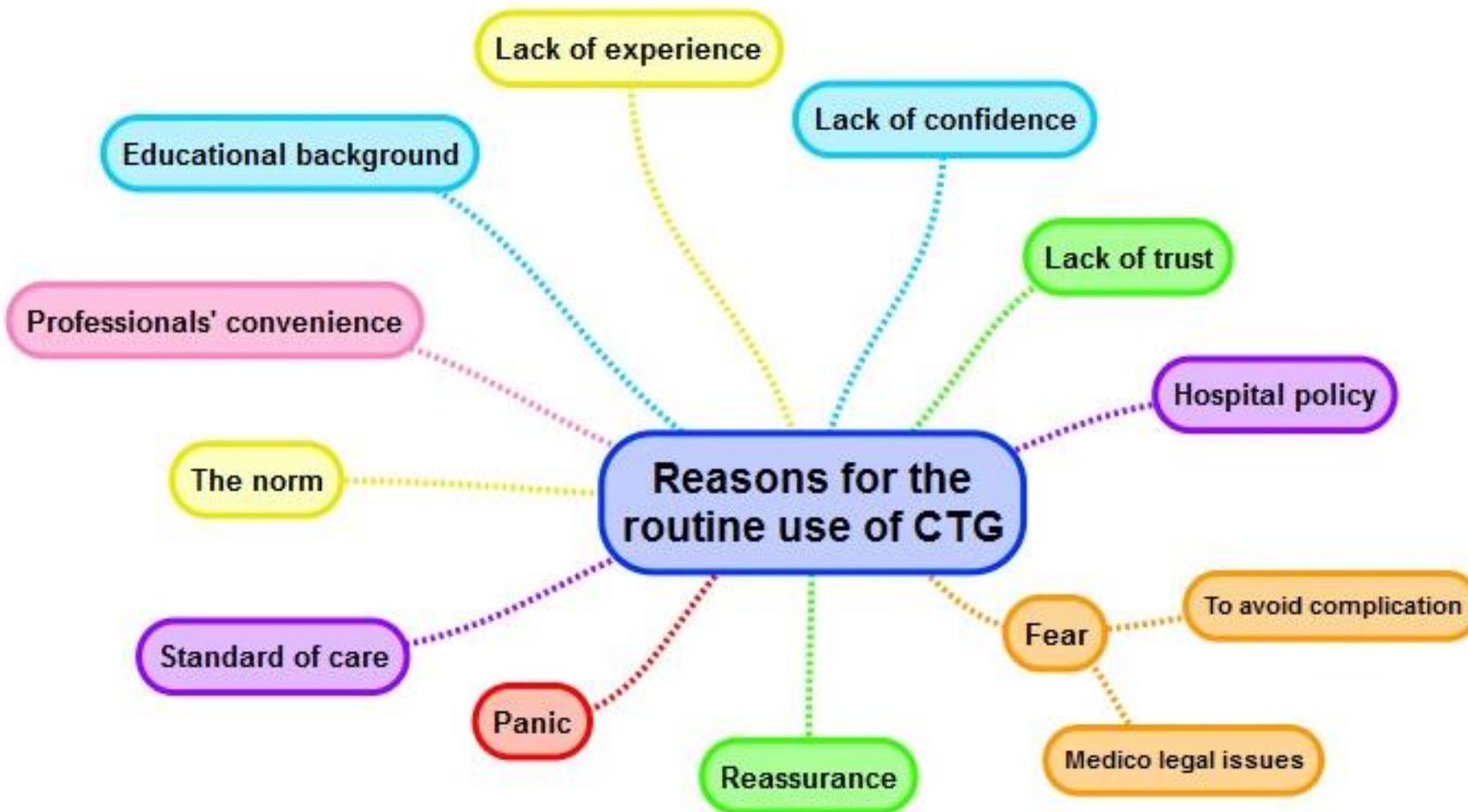
Episiotomy is given if indicated if it is tight perineum
HA-OB-15

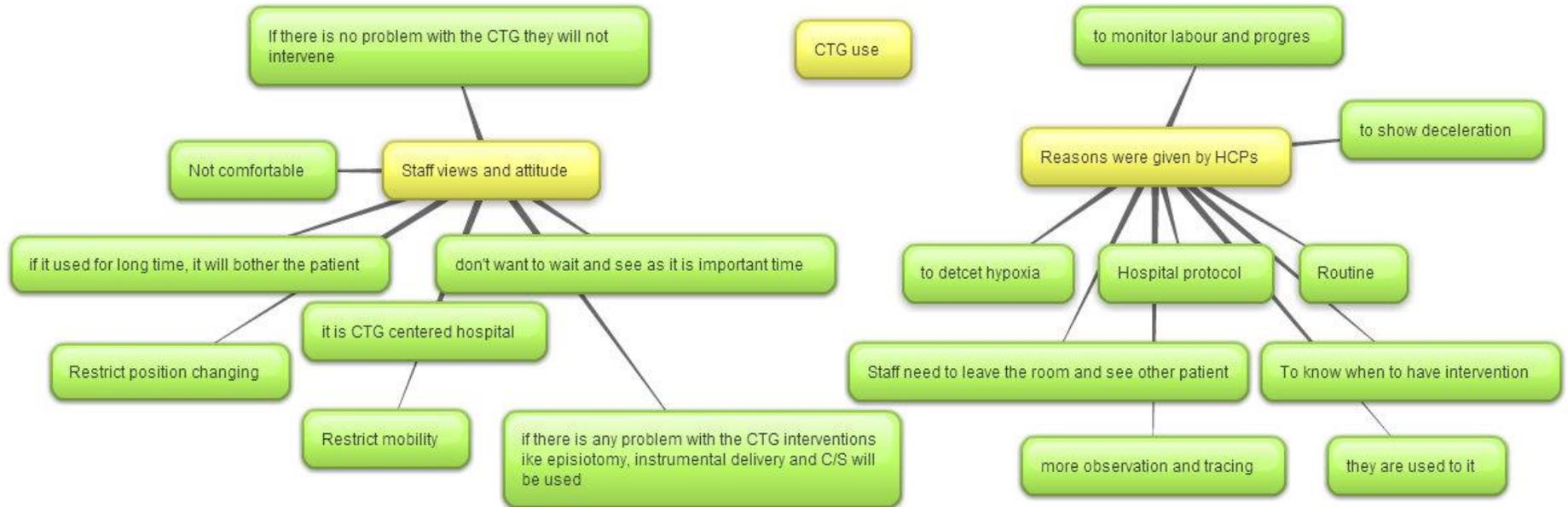
Because it is clean cut and healing is nice, but you can't protect the tear, it can be multiple tears
HB-NMW-13

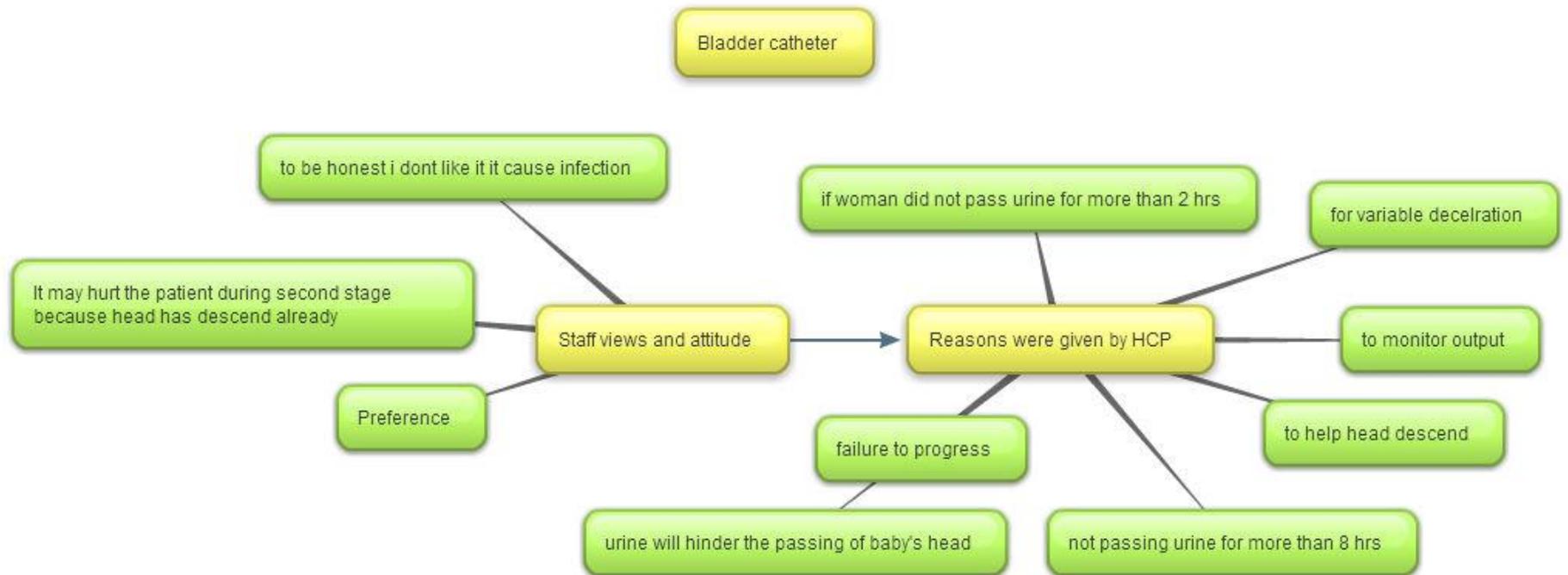
Episiotomy will not accelerate the delivery of the head, it will give you space for intervention and it will not prevent 3rd or 4th degree tear.
HA-OB-15

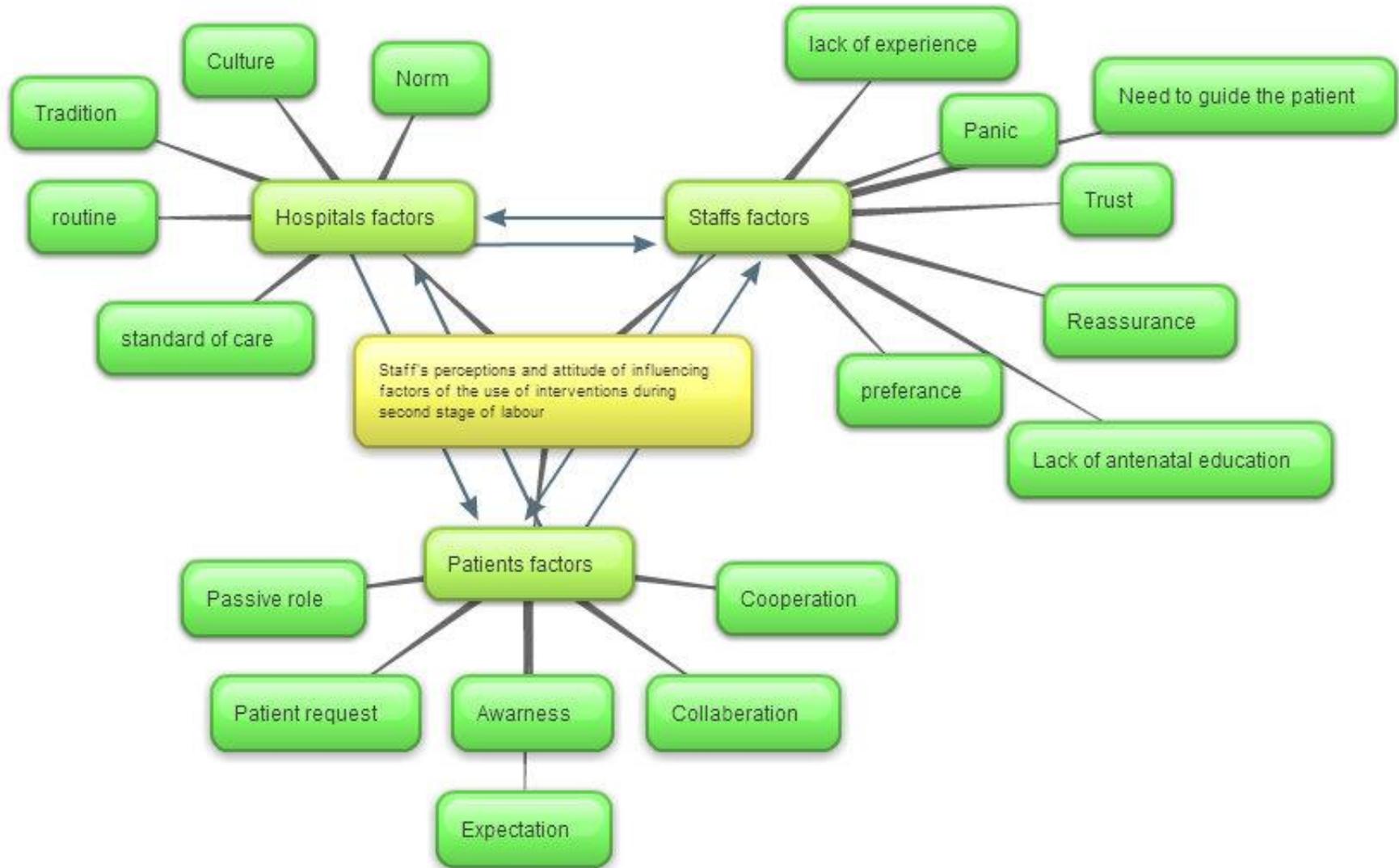
if you checked the perineum and it is not stretching reepisiotomy need to be done on time to avoid tearing
HA-MW-01

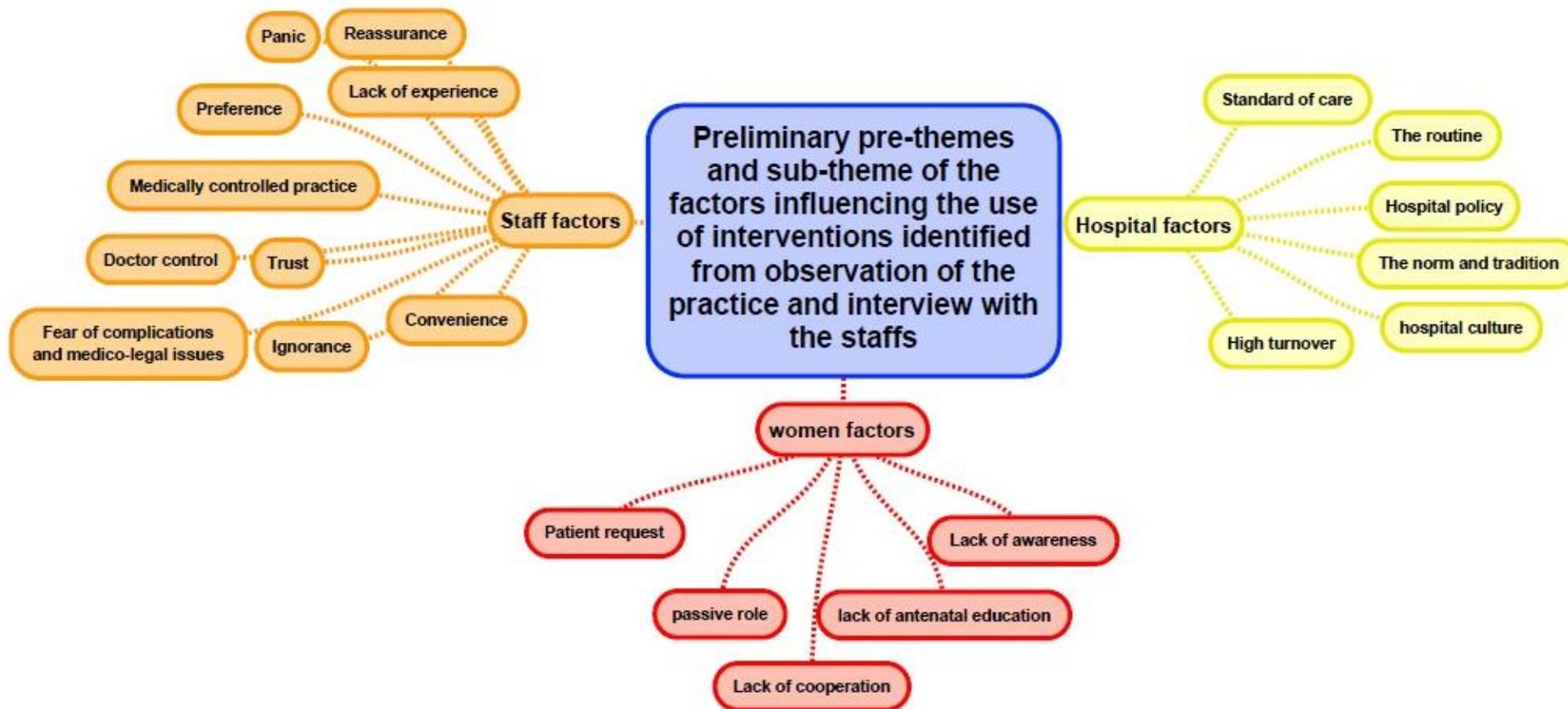
Episiotomy is nice for me I like it really!
HB-NMW-13

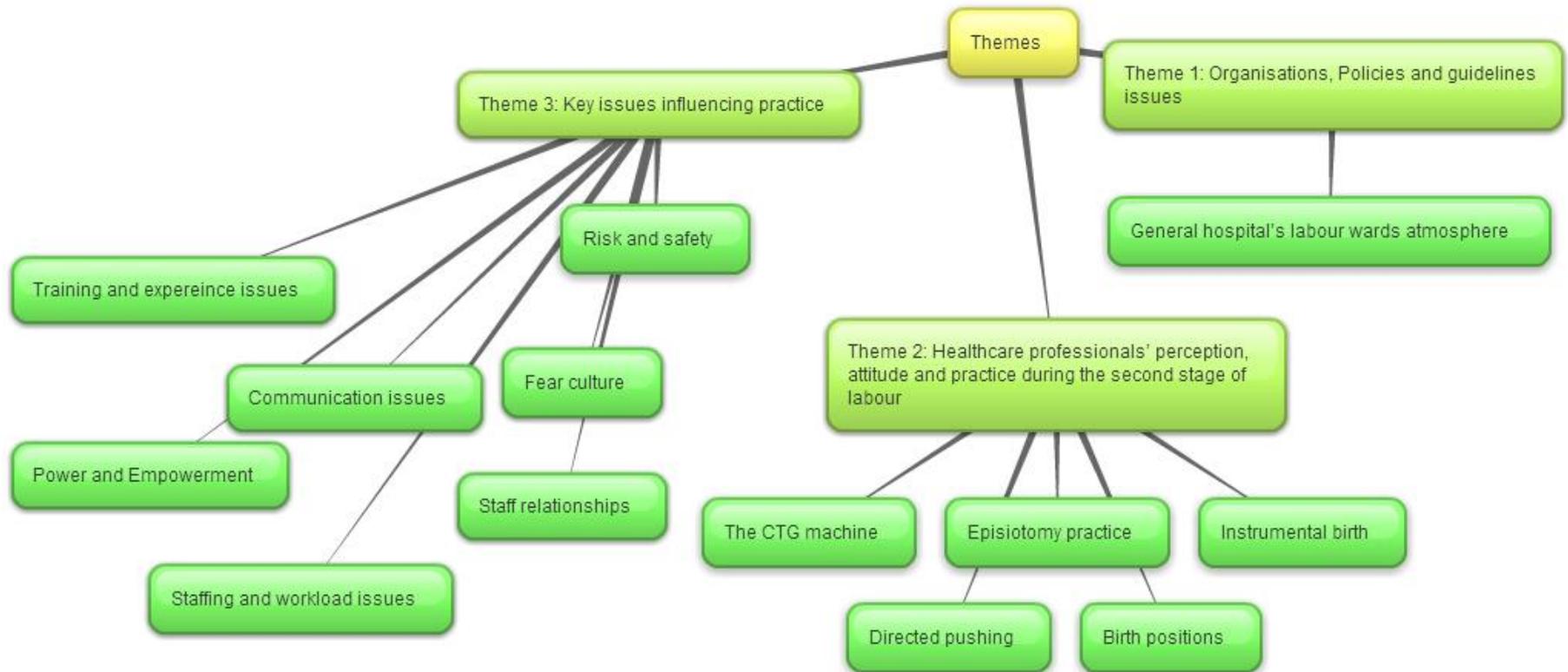


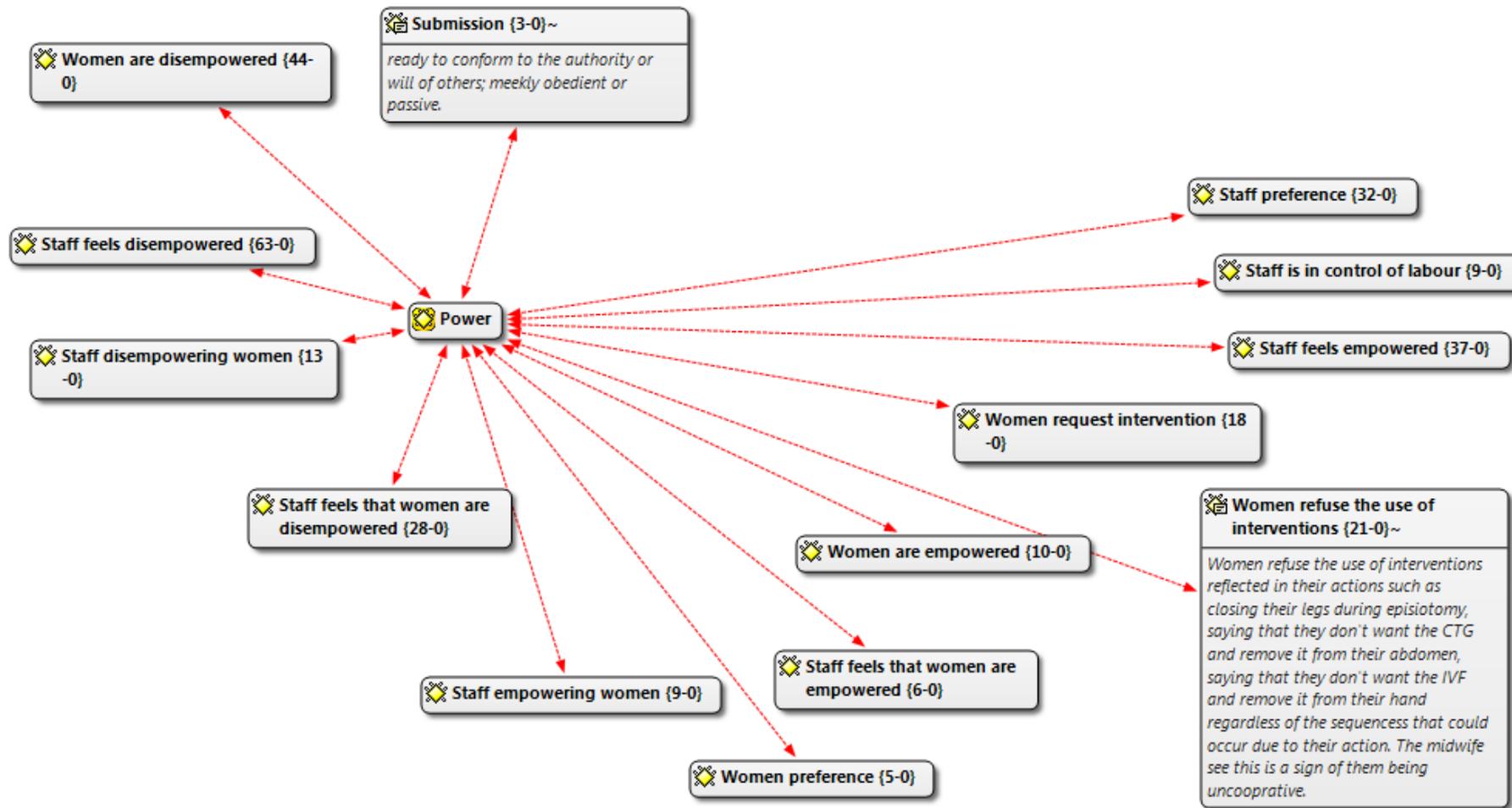


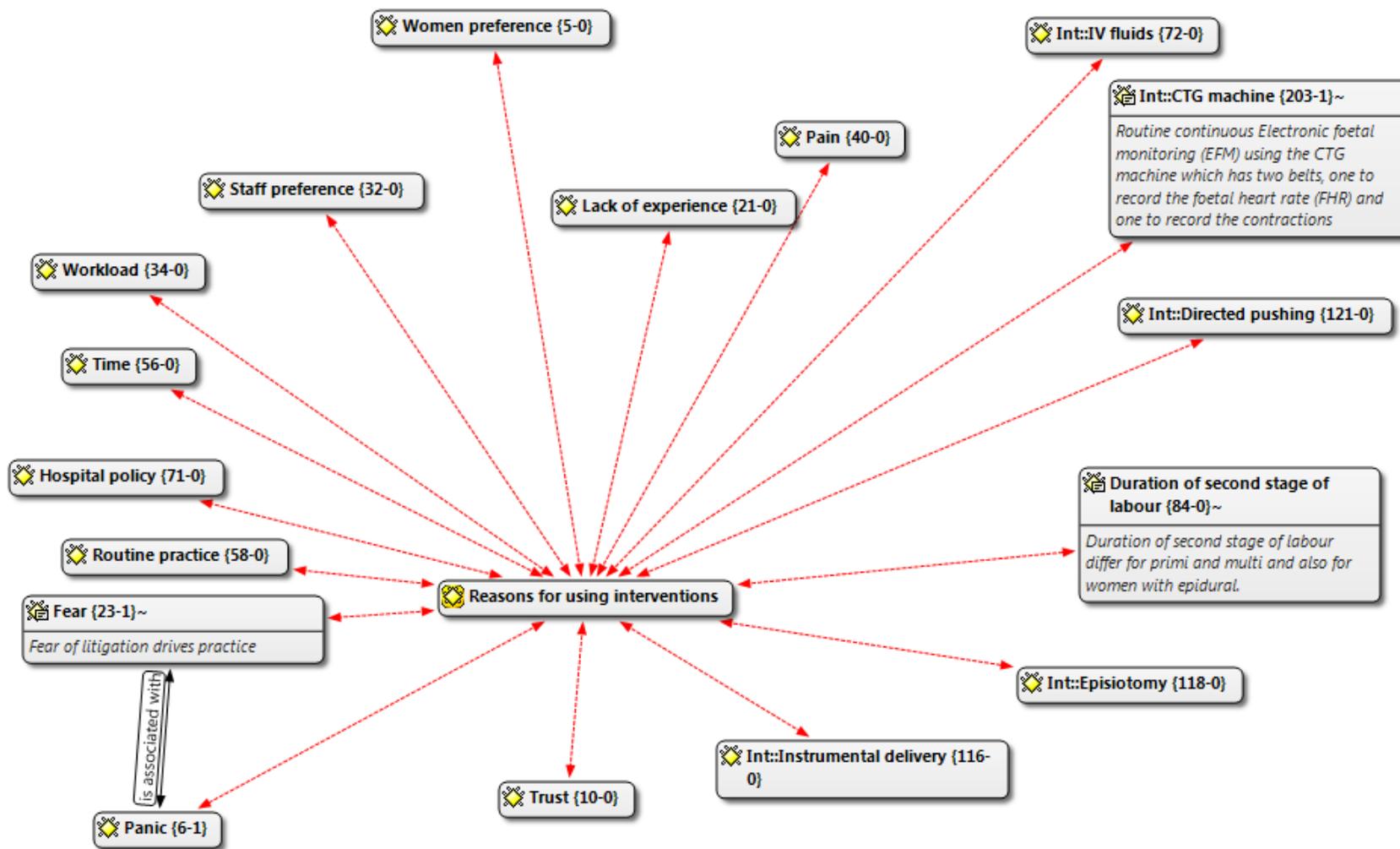












Appendix 14: Code list

HU: second stage of labour project
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Accuracy
Antenatal care booking
Antenatal Education
Assistance
Birth as medical
Birth as natural
Blame
Change of practice
Clinical judgement
Communication
Companionship
Complications
Continuity of care
Contributing factors for complications
Convenient
Conviction
Cooperation
Decision making
Dehumanising practice
Depends on the patient
Doctor in charge
Doctor order
Doctors seniority
Documentation
Duration of second stage of labour
Education
Environment
Evidenced based practice
Exhaustion
Expectation
Expertise
Failure to progress
Fasten the delivery
Fear
Feelings about second stage of labour practices
Finding a way around hospital policy
Foetal heart deceleration
Following the rules
Freedom for position
Giving advice
Giving instruction
Hospital gown
Hospital policy
Hydration
Ignorance
Important
Inconvenient for the woman
Informing doctors
Int::Amnioinfusion
Int::AROM
Int::Bladder catheterisation
Int::Caesarean section
Int::Checking uterine contraction
Int::CTG machine
Int::Directed pushing
Int::Enema
Int::Episiotomy
Int::Foetal scalp electrodes
Int::Fundal pressure
Int::Instrumental delivery
Int::IV fluids
Int::Management of the foetal head at the moment of birth
Int::Massaging the perineum
Int::Ritgen's manoeuvre
Int::Stretching the perineum
Int::Suture
Int::Vaginal examination
Intermittent auscultation
Knowledge
Lack of experience
Lack of hospital equipment
Lack of knowledge
Lack of preparation
Language barriers
Limited time
Meconium
Med::Buscopan
Med::Oxygen
Med::Syntocinon infusion
Medico legal issues
Midwives cases
Mobilisation
Monitoring
Necessary
NPO
Number of staffs
One to one care
Pain
Pain free birth
Panic
Parity
Partogram
Patience
Perineum condition
Perineum support
Poor maternal effort
Position::General
Position::Kneeling or on all-Fours
Position::Left lateral
Position::Lithotomy
Position::McRobert
Position::Recumbent
Position::Semi-sitting
Position::Squatting
Position::Supine
PR::Breathing technique
PR::Entonox
PR::Epidural
PR::General

PR::Massage
PR::Paracetamol
PR::Pethidin
PR::Xylocaine injection
Privacy
Private hospital
Providing information
Pushing technique
Reasons for not allowing companion
Reasons for not allowing women to walk
Refer to the doctor
Responsibility
Restriction
Risk
Routine practice
Safety
Sound
Staff attitude
Staff can not take risk
Staff disempowering women
Staff empowering women
Staff experience
Staff feels disempowered
Staff feels empowered
Staff feels that women are disempowered
Staff feels that women are empowered
Staff feels that women are not cooperative
Staff is in control of labour
Staff justifications to use intervention
Staff personality
Staff preference
Staff shortage
Staff views of women role
Staff wants the woman to comply
Sterilization
Submission
Support
The norm
Time
Tolerance
Tradition and culture
Training
Translation
Trust
Un-booked patient
Variation in practice
What would improve second stage of labour practices
With institution
Women-centred care
Women are disempowered
Women are empowered
Women preference
Women refuse the use of interventions
Women request intervention
Workload

