Perspectives on Birthing Services in Saudi Arabia

Submitted by

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Notice 1

Notice 2

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signature: 

Ibtesam Jahlan

Date: 09/09/2016.

Ethical approval for this study was granted by the Standing Committee on Ethics in Research involving Human (SCERH), which is known now as the Monash University Human Research Ethics Committee (MUHREC). (Appendix IV)

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confidence to overcome them. I especially thank my eldest daughter Fawz for the help she provided in taking care of her siblings and for the way that she empowered me by showing her pride in me and her belief that I can do anything I set out to do. Adel and my children have been my main source (after Allah) of support and encouragement while conducting this study.

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Prologue

My personal journey with nursing and midwifery started many years ago and it was not planned. In 2000 I did not know anything about nursing I did not even know that there was a specialisation called nursing at the university. With the help of a friend, I chose to apply for nursing, despite the disapproval of my mother and many close relatives and friends (because I was the first women in my family to join the medical field), unaware of the community's disrespectful view towards nurses. From the beginning, my vision was clear to finish the Bachelor degree, and then to apply for work at the university so that I could obtain a scholarship for Masters and Doctoral degrees.

Before I was awarded the scholarship, I was already married and had two of my children. This meant that the decision to travel for study was not only about me. I was introduced to Australia for the first time by a representative of the Australian Ministry of Health (from the Nursing and Midwifery School at Monash University), who visited the nursing college at King Saud University while she was in Riyadh. During her visit, she talked about a new course called a Masters of Clinical Midwifery. At that moment, I felt that she spoke to me directly, as this was an ideal course for me.

I moved to Melbourne in 2008 with my family and started a midwifery journey that was full of happy and unhappy moments and struggles: with new culture, new systems, new relationships and increased responsibilities. I greatly enjoyed the practical, theoretical and research components of this Masters course.

In my earlier study on the phenomenology of Saudi women's views and experiences of first-time episiotomy, I noted their willingness to talk. Women were happy to talk about their whole

childbirth experiences, from the time they knew they were pregnant until the moment they were discharged from the hospital. I realized the value of this information, the need to gather it, and how it could affect services provision in Saudi Arabia. The value of listening to women has been recognised in maternity care services the world over. As a Saudi woman who has experienced giving birth in Saudi and Australian hospitals, I recognized that women's voices are not heard in Saudi Arabia, and they are not given the chance to exercise their childbirth rights.

Every woman should have the chance to speak up and the opportunity to express her feelings and reflect on her birth experience. The feedback from the women is extremely valuable, and policymakers must take it into consideration when reviewing birthing services. This need has directed my PhD research to explore birthing services in Saudi Arabia through women's perceptions. I add clinicians' and administrators' perceptions to complete the picture of the current birthing services available in Saudi Arabia.

Undertaking a PhD in midwifery has assisted me to grow and develop over the last five years, giving me the confidence to define, advocate for, and complete my research project; to present at national and international conferences; and to learn how to publish papers. By the last year of my PhD, I felt a great deal of responsibility for empowering women in my country by educating them about midwifery and birth. I did not wait until my PhD was finished to do that. I had already started using social media to educate women: I use my Snapchat account to broadcast educational materials about different topics related to pregnancy and natural birth. I received hundreds of messages from women after each topic I delivered, thanking me for the useful information and telling me that they wanted more. I look forward to returning home and working to support the midwifery identity and to empower women.

Abstract

The government of the Kingdom of Saudi Arabia (KSA) has recently announced its vision for 2030. This vision is organised into a number of themes: a vibrant society, a thriving economy and an ambitious nation. The vision highlights the goals to be achieved by that year. One of the key goals is improving the quality of health services delivered to the community from the capacity of a developing country to the level of a modern economy.

The research presented in this thesis can be considered a first step in improving the quality of maternity care, through its examination of the birthing services currently prevailing in KSA. The aim is to uncover the perspectives of birthing services by women, clinicians and administrators in Saudi Arabia, to explore the current services, identifying care delivered now in KSA and what is needed in the future. This was accomplished by exploring the perspectives of women who receive care and clinicians and administrators who provide care and where the literature is virtually silent.

This thesis presents the findings of 300 questionnaires completed by women prior to their discharge from hospital, describing their perceptions of birthing and their satisfaction with the birth care they received. Further, the findings of questionnaires completed by 59 obstetricians and 79 nurses and midwives are reported. The questionnaires were designed to collect both quantitative and qualitative data, and were collected in specialised maternity hospitals in three cities in Saudi Arabia: Riyadh, Jeddah, and Dammam. Qualitative data gathered in this study also included three interviews conducted by the researcher with a nursing director from each hospital.

There were a number of important findings: first, that women's satisfaction and perception of control during birth is associated with the presence of supportive, cooperative clinicians who are

good listeners, as well as with the women's active participation in decision making related to the birth. Women's birthing experiences were also improved when their pain was managed well and when they received individualised, up-to-date, evidence-based birthing care. The study revealed that there is a gap between clinicians' and women's perceptions of their care, suggesting that clinicians need more support from administrators to deliver safe, evidence based practice care and meet women's expectations.

The findings are likely to contribute to an improvement in birthing services and midwifery practice in Saudi Arabia. In particular, the study draws attention to closing the gap between women's and clinicians' perceptions of safe and satisfying midwifery care and makes it of value to educators, researchers, clinicians, policymakers and administrators in the maternity health care system in Saudi Arabia.

Publications during enrolment

You may wish to list your publications arising from your research degree enrolment using the standard citation format of your academic unit. If you have no publications, remove this section.

Thesis including published works declaration

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes (*1)* original papers published in peer reviewed journals and (0*)* unpublished publications. The core theme of the thesis is (Birthing services in Saudi Arabia) The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the student, working within the (*PhD of Midwifery*) under the supervision of (Associate *Prof. Virginia Plummer*).

(The inclusion of co-authors reflects the fact that the work came from active collaboration between researchers and acknowledges input into team-based research.)

In the case of *(Chapter 4*) my contribution to the work involved the following:

Thesis Chapter	**Publication Title**	**Status** (published, in press, accepted or returned for revision)	**Nature and % of student contribution**	**Co-author name(s) Nature and % of Co-author's contribution***	**Co-author(s), Monash Y/N***
Chapter 4	What women have to say about giving birth in Saudi Arabia?	Published	70% Concept and collecting data and writing first draft	1) Virginia Plummer, input into manuscript 10% 2) Meredith McIntyre, Data analysis, input into manuscript 10% 3) Salma Moawed, input into manuscript 10%	Yes Yes No

**If no co-authors, leave fields blank*

I have renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

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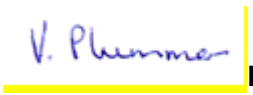
The undersigned hereby certify that the above declaration correctly reflects the nature and extent of the student's and co-authors' contributions to this work. In instances where I am not the responsible author I have consulted with the responsible author to agree on the respective contributions of the authors.

Main Supervisor signature:  **Date:** 12/9/2016

Publications

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List of Abbreviations

BFHI	Baby-Friendly Hospital Initiative
CBAHI	Central Board for the Accreditation of Healthcare Institution
CCT	Continuous Cord Traction
CS	Caesarean section
CTG	Cardio-toco-graph
JCIA	Joint Commission International Accreditation
KFMC	King Fahad Medical City
KSA	Kingdom of Saudi Arabia
MCH	Maternal child health
MMR	Maternal mortality rate
MOH	Ministry of Health
MSR	Maternity services review
PCCB	Perception of control during childbirth
PHCC	Primary health care centers
SCHS	Saudi Commission for Health Specialties
SWCBE	Satisfaction with childbirth experience

UK	United Kingdom
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Emergency Fund
VBAC	Vaginal birth after caesarean section
WHO	World Health Organization

Glossary of Terms

Administrator-Nursing Director	For the purposes of this study the Nursing Director for maternity services represent the administrative role in health services management.
Ante-natal period	The ante-natal period is the period of pregnancy and continues until the baby is born.
CTG (Cardio-toco graph)	An electronic monitoring system, either external or internal for fetal heart and uterine contractions during pregnancy and/ or labor. A CTG is able to provide a paper print of the information it records
Episiotomy	A surgical incision through the perineal tissues to enlarge the vulval outlet during the birth of the baby.
Evidence-based practice	The process of making clinical decisions based upon evidence, combined with clinical experience and patient expectations.
Multipara	Women who has previously given birth to a child (live or stillborn).
Perineum	A pyramid of muscles and fibrous tissue situated between the vagina and the rectum.
Post-partum period	The postnatal period, beginning immediately after the delivery of the placenta and membranes and continuing for six weeks.
Primipara	Women who are giving birth to a child (live or stillborn) for the first time.

Triangulation	Used to indicate that multiple methods are used in a study in order to add confidence to the result.

Chapter 1-Introduction

1.1 Introduction

Childbirth is a significant transitional point in a woman`s life, and an experience that has the potential to impact greatly on a woman`s physical and psychological wellbeing. It is a woman's right to give birth safely, and to actively involved in care decisions throughout the process. Unfortunately, these rights are not honored by birthing services in all countries. A failure to honor women's rights during childbirth may occur for a range of reasons, such as inadequate human and financial resources, poor governance, lack of benchmarking to international standards, and inadequate consumer and stakeholder feedback. Further, there is an increasingly large gap between traditional and evidence-based practices in the developing world (Choices and Challenges in Changing Childbirth Research Network, 2005).

The World Health Organization (WHO) describes maternity services in the Kingdom of Saudi Arabia as those of a developing country (Nigenda et al., 2003); yet in other ways the approach to health services is one of rapid modernization, economic growth and diversity. An example is the rise in multi-bed, multi-site medical cities for treatment and research, such as King Faisal Medical City in Riyadh. This paradox raises questions about the services prevailing in KSA, particularly for women in labor and giving birth, where the risk to mother and baby is great (World Health Organization, 2014). With a relatively high birth rate of 2.5% (though declining from 4.3% in the 1980s) (MOH., 2012), a review of birthing services in the context of the developing nation is highly significant for women and long overdue.

This thesis reports on a review of birthing services in Saudi Arabia through the lens of safe motherhood and from the perspectives of women, health clinicians, and professionals in the first line of health service administration. The study was set in both the clinical and policy arenas of the Ministry of Health and was conducted from the perspective of an observer, attempting to understand the systems and services in three main cities of Saudi Arabia: the capital city Riyadh, as well as Jeddah and Dammam. A convergent mixed methods design, triangulating the different types of data received, was used to assist in answering the question that prompted this research. The findings of this study, the first of its kind, are likely to inform the public, clinicians, and policymakers on many aspects of birthing services both locally and internationally.

In this chapter, an overview of the Saudi Arabian context and health care system is provided. Following this, the research problem, questions, aims, scope, significance, and outline of this thesis are described.

1.2 Context of the Kingdom of Saudi Arabia

For all followers of Islam, the Kingdom of Saudi Arabia is the holy land and pilgrimage destination. Saudi Arabia is also a land of oil and of many opportunities. The Kingdom of Saudi Arabia occupies 80% of the Arab Peninsula, which is located at the crossroads of Europe, Asia and Africa (Ministry of Foreign Affairs, 2011). On 19th of September 1932, King Abd Al-Aziz Al Saud announced the unity of the nation and called it Kingdom of Saudi Arabia. The royal family, Al-Saud, has managed all the political and local disturbances Saudi Arabia has gone through since unification (Ministry of Foreign Affairs, 2011).

The political system in the Kingdom of Saudi Arabia is a monarchy underpinned by the Arabic and Islamic laws. One of this system's rules is that Saudi Arabian flag should never be dipped because of the words "there is no true God but Allah" which appear on it. The main decision-making body is a *Shura* (consultative) council that consists of 150 members named by the King (Ministry of Foreign Affairs, 2011).

1.2.1 Population

The estimated population of Saudi Arabia in 2016 was 30 million, an increase on the 2011 estimate of 28.4 million. Currently more than 13 million people live in Riyadh, Jeddah, and Dammam, the three cities in which this study was conducted. The population growth rate in the Kingdom of Saudi Arabia is 3.24% per year. More than 67% of the population is currently aged between 15 and 64 years of age (General Authority for Statistics, 2016; Ministry of Health, 2012).

1.2.2 Health care system

The health care system in Saudi Arabia is governed by the Ministry of Health (MOH). It constitutes public and private sectors, in which public hospitals are managed by either the ministry of health or other government agencies. MOH hospitals provide free healthcare services for the citizens of Saudi Arabia. The MOH delivers maternal and child health care through 2109 widely spread primary health care centers (PHCC), 21 specialized hospitals, and 192 general hospitals (Ministry of Health, 2012). With 256,690 births in 2011, Saudi Arabia is a country considered to have a high birth rate, at 23 per 1000 population (Ministry of Health, 2012). In the public sector in 2011, 73.6% of total hospital births were vaginal and 23% of total hospital births were by caesarean section (Ministry of Health, 2012). Another wellbeing indicator that needs to be reported for every health

care system is mortality rates. Maternal mortality was reported in 2011 to be 1.4/10000 live births by 2009, and fetal mortality rate was 16.5/1000 live births by 2011 (Ministry of Health, 2012).

1.2.3 Workforce

The majority of health workers within Saudi healthcare systems are foreigners who come from a wide variety of cultural, religious, and linguistic backgrounds. According to the MOH statistical book for 2011, only 30% of the total doctors and 41.5 % of total nurses who work in governmental hospitals in KSA are Saudi. The public sector employs more Saudi health professionals than does the private sector (Ministry of Health, 2012).

1.3 Background to midwifery practice in the Kingdom

As in many other communities around the world, women in Saudi Arabia used their close female network or the traditional midwife (doula) to assist them in giving birth at home until the introduction of primary healthcare centers (PHCCs) twenty years ago. In some rural areas, birthing at home is still practiced. Empowering doulas with the knowledge and skills to continue to provide their significant ante-, intra- and post-natal care for women was recommended two decades ago (Al-Sekait, 1989; Rasheed & Khan, 1990). However, this recommendation was not supported by policymakers, and as a result the midwifery profession has been buried and has lost its identity. The Ministry of Civil Services does not acknowledge a job title called ‘midwife’; nor does the MOH health statistical book mention Midwives’ in the manpower section (MOH., 2012). Twenty-five educational institutions provide degrees in nursing, and there are only a limited number of midwifery educational courses operating in Saudi Arabia: two postgraduate diplomas (not recognized by the Saudi commission for health specialties) and one Master degree (recognized by

the Saudi commission for health specialties). Today, as a result of these courses, midwives have begun to be seen within maternity hospitals in Saudi Arabia; however their role is limited to the birthing units of some hospitals. The current situation of midwifery's limited role and unclear identity, plus the domination of medicine in birthing services in Saudi Arabia, is likely to restrict women's birthing options and choices. Obstetrics outcomes have been the only available measuring tools for the quality of care, and information on women's views and birthing experiences has not been sought.

A review of published work on maternity services in Saudi Arabia yields a considerable amount on the introduction of PHCCs, but much of the literature does not extend beyond this. Previous studies are neither comprehensive enough to draw a holistic view for maternity services in Saudi Arabia, nor recent enough to reveal the contemporary situation.

1.4 Problem statement

Birthing services in Saudi Arabia have not been comprehensively reviewed, and a review is overdue. This study is significant because it is the first time an empirical analysis that encompasses data from women, clinicians, and administrative staff has been undertaken. While this study is not about midwifery practice per se, the uncertain context of the practice for its providers needs to be highlighted. If midwifery is invisible to employers, how visible is it to women, to maternity clinicians themselves, and to other health professionals?

1.5 Research questions

The research questions for this study address one central question: How do women (consumers), clinicians (providers), and administrators perceive birthing services in Saudi Arabia?

In order to examine the different facets of the question, this overarching question has been broken down into two questions:

1. What are women's perceptions of their care during their childbirth experiences in Saudi Arabian hospitals?

2. What are maternity clinicians and administrators' perceptions of the services they deliver to childbearing women?

1.6 Research aim

The overall aim of the study was to uncover the perspectives of birthing services by women, clinicians, and administrators in Saudi Arabia.

The specific objectives were to:

- Explore women's level of satisfaction and perceived control in childbirth care received in Saudi Arabia.

- Identify maternity clinicians' views and perceptions of birthing services provided in Saudi Arabia.
- Present a holistic perspective of birthing services in Saudi Arabia.

1.7 Statement about study scope

In this thesis the views of the women, clinicians and administrators about birthing services and broad perspectives of care in labor and pregnancy were sought; however quality of care concepts were outside the scope of the study.

1.8 Significance of the study

This study is the first to explore women's perception of birthing services in Saudi Arabia. It combines the perspectives of women, clinicians and administrators to produce a holistic view of the birthing services in Saudi Arabia. Using a mixed methods design, this study highlights participants' voices and provides new insight into birthing services. This study contributes to the gap in literature by providing a contemporary overview of current birthing services in Saudi Arabia and by exploring women, clinicians and administrators' perspectives. The findings highlight the strength of women's voices, and are expected to be drawn upon to improve women's satisfaction, with implications for the educators, researchers, clinicians, policymakers and administrators in the maternity health care system in Saudi Arabia

1.9 Overview of the thesis

This thesis consists of seven chapters. This introductory chapter has given an overview of the setting, including the background, health system, and healthcare workforce in Saudi Arabia. This chapter also states the research questions, aims, problem statement, and significance of the study. Chapter 2 (literature review), provides a narrative review and critique of the literature on women's and clinicians' perspectives on maternity services. The literature in this chapter is divided into three sections based on its geographical origins (Western and Asian, Middle East, and Saudi Arabia). Chapter 3 (research design) begins by providing a general overview of mixed methods research, including its history, philosophy, designs, methods, and strengths and weaknesses. The convergent parallel mixed methods design is described, along with the reason for selection and the process of conducting the study. This chapter also provides details of the sample and sampling process, data collection, data analysis, data quality, and ethical considerations.

Chapter 4 reports on the quantitative and qualitative findings from the women's group results. This chapter consists of two parts: Part A reports on quantitative results for descriptive and inferential statistical tests regarding women's birthing experiences. Part B of this chapter reports on qualitative findings, including themes extracted from women's opinions, comments, stories, and suggestions. Chapter 5 presents the quantitative and qualitative results for clinicians and administrators. This chapter begins with a brief description of the sample, followed by the quantitative results, which include the findings of descriptive and inferential statistical tests. Then qualitative findings are reported with a number of themes extracted. In Chapter 6, the combined findings are analysed and discussed along with the study limitations. Key findings from the analysis of both quantitative and qualitative data from the two groups are presented and compared with the findings of previous

research. Finally, the key findings are discussed in detail in Chapter 7, including their implications for practice, policy, research, and education. Recommendations, along with an account of the strengths the current study, are also presented in this chapter

1.10 Chapter summary

This chapter has provided a contextual and structural outline for the thesis. The chapter has introduced the background, healthcare system and healthcare workforce in Saudi Arabia. This chapter also states the research question, aims, and significance of the study. The next chapter provides an extensive review of the accessible literature on maternity care systems and practices in a range of countries.

Chapter 2-Literature Review

2.1 Introduction

This chapter provides an extensive review and critique of the existing literature on maternity services in different countries and from different perspectives. The literature of interest includes studies about the views of women and care providers on maternity services, or an aspect of those services, in Saudi Arabia, the Middle East, and Western and Asian countries.

The chapter is divided into three main sections based on geographical location. Section 2.4 considers the available literature on maternity practices in Saudi Arabia. Research conducted elsewhere in the Middle East region is reported on in section 2.5, which presents current maternity services in nearby countries that share some culture, religion, and/or language with Saudi Arabia. The final section 2.6 covers studies conducted in some Western and Asian countries to highlight the current status and direction of maternity-related research in those countries.

2.2 WHO and the world direction in maternal and child health care

The WHO focused on women and children's health in its 2010 "United Nations Millennium Development Goals" committee annual meeting (World Health Organization, 2011b). As a result, the "Global Strategy for Women's and Children's Health" was developed. Safe motherhood was the focus of these strategies, highlighting best practice in improving maternal and child health and reducing mortality (Ki-moon, 2010; World Health Organization, 2011b). Additionally, Weeks (2007) suggested some steps to assist governments in meeting the Millennium Development goals

and reducing mortality, such as equal distribution of healthcare centers, constant clinician training workshops, conferences on up-to-date evidence, maintaining the availability of necessary supplies, and regular review of the services provided. Comprehensive and frequent review of services provided is therefore one of the essential steps toward better maternal and child health.

2.3 The search strategy

The search strategy involved a search of the literature in the electronic databases (CINAHL, Proquest, Cochrane, Medline Ovid) using the search terms: "maternity", "maternity services", "maternity review", "women's views", "Saudi Arabia". The search limits were for publications available from 1992 to 2016 focused on maternity services. Papers included where published within the last ten years with exception to number of old articles that is considered important to be included in the section of the history of midwifery and maternity care in Saudi Arabia especially in the presence of the limitation of literature available about women experience of maternity services in Saudi Arabia. Further limits were published in English, full text, peer reviewed and relevant grey literature. The search resulted in 459 studies. After duplicates were removed there were 278 remaining papers and these underwent full review and examined for relevance and inclusion. This process resulted in 168 papers.

Previous studies use different methods and strategies to achieve their aims, and span countries including Ireland (Kennedy, 2010), Scotland (Hundley et al., 2000), and Jamaica (Sargent & Rawlins, 1992). However, most of them agree that listening to women's opinions, views, experiences, and perceptions is the optimal method to review maternity services (Bhattacharya & Tucker, 2008; Hildingsson & Thomas, 2007; Hundley et al., 2000; Okafor & Rizzuto, 1994).

2.4 Maternity care in the Kingdom of Saudi Arabia

Studies addressing Saudi Arabian maternity services are relatively sparse, with many conducted decades ago. Most of these were conducted in antenatal care and primary care centres.

2.4.1 History of giving birth in Saudi Arabia

Until the beginning of 1990s, 80 to 90% of Saudi women in rural areas and 40% in urban areas gave birth at home with untrained female relatives (Al-Nasser, Bamgboye, & Abdullah, 1994). This preference was influenced by several factors: women's education was limited, and risks to women and babies were not known or talked about in the community. In addition, women were of low socio-economic status and could not pay for additional services, and linguistic and cultural barriers between women and nurses or nurse midwives who worked at the Primary Health Care Centres and hospitals in Saudi Arabia reduced the desire for interaction (Rasheed & Khan, 1990). Al-Sekait (1989) provided a number of important recommendations to be considered by policymakers in Saudi Arabia. These studies indicate that a high percentage of home births is associated with the high maternal mortality rate (MMR), and recommend that women should be educated to use hospitals for giving birth, or to call trained medical health providers to attend home births, and that the traditional midwives (doulas) should be trained to continue provide their care (Al-Sekait, 1989; Rasheed & Khan, 1990).

The MMR rate was almost 40 per 100 births by the beginning of 90s in KSA, and reduced to 28.4 per 100,000 live births over the twenty-year period 1983-2002 (Al-Suleiman et al., 2004; Rasheed & Khan, 1990). These findings suggested that with 40% of births in the capital city occurring at home, 50% of infant and mother deaths can be preventable within medical facilities by training and

strengthening maternity care providers' skills and services (Al-Suleiman et al., 2004; Serenius, Swailem, Edressee, & Ohlsson, 1988).

2.4.2 National survey

The only national survey of maternal and child health care was conducted by the Saudi Arabian Ministry of Health (MOH) at the end of the 1980s and beginning of the 1990s, and spanned all MOH facilities. The survey included three different stages and three different surveys: the Child Health Survey 1987, the Infant and Child Mortality Survey 1990, and the Maternal and Child Health Survey 1991(Al-Mazrou, Farag, Baldo, al-Shehri, & Al-Jefry, 1995; Baldo, al-Mazrou, Aziz, Farag, & al-Shehri, 1995a; Baldo, Khoja, al-Mazrou, Basuliman, & Aziz, 2000b). The 1991 survey aimed to assess the utilisation, coverage, and quality of maternal and child health care delivered in Saudi Arabia, and yielded a series of papers documenting its design, methodology, results, discussion, and conclusion, for example Al-Mazrou et al. (1995); Baldo, Al-Mazrou, Aziz, Farag, and Al-Shehri (1995b).

This survey documented the preferences of 6306 Saudi women, who gave birth over five years in hospital or at home, as well as how often antenatal and postnatal care were attended by those women and who was in attendance at the birth. All of these variables were measured in relation to the women's age, their level of education, their husband's level of education, rural or urban residency, and geographical location. The findings of this survey revealed that Saudi women's attendance at antenatal care was 86% overall, where 37% of the women had one to two visits and 25% of them had three or four visits; that 85% of these visits were attended by the physician, and 30% of women thought they did not need antenatal care even though some of them attended anyway. Additionally, 86% of births were at the hospitals and 90% were attended by physicians or

nurses, while 88% of postnatal care was offered by physicians (Baldo, Al-Mazrou, et al., 1995b; Baldo, Al-Mazrou, Farag, Aziz, & Khan, 1995). The authors argued that the coverage and usage of maternal and child health services in Saudi Arabia were high, but could be further improved through health education and community support.

Conducting this national survey at that time was a promising step for maternity services in Saudi Arabia, especially as it reviewed common aspects of maternity care. However, this work has not been followed up in the intervening years, so it is unclear how many of these findings are still relevant to the present day.

2.4.3 Antenatal care and healthcare program integration

According to WHO statistics, MMR within Saudi Arabia has decreased from 44 per 100,000 in 1990 to 24 per 100,000 live births in 2010; that is, 3.0% (WHO., UNICEF., UNFPA., The World Bank, & UN population division, 2011). This reflects a number of changes that were introduced since 1990 to the maternity health care system by the Saudi government in order to achieve this outcome. These changes were based on the recommendations of the majority of Saudi maternity researchers regarding the importance of giving birth with expert obstetric clinicians and improving women's health education. Another recommendation was supportive community health programmes directed at women, including accepting medical advice and family spacing, and timely access to medical services (Al-Suleiman et al., 2004; Baldo, Al-Mazrou, et al., 1995b).

Replacing home births attended by untrained females with hospital births with professional attendance, reduced maternal and child mortality and morbidity and yielded the changes introduced to the maternity care system. Another major change occurred for the Saudi maternity system during

the 1990s following the introduction of maternal and child healthcare (MCH) to primary health care centers (PHCC). This included reproductive health, safe motherhood, and women's health (Baldo, Khoja, Al-Mazrou, Basuliman, & Aziz, 2000a). For that reason, most studies conducted over that period on Saudi maternity services were found to be about integrating antenatal and MCH with PHCC.

Alakija (1995) compared maternal and child healthcare services provided within public and private institutions in a southern region of the country. Based on questionnaires and the author's observations, it was documented that women utilised and accessed the governmental antenatal clinics within PHCC and kept more regular attendance than at the private antenatal clinics. Also, the public antenatal clinics were involved in more health education and home visits services than the private clinics and provided better personal care to women (Alakija, 1995).

A number of studies have assessed the introduction of PHCC to the health care system in Saudi Arabia and the effects of integrating antenatal and MCH services with these centres (Al-Nasser, Al-Sekait, Khan, & Bamgboye, 1991; Al-Nasser et al., 1994; Baldo et al., 2000a). In 1991, 60% of health care professionals who worked at 30 PHCCs located in Al-Baha region advocated a preference for providing antenatal care within PHCCs for reasons of convenience for pregnant women. Furthermore, the majority of those healthcare providers preferred to offer eight or more antenatal visits for each pregnant women in specialised clinics by midwives (Al-Nasser et al., 1991). Al-Nasser et al. (1994) conducted another study to explore women's attitudes regarding the same antenatal services provided at PHCCs in the Al-Baha region. In that study, 91% of the women were happy to receive their antenatal care at PHCCs, mainly because of the close location of these PHCCs to their residence and their easy access to midwives and female doctors. Also,

women agreed with healthcare providers regarding the number of antenatal visits they would like to have (Al-Nasser et al., 1994).

Another study evaluated antenatal care services from women's perspectives in another city in Saudi Arabia in 2009 (Habib, Hanafi, & El-Sagheer, 2011). This study examined clinical assessment, health promotion, and care provision for 394 pregnant women having their antenatal visits in seven clinics within PHCCs. The mean duration of the first antenatal visit was 10.3 minutes, while follow-up antenatal visits were 9.1 minutes (Habib et al., 2011). The main health promotion tasks performed involved the provision of advice on nutrition, rest, baby care and breastfeeding, and checking for the clinical signs of anaemia, general appearance, and thyroid examination (Habib et al., 2011). On the other hand, assessment of social history, breast examination, checking for physical abuse, smoking, psychosocial status, and planning and developing individualized delivery plan were found to be the least conducted services in antenatal clinics (Habib et al., 2011).

Furthermore, one of the recent studies conducted by the WHO aimed to evaluate women's and providers' opinions and satisfaction with the new simplified, evidence-based antenatal model of care (Nigenda et al., 2003). Through a number of focus group interviews, this new model was compared with the standard antenatal care provided in four developing countries: Cuba, Thailand, Saudi Arabia, and Argentina in 1995 (Langer et al., 2002; Nigenda et al., 2003). The objectives of the new antenatal model of care included reducing the number of antenatal visits by expanding each visit's time duration and improving the information provided to women. Applying the new antenatal model of care resulted in reducing the number of antenatal visits in Saudi primary health centres to 4-5 visits, which was satisfactory for women, especially with the option available to them to access the service when they needed, but worrisome for providers because of the visit

spacing. The new model also provided satisfaction to women and healthcare providers regarding the duration of each visit, as well as the information provided and received on labor and delivery, family planning, pregnancy complications and warning signs (Langer et al., 2002; Nigenda et al., 2003). However, women were not pleased with the organization of the services, the waiting time, and the bureaucratic attitude of the clinicians (Nigenda et al., 2003). Given the opportunity, it is clear that Saudi women are clear and outspoken when it comes to their views of maternity care.

Another interesting study found that employed pregnant women in Saudi Arabia, and particularly those with inflexible work environments, more often have inadequate antenatal care and poor pregnancy outcome when compared with housewives with the same level of education (El-Gilany, El-Wehady, & El-Hawary, 2008). Based on these findings, the authors recommended that maternity health care providers require specific training programs on occupational medicine to help improve employed pregnant women's health (El-Gilany et al., 2008).

Assessing the utilisation and coverage of maternal and child health care within PHCCs and hospitals managed by MOH all over KSA were the main interests for maternity researchers. The reduction in maternal morbidity and mortality rate also occupied a number of maternity researchers. However, the actual care provided in relation to women's satisfaction and evidence-based practices has not attracted researchers' attention until very recently.

2.4.4 Other research directions within maternity care system in Saudi Arabia

A number of studies have investigated specific procedures or practices, or have reported statistics regarding the Saudi maternity health care system. Vaginal delivery after caesarean section (VBAC) is one of maternal procedures that has attracted researcher attention, for example in the studies

conducted by Bondagji (2006); Yamani Zamzami (2004). These two researchers conducted retrospective studies to compare the outcome and success rate of VBAC for multipara (>1 birth), grand multipara (>5 births) and grand-grand multipara (>10 births) women. Yamani Zamzami claimed that VBAC for grand multiparous women is safe and has a good prognosis at King Abdulaziz University Hospital in Jeddah (Yamani Zamzami, 2004). In response to Yamani's call for further research to support these findings, Bondagji (2006) concluded that VBAC is still an option for grand-grand multiparous women; however success rates gradually decrease with higher numbers of births (Bondagji, 2006).

Caesarean section rate has also been of interest to researchers. Using MOH yearly statistical data from 1997 to 2006, Ba'aqeel (2009) conducted a ten-year review of caesarean section rate for almost all MOH and governmental hospitals in KSA. The increase in caesarean section rate in the public sector was more than 80%, requiring urgent national action to reduce this rate (Ba'aqeel, 2009). In contrast with other countries in Middle East region, the caesarean section rate in Saudi Arabia was 8%-13% based on one national survey and eight hospital-based studies published between 1984 and 2002 (Khawaja, Choueiry, & Jurdi, 2009b). A further study investigated women and neonatal characteristics, CS indications, and CS complications for two groups of women who had CS in two different years: 2002 (CS rate 12%) and 2009 (CS rate 20%) (Al-Kadri, Al-Anazi, & Tamim, 2015). It was found that women's characteristics were not the main cause behind the significant increase in CS rate; obstetric practices also contribute. The CS rate can be reduced by aligning obstetricians' practices with the latest evidence-based practices (Al-Kadri et al., 2015).

Evidence-based practice has been the guide for recent maternity research in Saudi Arabia. A further study has explored current normal childbirth policies and practices within eight hospitals in Jeddah

city. The study was conducted by surveying six head nurses, two head midwives and one head obstetrician who were responsible for the day-to-day running of maternity wards (Altaweli, McCourt, & Baron, 2014). Although the sample of the study is not representative, the findings uncover some of the rationale behind for the current normal childbirth practices in some hospitals in Saudi Arabia. The authors highlighted the presence of some aspects of evidence-based practice in the current childbirth policies; however they noted that there are still number of practices that are unsupported or discouraged by international guidelines (Altaweli et al., 2014).

Since the national survey in 1991, many medical, social, economic, educational, and political changes have occurred in Saudi Arabia. These changes have had effects on Saudi maternity services usage and provision. The changes in research are the result of the shift of maternity research focus from epidemiology to international research.

2.5 Middle Eastern region

In the Middle Eastern region, Jordan and Syria have taken the lead in conducting research on maternity and midwifery services. One Jordanian researcher, for example, reported on Jordanian women's childbirth experience after surveying 177 literate women who had experienced normal or assisted vaginal birth for a single baby (Oweis, 2009). The study's generalizability is limited because of the convenience selection of the sample; however it highlighted some concerns and facts about women in birth. Women were anxious and horrified during labor and delivery because of the pain and the many procedures experienced, which led to dissatisfaction and a feeling of loss of control. Recommendations of the study included increasing women's confidence by allowing the presence of a family companion; encouraging women's participation in decision-making; and

offering childbirth classes to assist women in taking care of themselves and their babies after the birth (Oweis, 2009).

There has also been a call for conducting similar studies exploring health care providers' and administrators' views regarding how quality maternal services can be provided (Oweis, 2009). In response, Sweidan, Mahfoud, and DeJong (2008) reviewed the policies and procedures of 30 hospitals for normal childbirth in Jordan by surveying health care providers. They found that most of these hospitals still conduct practices that are unnecessary, harmful, and not supported by evidence, such as the restriction of food, fluids and mobility; routine pubic shaving; enema; intravenous fluid infusion; continuous cardiotocogram (CTG); and episiotomy for all primiparous women. Also, a companion during labor and birth was not allowed and birthing position was selected by the birth attendants, usually lithotomy with legs strapped (Sweidan et al., 2008). This study supported the recommendations of Oweis (2009): an upgrade for routine maternity practice for normal childbirth to recent evidence-based maternity practices (Oweis, 2009; Sweidan et al., 2008).

The Sweidan et al. study (2008) was based on previous studies conducted in four Arabic regions – Syria, Lebanon, Egypt and the West Bank – by a multidisciplinary research team who worked together since 2001 (Hassan, Sundby, Husseini, & Bjertness, 2012). This research team formed the Choices and Challenges in Changing Childbirth Research Network, which aimed to identify areas requiring change in maternity care services and to introduce evidence-based childbirth practices for safer care delivered to women and their babies (Kabakian-Khasholian, Kak, & Shayboub, 2012). The network's first research project assessed the current routine care provided for normal childbirth in each of the four countries, especially with little known about normal childbirth practices within

hospitals. Because of the local circumstances and the differences between the maternity health care systems in each country, each study was conducted separately using suitable methods. Then, after the data were collected, the results were interpreted together (Choices and Challenges in Changing Childbirth Research Network, 2005; Khalil et al., 2005; Khayat & Campbell, 2000). The results of these four research projects accorded with the results of Jordanian studies: many routine unbeneficial or harmful practices dominated and beneficial evidence-based practices were neglected (Choices and Challenges in Changing Childbirth Research Network, 2005).

Another study looking to develop evidence-based maternity care in Iran aimed to improve the quality of maternity care by introducing a new model of care based on selected evidence-based practices, and part of this included identifying women's birth preferences (Aghlmand et al., 2008). The modified care resulted in a significant improvement in women's satisfaction. A reduction in caesarean births also occurred, measured using before and after maternal surveys and a medical records audit (Aghlmand et al., 2008). Therefore, the study suggested that improving maternity services should be attempted based on women's needs and preferences. Another study yielding the same conclusions compared women's views and an observational checklist about the quality of maternity care received in birthing and postnatal wards of one teaching and one non-teaching Iranian hospital (Moosavisadat, Lamyian, Parsai, & Hajizadeh, 2011). Women's satisfaction with the quality of birthing and postnatal care in the non-teaching hospital was perceived as better than the teaching hospital. The recommended areas for improvement in both hospitals were meeting women's expectations about privacy, communication, information, and emotional support (Moosavisadat et al., 2011).

The following studies discussed specific maternal procedures or parts of maternity care within Middle Eastern countries. The patterns and determinants of maternal health care usage were investigated in Damascus (Syria) by Bashour, Abdulsalam, Al-Faisal and Cheikha (2008). They found that the utilisation and early attendance at maternity services within hospitals increased with the level of women's education and with previous complicated pregnancy (Bashour et al., 2008). However, this maternity facilities usage was accompanied with some non-evidence-based practices, such as too many ultrasound procedures and less psychological support during labor and delivery by family members or health professionals (Abdulsalam, Bashour, Cheikha, & Faisall, 2008).

In addition, another research project indicated that women in the United Arab Emirates (Mosallam, Rizk, Thomas, & Ezimokhai, 2004) do not get the desired psychosocial support during labor and delivery because they cannot have family companions, and because professional attendants failed to provide satisfactory psychosocial support (Mosallam et al., 2004).

Most of the studies discussed above have found that most maternity health care facilities in Middle East region do not allow women to have their husband or chosen family member with them during birth. However, the available evidence within the region indicates that women who had their chosen companion in attendance experienced shorter labor and required less analgesia and augmentation, and less intensive care was required for newborns (Abdulsalam et al., 2008; Mosallam et al., 2004; Sweidan et al., 2008).

Furthermore, policies for third stage of labor management in obstetric public hospitals in Syria were reviewed by Matar et al. (2010). Administering a uterotonic agent after the baby is born, delaying the cord clamping, and using continuous cord traction (CCT) to deliver the placenta are

examples of routine practices in these hospitals. However, the authors also reported some practices that are not evidence-based, such as one hospital never using a uterotonic agent in third stage (Matar et al., 2010).

Caesarean section is another procedure that has drawn some researchers' attention in the Middle East because of its extraordinary application and its increased rate within maternity care systems in Arabic countries (Al-Kadri et al., 2015; Khawaja, Choueiry, & Jurdi, 2009a). Khawaja et al. (2009a) examined caesarean section rates in 18 Arabic countries using recent national hospital-based reports and published studies. The CS rate in Egypt was the highest, at 26%, and five other countries (Sudan, Jordan, Lebanon, Bahrain, and Qatar) had very high CS rates that exceeded the WHO's recommended rate of 15%. The lowest caesarean section rates of 5%-6% were documented in Algeria, Mauritania, Gaza (region in Palestine), and Yemen; the caesarean section rate of the rest of the 18 Arabic countries (Syria, Kuwait, Tunisia, Libya, Morocco, Oman, Saudi Arabia, UAE, and West Bank) was between 7% and 15% (Khawaja et al., 2009b). In Lebanon, factors affecting the high caesarean section rate of 23% included private sector domination, the limited role of midwives, and a lack of physician accountability. Another main factor in the high CS rate is women's misconceptions about caesarean section: that CS is the better choice for them regardless of medical indications and that CS is less painful than normal birth, especially for primiparous women (Kabakian-Khasholian, Kaddour, DeJong, Shayboub, & Nassar, 2007).

Moreover, Egypt not only has a very high CS rate but it used to have high MMR. Efforts have been applied by the Egyptian Ministry of Health and Population (MOHP) to reduce the MMR, including "safe motherhood" programs, intensive training for healthcare providers, reviewing curricula, standardizing the service, and publishing medical protocols (Campbell et al., 2005).

This concludes a general overview of maternity care systems within Middle Eastern countries that share boundaries, culture, language, and political and economic relationships with Saudi Arabia.

2.6 Other Countries

Maternity services audits have been done over many years to improve maternity services provided and reduce mortality and morbidity rates within developed and developing countries. These audits are typically done by assessing the satisfaction of the services' users, and by updating the services with recent evidence-based practices.

Australia was one of the first countries to conduct reviews of maternity services state-wide in Queensland (Bogossian, 2004), in Victoria (Brown & Lumley, 1994; Bruinsma, Brown, & Darcy, 2003), and then at the national level Australia-wide (Bhattacharya & Tucker, 2008). Follow-up reviews were conducted to assess the introduction of the change (Newnham, 2010). Most of these reviews used women's opinions to assess the care provided. In 1989, a survey was conducted as part of Victoria's State maternity services review to evaluate women's satisfaction with labor and birth care. The recommendations this review were essential for the ministerial future maternity direction, which was focused on improving women's satisfaction with the amount of information given to them, their involvement in decision making, health care providers' attitudes, and excessive obstetric interventions (Brown & Lumley, 1994).

In a very useful report, Bruinsma, Brown and Darcy (2003) compared women's views toward maternity services in Victoria using three state-wide reviews conducted over 10 years: 1989, 1994 and 2000. This report demonstrated the helpfulness of organizational changes, introduced following the findings of each review, for improving women's birthing experiences and satisfaction

with antenatal, intrapartum and postnatal care (Bruinsma et al., 2003). It is argued that most South Australian rural women were unhappy with the postnatal care they received, when South Australian rural women's views of pregnancy, birthing and postnatal care were explored (Guest & Stamp, 2009). While the hospitals in the study represent only 5% of the total births in 2006 in South Australia, the study provided an overview for rural women's views at the time and no similar research has been conducted on that population (Guest & Stamp, 2009).

In 2009, the Australian Federal government released the report of the national maternity services review to improve maternity services in Australia, upon which a number of studies were based (Dahlen, Jackson, Schmied, Tracy, & Priddis, 2011; Mclntyre, Francis, & Chapman, 2011; Newnham, 2010). This national report introduced some changes related to the midwifery profession, however midwives still faced complex issues, for instance home birth policies, water birth policies, insurance, and liability. The complexity of these issues increased because women and the midwifery profession are not the main actors in making decisions; multidisciplinary stakeholders are involved (Newnham, 2010). This was the midwifery direction after the National Australian Maternity Review in which care providers, women, consumer groups, and organizations representing women's interests submitted several documents to the Australian Maternity services review (Dahlen et al., 2011) to outline women's requests and contribute to the final MSR reports.

As a consequence of these submissions, the new recommendations were directed to the primary maternity services, including changing the traditional doctor authority and improving women's access to and the availability of birth centres (Mclntyre et al., 2011). A critical discourse analysis of selected submissions pointed out the synergistic move of the government with the unified women's requests and emphasized that women should influence the change (Mclntyre et al., 2011).

Nevertheless, Dahlen et al. (2011) argued that MSR recommendations did not reflect women's birth place preferences "everything should be on the menu" (Dahlen et al., 2011, p. 165) because 60% of women's submissions mentioned home births and 24% only mentioned birth centres. In terms of safety, MSR recommended birth centres as an option for women who want midwifery-led or non-medicalized care and a homelike environment, and kept home birth as an unfunded and inaccessible service (Dahlen et al., 2011).

It has been previously suggested that postnatal care does not receive the same attention as antenatal and intra-natal care, which leads to women's persistent dissatisfaction with postnatal care (Bick, Rose, Weavers, Wary, & Beake, 2011; Bruinsma et al., 2003). More research recently has been done on this neglected area within most maternity care systems. For example, a review has been undertaken of in-patient postnatal care in UK. Midwives' views and perspectives on their engagement in the quality improvement process included the changes that would adequately meet women's physical and psychological needs, and information and support required; however some midwives considered these changes to be additional workload (Bick et al., 2011).

Furthermore, postpartum care provided in a community based maternity unit in Norway was evaluated via questionnaires filled out by care providers and care receivers. The study revealed positive findings in regard to women's satisfaction and professionals' expectations regarding kindness of clinicians and length of stay. However, more attention was required to baby care, especially at night, and to the teaching of baby-care skills during hospital stay (Valbø, Iversen, & Kristoffersen, 2011). Interviews of care receivers and providers were also conducted to assess the utilisation of antenatal and postnatal services in rural southern Tanzania. While women's perspectives and experiences were positive regarding the ante- and post-natal care received, these

women did not initiate their antenatal care early in order to avoid having several visits, or because of geographical, natural, or economic reasons that required governmental efforts to overcome them (Mrisho et al., 2009). On the other hand, lack of postpartum care caused by insufficient clinicians, equipment and supplies needed to be addressed by extending clinicians' training and reviewing practice guidelines (Mrisho et al., 2009).

In Scotland, a national policy review was conducted of maternity services that explored women's and health care providers' views about how often women had made an informed choice within the current maternity care system, from which two papers were published (Hundley, Penney, Fitzmaurice, van Teijlingen, & Graham, 2002; Hundley et al., 2000). The first paper demonstrated the findings from interviewing all women giving birth throughout Scotland within a ten-day period, in which 37% of the participant women had chosen the health care professionals who provided their antenatal care. However, 26.6% of participant women only had the choice of where their antenatal care received and not of who provided it (Hundley et al., 2000).

Few of these Scottish women had the choice of home birth, and only 12% had their babies with a midwife who they had met before which was not experienced by more than 80%. It was therefore suggested that more efforts be made by the Scottish government to improve the information and choices available to women within the maternity care system (Hundley et al., 2000). The second paper's aim was to compare women's and health care providers' views obtained in that national survey for agreement and disparities, highlighting the value of using complementary data collection methods and obtaining service consumers' and providers' views in evaluating the quality of care (Hundley et al., 2002). Mander and Melender (2009) conducted a phenomenological study in Finland to explore women's, care providers', and policymakers' experiences of maternity decision

making. This study identified that "trusting the system" was the background theme underpinning making choices in the maternity system. Trusting the system dominates the factors that affect making choices, such as the access and availability of information, having courage to make difficult decisions, feeling safe to make such decisions, and having the ability to introduce changes (Mander & Melender, 2009). The findings of earlier studies support the design of the current study in including women, health care providers, and administrative personnel as participants.

Sweden is considered to be one of the safest countries in which to give birth: it has a very low perinatal mortality rate (5/1000 live births) and maternity care is available free for all Swedish citizens. Yet Swedish women remain unsatisfied with maternity care (Hildingsson & Thomas, 2007). Therefore, instead of measuring the obstetric outcomes to assess the quality of the care, a national survey was conducted seeking women's perspectives on maternity services in Sweden. After analysing the responses of 827 women to the open question section in the survey, the following areas were suggested for improvement: the duration of antenatal visits; the availability of parental classes; pre-labor visits to the birthing wards; empowering women with continuous information; provision of reassurance and support throughout pregnancy, labor, and postnatal periods; involvement in decision making; and flexible discharge timing. In addition, having a supportive, friendly, attentive, respectful, and non-judgemental known midwife attending the birth and providing women-centered care were very important factors in increasing women's satisfaction (Hildingsson & Thomas, 2007).

It seems that professional characteristics and women-centreed care are the essential two elements for women's satisfaction within any maternity care system, even with variance in languages and culture across both women and professionals. For example, the knowledge and empathy imparted

by the Swedish midwives was enough for Middle Eastern immigrant women to develop trust with them (Ny, Plantin, Karlsson, & Dykes, 2007). Gathering immigrant women and their partners' experiences in the Swedish maternity care system provided an opportunity to improve care and meet their needs. These needs are mainly focused on making parental classes available for immigrant women's partners to prepare them for the new role, and to be supportive and helpful to women, especially in the absence of the usual supportive female network that these women often had in Middle Eastern countries (Ny et al., 2007).

For Armenian women, the meaning of giving birth for them was explored in a qualitative study conducted when there were little known about the birthing experiences in Armenia. It was recommended that healthcare providers should incorporate the skill of listening to women about their care and translating women's voices into clinical practice guidelines (Amoros, Callister, & Sarkisyan, 2010).

Similar to the findings of previously mentioned Arabic studies, obstetric care in four hospitals in China was found to have lack of evidence-based practices (Qian, Smith, Zhou, Liang, & Garner, 2001). After interviewing 150 women and 48 clinicians from three hospitals, discussing a cohort in which 50% of the total births were vaginal births, six routine non-evidence-supported practices were identified. These practices were routine pubic shaving, rectal examination, episiotomy, birthing in lying position, and no or limited companion allowance. Recommendations were made to modify hospital policies to include the latest evidence-based practices that are known to be beneficial for childbearing women and to increase their satisfaction (Qian et al., 2001). The findings and recommendations of this study were similar to the findings of the Altaweli et al. (2014) study recently conducted in Saudi Arabia.

In another study conducted in China regarding the quality of postpartum care, women's perspectives indicated that an emphasis was needed on baby care education, in particular the allocation of more time to answer women's questions during home visits. In addition, access to health care professionals for consultations in between home visits and continuous training in baby care for maternal and baby healthcare workers were required (Lomoro, Ehiri, Qian, & Tang, 2002).

In rural Vietnam, focus group interviews with maternal healthcare clinicians about the provision and use of antenatal and birthing care revealed that families' economic constraints and cultural norms limited women's utilisation of the services and hindered their childbirth autonomy (Graner, Mogren, Duong, Krantz, & Klingberg Allvin, 2010). Also, health organizations' structural constrains, which included limited finances and inadequate professional training and equipment, impeded the provision of maternity care (Graner et al., 2010). The results of this study would have been more valuable and significant if women's voices had been included.

With similar findings, and in response to high mortality and morbidity rates among pregnant and childbirth women in four developing countries (Malaysia, Indonesia, Thailand and the Philippines), a five-year project evolved named "South East Asia Optimising Reproductive and Child Health in Developing Countries" (The SEA-ORCHID Study Group). The first step was to conduct an audit of nine hospitals' medical records in order to compare current obstetric practices with WHO-suggested maternity practices (The SEA-ORCHID Study Group, 2008). The audit provided a baseline for ongoing maternity care that was consistent with the available evidence on the management of third stage of labor and the treatment of eclampsia. However, it was not compliant with evidence in terms of the use of prophylactic antibiotics prior to caesarean section and the routine use of enema, pubic shaving and episiotomy. The SEA-ORCHID project aims to introduce

changes to increase the uptake of evidence-based practices into maternal and child health care (The SEA-ORCHID Study Group, 2008).

2.7 Chapter summary

The literature presented in this chapter highlights two main points. First, current maternity practices and women's birthing experiences in developing and some developed countries are almost the same. The main recommendations of these studies were the need for women to receive individualised care, clinicians' training, and to update practices according to the latest evidence. Second, maternity audits and reviews in developed countries are ongoing. It is necessary to continue to review women's satisfaction with the services, and to update these services according to the latest evidence-based practices.

There are a number of reports internationally that include women's (as consumers) views and/or clinicians' (as care providers) views to assess, evaluate, and explore birthing services. These reports show a heightened awareness of the need to consider these views as fundamental to birthing service utilization, quality, and women's satisfaction, whatever the social, cultural, geographical, and environmental context. There is no study to date that explores women's and providers' perspectives on the same services.

This chapter has provided a critical review of maternity care-related literature, organized according to geographical location. This review has presented women's and health care providers' views, perspectives, and experiences regarding the provision, utilization, and quality of maternity care within different contexts. The literature reviewed clearly indicates that using multiple methods to collect care providers' and care receivers' opinions is the best way to evaluate quality of care. The

paucity of literature in regard to current birthing services in Saudi Arabia, as experienced by women and health care providers, is evident in this review and must be addressed.

Chapter 3-Research Design

3.1 Introduction

Chapter Two has provided a review and critique of the available literature on birthing services in Saudi Arabia and internationally. Against this backdrop, Chapter 3 describes the research design and framework underpinning this study. This study was developed to explore views on current birthing services in Saudi Arabia, based on the understanding that women have a right to safe motherhood and choices in birthing, and that the women`s experiences are a central consideration.

In this chapter the philosophical underpinnings, design, methods, and advantages and disadvantages of mixed methods approach are outlined. The convergent mixed methods designs is described in relation to the current study's theoretical framework, data collection process, data analysis and interpretation, and validity. This is followed by a discussion of ethical considerations related to this study. This study setting is then described, including the population and, sampling and recruitments strategies used. An account of the data collection tools and the process of planning for and conducting interviews follows. This is followed by a discussion of data collection, analysis, and data quality for the qualitative and quantitative stages.

3.2 Structure of the study

As previously stated, the aim of this study is to uncover for the first time perspectives on birthing services by women, clinicians and administrators in Saudi Arabia. The Saudi health system and services are complex and rapidly developing, yet there are no recent reviews of birthing services

linked to this development. Such a review requires an appropriate method and design to achieve the stated aim and to answer the research question. A mixed methods approach was the design chosen for this study for the following reasons: collecting quantitative data alone will hide women's voices and clinicians' views, which are expected to enrich the findings and add a great deal of value. On the other hand, collecting qualitative data only will limit the generalizability and richness of the study.

3.3 Mixed methods approach

Kettles, Creswell, and Zhang (2011) have delineated four stages in the history of the mixed methods approach (formative, paradigm debate, procedural development, and advocacy as a separate design), identifying the names of important theorists at each of these stages. Since the 1950s, the mixed methods field has drawn the attention of a number of authors. In 1959, psychologists Campbell and Fisk combined multiple quantitative measures in one study, which is considered the formative stage (Creswell, 2014; Kettles et al., 2011). The Campbell and Fisk study inspired other researchers to incorporate different sources of data (quantitative and qualitative) in one study (Creswell, 2014). Bryman (1988) identified connections between qualitative and quantitative methodologies (termed the 'paradigm debate' stage). In the third stage, the procedural development stage, Bamberger (2000) provided an international policy for mixed methods, while in the fourth stage, the 'advocacy as separate design' stage, Tashakkori and Teddlie (2003) comprehensively discussed aspects of mixed methods research (Kettles et al., 2011).

3.3.1 Philosophical background

The philosophy of using multiple methods, and of mixing methods, was underpinned by a wish to neutralize the bias and weakness of each method. While the mixed methods approach began to evolve a long time ago, it still considered new, and the major works drawing upon this research design have been conducted between the mid-1980s and today (Creswell, 2014). Mixed methods research is growing and is still considered an unknown and confusing field by some researchers (Leech & Onwuegbuzie, 2009). Multiple definitions and names have been used over the last 50 years to indicate mixing or combining qualitative and qualitative data, for example 'multi-method' and 'integrated', but the most widely use today is 'mixed methods' research (Kettles et al., 2011). In general, mixed methods research means combining or integrating qualitative and quantitative research by collecting, analysing, and interpreting both qualitative and quantitative data in a research study, or in multiple studies aimed at answering one research question (Creswell, 2014; Leech & Onwuegbuzie, 2009).

For every research project, the research approach needs to be identified in the early stages. This consists of three essential components: the research paradigm (philosophical worldview), research design, and research methods. There are four philosophical worldviews that guide every study: postpositivist, constructivism, transformative, and pragmatism (Creswell, 2014).

Human life is about exploration: exploring the environment, events, and phenomena so that they can be better understood. In the research field, researchers may conduct exploratory studies to understand social phenomenon about which little is known using credible and variable tools to explore participants' views about this social phenomena (post-positivist). Exploratory studies

promise "new understanding or new insight" for the investigated phenomena and add further credibility to existing theory (Creswell, 2014; Niglas, Kaipainen, & Kippar, 2008; Parahoo, 2014).

Post-positivism is applicable to this study because of its exploratory nature and quantitative dominant, as there is to date insufficient literature on birthing services in Saudi Arabia. None combine women's, clinicians' and administrators' perspectives about these services in one study. In this study it is expected that new insight into social phenomenon which is birthing in Saudi Arabia will be gained by establishing correlation between variables and women's satisfaction and perception of control and between variables and clinicians' report on their daily care, in addition to listening to women, clinicians, and administrative views through the safe motherhood lens. Applicability of post-positivism to this study was also because of the researcher interests in generalizing the understanding of the phenomena to the population (Parahoo, 2014).

3.3.2 Mixed methods design

Mixed methods designs involve integrating qualitative and quantitative data, where one set of data could be used to test the accuracy of, explain, or further build the other set of data. Researchers who are new to the field of the mixed methods research face the challenge of selecting the optimal mixed methods design that will answer their research question or support their research hypothesis (Leech & Onwuegbuzie, 2009). Research designs within a mixed methods approach have been discussed and defined by many researchers and authors. However, the primary mixed methods designs are three: convergent, explanatory, and exploratory. These can then be coupled with more advanced strategies, such as transformative, embedded, and multiphase mixed methods (Creswell, 2014; Kettles et al., 2011). Leech and Onwuegbuzie (2009) argued that the level of mixing, time orientation and emphasis of approaches are the three dimensions under which any mixed methods

research design is classifiable. This means that each mixed methods research study could be either partially or fully mixed, have equal or dominant status for the qualitative and/or quantitative section, and be conducted in concurrent or sequential stages. These three dimensions form eight designs that describe every combination:

(a) Partially mixed concurrent equal status designs;

(b) Partially mixed concurrent dominant status designs;

(c) Partially mixed sequential equal status designs;

(d) Partially mixed sequential dominant status designs;

(e) Fully mixed concurrent equal status designs;

(f) Fully mixed concurrent dominant status designs;

(g) Fully mixed sequential equal status designs; or

(h) Fully mixed sequential dominant status designs.

Convergent parallel mixed method designs involve collecting qualitative and quantitative data at the same time and then converging and compare the analysis of both types of data at the interpretation stage. This is why it is called parallel or concurrent design: it combines the collection of both types data in one phase for a comprehensive analysis of the research problem (Creswell, 2014; Leech & Onwuegbuzie, 2009).

In sequential designs for explanatory and exploratory mixed methods research, data collection occurs in two separate phases (Leech & Onwuegbuzie, 2009). Explanatory sequential mixed

method research begins with collecting and analysing quantitative data and then explaining these findings in details by collecting and analysing qualitative data; this is why it is called explanatory. Exploratory mixed methods design is the opposite: the researcher begins by collecting participants' views (qualitative data), analyses them, and uses these findings to build the instrument for the quantitative part of the research. This design called also sequential because collecting and analysing qualitative and quantitative data occurs in separate phases (Creswell, 2014).

A convergent mixed methods design was chosen for the current study, and will be discussed in detail later in this chapter.

3.3.3 Types of methods in mixed methods research

Research methods is the third component of every approach: deciding the types of methods for data collection, analysis and interpretation that will be used in the research. These methods could be quantitative, qualitative, or mixed methods based on the degree of predetermined nature, the use of closed- or open-ended questions, and the focus of the data analysis (numeric or non-numeric) (Creswell, 2014). Research methods within the mixed methods field include both predetermined and emerging methods, open-ended and closed questions, and statistical and text analysis (Creswell, 2014).

3.3.4 Advantages and disadvantages of mixed methods research

Researchers' use of the mixed method approach has been increased because of its documented benefits. Mixed methods research helps researchers to overcome the bias and weakness of conducting quantitative or qualitative research alone, using the strength of both to expand the scope

of the study, improve the power of analysis, and produce stronger inferences (Creswell, 2014; Sandelowski, 2000). Mixed methods approaches can also be used to gain a better understanding of the research topic because they provide divergent perspectives on the topic. This is as a result of using predetermined and emerging research methods, all of which may lead to further examinations (Creswell, 2014; Teddlie & Tashakkori, 2009). Moreover, it has been claimed by Flemming (2007) that mixed methods approaches enhance evidence-based practices in nursing sciences.

Furthermore, one of the documented benefits of mixed methods research is enhancing the findings of a study with a second source of data (Kettles et al., 2011). This is the reason that mixed methods have been chosen for this investigation. Surveying women and healthcare providers is the recommended way to review any health service and to obtain large sample size for generalization, but having open question at the end of each survey for participants' additional comments will serve to enrich the data. Interviewing the first line of administrators serves to enhance the data with an extra perspective, considered in addition to the women's and clinicians' views. Together, these sources of data set the parameters for a much-needed "richer and more comprehensive" (Foss & Ellefsen, 2002, p. 242) perspective of current birthing services in Saudi Arabia.

On the other hand, mixed methods approaches involve a number of challenges that need to be considered by researchers intending to conduct mixed-methods research. These challenges include the requirement that researchers are familiar with both qualitative and quantitative research. Also, mixed methods approaches require extensive data collection and data analysis, which in turn need more time, effort, money, and potentially even a team of researchers (Creswell, 2014; Teddlie & Tashakkori, 2009).

3.4 Convergent parallel (concurrent) mixed methods design

A convergent design was chosen for this study. According to Leech and Onwuegbuzie (2009), this type of study can be described as partially mixed concurrent quantitative dominant mixed methods research.

The convergent mixed method design is the traditional and most familiar basic mixed methods design. In convergent mixed methods research, quantitative and qualitative data is collected and analysed separately within the same timeframe. Then the quantitative results and qualitative findings converge for the purposes of comparison, or for corroboration during the interpretation and discussion phase (Creswell & Plano Clark, 2007). It is considered the approach of choice for researchers who are new to the mixed methods field because it requires a basic understanding of mixed methods design: combining qualitative and quantitative data (Creswell, 2014). The premise of convergent mixed methods design is the collection of different forms of information about the same topic, including participants' views (qualitative) and scores on instruments (quantitative), together producing a fuller picture of the same findings (Creswell, 2014); see Figure 3.1 following this section P42.

Data collection: Any form of qualitative and quantitative data collection methods could be used in convergent mixed methods design (for example interviews, observations, instruments, numeric records, etc.). The key idea that must be maintained is the need to collect both quantitative and qualitative data about the same variables, constructs, or concepts. Sample size is considered to be another important data collection issue because of known differences in the sample sizes required for the quantitative and qualitative research. To solve this issue, some mixed methods researchers

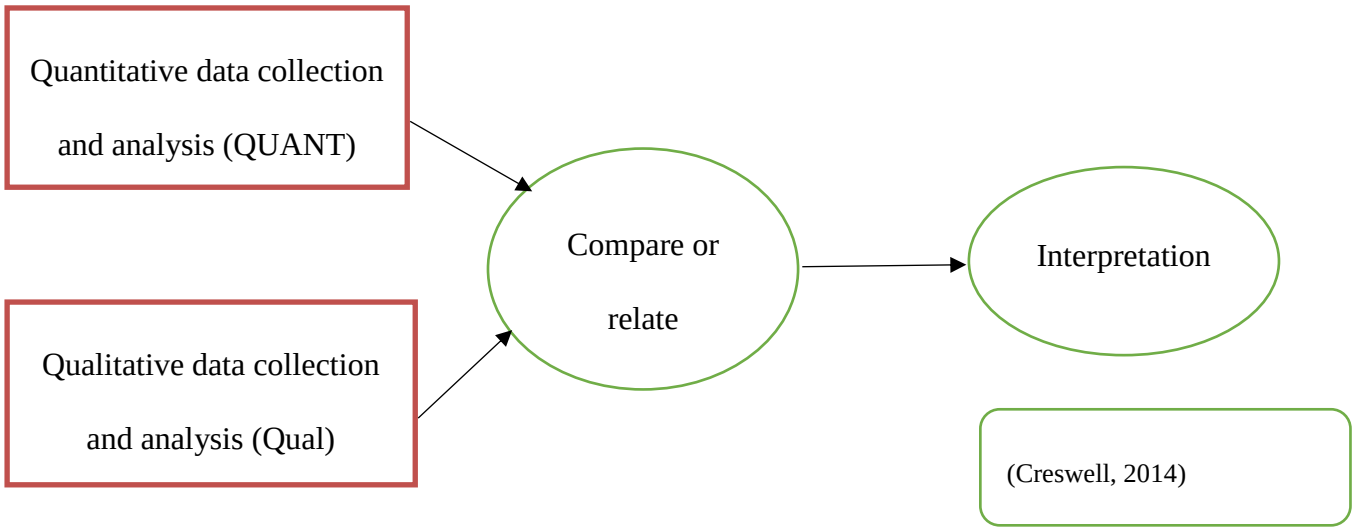
collect quantitative and qualitative data from the same number of participants. However, this increases the size of the qualitative sample, which limits the amount of information that can be obtained from every participant, or decreases the size of the quantitative sample, which reduces the generalizability of the study. Another group of mixed methods researchers has claimed that an inequality of sample size within mixed methods research is not a problem, as the objective for quantitative and qualitative research is not the same and each requires an adequate number of participants to achieve its intention (Creswell, 2014).

Data analysis and interpretation: As previously mentioned, quantitative data should be analysed separately from qualitative data, with the convergence occurring only at the interpretation and discussion stage. In this case the quantitative dataset is dominant and so is written in capitals. Converging the findings of the two data sets is the challenging part of this design. There are three suggested ways to converge quantitative and qualitative data. The first style is called side-by-side, in which researchers create convergence by reporting one set of findings (for example quantitative statistical results) then discussing the other findings (qualitative themes). The second style is called transformation, because researchers change qualitative themes into quantitative variables and then engage in a coding process to yield quantitative scores, and this is how they combine the two sets of data. The third style is called joint display, in which the two sets of data are combined in a table or graph (Creswell, 2014). At this stage, the convergence or divergence between quantitative and qualitative data is confirmed.

Validity: Validity in convergent mixed methods research can be enhanced by establishing the validity of both quantitative and qualitative data sets which will be discussed later in section 3.12. Moreover, mixed methods researchers can ensure validity by being cautious about the sample size

for quantitative and qualitative data collection. Also, researchers must be cautious of investigating different concepts on the qualitative and quantitative data sets (Creswell, 2014). The application of this design in the current study will be discussed later in section 3.13.

Figure 3.I: Convergent Mixed Method



3.5 Levels of integration

According to Fetters, Curry, and Creswell (2013), integration in mixed methods research can occur at different levels: research design, framework, method, and interpretation. The coherence of the quantitative and qualitative findings of a mixed methods study can be described by the levels of integration fulfilled in the study. The integration in the current study occurs on a number of levels. For example, at the method level, this has meant combining quantitative and qualitative questions in one questionnaire and then using these questions as a guide for the researcher's choice of questions to be asked during interviews with administrators. Also, both quantitative and qualitative data were collected and analysed concurrently within the same timeframe. In addition, integration occurred at the interpretation and reporting levels through a narrative staged approach. In this study, quantitative and qualitative findings for the group of women were reported together in one chapter (Chapter 4), with the findings of the clinician group presented in another chapter (Chapter 5).

3.6 Ethical considerations

Ethical approval for this study was obtained from several institutions. The National Statement on Ethical Conduct in Human Research of Australian Government, in conjunction with Monash University Human Research Ethics Committee (MUHREC) guidelines, formed the ethical framework of this study (National Health and Medical Research Council, 2007). Ethical approvals to conduct the research project, including the methodology used to collect the data, were obtained from MUHREC, from the hospitals invited to participate, and from the MOH. The MOH is the principal governing body for the participant hospitals in Saudi Arabia. In accordance with MUHREC

guidelines, many ethical issues were relevant to the conduct of the study, including anonymity, confidentiality and protection of human rights, level of risk, benefits of the study, the right of self-determination, and full disclosure.

All participants in this study have the right to anonymity and the right to be certain that the data collected will be kept confidential (Burns & Grove, 2007). The anonymity and confidentiality of participants' responses was ensured. The participants were not required to write their names on the questionnaire, and the surveys did not record any other identifying information.

Women and health clinicians were asked to complete self-administered questionnaires after reading the explanatory statements, which stated that participating in this study is voluntary, and that no identity disclosure was required, no discomfort anticipated, and participation or lack thereof would not affect the care provided or received.

For the Nursing Directors, consent forms were signed after reading the explanatory statement and before the audiotaped semi-structured interview was conducted. The explanatory statement highlighted that participating in the interviews was voluntary, with the use of pseudonyms and unidentified organizations, and that withdrawal was possible at any stage.

Data storage and security of this study follows MUHREC regulations, which require the data to be retained in the department in a secured locker, and as a secured file (electronically) for at least five years; also that only the researchers will have access to the original data.

In April 2012, the two questionnaires were designed. These were submitted together with an Administrators'/Interviewers' pack, including explanatory statements and consent forms, along with a full application for ethics approval to Monash University Human Research Ethical

Committee (MUHREC). Conditional approval was gained in May 2012 (Appendix I). Then, after restructuring the questionnaires according to the feedback of the expert midwives and the results of piloting, the ethics forms were resubmitted to the MUHREC and final approval was received in November 2012. In addition, during data collection and because of the change in the process of data collection (will be discussed in section 3.10.2), MUHREC was consulted and informed about the new circumstances and its approval was obtained.

3.7 Research setting

The setting for this study was Saudi Arabian maternity-specialized public hospitals, under Ministry of Health management, in three main cities of Saudi Arabia (Riyadh, Jeddah, and Ad-Dammam). MOH public hospitals represent the major provider of health care in Saudi Arabia.

The selection of the three cities was a design decision based on several factors: the political, economic and geographical position of each city in Saudi Arabia; the population; and the number of hospitals and beds. Riyadh is the capital city, representing the central region of Saudi Arabia. Jeddah is the commercial capital and trade gate, and is located in the western region. Finally, Ad-Dammam city represents the eastern region of Saudi Arabia, which is 80km from the country's major petrol and chemicals company (Ministry of Foreign Affairs, 2006). Furthermore, the three cities together constitute 15 million of the total of population (30 million) of Saudi Arabia (Ministry of Health, 2012).

Also, there are eight MOH specialized maternity hospitals located in the three cities with more than a 2000-bed capacity, which indicates the high number of women giving birth there (Ministry of Health, 2012). The three hospitals invited to participate are secondary or tertiary centres and serve

women who live in the city and the areas around each city. The number of births in each hospital is approximately 6000 per year (Ministry of Health, 2012). The three hospitals invited were de-identified in this study by the three letters A, B, C for simplicity. A for the hospital in Jeddah, B for the hospital in Riyadh, and C for the hospital in Ad-Dammam.

3.8 Populations, sample

3.8.1 Quantitative data (Inclusion and exclusion criteria and response rate)

The study population includes two subpopulations: women giving birth in Saudi Arabia and healthcare professionals who are involved in birthing care within Saudi maternity hospitals. This means that two sample groups were recruited. The first group included women from postnatal wards within invited maternity hospitals who have given birth to a live baby. These women were all aged over 18 years, able to read and write in Arabic, and clear for discharge from the hospital. The second group represented clinicians who provide birthing care to women within labor and birth wards. All participants in this group were aged over 20 years and had been employed at the hospital for more than 6 months.

Women's questionnaires: A total of 391 women were invited to participate in the study. Of these, 56 did not wish to participate and 13 did not read and write Arabic, and therefore were excluded. This means that in total 322 questionnaires were collected and analysed, representing a response rate of 82.4%. The sample size was estimated as 231 which was calculated based on a standard deviation of 15.5, an effect size of 2.0, and a margin of error of 2.0. The sample size for this study has sufficient power.

Clinicians' questionnaires: On the other hand, the response rate for clinicians was 37% for obstetricians and 50% for nurses and midwives. There were 59 Obstetrics & Gynaecology doctors, 54 midwives, and 25 nurses who completed a total of 138 questionnaires. These numbers also include several unexpected participants who joined the group, such as four medical interns and two nurse technicians. The decision was made not to exclude them because they do complete shifts and work with women in labor and delivery; and so they might have valuable or different information to add. The required sample size for clinicians was not estimated because the researcher approached every obstetrician, nurse and midwife working with women in labor rooms within the three hospitals, and the decision was made after consultation with statistical specialist.

3.8.2 Qualitative data (Inclusion and exclusion criteria and response rate)

Participant women and clinicians had the option to complete the qualitative part of the survey which is an open question added to the end of the questionnaire. This is considered the first tool to collect qualitative data in this study.

Women's responses to open-ended questions: The number of participant women who answered the qualitative part of the survey (open question) was 138 women that include participants who answered the open question only. This is represent 35% response rate for the open question in women questionnaire. Another source for qualitative data collected from women was 35 researcher notes for conversation with women about their childbirth occurred during data collection.

Clinician's responses to open-ended questions: In addition, 36 participant clinicians completed the qualitative part of clinicians' survey, which is an open question added to the end of the

questionnaire. This is include 17 obstetricians and 19 nurses and midwives with response rate of 26.1%.

Director's interviews: Data was gathered from the second sub-group of clinicians in the form of three digital audio-recorded interviews conducted with three nursing directors who have worked within the selected hospitals for at least 6 months.

The first interview was conducted with a Saudi female nurse who held the Nursing Director position in A hospital. She had 19 years of experience as a nurse before starting work at the current hospital. She has been working for this hospital for 6 years now. She was previously responsible for disaster management in the hospital, and has now held the position of Nursing Director for one year. Quotes from her are identified using the letter A.

The Director of Nursing in B hospital, a female Australian midwife, was the interviewee for the second interview. She has been working in Saudi Arabia for 20 years, and she thinks that "birthing services in Saudi Arabia have come along the way and I would have to say at the moment I am very pleased with the birthing services that are available". Quotes from her are identified using the letter B.

In C hospital, the interview was conducted with the deputy nursing director, a female midwife, because the nursing director was busy. She thinks that "birthing services in Saudi Arabia is robust". Quotes from her are identified using the letter C.

3.9 Recruitment

Data collection took place during the period between January and May 2013. In arrangement for the data collection journey and as a woman, travelling to Saudi Arabia and through Saudi Arabia required male company, and so the researcher's husband and children companied her throughout the data collection journey.

The data collection period began in Jeddah in January 2013 at Jeddah, moved to Riyadh during March and April 2013, and finished in Dammam in May 2013. Roughly, collecting the data from each hospital required a three- to four-week period to cover the two groups of participants.

The researcher submitted the ethics approval forms of MOH early in 2012 in order to be ready and not to waste any time during the data collection period. However, a number of issues raised in each hospital prevented a smooth start for data collection and required time and actions from different hospital departments. For example, in A hospital, Obstetrics & Gynaecology Director had the research approval from MOH and after a few days to read the questionnaires, the researcher was introduced to the head nurses and the decision was that data collection should be started. At this stage, other departments questioned the research and prevented the researcher from conducting the data collection. Further approvals were required by these departments, which resulted in a four-week delay in A hospital in order to obtain final approval to start data collection.

In B hospital, the situation was slightly different, as the hospital has its own research center through which all research conducted must be approved. Subsequently, the research proposal went through the hospital research centre process to obtain approval. This process was begun while data was being collected in A hospital. This saved considerable time when data collection started in B

hospital, and only one week was needed for the researcher to finalise the process and get started. In C hospital, the researcher also required more than a week to meet the relevant supervisor in order to obtain approval and start data collection.

3.10 Data Collection

3.10.1 Questionnaire Design

In this study, two different questionnaires were used to explore birthing services in Saudi Arabia. One questionnaire adopted from published Jordanian study which aimed to evaluate women's birthing experience by assessing their satisfaction and perception of control during birth. In order to obtain clinicians' perception the other questionnaire was designed to assess their daily care provided to birthing women and their believes about women birthing experience, this is to help exploring the current care provided in Saudi Arabia. Both questionnaires included checkpoint questions (quantitative), with one open-ended question at the end of the questionnaire for any further comments or description (qualitative).

A. Women's survey

The first questionnaire (see Appendix II), designed to explore women's views. was adapted from a Jordanian study that investigated mothers' reports of their childbirth experience by Oweis (2009). The questionnaire included 22 demographic items including educational level, job status, residency, pregnancy history, and current birth experience. Two additional instruments are incorporated within the women's questionnaire. The first was the Satisfaction with Childbirth Experience (SWCBE): 32 items measured on a five-point Likert scale ranked from Strongly Agree

to Strongly Disagree. The second instrument was Women's Perception of Control during Childbirth (PCCB): 23 items measured on a five-point Likert scale ranked from Rarely to Always. The questionnaire was translated into Arabic language (Appendix III).

B. Clinicians' survey

The second questionnaire (Appendix IV) was designed to explore clinicians' views, and was developed using multiple surveys from different studies in addition to the women's survey (Choices and Challenges in Changing Childbirth Research Network, 2005; Hundley et al., 2002; Sweidan et al., 2008).

The clinician's questionnaire contained 12 demographic items such as gender, age, work experience, and evidence-based practices in daily care. This was followed by a 41-item instrument developed to assess maternity care providers' views and reflections on their daily care provision to birthing women.

The original plan was to administer the clinicians' questionnaire in English language. However, it was translated into Arabic during data collection at Ad Dammam Hospital because nurses' and midwives' English language was limited, and they could not fill out the questionnaire until it was translated into Arabic (Appendix V).

3.10.2 Data collection process

A. Women's questionnaires collection process

In each of the three hospitals, there were two or three wards that had eligible participants for the study. After the introduction tour to the wards and being introduced to the staff, data collection

began. The plan was that the researcher would organize with the clerks of post-partum wards to issue invitations to all women and provide them with the explanatory statement, and then to hand the questionnaire to those willing to participate. There was no coercion and the mothers would have the time to consider whether or not to participate.

Unfortunately, at A hospital, the recruitment plan was hindered by the absence of a ward clerk system, which did not leave any choice to the researcher except to invite the women personally. Thus, every day after scanning the admission book of every ward to find number of women in each room that met the inclusion criteria, the researcher went to each room, introducing herself and the research objectives. Then, those who agreed to participate would be given the questionnaire and a pen and were given enough time to complete it.

Fortunately, the new invitation process worked to the researcher's advantage, because it gave the researcher the chance to engage in social conversation with the women who had been approached to participate in the study. For some women, this was just what they needed to share their birth experiences, especially when this conversation took place in a post-natal shared room. Within Saudi culture, this sort of conversation is what women use to debrief their birthing experience, and to express their feelings and fears. This chatting usually contains women's reactions toward their birth experiences and questions about their own and their babies' conditions. Those conversations enrich the data findings with researcher notes that were recorded immediately after each conversation.

For this new data collection procedure, ethics from MUHREC was obtained and the researcher continued collecting the data personally from all women in the other two hospitals and kept notes on for all of these conversations.

B. Clinicians' data collection process

For nurses and midwives, the data collection was conducted with the assistance of the head nurses or charge nurses of labor and delivery departments: they were responsible for inviting their staff to participate in the study. The decision to leaving this job to the charge or head nurses was made for infection control reasons, and because they were able to manage the invitations according to the day's workload and staff shifts.

On the other hand, encouraging obstetricians to participate in the study was not easy, especially with the busy nature of their work and because of the fact that the researcher extended the invitation at the same time as conducting the women's survey. Following up doctors in their clinics, at research meetings, and in morning meetings was the researcher's access to doctors to invite them during data collection in each hospital. Obstetricians' daily morning meetings were the most effective way to approach many doctors, however the number of questionnaires completed by this group was small despite these recruitment efforts.

The last stage of the data collection period at every hospital was usually a meeting with the hospital's nursing coordinator at their office for a semi-structured audio-recorded interview. The interviews were conducted mainly in English language; however Arabic language was used for more clarification, especially when the interviews were with nursing coordinators who had a Saudi background.

3.11 Data Analysis

The analysis of quantitative data followed the four stages described by Plichta and Kelvin (2013) for conducting statistical analysis on raw data, in order to maintain order and focus when dealing with the data. The first stage of data analysis was entering the women's data into Excel. This was then analysed using IBM SPSS version 20. This resulted in some amendments: for instance, one of the statements in the first questionnaire, "Sharing the labor room with other women increased my stress and anxiety", was deleted because it was not applicable to all three hospitals. There was also a question about country of origin, which had two choices: 'Saudi Arabia' and 'Other' (with a space provided to name the country). The exclusion of the other country's name, and to replace this with a simple 'non-Saudi' option, was introduced because only 2.7% of the women were of non-Saudi origin, and therefore the usefulness of gathering this additional data was negligible. One more adjustment was made at this stage, for the question "How did the labor pain start?" (Options for this question were 'naturally', 'induced by medication or by a midwife' and 'a doctor breaking the waters'). The change was to consider naturally as one option, combining the other two choices into a single 'assisted' option. This decision was made because for some women labor pain was induced by both medication and membrane rupture.

Entering clinicians' data also resulted in few adjustments. For example, the question asking about the type of care provider the participant fell into was expanded by one option: 'medical intern' was added to 'obstetrician', 'midwife', and 'nurse'. This was because four interns participated in the study. Moreover, an additional column was introduced to add the choice of 'less than 10%' to the

options of the question of how frequent do you think the following procedures are conducted within your care.

Cleaning the data is the next stage in Plichta and Kelvin (2013) four stages. After creating three SPSS files, one for the women's group and two separate files one for obstetricians and the other for midwives and nurses, the data was cleaned. This was achieved by drawing frequency tables for every variable and conducting a careful examination in order to pick up any invalid or unusual values, missing data, or inadequate variability. At this stage, many variables were reviewed for unusual or extreme values, as well as to develop the coding system. Furthermore, one of the crucial decisions about managing the women's data was made at this stage. This involved the reordering of the word 'often' in the five-point Likert scale of SWCBE: 'Rarely', 'Often', 'Sometimes', 'Usually', and 'Always'. To overcome this issue, several statistician consultations and supervisors' perceptions were sought and the final agreement was to combine the three categories of 'Often', 'Sometimes' and 'Usually' into one category and reorder them into a three-point Likert scale: 'Rarely', 'Sometimes to Usually', and 'Always'.

The third stage of Plichta and Kelvin's statistical analysis is conducting the appropriate descriptive analytical tests to describe the demographic characteristics of the sample in the study. These descriptive summaries were presented graphically and numerically, as bar graphs and percentages for categorical data and calculated mean and standard deviation (SD) for numerical data. This was conducted to provide a statistical summary (Munro, 2005) of the women's group and health care providers' group which will be presented in chapter 4 and 5. Moreover, all of the negative stated statements in the SWCBE and PCCB tools were identified and scored in reverse, for example there were times that no one told me what was happening.

The final stage in Plichta and Kelvin's (2013) statistical analysis is to test each hypothesis with the appropriate inferential tests. Each Likert scale was coded using the numbers from (1) strongly disagree to (5) strongly agree, and from (1) rarely to (3) always. The items on each scale were also grouped by different themes into subgroups for groups compression. The statistical test of correlation was chosen to be the appropriate inferential test to start assessing the association of some of the demographic data with the perceptions of women and health care providers. After that, a number of comparisons were conducted using a t-test to determine whether any differences were significant: for example, the mean differences of women's satisfaction or perceptions of control in relation to their participation in decision making. A multiple regression analysis was also run in order to identify the best predictors of women's childbirth satisfaction and perception of control.

The qualitative part of this study is composed of two sections. The first section is the open question that was added to the end of women's and clinicians' questionnaires for extra comments or details that participants could share. One hundred and thirty-seven women shared their experience or made comments using this question. The second section is the three interviews undertaken with three nursing coordinators. Verbatim transcriptions of two of these interviews were produced using English transcription services, while the third transcript, in Arabic, was produced by the researcher.

Qualitative data analysis was conducted by employing and following the five phases of thematic analysis outlined by Braun and Clarke (2006). These five steps were selected because they assisted in organizing the analysis and keeping it manageable.

Braun and Clarke`s (2006) steps begin with a familiarization with the data through the holistic search of records: reading and re-reading to a point where the researcher has totally integrated the

participants' words. Then, the researcher can generate initial codes and search for themes by coding similar descriptions and expressions until themes start to emerge. Next, the researcher reviews these themes, defining and naming them through detailed line-by-line reading, and repeated thinking and reflection to make sure that nothing is missed and that the identified themes accurately represent participants' perceptions of, in this case, birthing services. The final step is producing the findings report, wherein the resulting themes are identified and described using the participants' words and comments.

3.12 Data quality

Maintaining data quality and validity in a research is a continuous process. Validity, reliability, generalizability, trustworthiness, authenticity, and credibility are example of terms used to refer to the quality of the data in any research. However, some of these terms are used only for qualitative, not quantitative, research, and vice versa. Ensuring the quality of the data during collection, analysis, and interpretation in quantitative research also requires different strategies to those required in qualitative research (Creswell, 2014). The quality of quantitative and qualitative data of the current study will be described in the following sections.

3.12.1 Quantitative data quality

The validity and reliability of quantitative data was enhanced in various ways involving sample selection, questionnaire design, and statistical analysis.

The sample

A non-probability sampling technique was used, where convenience sampling was employed to recruit women and clinicians to participate in surveys in the major maternity services in 3 major cities of Saudi Arabia that had previously responded to a purposive invitation to participate in the study. The sampling for the Directors interviews was also purposive to ensure the participants had the information required to answer the questions provided by the researcher.

Questionnaires

The first questionnaire (Appendix II) was adopted from a study conducted reporting the childbirth experience of Jordanian women (Oweis, 2009). This questionnaire was for the women to complete, and contained two measurement instruments: one for childbirth satisfaction and the other for perception of control during childbirth. The content validity of the two instruments in the original study was determined by a panel of three maternity and community experts, followed by a review and a pilot test with 30 women. The reliability of the instruments was determined by the alpha coefficient, which was calculated as 0.88 for the SWCBE and 0.86 for the PCCB.

Some aspects of the instruments required rewriting, deletions, and additions when it became apparent that the meaning of these were not clear, as well as to better tailor the instruments to the aims and the scope of the current study. Pilot testing was then conducted for both instruments in order to ensure content validity, as well as to estimate the time required to complete the questionnaire. This yielded useful suggestions and comments, and also revealed that several of the demographic data questions were unclear and needed rewording. In total, the questionnaire was found to require 15-20 minutes to be completed.

Ensuring reliability of the tools and assessing the correlation between the items incorporated within each tool was calculated for data obtained in the current study using Cronbach's Alpha. A score of between 0.7 and 0.9 on Cronbach's Alpha indicates excellent reliability.

For the SWCB, Cronbach's Alpha was $\alpha = 0.878$ (Itemwise Cronbach's Alpha ranges between 0.869 and 0.890), which means that every item in this tool is considered to be a good indicator of childbirth satisfaction. For the PCCB, Cronbach's Alpha was $\alpha = 0.804$ (Itemwise Cronbach's Alpha ranges between 0.783 and 0.822), which means that every item in this tool is considered to be a good indicator of childbirth perception of control.

The second questionnaire (Appendix III) was designed to explore clinicians' views and was developed by the researcher after reviewing a number of surveys used in different studies (Choices and Challenges in Changing Childbirth Research Network, 2005; Hundley et al., 2002; Sweidan et al., 2008), as well as the women's survey used in this study.

The validity of this questionnaire was determined using a pilot study with four midwives and one obstetrician as participants. This questionnaire was also reviewed by number of midwifery academics, Southern Health midwives, and international midwives. All questions and statements were determined to be clear, and it was found that the survey required 15 minutes to complete. Pilot testing of the questionnaire, as well as seeking experts' opinions, resulted in a number of changes. For example, several statements were reworded, and two separate instruments were developed according to the different types of expected participant clinicians (one for obstetricians and one for nurses and midwives), and the items were regrouped within the instruments. Feedback gained in the pilot study led to the refocusing of the questionnaires and the assurance of content validity, as they were edited and rewritten to fit Saudi Arabia's unique culture and health system.

The two questionnaires contain several words that may implying value judgements such as allowed and an uncomfortable procedure which may not be ethically acceptable in another cultural setting. This can be justified because these words and phrases were used by the original Jordanian study, from which the women's questionnaires were mainly adapted. Jordan is an Arabic country that shares boundaries and culture with Saudi Arabia, meaning that these words are in common use and representative of language used in the current health care system in the two countries, in which some decisions are still made on behalf of women. For example, some women may have all decisions made for them by the midwife, nurse, and/or obstetricians, and being 'allowed' to walk freely around the room or not is an accurate depiction of the circumstances. Further, procedures may occur to which the woman has not consented and which she finds 'uncomfortable'. This would not occur in the maternity systems of some developed countries.

3.12.2 Qualitative data quality

Rigor was maintained using the 'golden criteria' of trustworthiness for qualitative research outlined by Guba and Lincoln (1989), which has been applied widely in ensuring rigor in a range of qualitative studies. These criteria – credibility, dependability, confirmability and transferability – were measured through reporting the findings by supporting each theme with the women's own words, as well as commentary that reflected women's voices clearly within each theme. Moreover, sufficient detailed description for the sample, data collection and analysis is provided in this chapter for transparency and any possible transferability (Prion & Adamson, 2014).

Qualitative data in the current study was collected and triangulated from different sources: the open-ended survey questions captured women's and clinicians' views, while the interview transcripts captured the views of nursing directors. These data sources were triangulated in order to

build coherent themes and a fuller picture, which is one way to enhance the validity of the qualitative data (Creswell, 2014; Williamson, 2005). A number of women participated only by sharing their views orally, without completing the questionnaire, suggesting that every women who gave birth during that time had the opportunity to participate.

Reliability of the qualitative data was ensured by having the transcripts checked by the researcher and an expert qualitative analysis (supervisor) for any obvious errors. Data was also consistently checked against the codes in order to ensure that there was no change in coding practices over time. This is another measure to enhance reliability (Creswell, 2014).

3.13 Steps in the process

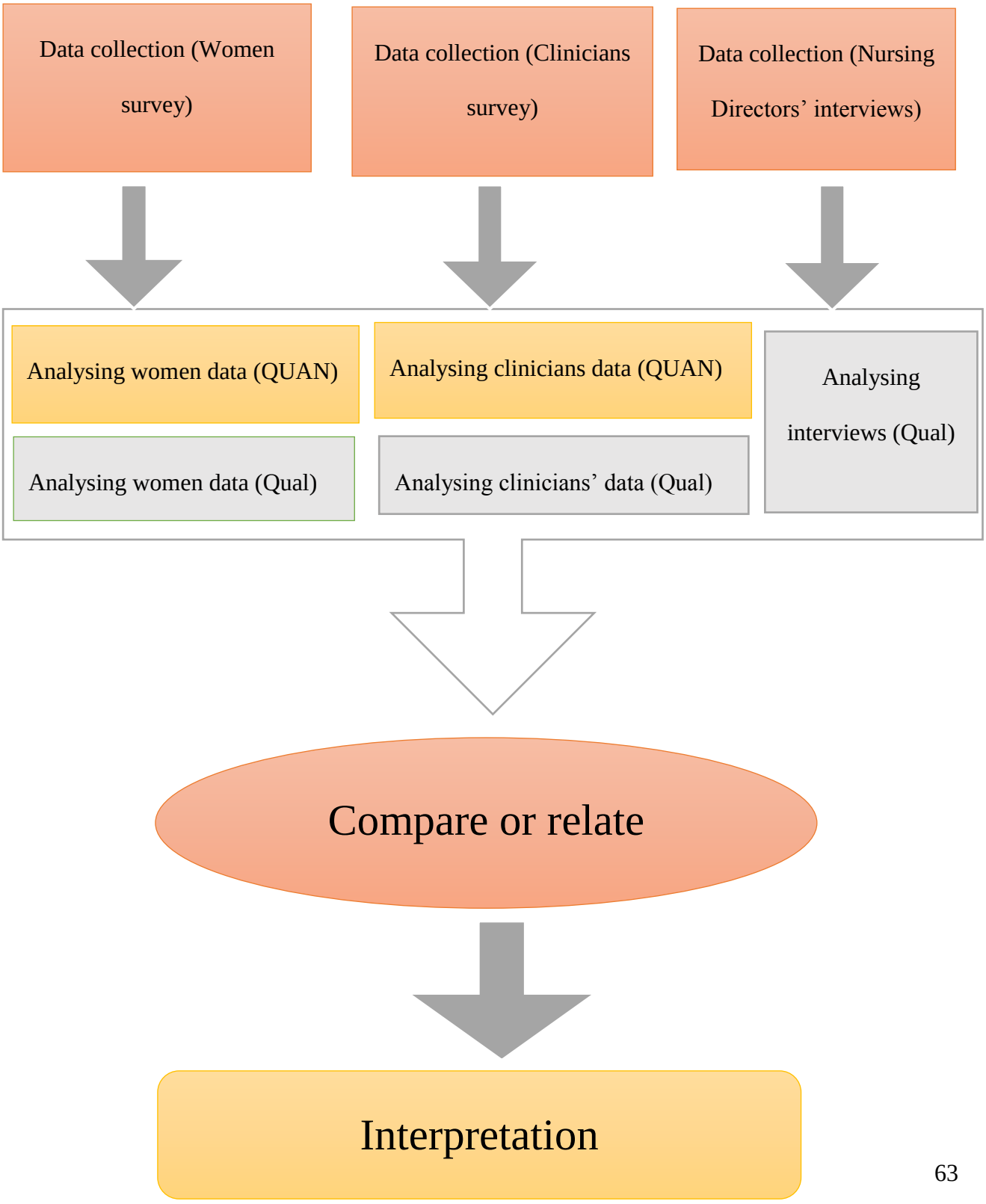
The choice of a convergent mixed methods design was made for the current study, a type of design that according to Leech and Onwuegbuzie (2009) can be described as a partially mixed concurrent quantitative dominant mixed methods design. The different pathways for data collection and analysis in the study are illustrated in Figure 3.2 following this section. A modified convergent mixed methods design was used because there are five, instead of two, data sets involved. These five data sets were as follows: women's quantitative and qualitative data sets; clinicians' quantitative and qualitative data sets; and nursing directors' qualitative data set. The data collection stage included collection of all data sets (two different surveys and interviews) concurrently. The two different surveys gathered quantitative and qualitative data from two different groups of participants (one survey for women and another survey for clinicians).

The data analysis occurred in five stages, in which every data set was analysed separately at the same time: women's quantitative data analysis, women's qualitative data analysis, clinicians'

quantitative data analysis, clinicians' qualitative data analysis, and nursing directors' qualitative data analysis.

A decision was made to present the findings according to participant groups, because this was considered the best option for accessible and coherent presentation. This is done chapter by chapter: Chapter 4 presents the quantitative and qualitative findings for women, while Chapter 5 presents clinicians' quantitative and qualitative findings as well as the nursing directors' qualitative findings. The findings of the analysis were extensive and complex because of the number of different participant groups and the different types of data collected for each group. These combined findings are presented in Chapter 6.

Figure 3.2: Modified convergent study



3.14 Conceptual Framework

The WHO introduced the concept of 'Safe Motherhood' to describe its initiatives for the international program, which started on 1987 and aimed to reduce maternal deaths by half by the year 2000 and by three quarters by the year of 2015 (Kwast, 1993; World Health Organization, 2015). Maternal health was one of the goals adopted by most countries to reduce maternal mortality, which was successfully reduced by 44% by 2015. The WHO's future target is to reduce the rate to fewer than 70 per 100,000 live births by 2030 (World Health Organization, 2015). The 'safe motherhood' concept was used again in a WHO call to meet "The United Nations Millennium Development Goals" (MDGs) targets by 2015-2030. The MDGs targets are more than just reducing maternal mortality; they also target the quality and safety of women's lives by strengthening maternal health care in developing countries. This is anticipated to be achieved by ensuring adequate access to information and care during pregnancy, skilled care during childbirth, and care and support after childbirth while ensuring women's satisfaction (Altaweli et al., 2014; World Health Organization, 2011b, 2015).

Over the last 15 years, attention has been focused, projects have been planned, and papers have been published on Safe Motherhood (Miller, Sloan, Winikoff, Langer, & Fikree, 2003), which represents the unity of those two words "safe" and "motherhood" for woman's maternity period (Maclean, 2010). For example, Xianing, Hong, and Duolao (2010) evaluated the effect of the Safe Motherhood program on maternal care utilization in rural western China, finding evidence that the program introduced interventions that improve women's attendance at antenatal care and their willingness to deliver in hospitals, reducing mortality by 34%. Blocks to safe motherhood care, as claimed by Maclean (2010), are human rights, political commitments, health systems, health

equity, and others. Evidence-based practices as the response to these blocks are considered to be the most cost- and time-efficient approach to developing programs that will save women's lives (Miller, Sloan, Winikoff, Langer, & Fikree, 2010).

Safe motherhood is the umbrella under which best practices to improve maternal health and reduce mortality are grouped (World Health Organization, 2011b, 2015). This highlights the need to continuously and comprehensively review birthing services, identifying their position in relation to existing evidence and assessing women's and health care providers' perspectives. For these reasons, the concept of 'safe motherhood' has been identified to underpin this study.

3.15 Chapter summary

This chapter has provided an extensive description of the study design and the stages involved in the conduction of this study, including a detailed discussion of the mixed methods approach, including its philosophy, designs, and methods. The choice of a convergent mixed methods design for this study was discussed and justified. This chapter has also included an explanation of decisions regarding sample selection, settings, and questionnaire design. A detailed discussion of the processes of data collection and analysis and integration levels was also provided. The safe motherhood concept was also discussed as the framework of this study. The findings resulting from this data collection and analysis are presented in the following two chapters.

Chapter 4-Women's Voices

4.1 Introduction

This chapter will report on the key quantitative and qualitative findings regarding participant women and their childbirth experiences in Saudi Arabia. The chapter reports on the quantitative results arising from the survey, including descriptive and inferential tests. This is followed by a report on the qualitative results, which include the opinions, comments, stories, and suggestions provided by women in response to the open question at the end of the questionnaire. This represents a large volume of written responses, including those from a number of women who elected to complete only this section and not the full questionnaire. The qualitative results also includes the notes taken by the researcher on oral conversations between the researcher and participant women who were unable to, or did not wish to, write down their experiences but still wished to participate in the study. After presenting the perspectives of participant women in this chapter, the perspectives of participant clinicians follow in Chapter 5.

4.2 Describing the sample

The number of participant women from each hospital is reported in Table 4.1, with the characteristics of participant women reported in Table 4.2. The total number of women who participated in the study was 321, with approximately one third of these from each setting (see Table 4.1).

Table 4.1: Number of participants in each setting

City	n	%
Hospital A	107	33.4
Hospital B	109	33.9
Hospital C	105	32.7
Total	321	100

The participant women's ages ranged from 18 - 48 years, with a mean of 28.4 ±5.6 years. Over 40% of the women had a college qualification, while around 30% had been educated up to the final year of high school. The majority of the participant women reported that they were born in Saudi Arabia (97%) and were not employed (81%). Only 18% of participant women were working mothers. Of these, 8% were teachers, 2% were nurses, and the remaining 8% (grouped together in an Other category) had positions such as hair dresser, fashion designer, student, university academic, security, at MOH, private company worker, administrator, health care assistant, and sociologist. It was documented that 70% of the women had previous childbirth experience, with the number of previous pregnancies ranging from between 1 and 15 (see Table 4.2).

Table 4.2: Frequency distribution of participant' demographics

Variable	n	%
Age (Mean ±SD)	313	28.4±5.6
Missing	8	2.5%
Hospital A	109	34.0
Hospital B	108	33.6
Hospital C	104	32.4
Country of birth		
Saudi Arabia	309	97.2
Non Saudi	12	3.7
Education		
Not completed high school	47	14.6
Completed high school	92	28.7
Some college but not completed	27	8.4
Associate degree	2	0.6
College	141	43.9
Postgraduate degree	5	1.6
Missing	7	2.2
First childbirth experience		
Yes (Primipara)	96	29.9
No (Multipara)	223	69.5
Missing	2	0.6
Working status		
Yes	58	18.1
No	260	81.0
Missing	3	0.9

4.3 Quantitative results

The quantitative results from the group of women participating in the study are presented in this section. Survey results are presented, highlighting a number of important findings affecting women's childbirth experiences.

4.3.1 Participants' childbirth experiences

The description of participating women's last childbirth experience is presented in Table 4.3. One of the reassuring findings was that over 50% of the women had coped well with the birth, were satisfied with their birthing care, and rated the birthing services in Saudi Arabia positively (as Good or Excellent).

Table 4.3: Frequency distribution of participants coping and satisfaction with care

Item	n	%
Ability to cope with childbirth:		
Did not cope at all	16	5.0
Coped well	222	69.2
Coped very well	76	23.7
Missing	7	2.1
Satisfaction with health care during pregnancy:		
Not at all satisfied	9	2.8
Somewhat Satisfied	191	59.5
Highly satisfied	111	34.6
Missing	10	3.1
Satisfaction with health care during labor:		
Not at all satisfied	19	5.9
Somewhat satisfied	131	40.8
Highly satisfied	168	52.3
Missing	3	0.9
Quality of health care to women having babies in SA:		
Poor	10	3.1
Acceptable	69	21.5
Good	183	57.0
Excellent	53	16.5
Missing	6	1.9

Over 50% of the women reported that the main caregiving responsibilities at their birth were shared. It is important here to highlight that shared care for women in Saudi Arabia can be described as the model of having an obstetrician and a midwife or a nurse attending the birth. However, shared maternity care differs between countries. For example, according to Mercy Hospital for women in Australia, shared maternity care is a model of care in which the care is delivered to women by hospital staff and community based clinicians, a general practitioner (GP), and an obstetrician or community-based midwife throughout her pregnancy. The baby's birth and immediate postnatal care are managed by the hospital midwives (Mercy Health, 2014).

Although the labor of more than 60% of the women began naturally, over 60% perceived their labor pain intensity as more than expected, and 45% perceived their childbirth experience as somewhat difficult. Regarding the application of episiotomy and mode of birth, 32.1% had an episiotomy and 15.6% were not sure if they had an episiotomy. Also 20.9% of women gave birth by caesarean section (CS), 4.3% by vacuum extraction and none reported forceps birth. (see Table 4.4)

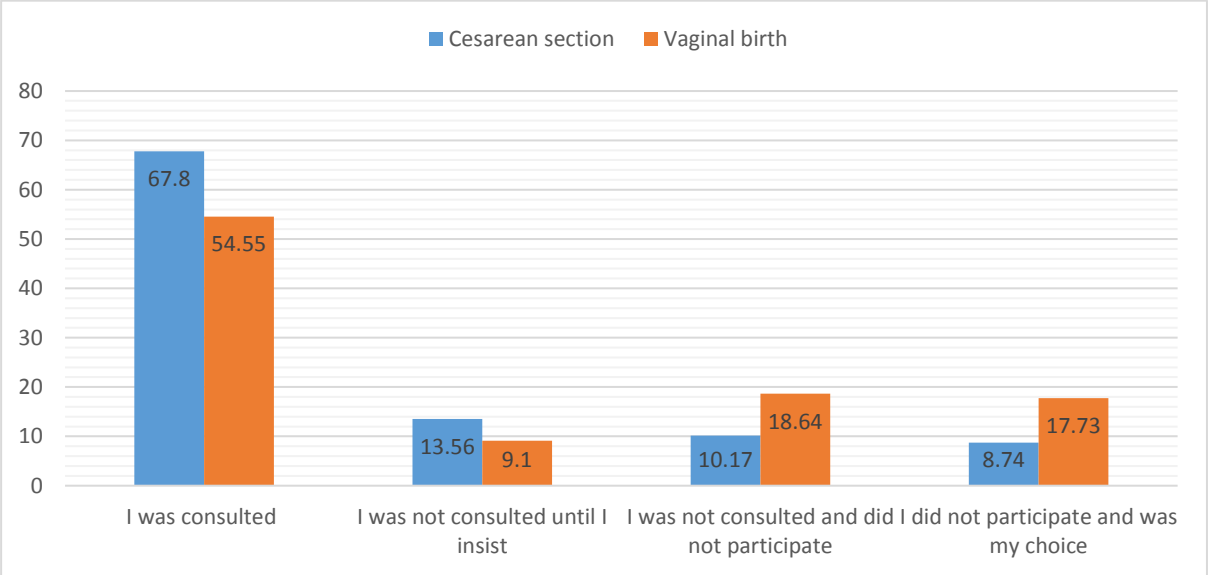
Table 4.4: Frequency distribution of the main caregiver and participants characteristics of childbirth

Item	n	%
Main caregiver during pregnancy:		
An obstetrician	227	70.7
A doctor but not sure of his/her speciality	36	11.2
A midwife	6	1.9
A nurse who is not a midwife	12	3.7
Shared care by midwife and obstetrician	17	5.3
Missing	23	7.2
Main caregiver during labor and at the birth:		
An obstetrician	81	25.2
A doctor but not sure of his/her speciality	20	6.2
A midwife	38	11.8
A nurse who is not a midwife	21	6.5
Shared care by midwife and obstetrician	141	43.9
Missing	20	6.4
Labor started:		
Naturally	203	63.2
Assisted	92	28.7
Caesarean section [elective]	11	3.4
Missing	15	4.7
Received pain control during labor:		
Yes	157	48.9
No	156	48.6
Missing	8	2.5

Item	n	%
Fear of pain during pregnancy:		
Was not scared at all	25	7.8
Was somewhat scared	148	46.1
Was very scared	136	42.4
Missing	12	3.7
Perceived labor pain intensity?		
Less than expected	20	6.2
As expected	73	22.7
More than expected	202	62.9
Missing	26	8.1
Method of delivery:		
Vaginally	246	76.6
Caesarean section	67	20.9
Missing	8	2.5
Episiotomy:		
No	160	49.8
Not sure	50	15.6
Yes	103	32.1
Missing	8	2.5
Perceived difficulty of childbirth:		
Very difficult	133	41.4
Somewhat difficult	143	44.5
Easy	30	9.3
Missing	15	4.7

Sixty-seven present of those participant women who gave birth via CS believed that they were actively participated in decision making, while half of those participant women (54%) who had their babies vaginally believed they participated in decision making (Figure 4.1). So, the remaining 33% of women who had CS and 45% of those who had vaginal birth reported that they did not participate in decision making and did not have a choice about their care.

Figure 4.1: Participation in decision making related to the mode of delivery



4.3.2 Satisfaction with childbirth experience SWCBE

Participants were asked to rank each statement on the first tool, the SWCBE. A five-point Likert scale (Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree) was used in the SWCBE tool to assess participant women's satisfaction with their birthing care, with the results reported in Table 4.5. The findings reveal that, in general, participant women were not satisfied with their childbirth experience. This was calculated by extracting the mean, standard deviation, and minimum and maximum values of the total score for the SWCBE items. The mean

was 95.9 (SD±12.9), with the minimum value 49 and the maximum value 122. The score that would indicate satisfaction with childbirth experience is 124 (calculated by the number of items times 4, 4 being the number on the Likert scale indicating 'Agree'). The maximum value obtained in the survey was 122, which is not equal to or greater than 124 – therefore, participant women were generally dissatisfied with their childbirth experience.

The score range for each item was 1 to 5, with reverse scoring used for negative statements. Only three statements on the SWCBE tool scored a mean of > 4. These were: 'I was never left unattended during labor'; 'The nurse in labor took very good care of me and gave me all the attention I needed'; and 'The health care team did not treat me with respect'. The three statements, along with twelve others that scored > 3.6, were about the level of safety, clinicians' attendance, and support, and were associated with greater satisfaction. Examples of these items were "The nurse in labor took very good care of me and gave me all the attention I needed during childbirth"; "I felt comfortable because the health-care team listened to my concerns"; "The health care team provided me all possible care and attention"; and "The health care team helped me to feel that childbirth experience is an important natural life event."

Participant women's satisfaction was lower for items regarding communication and being informed, their positive feelings toward the experience, family company, pain management, and the care provided. This was evidenced by the mean scores of ≤ 3.5. Examples of these statements were "I felt happy and comfortable with this childbirth experience"; "I was consulted on the most comfortable position in which to give birth"; "I was fully informed of what to expect during pregnancy and labor"; "I was able to talk to my doctor regularly"; "My husband and close family

were allowed to stay with me at the birth"; and "Immediately after the baby was born, I was transferred to the ward."

Table 4.5: Summary statistics of satisfaction with the childbirth experience (SWCBE)

Item	Mean	SD
A) Feelings and Emotions:		
1) I felt there was high level of safety for me and my baby throughout the pregnancy and my labor and immediately following birth	3.9	0.8
2) I felt happy and comfortable with this childbirth experience	3.3	1.1
3) I felt that some medical mistakes occurred in the care provided to me during pregnancy.	4.0*	0.9
4) I felt that some medical mistakes occurred in the care provided to me during labor and the birth of my baby.	3.9*	1.1
5) I felt comfortable during my childbirth because the health-care team listened to my concerns	3.7	1.2
6) I felt comfortable during my childbirth because the health care team were well trained and experienced.	3.8	0.9
7) I felt comfortable with the presence of the health care provider throughout childbirth	3.9	0.9
8) I felt scared when I was transferred from the labor room to the delivery room	2.3*	1.1
B) Communication:		
1) There were times that no one told me what was happening.	3.1*	1.3
2) I was consulted on the most comfortable position in which to give birth.	3.0	1.3
3) I was fully informed of what to expect during pregnancy and labor.	3.4	1.0
4) I was able to talk to my doctor regularly	3.3	1.1
C) Support:		
1) The health team provided me all possible care and attention during pregnancy, labor and immediately following birth.	3.8	0.9
2) The nurse in labor took very good care of me and gave me all the attention I needed during childbirth	4.1	0.9
3) The health care team helped me to feel that childbirth experience is an important natural life event	3.8	1.0
4) I was never left unattended during labor	4.2	0.8
5) The nurse made this labor experience of childbirth a good one for me	3.7	0.9
6) My husband or close family were allowed to stay with me during labor	2.2	1.3
7) My husband or close family were allowed to stay with me at the birth	2.2	1.3
8) I received psychological and emotional support from the nurse during labor	3.7	1.1

D) Woman-Centred Care: 1) The health care team did not treat me with respect during my childbirth	4.1*	0.9
2) The health care providers treated me as an individual	3.3	1.0
3) I was allowed to hold my baby immediately he/she was born	3.6	1.2
4) The nurse protected my privacy during labor and at birth	3.9	1.0
E) Pain Management: 1) The nurse/doctor provided me with pain relief when I asked for it.	3.3	1.2
2) Overall, I was satisfied with the way my labor pain was managed	3.5	1.1
F) General Care: 1) The health care team adequately monitored the progress of my labor and delivery	3.8	0.9
2) I was prevented from walking around the ward during my labor and birth	2.8*	1.1
3) I had my own clothes on throughout labor and birth	2.4	1.3
4) Immediately after the baby was born, I was transferred to the ward.	3.2	1.3
5) I was completely satisfied with the health care I received during pregnancy, labour and immediately following birth.	3.8	1.0

Note: The score range for each item is 1 to 3 / Asterisk (*) reverse scoring used for negative statements

4.3.3 Perceived Control during Childbirth Experience (PCCB)

Participant women's perceptions of control during birth were assessed by the second instrument in the questionnaire, which involved 22 statements. Results obtained using this instrument are reported in Table 4.5. This tool used a five-point Likert scale (Rarely, Often, Sometimes, Usually, Always). However, as discussed in section 3.10, during the data analysis it was discovered that 'Often' and 'Usually' were in a misleading position, and therefore the five-point Likert scale was collapsed into a three-point Likert scale (Rarely, Sometimes to Often, Always). This means that the score range for each item was 1 to 3, with reverse scoring used for negative statements. This decision was taken after an extensive discussion with two statisticians and with the research team

and an agreement that this is the best way to fix the issue without affecting the intention of the responses.

Similar to the SWCBE, participant women's perceptions of control were calculated by extracting the mean, standard deviation, and minimum and maximum values of the total score for the PCCB. The tool had a score range of 22 to 66. The minimum value obtained on this tool was 26 and the maximum value was 59, with the mean of total score for PCCB at 43.8 [SD±6.1]. This mean (43.8) is less than 44, which can be considered an indicator of the point at which women start to perceive some degree of control during their childbirth experience. This point is calculated by the number of statements times 2 (with 2 on this Likert scale indicating 'Often, Sometimes or Usually' which is considered a limited degree of control). In this case, the mean is very close to 44; therefore, women perceived that they had some degree of control during their birth.

Most items in the PCCB tool had a mean of < 2.4. This indicates a relative lack of control perceived by participant women over feelings and emotions, interaction with care providers, pain management, and being informed during birth. Only three statements had a mean of ≥ 2.4, and these were statements associated with perceived more control about feeling safe, for example 'I felt calm during labour and birth as I was in good hands', and women's awareness of their birth progress, for example 'I felt there was something wrong all throughout labor and birth' (scored in reverse) and 'I was aware of what was happening throughout labor and birth'. Generally, it seems that women perceived that they have some degree of control during their childbirth experience (see Table 4. 6).

Table 4.6: Summary statistics for perception of control during last childbirth (PCCB)

Item	Mean	SD
A) Feelings:		
1) I coped well during the labor and birth	1.9	0.5
2) I felt safe in the care of the nurse during labor and birth	2.3	0.6
3) I felt helpless without my family to support during labor and birth	2.2*	0.7
4) I felt like it was a dream and that I was on the outside looking in	2.1	0.7
5) I felt that my childbirth was agony as my pain was not well managed	2.0*	0.7
6) I felt scared during labor and birth	1.7*	0.6
7) I felt isolated during labor and birth	2.2*	0.7
8) I felt I had no control over anything during labor and birth	1.9*	0.7
9) I felt good during and after labor and birth	1.7	0.7
B) Health care provider's interaction and trust:		
1) I felt happy about the interaction between me and the health care team during labor and birth	2.2	0.7
2) I felt that the health care providers who attended my labor and birth were very caring	2.3	0.6
3) I felt calm during labor and birth as I was in good hands	2.4	0.6
4) I felt that I was treated with respect during labor and birth	2.1	0.7
5) I searched for assistance and help from the people around me.	1.9*	0.6
C) General Care:		
1) I was satisfied with my ability to cope with the pain of labor.	2.0	0.7
2) My pain was well managed so I was able to maintain control during labor and giving birth.	2.2	0.6

D) Being informed: 1) Everything that was done was done for a good reason during labor and delivery	1.9	0.7
2) I was involved in the decision making through my labor and birth	2.1	0.7
3) I felt stress and tension during labor and birth as I did not know what to expect	1.9*	0.7
4) I knew what might happen to me during labor and birth	1.4	0.6
5) I felt there was something wrong all throughout labor and birth	2.6*	0.6
6) I was aware of what was happening throughout labor and birth	2.4	0.6

Note: The score range for each item is 1 to 3 / Asterisk (*) reverse scoring used for negative statements

4.3.4 Univariate analysis

Univariate statistical tests were undertaken in order to identify whether there was a significant association between demographics and participant women's satisfaction and perception of control during childbirth.

In this section, the results of statistical tests measuring the significance (p value) of mean differences are reported. As discussed in section 3.11, these were conducted using t-tests for the two category variables and ANOVA for more than two category variables in order to identify significant associations. This measurement was done for each demographic question in relation to the total score on SWCB and PCCB. Differences in the means of each demographic were then calculated, with a SWCB subgroups and a PCCB subgroups. The level of significance applied was $p \leq 0.05$ for all tests conducted. Note that the tables in this chapter contain only means that are significantly different from one another.

4.3.4.1 Satisfaction with childbirth (SWCB) overall

There are significant differences between some demographics in terms of total score of the SWCBE. Calculating the differences in means between the three different hospitals in relation to the overall participant women satisfaction resulted in significant differences ($p < 0.001$). Hospital B had the highest mean of 101.4 ±10.2, followed by hospital C, which was 94.7± 13.3. The lowest mean was for hospital A, at 92.1 ±13.2. These results indicate that women's satisfaction with their childbirth experiences was higher in hospital B in comparison to the other two hospitals, based on the care delivered to them (Table 4.7).

Regarding care during pregnancy, women who were highly satisfied (100.4 ±10.3) with their care during pregnancy showed higher satisfaction with their childbirth experience than those who were somewhat (92.2 ±12.1) or not at all (77.8 ±19.8) satisfied (see Table 4.7). These differences were significant at a level of $p < 0.001$.

Moreover, the differences in means for the question 'What did you think about the labor pain intensity' were also significant at a level of $p \leq 0.05$, meaning that women had higher childbirth satisfaction when their labor pain intensity felt as expected (100.4 ±11.1) or less than expected (97.6 ±8.7) (see Table 4.7).

Despite the fact that only 31% (Table 4.4) of participant women reported that when their main caregiver during labor and birth was a doctor, they were highly satisfied with their childbirth experiences. This is measured by significant ($p \leq 0.05$) differences between the highest mean of 99.1 ±10.2 for 'doctor', 96.3 ±12.9 for 'shared care', and 91.5 ±13.9 for 'nurse or midwife' (Table 4.7).

One key item in the questionnaire was about participation in decision making during labor and birth; results confirm the importance of this factor. Women who felt that they had been consulted and had participated in decision making during labor and birth demonstrated higher satisfaction with the childbirth experience (100.1 ±10.7). This was followed by the group who believed that they did not participate in decision making, but that this was their choice (97.6 ±11.9). In the third lowest ranking group in terms of satisfaction were the women who had not been consulted and as a result did not participate in decision making (87.0 ±13.0). Finally, the least satisfied women were those who were not consulted until they insisted on participating in decision making (83.6 ±14.3) (see Table 4.7)

Table 4.7: Participant women's satisfaction with overall childbirth experience (SWCBE)

Demographics		Mean	SD	p-value
Women from:	Hospital A	92.1	13.2	
	Hospital B	101.4	10.2	<0.001
	Hospital C	94.7	13.3	
Main clinician during labor and at the birth:				
	Obstetrician	99.1	10.2	
	Nurse or midwife	91.5	14.9	0.005
	Obstetrician and midwife	96.3	12.9	
Satisfaction with health care during pregnancy:				
	Not at all	77.8	19.8	
	Somewhat	92.2	12.1	<0.001
	Highly	100.4	10.3	
Satisfaction with health care during labor:				
	Not at all	97.6	8.7	
	Somewhat	100.3	11.1	0.002
	Highly	93.6	13.6	
Pain intensity:				
	Less than expected	97.6	8.7	
	As expected	100.3	11.1	0.002
	More than expected	93.6	13.6	
Participation in decision making during birth:				
	Was consulted and participated	100.1	10.7	
	Was not consulted until I insisted	83.6	14.3	
	Was not consulted and did not participate	87.0	13.0	<0.001
	Did not participate and my choice	97.6	11.9	

4.3.4.2 SWCBE subscales

An examination of the differences between means in the categories relating to demographic factors the SWCBE six subscales shows significance. The subgroups in which significance was noted are feelings and emotions, communication, support and women-centred care, pain management, and general care.

A. Women's satisfaction with their childbirth experiences in the three hospitals

As the following table shows, there were significant differences in the means between groups of women and their overall satisfaction with their childbirth experiences. Women were significantly satisfied with how their feelings and emotions were handled, the support they received, and clinicians' communication with them in hospital B. The highest means were found in results from hospital B, followed by those from hospital C, with those from hospital A having the lowest mean scores.

Table 4.8: Participant women's satisfaction (SWCBE) by hospitals

Satisfaction (SWCBE)	Hospitals			p-value
	Hospital B	Hospital C	Hospital A	
Feelings and emotions: Mean [SD]	30.0 [4.2]	28.8 [4.9]	27.7 [4.9]	0.005
Communication: Mean [SD]	13.4 [2.9]	13.0 [3.3]	11.7 [3.1]	0.001
Support: Mean [SD]	21.1 [2.5]	18.3 [2.9]	18.0 [3.3]	<0.001
Woman-centred care: Mean [SD]	15.1 [2.9]	15.2 [2.5]	14.4 [2.5]	0.045
Pain management: Mean [SD]	5.0 [1.2]	4.6 [1.4]	4.5 [1.5]	0.021
General care: Mean [SD]	16.6 [2.6]	15.3 [2.6]	15.8 [2.8]	0.004

B. Women's satisfaction with their specific childbirth experiences in relation to the healthcare they received during pregnancy and labor

It was found that participant women who were highly satisfied with the care provided to them during pregnancy had higher satisfaction with the clinicians' communication and support during their childbirth experience ($p < 0.001$) (Table 4.9). However, participant women's satisfaction with how their feelings and emotions were managed, clinicians' communication and support, receiving woman-centred care and adequate pain management, and general labor care was improved

significantly ($p < 0.005$) when participant women were highly satisfied with the care provided during labor and birth (Table 4.10).

Table 4.9: Participant women's satisfaction (SWCBE) and health care during last pregnancy

Satisfaction (SWCBE)	Satisfaction during pregnancy			p-value
	Not at all	Somewhat	Highly	
Communication: Mean [SD]	11.4 [3.2]	12.0 [3.2]	13.7 [2.8]	<0.001
Support: Mean [SD]	16.3 [4.9]	18.6 [3.3]	20.2 [2.3]	<0.001

Table 4.10: Participant women's satisfaction (SWCBE) and health care during last labor

Satisfaction (SWCBE)	Satisfaction during labor			p-value
	Not at all	Somewhat	Highly	
Feelings and emotions: Mean [SD]	22.3 [7.0]	27.3 [4.4]	30.5 [3.9]	<0.001
Communication: Mean [SD]	10.2 [3.5]	12.1 [3.0]	13.3 [3.1]	<0.001
Support: Mean [SD]	15.5 [4.5]	18.5 [3.6]	19.9 [2.5]	<0.001
Woman-centred care: Mean [SD]	12.5 [3.5]	14.5 [2.3]	15.3 [2.4]	<0.001
Pain management: Mean [SD]	3.5 [1.5]	4.7 [1.4]	4.8 [1.3]	0.004
General care: Mean [SD]	13.5 [3.8]	15.4 [2.7]	16.5 [2.4]	<0.001

Generally, participant women who rated the childbirth care delivered in Saudi Arabia as 'Excellent' showed higher satisfaction with their personal childbirth experience (Table 4.11). In summary, women's satisfaction with the care delivered during labor and birth was associated with high satisfaction with all of the individual items relating to women's satisfaction with the childbirth experience. Qualitative findings in section 4.4 will report on themes extracted from participants women answers for open question in relation to clinicians' communication and support, pain and feelings management.

Table 4.11: Participant women's satisfaction (SWCBE) and childbirth care delivered in Saudi Arabia

	Health care during pregnancy				
Satisfaction (SWCBE)	Poor	Acceptable	Good	Excellent	p-value
Feelings and emotions: Mean [SD]	22.0 [9.1]	27.4 [5.1]	28.8 [4.3]	31.5 [3.7]	< 0.001
Communication: Mean [SD]	8.7 [3.7]	11.8 [2.9]	12.7 [3.1]	13.9 [2.9]	< 0.001
Support: Mean [SD]	13.7 [4.8]	18.4 [3.2]	19.4 [3.1]	20.1 [2.5]	< 0.001
General care: Mean [SD]	13.0 [3.6]	15.0 [2.5]	16.0 [2.6]	17.2 [2.7]	< 0.001

C. Women's satisfaction with their level of participation in decision making

Participant women's satisfaction was linked to their level of consultation in decision making during labor and birth, with a higher mean of 16.4 ±2.5 showing clear satisfaction with their own childbirth experience. The next table (Table 4.12) shows how women's satisfaction increased significantly in relation to how their feelings were handled, clinicians' support and communication, and pain management care when they were consulted and participated in decision making ($p < 0.001$).

Table 4.12: Participant women's satisfaction (SWCBE) and decision making

	Decision making				
Satisfaction (SWCBE)	CPDM	NCIDM	NCNPDM	NPDM – was my choice	p-value
Feelings and emotions: Mean [SD]	29.9 [4.1]	25.3 [6.1]	26.6 [4.5]	29.6 [4.7]	< 0.001
Communication: Mean [SD]	13.7 [2.8]	11.4 [3.2]	10.4 [2.7]	12.3 [3.7]	< 0.001
Support: Mean [SD]	20.0 [2.8]	17.3 [3.4]	17.2 [3.4]	19.4 [3.3]	< 0.001
Woman-centred care: Mean [SD]	15.1 [2.4]	14.1 [2.9]	14.3 [2.6]	15.5 [2.3]	0.034
Pain management: Mean [SD]	5.0 [1.2]	4.3 [1.4]	4.1 [1.5]	4.8 [1.3]	< 0.001
General care: Mean [SD]	16.4 [2.5]	14.2 [3.2]	15.0 [2.8]	16.1 [2.8]	< 0.001

D. Women's satisfaction according to type of clinician

Generally, the type of clinician(s) that attended the labor and birth significantly affected women's satisfaction of their childbirth experience ($p< 0.05$), especially when it came to the attendee's communication with women during birth (Table 4.13). The obstetrician category had the highest mean (13.5 ±3.1) when it came to the participant women's satisfaction with communication. This could be interpreted as suggesting that as the more the obstetricians communicate effectively with women during labor and birth, the higher the women's satisfaction.

Table 4.13: Participant women's satisfaction (SWCBE) and main care giver during labor and at the birth

	Clinician during labor and at the birth			
Satisfaction (SWCBE)	Obstetrician	Nurse or midwife	Obstetrician and midwife	p-value
Communication: Mean [SD]	13.5 [3.1]	12.0 [3.2]	12.4 [3.1]	0.005
General care: Mean [SD]	16.7 [2.6]	15.2 [2.8]	15.8 [2.7]	0.004

E- Women's satisfaction and pain management:

The questionnaire contained three questions about pain control: whether women received pain control or not; whether they had a choice in receiving pain control; and the effectiveness of the pain control that had been given. The following tables show significant differences in the means between the categories of Pain related questions in relation to women's satisfaction. Women were significantly more satisfied with how their pain was managed during labor and birth if they had the choice of having pain control and if they received pain control (Table 4.14).

Table 4.14: Participant women's satisfaction (SWCBE) and received pain control

Satisfaction (SWCBE)	Pain control during labor		p-value
	Yes	NO	
Support: Mean [SD]	19.7 [3.1]	18.5 [3.3]	0.001
Pain management: Mean [SD]	5.1 [1.2]	4.3 [1.4]	< 0.001

Table 4.15 shows that there are significant means differences ($p < 0.005$) for the perceived effectiveness of pain control received and women's satisfaction with childbirth. This means that when birthing women perceived the pain control they received as effective, they were more satisfied, especially regarding management of feelings, communication, being the center of the care, and pain management.

Table 4.15: Participant women's satisfaction (SWCBE) and perceived effectiveness of pain control

Satisfaction (SWCBE)	Perceived pain control			p-value
	Not at all	Somewhat effective	Very effective	
Feelings and emotions: Mean [SD]	27.9 [4.0]	28.8 [4.7]	32.2 [3.1]	0.002
Communication: Mean [SD]	11.6 [3.5]	12.7 [3.2]	14.8 [2.5]	0.002
Woman-centred care: Mean [SD]	15.6 [2.6]	14.8 [2.1]	16.4 [2.0]	0.004
Pain management: Mean [SD]	4.5 [1.3]	5.3 [1.1]	5.6 [0.8]	<0.001

4.3.4.3 Perceived control during childbirth (PCCB) overall

The same statistical test used to measure the significance of differences between the means above was conducted for each demographic question in relation to the women's overall score on the PCCB. Significant findings are presented in Table 4.16.

Similar to the SWCBE, calculating the differences in means between the three hospitals in relation to the overall perceived of control during childbirth yielded significant differences ($p < 0.001$). Participant women's perceived control during their childbirth was highest in hospital B (45.5 ±5.6), followed by hospital C (44.4 ± 5.6), with the lowest mean for hospital A (42.0 ±6.4) (Table 4.16).

There were significant differences ($p < 0.001$) between the means of the three categories (Highly, Somewhat, and Not at all) for participant women's satisfaction with care during labor and their perception of control. It is not a surprising finding that participant women who were highly satisfied (100.4 ±10.3) with the care perceived a higher level of control during childbirth than those who were somewhat (92.2 ±12.1) or not at all (77.8 ±19.8) satisfied (Table 4.16).

In addition, participant women's perception of control during childbirth was affected by their perception of the difficulty of labor. In this study, participant women perceived that they had more control over their labor when they rated their labor as easy (47.1±5.5) than those who rated their labor as somewhat difficult (44.9 ±5.7) or very difficult (41.7 ±6.1) (Table 4.16).

Some participant women had had an episiotomy during their last birth (42.3 ±6.2), while others were not sure if they had had an episiotomy or not (42.6 ±4.8). Both of those groups of women perceived that they had less control during their last childbirth. In comparison and with the

significant differences in means, women who did not have an episiotomy (45.3 ±6.1) demonstrated a higher perception of control during their birth (Table 4.16).

While the number of previous pregnancies did not impact upon participant women's childbirth satisfaction, it did significantly affect their perception of control ($p < 0.005$). With a mean of 44.6 ±6.1, participant women who had had previous childbirth experiences (multipara) perceived more control over their last labor and birth than those for whom it was their first birthing experience (primipara). Also, having episiotomy or not did not change women's satisfaction with their childbirth experience, but it did affect their perception of control (see Table 4.16).

Moreover, there were significant mean differences in women's answers to the question of 'What did you think about the labor pain intensity' ($p \leq 0.05$), which indicates that participant women had a greater perception of control when their labor pain intensity felt as expected (45.9 ±5.0) or less than expected (45.5 ±7.1) (see Table 4.16).

Participant women who reported that they had an obstetrician as their man clinician during labor and birth perceived more control during their childbirth. This is indicated by the significant ($p \leq 0.05$) differences between the highest mean of 44.7 ±5.9 for 'obstetrician', 44.3 ±6.2 for 'shared care', and 41.1 ±5.5 for 'nurse or midwife' (Table 4.16).

A key item in the questionnaire was about participation in decision making during labor and birth; the results confirm the importance of this factor. Differences in means indicate significant associations between being consulted about decisions during birth and both higher satisfaction with childbirth experience and perception of control during birth. This relationship can be explained by

the higher mean for ‘being consulted and participated’ (45.6 ±5.7) and the lowest mean of ‘were not consulted until they insisted on participating in decision making’ (40.2 ±6.2) (Table 4.16).

Table 4.16: Perception of control during childbirth (PCCB) and demographics

Demographics	Mean	SD	p-value
Women from:			
Hospital B	45.5	5.6	0.001
Hospital C	44.4	5.6	
Hospital A	42.0	6.4	
Satisfaction with health care during labor:			
Not at all	37.1	8.9	
Somewhat	42.8	5.4	<0.001
Highly	45.2	5.7	
Perceived difficulty of birth:			
Easy	47.1	5.5	<0.001
Somewhat difficult	44.9	5.7	
Very difficult	41.7	6.1	
Childbirth experience:			
First	41.9	5.5	0.002
Multiple	44.6	6,1	
Episiotomy:			
No	45.3	6.1	
Not sure	42.6	4.8	0.001
Yes	42.3	6.2	
Pain intensity:			
Less than expected	45.5	7.1	0.002

As expected	45.9	5.0	
More than expected	42.8	6.1	
Main clinician during labor and at the birth:			
Obstetrician	44.7	5.9	
Nurse or midwife	41.1	5.5	0.002
Obstetrician and midwife	44.3	6.2	
Participation in decision making during birth:			
Was consulted and participated.	45.6	5.7	
Was not consulted until I insisted.	40.2	6.2	<0.001
Was not consulted and did not participated	40.7	6.0	
Did not participate and it my choice	42.8	5.0	

4.3.4.4 PCCB subscales

There are four subgroups for the PCCB instrument: feelings; interaction and trust; being informed; and general care. The differences in means on these subscales according to demographics were calculated.

A. Women's perception of control and the three cities

There were significant differences between means of two subscales and the three hospitals ($p \leq 0.005$). Participant women perceived a higher level of control over their feelings and being informed during labor and birth at hospital B (17.0 ±2.1) than at hospitals D and A.

Table 4.17: Perception of control during childbirth (PCCB) and hospital attended

Perception (PCCB)	Hospitals			p-value
	Hospital A	Hospital B	Hospital C	
Feelings: Mean [SD]	15.6 [2.8]	17.0 [2.7]	16.5 [2.3]	0.001
Being informed: Mean [SD]	12.0 [2.2]	13.1 [2.8]	12.8 [2.2]	0.005

B. Women's perception of control in relation to the number of pregnancies and the care delivered during labour

The number of previous childbirth experiences impacted participant women's perceptions of control over their interaction and their trust of the clinicians during childbirth. Multiparous participant women perceived that they more control over their interaction with care providers than primiparous women. With significant differences in means ($p < 0.05$), women who were highly satisfied with the care delivered to them during labor and birth experienced greater perceived control over their feelings, interaction with clinicians, being informed, and general care (Table 4.18).

Table 4.18: Perception of control during childbirth (PCCB) and health care during birth

Perception (PCCB)	Health care during labor			p-value
	Not at all	Somewhat	Highly	
Feelings: Mean [SD]	14.1 [2.9]	16.1 [2.5]	16.7 [2.7]	0.002
Interaction and trust: Mean [SD]	8.7 [2.5]	10.6 [1.8]	11.6 [1.8]	<0.001
Being informed: Mean [SD]	10.4 [3.4]	12.3 [1.9]	13.0 [2.3]	<0.001
General care: Mean [SD]	3.6 [1.4]	3.7 [0.9]	4.1 [1.1]	0.001

C- Women's perception of control and decision making

Being consulted on and participating in decisions during labor and birth were significantly associated with participant women's perception of greater control over their feelings, interaction and trusting the clinicians, and being informed during childbirth (Table 4.19).

Table 4.19: Perception of control during childbirth (PCCB) and decision making

Perception (PCCB)	Decision making				p-value
	CPDM	NCIDM	NCNPDM	NPDM – was my choice	
Feelings: Mean [SD]	16.8 [2.7]	15.0 [2.5]	15.7 [2.6]	15.9 [2.3]	0.003
Interaction and trust: Mean [SD]	11.5 [1.8]	10.0 [1.9]	10.1 [1.9]	11.1 [1.9]	<0.001
Being informed: Mean [SD]	13.4 [2.1]	11.7 [2.3]	11.4 [1.9]	12.3 [2.1]	<0.001

D- Women's perception of control and pain control

Participant women who had the chance to choose to have pain control or not, and those who experienced the labor pain as expected or less than expected, showed a significantly higher ($p < 0.05$) perception of control over their feelings and general care during their childbirth experience (Tables 4.20 and 4.21).

Table 4.20: Perception of control during childbirth (PCCB) and the choice of having pain control

	Choice of having pain control			
Perception (PCCB)	Yes	No/Request was refused	Others	p-value
Feelings: Mean [SD]	16.9 [2.4]	14.2 [2.8]	17.1 [2.9]	<0.001
General care: Mean [SD]	4.2 [1.0]	3.4 [1.1]	4.3 [1.3]	0.002

Table 4.21: Perception of control during childbirth (PCCB) and perceived pain intensity

	Perceived pain intensity			
Perception (PCCB)	Less than expected	As expected	More than expected	p-value
Feelings: Mean [SD]	17.3 [2.9]	17.1 [2.1]	15.9 [2.7]	0.002
General care: Mean [SD]	4.5 [1.0]	4.2 [1.0]	3.7 [1.1]	<0.001

For participant women who had received pain control, the higher they perceived the effectiveness of pain control to be, the greater was their perceived control over their interaction and trust with the clinicians (12.1 ±1.5) and sense of being informed (14.2 ±2.3) (Table 4.22).

Table 4.22: Perception of control during childbirth (PCCB) and perceived effectiveness of pain control

	Perceived pain control			
Perception (PCCB)	Not at all	Somewhat effective	Very effective	p-value
Interaction and trust: Mean [SD]	10.2 [2.0]	11.2 [1.9]	12.1 [1.5]	0.001
Being informed: Mean [SD]	11.8 [2.1]	12.9 [2.3]	14.2 [2.3]	0.001

E- Women's perception of control and the method of delivery and perceived difficulties of the birth

Women who gave birth via caesarean section perceived significantly more control ($p < 0.05$) over general care in their childbirth than those who gave birth naturally. On the other hand, participant women who believed they had a very difficult birth felt a loss of control over their feelings and emotions (15.3 ±2.6), as well as over the care delivered to them (3.6 ±1.1) and their interactions with the clinicians (10.7 ±2.0) (see Table 4.23).

Table 4.23: Perception of control during childbirth (PCCB) and perceived birth difficulty

	Birth difficulty			
Perception (PCCB)	Very Difficult	Somewhat difficult	Easy	p-value
Feelings: Mean [SD]	15.3 [2.6]	17.1 [2.6]	17.4 [2.0]	<0.001
Interaction and trust: Mean [SD]	10.7 [2.0]	11.1 [1.9]	12.0 [1.8]	0.005
General care: Mean [SD]	3.6 [1.1]	3.9 [0.9]	4.6 [1.1]	<0.001

F- Women's perception of control and vaginal tear or other trauma

Interestingly, women who did not experience a vaginal tear, or were not sure about that, had a higher perception of control over their interaction with care providers and over the general care delivered to them during childbirth ($p < 0.001$).

Table 4.24: Perception of control during childbirth (PCCB) and vaginal tear

Perception (PCCB)	Vaginal tear or other trauma			p-value
	No	Not sure	Yes	
Interaction and trust: Mean [SD]	11.5 [1.9]	10.7 [1.5]	10.5 [2.1]	<0.001
General care: Mean [SD]	4.1 [1.1]	3.7 [1.1]	3.8 [1.0]	<0.001

4.3.5 Multivariate analysis

The previous presentation of significant associations between a number of variables and SWCBE and PCCB scores prompts curiosity about the best predictors of women's satisfaction and perception of control. To investigate this, 15 variables were selected, including all of those reported as significant in the previous analysis, in addition to number of other variables that were close to significant (within 15% of a significant p value). The selected variables were then used in a stepwise multivariable regressions analysis.

4.3.5.1 Multiple regression analysis for SWCBE

Running a multiple regression analysis for the 17 variables selected in relation to SWCBE resulted in five variables that were considered to be the best predictors for women's childbirth satisfaction (Table 4.25). As one example of these predictors, participant women who had previous childbirth experience were more satisfied with their childbirth experience than those who were giving birth for the first time. Reporting the findings of a multiple regression analysis requires reporting the accuracy of the model by calculating the percentage variability which is 45.5%. This means that

45.5% of the variation in the total satisfaction of women is explained by the five variables in Table 4.25.

Table 4.25: Multiple regression analysis for significant variables predicting total childbirth satisfaction (SWCBE)

Variables	Unadjusted/Univariate			Adjusted/Multivariate		
Demographics	beta	p-value	95% CI	beta	p-value	95% CI
1-Hospitals:						
Hospital A (ref)						
Hospital B***	9.348	<0.001	5.704 – 12.992	6.472	<0.001	2.980 – 9.964
Hospital C	2.630	0.179	-1.217 – 6.647	1.124	0.529	-2.395 – 4.643
2-Childbirth experience:						
First (ref)						
Multiple	4.128	0.020	0.649 – 7.607	3.092	0.085	-0.429 – 6.612
3-Satisfaction with health care during labor:						
Not at all						
Somewhat***	14.333	<0.001	7.337 – 21.329	11.167	0.001	4.676 –17.657
Highly***	22.530	<0.001	15.619 – 29.442	17.021	<0.001	10.485 – 23.557
4-Participation in decision making during last child birth:						
Was consulted and participated (ref)						
Was not consulted until I insisted***	-16.429	<0.001	-21.694 – 11.165	-10.300	<0.001	-15.054 – - 5.547
Was not consulted and did not participate***	-13.017	<0.001	-17.097 – 8.937	-8.191	<0.001	-11.954 – - 4.427
Did not participate and it my choice	-2.437	0.270	-6.778 – 1.904	-0.700	0.716	-4.491 – 3.090
5-Main clinician during labor and at the birth:						
Nurse or midwife (ref)						
Obstetrician and midwife	4.799	0.025	0.608 – 8.989	2.284	0.202	-1.236 – 5.804
Obstetrician	7.607	0.001	3.084 – 12.129	3.414	0.097	-0.620 – 7.448

*** Indicate values that had the significant correlation / (ref) indicate the item that was constant in the correlation

4.3.5.2 Multiple regression analysis for PCCB

Running a multiple regression analysis for the 18 variables selected in relation to the PCCB resulted in six variables that were considered to be the best predictors of women's childbirth perception of control (see Table 4.26). For example, participant women who were involved in decision making during their birth, or did not participate and it was their choice, perceived more control over their birth experience than those who did not have the chance to participate in their birth decisions.

Reporting the findings of multiple regression analysis requires reporting the accuracy of the model by calculating the percentage variability which is 33.8%. This means that 33.8% of the variation of in total scores on women's perception of control is explained by the six variables reported in Table 4.26.

Table 4.26: Multiple regression analysis for significant variables predicting total childbirth perception (PCCB)

Variables	Unadjusted/Univariate			Adjusted/Multivariate		
Demographics	beta	p-value	95% CI	beta	p-value	95% CI
1-City/Hospital:						
Aeddah (ref)						
B hospital	3.504	<0.001	1.625 – 5.383	2.197	0.043	0.073 – 4.322
C hospital	2.359	0.001	0.564 – 4.154	1.713	0.079	-0.199 – 3.625
2-Childbirth experience:						
First (ref)						
Multiple	2.678	0.002	0.991 – 4.364	1.214	0.247	-0.847 – 3.274
3-Satisfaction with health care during labor:						
Not at all						
Somewhat***	5.731	0.001	2.249 – 9.212	4.603	0.008	1.218 – 7.989
Highly***	8.099	<0.001	4.662 – 11.536	6.229	<0.001	2.849 – 9.608
4-Participation in decision making during last child birth:						
Was consulted and participated (ref)						
Was not consulted until I insisted***	-5.413	<0.001	-7.949 – -2.876	-4.422	<0.001	-6.786 – -2.058
Was not consulted and did not participate***	-4.919	<0.001	-6.989 – -2.849	-4.272 -2.913	<0.001	-6.284 – -2.261
Did not participate and it my choice***	-2.797	0.010	-4.910 – -0.683		0.004	-4.903 – -0.922
5-Main caregiver during labor and at the birth:						
Nurse or midwife (ref)						
Obstetrician and midwife	3.252	0.002	1.215 – 5.289	3.114	0.002	1.124 – 5.105
Obstetrician***	3.671	0.001	1.442 – 5.900	2.935	0.013	0.616 – 5.255

6-Perceived difficulty: Easy						
Somewhat difficult	3.139	<0.001	1.544 – 4.733	2.231	0.011	0.518 – 3.943
Very difficult***	5.401	<0.001	2.874 – 7.928	3.354	0.016	0.646 – 6.061

*** Indicate values that had the significant correlation / (ref) indicate the item that was constant in the correlation

4.3.6 Correlation between SWCBE and PCCB

There was a significant positive correlation found between the overall scores and the subgroups of the two tools used in women questionnaire. Women overall satisfaction of childbirth (SWCBE) was positively correlated with their perception of control during childbirth (PCCB) leading to a significant positive correlation of 0.67 ($p < 0.001$) (see Figures 4.2, 4.3, 4.4, and 4.5). This results mean that increasing women satisfaction will associate with increased women perception of control during childbirth.

Woman-clinician interactions and trust had the strongest positive correlation with women's overall satisfaction (SWCBE), at correlation coefficient = 0.59 ($p< 0.001$) (Figure 4.2). Participant women who were informed about their birthing progress and participated in decision making showed more satisfaction with the care delivered to them, as shown by the significant positive correlation between these two variables, correlation coefficient = 0.50 ($p <0.001$) (Figure 4.4).

Figure 4.2: Correlation between perception of control over clinicians' interaction and trust and SWCBE

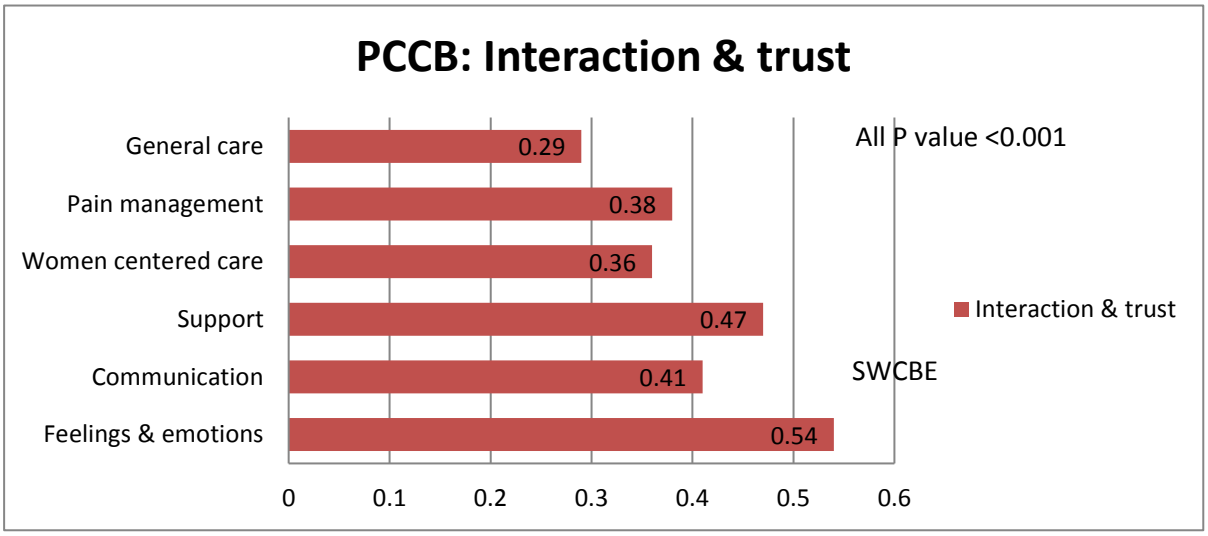


Figure 4.3: *Correlation between perception of control over feelings and SWCBE*

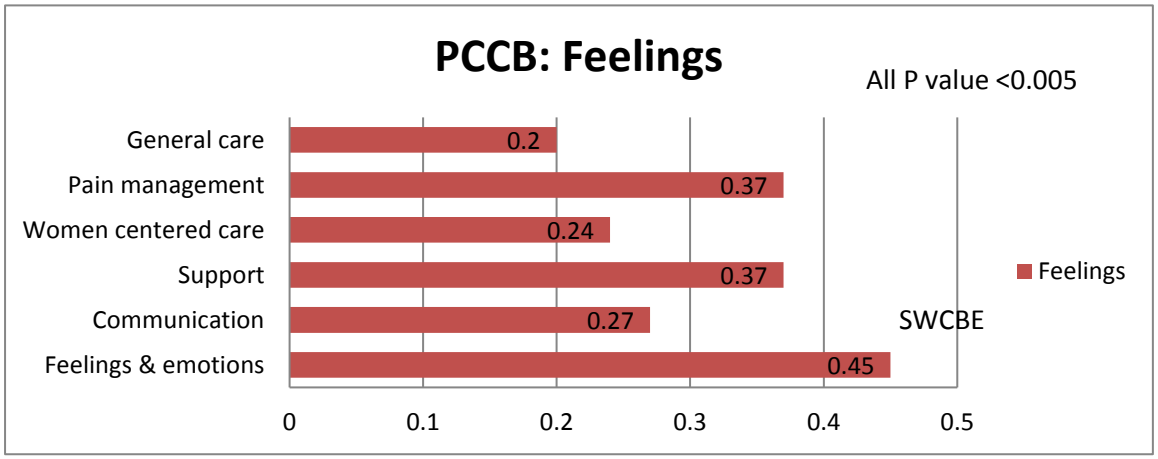


Figure 4.4: Correlation between perception of control of being informed and SWCBE

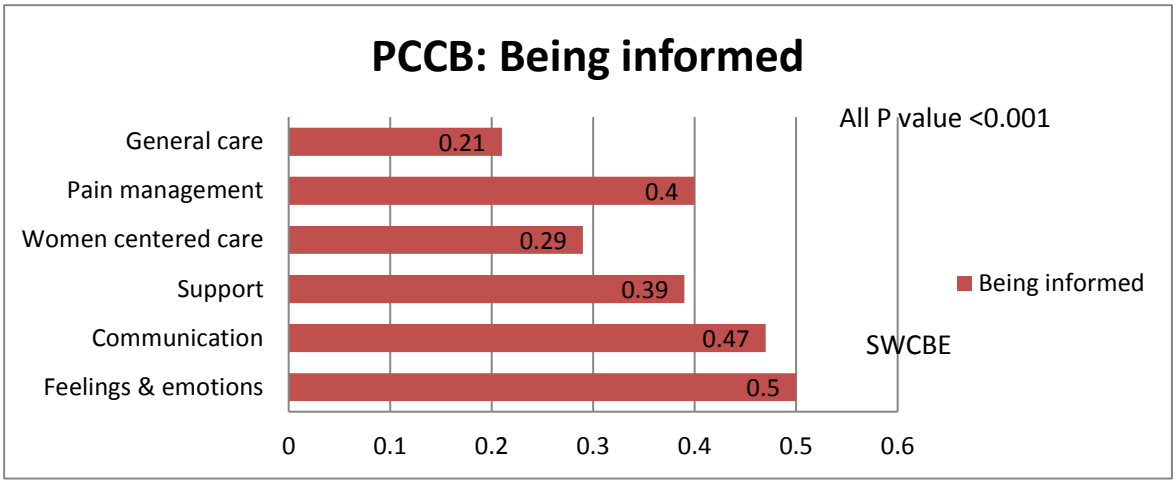
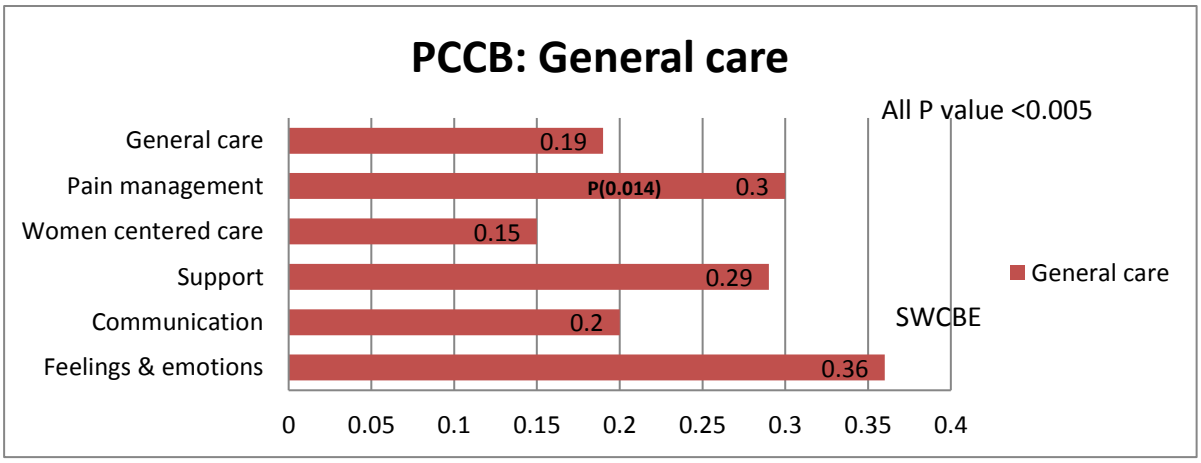


Figure 4.5: Correlation between perception of control about the birthing care and SWCBE



4.4 Qualitative results

4.4.1 Overview

This section includes verbatim quotes of participant women's words, as well as some researcher notes of women-researcher conversations that took place during the distribution and collection of women's questionnaires. One hundred and thirty-eight participant women answered the open question at the end of the questionnaire. Participants are here identified as P150, P289, and so on, where the letter P means participant and the number represents the number assigned to each woman who completed the questionnaire. Numbers allocated to the participant women from each hospital are presented in the table below (Table 4.27). The symbol of 'P extra1or 2' is used for women who answered the open question of the questionnaire and did not wish to complete the remaining questions. Moreover, as the report includes 35 sets of researcher notes, these are identified as C1, C2., and so on. where the C stands for 'conversation'. These notes were documented for all side conversations that took place between women and the researcher during data collection, because women expressed and shared a lot about their birthing experience through this conversation.

Table 4.27: Number allocated to participants from each hospital

Hospitals	Participants' allocated numbers
Hospital A	P1 -P104 and P302, 303, 304
Hospital B	P105 -P203 and 308- 314
Hospital C	P204- P301 and P315- 319

In addition, brackets are used within women quotes for reasons of clarification. The bracket ( ) signifies words that women added to their answers for the open question for more explanation to their childbirth experience. Square brackets,,[ ], are used for researcher comments, or to elaborate on the meaning of some Arabic words that do not have exact translations in English.

Finally, the descriptors (F) and (M) after each instance of 'doctor' and are used to provide the exact translation of the Arabic words (signifying female doctor or male doctor).

4.4.2 Thematic analysis

The first step in thematic analysis (as discussed in section 3.11) was reading and re-reading participant women's responses to the open question and researcher notes for every hospital separately. This included highlighting similar descriptions and expressions and coding them under certain themes. The same process was undertaken for every hospital. Then, the themes that arose from each hospital were combined, and those that were not similar were reconsidered. Themes that had been identified in this way were then defined, named, and rewritten to be more representative of the participants' quotes. This was conducted by repeated thinking and reflection to make sure there were no missed classifications, and that the identified themes accurately represented the participants' perceptions of birthing services. Resulting themes are described in the following sections, supported by participant women's actual words and comments.

4.4.3 Woman-care providers' relationship during childbirth

The relationship between women and care providers is one of medical domination in Saudi Arabian maternity services: women are expected to leave all important decisions to the clinicians as they

know best. The most common experiences reported by women relate to the maternity care providers' attitudes toward the women and their interactions with the women. The theme is 'women-care providers' relationship during childbirth'.

4.4.3.1 Caring and helpful clinicians

Some participant women reported that they had had a pleasant childbirth experience when in the care of helpful care providers:

> P4: "The doctor was caring about my condition. I met wonderful clinicians in the delivery room. Honestly, this was my 4th C.S. in this hospital and it was very different from the previous ones."

> P7: "Nurses and midwives were patient, quiet and helpful during birth; also, their care was nice and comforting."

> P120: "The best thing was the help of the clinicians during labor and birth."

> P238: "The best things were the treatment, availability of services, and clinicians helping the women when needed. The treatment in the labor ward was the best thing."

> P24: "The best thing was how the medical team treated me and their help during labor."

Moreover, a number of participant women described how the good care of clinicians affected their psychological status:

> P73: "The best thing was that the health care I received from nurses and doctors was good, which all led to psychological comfort."

P219: “To be honest, the delivered care was special with extreme attention. They care to the highest level. I felt comfort during the birth and afterward. I was physically and psychologically comfortable. This was my best birth.”

P271: “The best thing was the treatment by the midwife and her efforts to calm me with prayers and not leave me alone.”

P275: “After thanking God, I would like to thank the nursing and medical team in providing the best services – this is the cause of psychological stability.”

Some participant women reported on the importance of having quick but adequate attention and care from midwives and nurses At times this met their expectations, at other times their expectations were not met

P98: “The best thing about this experience was the fast factor in this birthing process, in addition to the good health care during and after birth.”

P123: “Dealing with my birth properly and quickly. Midwives’ and nurses treatment’ was quick and proper, helping me and my baby quickly when I asked.”

P12: “…. Not finalising discharge papers quickly, without any reason. In ER all the clinicians did not care about my condition and there were no quick action.”

P12: “The nursing team were not available for me. In the post-partum ward, nurses do not care and they took a long time to answer my call.”

Maternity medical team timely responses to participant women's needs were also a contributing factor resulting in an improved experience.

> P88: "The best thing was the medical team, who cooperated with me, especially the doctor (F) who helped me to give birth and the doctor who cared for my baby after birth because he was little and their care for me after birth was very good."

> P110: "I thought I would have a C.S. because of the short period between the first C.S. and this one, but by the favor of God the medical team cooperated and I had a normal vaginal delivery."

> P196: "The best thing was the treatment and cooperation of nurses and medical clinicians, helping me and calming my stress and encouraging me at the birthing time. In general the birth was difficult psychologically more than physically. Thank God for everything."

> P281: "The medical team in the birthing room were very cooperative and understanding thank God."

4.4.3.2 Need for support and cooperation

Being cared for by supportive and cooperative clinicians was a primary factor for some participant women in having a better birthing experience:

> C32: "To be honest, they reduced my anxiety by what they told me and their support."

> P146: "The help of the nurse and her support and standing beside me helped me a lot."

> P298: "The best thing was the help of the medical team to control the labor pain, and their continuous support until the birth was complete."

However, one woman explained that spiritual support was not there when most needed

P181: “The worst thing was that they did not allow me to pray because I was 7 cm dilated.”

And in the post-natal wards

C29: “The worst thing was the nurses in the post-partum department. They always say ‘Do this by yourself’ when we ask for something, ‘You get out of bed and change your baby by yourself’. Also when I rang the bell they came very late.”

P267: “The second thing was the baby feeding: the nursery does not call the women at the baby feeding time, they just give the baby formula immediately even if the women asked them to call her but the nurses do not care.”

A number of women reported their need for clinicians’ support and cooperation in order to gain control over pain and discomfort during childbirth. Experiencing pain is the first characteristic of any childbirth experience, whether during labor or after birth. However, having this pain under control and well managed improved women’s experiences.

P296: “The best things were giving me anaesthetic and having anaesthesia during suturing.”

P49: “One of the worst things was the labour pain. It was very intense, but it was treated very well.”

Some women reported not having pain relief and not knowing why.

P45: “The worst thing was the pain and contractions without analgesics.”

P195: “Why they did not allow me to have epidural anaesthesia?”

P287: “I did not have any anaesthetic because it was not available and it hurt a lot.”

Being induced was not a pleasant experience for some women, and they took the time to express their feelings about it.

P80: “The worst thing was when I was induced, because there were not enough contractions and no cervical dilation for six hours.”

P186: “The worst thing was the increased of contraction strength by induction....and that I was not given enough time to give birth naturally.”

P191: “The worst things were the nurses, birthing by induction, and artificial rupturing of the membrane.”

P257: “The worst thing was the induction experience”.

Culturally, Saudi women consider vaginal examination and episiotomy or stitches as uncomfortable procedures that sometimes increase women’s fears and anxiety during labor.

C25: “To be honest, the vaginal examination done by the doctor (F) was very tough and painful, not like the midwives’.”

P65: “In my opinion, the fear I faced was the vaginal examinations, because some doctors do not have kindness (gentle care) in doing vaginal examinations.”

P305: “They torture us with vaginal examination.”

Other women were not happy with the end result of their birthing experience, which was the caesarean section and its corresponding pain after the operation.

P133: “The worst thing was that I gave birth by C.S.”

P153: “The worst thing was a very strong pain that I had after I woke up from the anaesthesia after the operation [C.S].”

P185: “The worse thing was the contractions and then C.S.”

P229: “The best thing was that I gave birth without pain until I woke up from the anaesthesia [C.S].”

4.4.3.3 Respectful clinicians

One of the statements under the subscale of ‘women-centred care’ in the SWCB and PCCB tools was asking women whether they were treated respectfully by the care providers. A number of participant women appreciated the clinicians who treated them respectfully.

P23: “But when I get to the labor and delivery room the clinicians treated me very well and with respect.”

P134: “…treating me with respect and humanity and not underestimating me as a human.”

P212: “I thank the clinicians who work to provide complete care with respect and friendly responses to requests. Thank you so much and this is the reason after God for my psychological comfort during birthing.”

P273: “The good thing was that I came early to the hospital, where I received good care with respect. My experience of pregnancy and birth in this hospital was good; however I just had three antenatal visits in this hospital.”

Conversely, women who were treated with disrespect during their birth experience expressed their unpleasant feelings about this. Also, a number of participant women described being embarrassed by some clinicians' actions, which they considered disrespectful and humiliating.

> P extra2: "The post-partum ward was so bad in their services and treatment. No humanity. Saudi nurses in the O.R. room were standing laughing at me and I could not do or say anything. Why were they laughing?"

> P89: "The presence of a number of trainees increased my anxiety when I was pushing, especially as they did not have any role and they were just laughing."

> P189: "The worst thing was that during the suturing time after birth, it is better if the doctor and one other person is present, but the situation was bad as the doctor (F) and complete medical team was in the room, which embarrassed me."

> P300: "I was shocked by the doctor (F), who was shouting at me during the labor and the birth of my baby, to the level that I asked her to ease up on me little. Do not know why there was all this drama from her, or if this was for my benefit and my baby's benefit. I felt the difference between the treatments of the nurses, who treat me with more respect than the doctor."

4.4.3.4 Good listener clinicians who trust women's bodies

Being cared by clinicians who listened to women's needs and addressed their fears was a significant factor in a good birthing experience for some women:

> P121: "The best thing was addressing my fears by admitting me for tests and ultrasound."

P279: “The best things were the two doctors (F) and nurse because they were the only two who listened to my fears and calmed me down during the birth.”

P253: “The worst thing that happened to me around my birth experience was the treatment of some doctors (F) to me. They did not tolerate my fears, so their treatment was so bad.”

Two women believed that they had very long and complicated births as a result of being cared by clinicians who did not listen to them.

P256: “It was a very exhausting birth. It was the longest of all my births, because I was induced for four days, which really worried and exhausted me. I told them only the I.V. induction would progress my labor, but they insist on using suppositories that were not beneficial and tiring. I am talking about two induced birth experiences where I had I.V. induction and they went easier.”

P264: “In all my previous births, my membranes did not break and the water did not come out by itself, it had to be done by the clinicians. In this birth I asked the doctor (F) and the nurse to break my membrane but they did not listen to me, which caused me more pain. Then, when they saw me in a very difficult situation, they broke the bag and I gave birth quickly. I wish they would listen to the woman, so she will not be in too much pain and it will hasten her birth.”

Women reported feeling humiliated because no one listened to them during childbirth.

P80: “When I asked the doctor (M) during my post-natal check-up about how to take care of stitches? He laughed at me and told me that nothing can be done for stitches, knowing

that I had infected stitches with my first baby, and that I am afraid now to have the same experience again."

P87 "After they induced me, I was 8 cm dilated based on what the nurse told me, then when I felt ready to push, the nurse stopped me from pushing and called me a liar. So, I asked to sign a hospital discharge paper under my responsibility, but then someone came and examined me and saw my baby's head clear just sitting there. Finally, I stayed and pushed my baby out. Imagine if I had gone out of the hospital while I was in this condition."

Several women described experiencing medical errors as a consequence of clinicians not listening.

P48: "The worst thing was some medical mistakes that occurred during stitches suturing. Because of the bleeding and bad stitches I almost died, so they transferred me to the operation room. All this was because the nurse did not listen or respond to me when I was in pain and suffering during suturing, which led to vein tearing. I asked God to punish every person who does not respect his/her job and disrespects people lives."

P105: "The decision was to do a C.S. and off we went to the O.R. They started assessing my feelings by pinching me and I told them that I felt that but the doctor (M) said to me, 'You are joking.' I replied, 'It is not the time for jokes, I am in the O.R. and I am between life and death.' So they started cutting the incision and I felt the scalpel and I felt them stretching and opening my tummy and of course I screamed very loudly. Then they said 'Fine, fine' and they gave me complete anaesthesia."

4.4.3.5 Provide safe care

In this research, participant women were asked about a number of statements regarding the safety of the care they received. Findings showed that a significant increase in participant women's satisfaction with the childbirth experience was associated with women feeling more safe (Tables 4.9 and 4.10).

Despite the fact that women believed that feeling safe during labor and birth required a good relationship with the clinicians and being informed of the progress of their labor and any procedure conducted therein, in general participant women did not feel safe, resulting in an unpleasant childbirth experience.

> C28: "Also, I have been 18 hours in labor and I asked for an epidural, but after inserting the epidural, I felt that they were very nervous, especially after they finished everything. The nurse came and pulled something from the doctor's pocket and asked him what it was. At that time, he began to get nervous and he called another doctor. At the end I felt all the pain and pushing, so I do not know what happened?"

> P142: "I felt safe because I was the only patient those clinicians had, and they were good from all sides – caring, quiet, accurate and emotional. The doctor's (M) clarity and discussion had a big impact on finalising all the stages of C.S. and keeping me quiet and calm."

> P171: "The best thing was that I gave birth at KFMC, which has better care and safety for patients and informs patients about their rights. There was nothing bad at B hospital."

For many participant women, feeling safe was associated with receiving kindness from their caregiver.

> P204: "The best thing that occurred during my last birth was that I was treated with humanity by the healthcare team. I felt safe in their hands. The other thing is that my birth was like a dream, thank God."

> P219: "I felt safe because I was in caring hands. This was my very best birth."

4.4.3.6 Clinicians' attitude and treatment

A number of participant women described how receiving good treatment and care from maternity clinicians assisted in their ability to cope with the difficulties of their births.

> P248: "…As the pain is not in their hands, the services were excellent and their treatment of me and my baby was magnificent."

> P228: "C.S. was very difficult, but there was excellent care delivered from doctors and nurses."

> P154: "The care I had antenatally was very nice from all clinicians and some nurses treated me as a princess, but during birth, I was expecting normal delivery, but my condition worsened and my baby was in danger. This led the doctors to hurry (God bless them) with C.S. and save my baby from danger, thank God."

Many participant women described what they considered to be bad childbirth experiences and related this to clinicians' bad attitudes and treatment, which increased their feelings of distress.

C18: “In the post-partum ward, the services were very bad…. The clinicians treated us very badly, they have a bad attitude.”

P53: “My experience as a patient was not that good. Unfortunately there are some nurses who have a very unpleasant attitude when dealing with patients.”

P64: “The worst thing was some nurses’ treatment during birth, very tough and with a bad attitude.”

P116: “The worst thing was the treatment of the midwife or nurse. It was bad to the extent that she told me, ‘If you have a problem, leave the hospital.’ That was because I asked her to wait and not start the induction, because maybe the contractions would start naturally in the next hour or so. But the nurse strongly refused and said to me, ‘I am not going to wait, this is doctor’s orders.’ So I asked her to call the doctor and ask for permission to delay the induction for an hour and if the pain did not get stronger, I would take the induction. The nurse’s reply was, ‘No, I am not calling and if you have any problem with that get out of the hospital.’ ”

P149: “The worst was the treatment of the clinicians in post-partum and antenatal departments, as the majority of treatment was very very bad.”

A group of participant women, who believed they had received good care at times during pregnancy and birth, expressed their feelings when confronted by careless clinicians at some stage of their experience. For them, witnessing a bad situation was enough to leave a remark:

C28: “Everything was fine, but the doctor treated me badly and kept saying ‘Come on come on open your legs stop *dalaa.*” [*dalaa* means acting like a child or very soft]

C29: “The worst thing was the nurses in the post-partum department. They talked badly and they always said ‘Do this by yourself’ when we asked for something ….On the other hand, the labor and birth department services were very good and excellent, and they were very cooperative.”

C 35: “The care was excellent,” but “once I gave birth they left me in a dirty bed with the CTG belt under me until I was transferred to the post-partum ward.”

P65: “I had a problem when I was still 9 months pregnant – one doctor examined me and she found the cervix a few centimetres dilated. So she started screaming in my face, saying that I delayed her from doing her job and from other patients in a very embarrassing way. But now everything I experienced was comfortable, thank God, the treatment was very kind and comfy.”

For some participant women, being treated by clinicians with a bad attitude prevented them from standing up for themselves and their babies.

C12: “The nurse forced me to breastfeed my twins, so I was scared and cried, and the nurse pinched and hit her thigh in a funny way to encourage me to breastfeed, but I did not like the way the nurse treated me.”

P89: “I did not like the way the nurse treated me during labor and after birth in the post-partum ward… After she took the baby from me she throw him on his bed [the woman

meant aggressively handling the baby], he was hurt and cried and I could not say anything because I was tired."

P100: "The hospital is full of Saudi clinicians, but to be honest foreigners are better. Saudi doctors and nurses are usually showoffs. I personally prefer non-Saudi nurses because they are kind, patient, play with our kids, and do not yell at us."

4.4.3.7 Clinicians explain everything during childbirth

A number of participant women mentioned their satisfaction with their childbirth experiences as a result of being in charge and being consulted regarding every procedure and process they experienced.

P142: "The doctor's (M) clarity and discussion had a big impact on finalising all the stages of C.S. and keeping me quiet and calm."

P145: "The best thing was the clinicians taking care of my condition and consulting me during the operation…….What needed to be done was chosen by consulting me about everything."

P168: "Thank you so much for everything provided, including medical care and consultation."

P173: "The best thing was…… knowing about labor and birth stages."

A group of participant women expressed their needs for adequate explanations to help them understand what had been done to them during labor and birth.

C1: “First, they did not give me any anaesthetic. I do not know why? Also, I do not know what was in the I.V bag, even there was no mask [nitrous-oxide gas]. Second, the presence of the trainers chatting and laughing at me.”

C27: This woman was questioning the decision of C.S. for her, especially as she had had a natural birth previously. She said, “The doctor (M) told me that the size of the baby was big and there was a chance of the baby’s shoulders might get stuck in my pelvis, but I feel the doctor was hurried in his decision and that I could have given birth naturally. Also, why did they not allow me a companion while I gave birth by C.S.?”

P12: “I did not have any choice in anything.”

P267: “The injection that was given with the I.V., I did not know what it was. Also the injection given in the thigh, I did not know what it was. And no one told me what it was for.”

Some women did not understand the reason for some common procedures during labor and birth, leading to a number of common misconceptions:

P12: “The midwife left me without dilatation [episiotomy] until the baby was out without any assistance.”

P73: “Please when any woman arrives to the hospital with contractions, they should give her an induction to hasten the labour . When they see the head of the baby, they should give her complete anaesthetic so she can rest and does not feel the pain of the baby coming out, the tearing and the stitches.”

P80: “I refused to take deep breaths during pushing because that would withdraw the baby water…”

P293: “The biggest problem was the pain and feeling that I was giving birth without a doctor (F) to break the water and to complete the labour and birth. That increased my anxiety even more.”

Some of the women sought information about their childbirth experience, and the condition of themselves and their baby, by asking questions of the researcher.

C14: “I do not know what type of stitches had been done for me in this C.S. Is it clips, laser, or thread? And I do not know how to care of the incision site.”

P80: “Also, my daughter had the umbilical cord tied around her neck and I am afraid of this may affect her growth. I think this is happened because they did not let me push when I was ready to, is that true?”

P206: “I was separated from my daughter, and I did not see her until the second day at 3am. Even my husband and my relatives were not allowed to see her until the third day through the glass…. I wish there was flexibility in visiting our babies.”

Another group of participant women were questioning the presence and the role of some clinicians who attended their labor and birth.

P11: “My birth experience was awesome, but the presence of a lot of trainees increases patients’ anxiety. I am human, and having student trainee during my birth increased my

fears, but thank God everything went fine. They should have asked for my permission about that."

P89: "The presence of number of trainees increase my anxiety when I was pushing…."

P189: "The worst thing was that during suturing time after birth, it is better if the doctor and another person in present, but the situation was bad as the doctor (F) and complete medical team in the room which was very embarrassing."

P309: "The worst thing was having a male doctor and nurses in my birthing room when there was no need for that."

A large number of participant women showed their need (by asking the researcher) for more education during pregnancy to adequately be prepared for the change. The main area in which participant women required more education was breastfeeding.

P100: "I do not know how to breastfeed my baby or how to latch my baby to my breast."

C2: Complained that her baby did not breastfeed and was not latching to the breast.

C7: Complained of cracks and pain in her nipples.

C10: This woman's son was in the nursery and she did not know what to do with the milk that had accumulated in her breast, especially as her son was not allowed to have anything yet.

Moreover, participant women were eager for more information about what to expect during labor and birth, and about how to take care of themselves and their babies after birth. They also reported some common cultural remedies.

> C6: Was worried about the stitches because in her previous birth the stitches had opened and she needed to go back to the hospital to get stitched again. She asked the researcher about how to take care of the stitches.
>
> P193: "Not enough information given to me about my stitches and how to take care of them."
>
> P247: "On the contrary, I have learned to be patient with pain, to breastfeed while having SC incision. Actually, I did not have that much information, which made it difficult and a nice experience at the same time."
>
> P273: "When the labor pain started I had too much of (rose water + saffron), which increased the pain even with no cervical dilation occurring. The pain continued from 2:15pm until 7:30am the next day. I do not recommend anyone to take anything without the doctor's permission……"

4.4.4 Inflexible or new hospital rules and policies

Childbirth experiences in Saudi Arabia are influenced by what is offered and allowed in the hospital in which women choose to give birth. For example, having the husband or a family member attending the birth is not an option for women in some hospitals in Saudi Arabia. On the other hand, establishing a new policy such as Baby-friendly hospital initiatives (BFI) required explanation to the women in order to prevent any misunderstandings or misinterpretations.

4.4.4.1 Family/Husband company during childbirth

There was a subscale of 'support' in SWCBE and PCCB tools, and it contained a number of statements for participant women regarding whether they had received support from a family member. For some participant women, having their husband or a family member with them during labor and birth was an essential element in improving their childbirth experience.

> P141: "The best thing was giving birth in a private room, no one sharing it with me, and being allowed family company."

> P161: "The best thing happened during my birth experience and I thank everyone assisting in spreading this culture [concept], which was allowing my husband to be with me in the birthing room, because him being beside me helped me a lot and made my birth easier."

> P84: "The first thing is to allow husbands of women to attend the labour, so they can feel what the woman is going through and her patience, which will affect his way of treating her in the future, and this should be an option."

> P233: "The worst thing was not allowing my husband to be with me. I wanted that but they refused. Also, not allowing my husband to visit me out of visiting hours. I gave birth after visiting hours were finished and that is why they did not allow my husband to visit me until the next visiting hours. In this case, they should allow the husband or a companion to visit outside of visiting hours."

4.4.4.2 Baby-friendly hospital initiative (BFI) policy

A number of participant women were upset about their birthing experience because of a new hospital policy to encourage breastfeeding (BFI), which included for example rooming in (leaving

the baby with the mother 24h) and no formula allowed. Some participant women were unaware that this had been done for a purpose and interpreted this as neglect by nurses. This issue cause an inconvenience for some participant women and affected their birthing experiences.

> C12: This woman had a twin and was very upset by the treatment of some nurses. “I gave birth by C.S, and I had just arrived to the post-partum room. The nurse asked me to breastfeed my babies and she left them beside my bed. No-one took them and no-one cared that I was tired and in pain.”

> P101: “Also, I oppose the nurses’ way of not giving me bottles of milk for my baby, even though there was no milk in my breast and the baby was continuously crying.”

> P49: “I was not expecting to care for my daughter because I was in a very bad condition. I was not able to control myself – how could I provide care for my daughter?”

> P214: “The worst thing was leaving the baby with the women all the time, and not helping the women with changing the baby, because the women need someone to help.”

As mentioned above, some participant women were not happy with ‘rooming in’ policy introduced by the hospital to support breastfeeding. Those women suggested a number of solutions for this issue.

> C24: “The important thing for me is leaving the babies with us. I am primi and I gave birth by C.S. They have to allow someone to stay with us.”

> P17: “There is a very big difference between private and public hospitals: taking the baby to the nursery so the woman can rest.”

P38:"They need a nursery for healthy babies to take them from women after birth, so she can rest for at least three hours."

P63: "I wish one nurse was assigned to a room of four beds to take care of the babies so the women can rest."

4.4.5 Hotel services

4.4.5.1 Hospital hygiene and resources

For some women, the hygiene and preparation of the environment was considered to be the major factor that affected their birthing experience.

P123: "Cleaners cared about hygiene and cleaning."

P142: "General hygiene has a big effect on patient psychology and I found that was what made me happy."

P206: "Finally, I thank very much the administration of the hospital for what I found of care and hygiene throughout the 24 hours, where the cleaner would come to clean the room and empty the rubbish baskets 3 times per day, which made me feel comfortable and completely satisfied. So thank you so much to you all."

P4: "The worst thing in this hospital is hygiene".

Some women were upset about their birthing experiences because of the long wait for a free bed either in birthing or in post-partum departments.

P52: “The worst thing was that I gave birth in the assessment room because there was no available birth chair, so only the placenta and suturing were done in the labor and delivery room.”

P226: “The worst thing was the delay in getting me to the room after birth; it was too late.”

P250: “The worst thing was the lack of availability of enough birthing rooms.”

P297: “The worst thing was not having enough beds to contain the number of women birthing, which led to some women giving birth in the antenatal department or pre-birthing area [observation area].”

P298: “The bad thing was the unavailability of beds during labor and after birth, so I had to stay in the birthing room for a long time waiting for the bed, which took a very long time.”

4.4.5.2 Hospital meals

Some participant women were not happy with the food and drinks served to them during their hospital stay.

P 53:” The food was so bad and the products of the worst company of water and juice were provided.”

P107: “Lunch and dinner did not taste good. The food was bad except for breakfast.”

P156: “Until 9pm they did not give me anything to eat, no food, no dinner, no juice, no milk, then at 1am I had dry bread, water and milk.”

P279:" I gave birth at 10am with continuous contractions from 12am, so I did not eat anything and I was in pain all that time. After all this I was left in the birthing room till 4pm without food or painkillers…."

4.5 Chapter summary

This chapter has presented the main quantitative and qualitative findings arising from the data collected from participant women in this study. The chapter commenced by presenting the quantitative results, including participants' characteristics, descriptive findings for the tools SWCBE and PCCB and correlation tests, which was followed with the qualitative findings that reported women's voices. The major areas findings were regarding women's needs for support, better communication and explanations, and receiving woman-centred care. These findings will be reinforced and complemented by the quantitative and qualitative findings from participating clinicians that are reported in Chapter 5. The key findings in Chapters 4 and 5 will then be discussed in relation to each other and to the findings of international studies in Chapter 6.

Chapter 5-Clinicians' perspectives

5.1 Introduction

In the previous chapter, the qualitative and quantitative results from women giving birth in Saudi Arabian public hospitals were reported. This chapter reports on clinicians' perceptions of the birthing services they provided within the same three Saudi public hospitals. There are two main parts in this chapter. The first section reports on the quantitative results arising from the survey completed by participant clinicians regarding their clinical practices. The second part reports on the qualitative findings, which were obtained from the open question added to the clinicians' survey and from the three interviews conducted with the nursing directors at each hospital.

The chapter begins with an overview of the sample and then reports quantitative findings, reported using a range of descriptive and inferential statistics. This is followed by a section that reports on what maternity clinicians think about women's satisfaction with their care, as well as on how they see their care within Saudi maternity health care system and their perspectives on the evidence-based nature of their practices.

The qualitative findings are reported in two groups of themes. The first group was extracted from clinicians' written responses to the open question in their questionnaire. The resulting three themes were clinicians' support and encouragement; women's empowerment; and hospital supplies and services. The second group of themes were extracted from the three interviews conducted with nursing directors. These were women; clinicians; hospital; and policies and procedures.

5.2 Describing the sample

The quantitative results were obtained from two sets of questionnaires completed by two different groups of health professionals: the first group was obstetricians and the second group was nurses and midwives. The questionnaires distributed to each group contain the same questions about demographic data and the same sections, except for maternity care practices – this is because the different groups deliver different levels of care. In this chapter, two sets of findings will be reported for each section, one for obstetricians and one for nurses and midwives.

The characteristics, profession, and care by the participant health care providers are reported in Table 5.1 and Table 5.2. There were 57 obstetricians and two medical interns who completed the questionnaire, and more than 79% of this combined group were female. Their mean age was 38.0 ± 10.7 years, and the majority had more than 15 years of medical experience (44%) and provided their care mainly in antenatal and labor and delivery departments (81%) (Table 5.1). In addition, there were 56 midwives and 21 nurses who completed the questionnaire, and they were all female. The average age of the nurses and midwives was 30.9 ± 8.9 years, and the majority were non-Saudi (65.4%) and had around one to four years of nursing or midwifery experience (36.7%) (Table 5.1).

Table 5.1: Demographics of maternity clinicians

Variables	Obstetricians		Nurses & Midwives	
	n	Percent %	n	Percent %
1-Gender				
Female	47	79.7	79	100
Male	12	20.3	0	0
2-Hospitals				
Hospital A	23	39.0	51	64.6
Hospital B	20	33.9	27	34.2
Hospital C	14	23.7	1	1.2
Missing	2	3.4	0	0
3-Clinicin speciality	57 (Obstetrician)	96.6	56 (Midwives)	71.0
	2 (Medical trainees)	3.4	23 (Nurses)	29.0
4-Experience				
Less than 1 year	9	15.2	9	11.4
1 to 4 years	9	15.2	29	36.7
5 to 9 years	7	11.9	22	27.8
10 to 15 years	8	13.6	8	10.1
More than 15 years	26	44.1	11	13.9
5-Current workplace				
Ante-natal departments	48	82.8	15	19.0
Labor and delivery wards	47	81.0	66	83.5
Post-natal departments	41	70.7	10	12.7
Special Care Nursery	1	1.7	5	6.3
Research	8	13.8	0.0	0.0
Teaching	16	27.6	3	3.8
Administration	5	8.6	3	3.8
Other	18	31.0	3	3.8

5.3 Quantitative results

5.3.1 Participants' profile

The participant clinicians were asked to select all of the sources of latest medical evidence that they regularly use to keep their care up to date. Responses were dominated by the internet (83.1%) and seminars and conferences (74.6%) for obstetricians, and by personal experiences (77.9%) and internet (61.0%) for nurses and midwives as the most commonly used sources for evidence. Furthermore, the majority of participants were mostly confident about the overall care they provided to women, at 75% for obstetricians and 79% for nurses and midwives. They were also mostly confident about integrating evidence-based practices into the maternity care delivered to women during pregnancy and birth (obstetricians 64% and nurses and midwives 49%) (see Table 5.2).

Furthermore, more than half of the obstetricians (59%) and nurses and midwives (70%) were satisfied with the access that the hospitals provided to them regarding the latest evidence-based practice.

Table 5.2: Maternity clinicians care profile

Variables	Obstetricians		Nurses & Midwives	
	n	Percent %	n	Percent %
1-Source for new evidence				
Expert consultants' opinions	41	69.5	24	31.2
Colleagues' experience	26	44.1	38	49.4
Personal experience	33	55.9	60	77.9
Journals	41	69.5	18	23.4
Internet	49	83.1	47	61.0
Seminars and conferences	44	74.6	45	58.4
Case Reviews	25	42.4	33	42.9
Other	5	78.5	8	10.4
2-Satisfaction level with access to latest research evidence				
Very unsatisfied	4	6.7	8	10.1
Unsatisfied	19	32.2	12	15.2
Satisfied	28	47.5	39	49.4
Very satisfied	6	10.2	5	6.3
Missing	2	3.4	15	19
3-Beliefs in latest evidence based practices during pregnancy				
Mostly not confident	3	5.1	8	10.3
Slightly not confident	2	3.4	4	5.1
Slightly Confident	16	27.1	24	30.4
Mostly confident	35	59.3	35	44.3
Missing	3	5.1	8	10.1
4-Beliefs in latest evidence based practices during labor				
Mostly not confident	3	5.1	4	5.1

Slightly not confident	3	5.1	3	3.8
Slightly confident	14	23.7	29	36.7
Mostly confident	36	61.0	34	43.0
Missing	3	5.1	9	11.4
5-Overall satisfaction with the health care provided				
Mostly not confident	2	3.3	1	1.2
Slightly not confident	2	3.3	3	3.8
Slightly confident	10	17.2	11	14.0
Mostly confident	42	71.1	56	70.9
Missing	3	5.1	8	10.1

On a four-point Likert scale ('Never, Rarely, Sometimes, Usually'), the obstetricians and nurses and midwives rated their participation in hospital educational programs as a mean of 3.4. This is presented in Tables 5.3.

Table 5.3: The extent of maternity clinicians' participation in various processes at the hospital

Activities	Obstetricians		Nurses & Midwives	
	No.	Mean ± SD	No.	Mean ± SD
Grand rounds/ case discussion	56	3.41 ± 1.00	65	3.4 ± 0.82
Clinical review of critical incidents	57	3.40 ± 0.80	69	3.4 ± 0.86
In services education	55	3.31 ± 1.09	67	3.3 ± 0.81
Journal clubs	57	3.21 ± 1.10	67	2.7 ± 0.95
Procedure reviews and updates	55	3.16 ± 1.10	66	2.5 ± 1.0
Policy reviews and updates	58	3.10 ± 1.15	59	1.7 ± 1.01

5.3.2 Clinicians' daily maternity care practices

The healthcare professionals were asked to choose to what extent they agreed with number of statements representing daily maternity care practices using a five-point Likert scale (Never, Rarely, Sometimes, Very often, Always). Tables 5.4 and 5.5 report the findings for each speciality.

Maternity care providers believed that women were very often satisfied with the birthing services they received from doctors and nurses and midwives and with the care delivered to their babies (mean 3.55 to 4.19). Obstetricians and nurses and midwives were agreed that sharing a labor room with other women increases woman's stress and anxiety (4.0, 5.0), and that women were sometimes satisfied with the way their labor pain is managed (3.24, 3.51).

The next section of the survey was designed to obtain an overview of the application of some common practices in doctors' and nurses' and midwives' daily care. All participant clinicians agreed that they 'very often' to 'always' do what they can to mediate women's labor pain (4.34, 4.69). However, obstetricians "sometimes" recommend giving options to women about the available pharmacological pain relief (3.65 ±1.27), while nurses and midwives almost always support the use of pharmacological pain relief options for women in labour (4.45 ±0.91) and 'very often' offer non-pharmacological pain relief options for women in labor (3.36 ±1.76).

Table 5.4: Obstetricians' practices

Statements	n	Mean ± SD
A)- **From your experience, to what extent do you agree with the following statements:**		
1. Sharing the labor room with other women increases women's stress and anxiety	54	4.00 ± 1.06
2. Women are happy with the care of the obstetricians or doctors	57	3.93 ± 0.62
3.Overall, women are completely satisfied with the birthing services they received	55	3.91' ± 0.64
4. After birth women are satisfied with the care provided to their babies	55	3.64 ± 0.73
5. Women feel comfortable in the care of registered nurses and midwives	56	3.55 ± 0.69
6. Women are satisfied with the way their labor pain is managed	54	3.24 ± 0.90
B)- Tell me about your practice:		
Pain control		
1. I and the maternity care team do what we can to mediate women's labor pain	56	4.34 ± 0.76
2. I recommend the woman be offered all pharmacological pain control options available and let her choose	55	3.65 ± 1.27
Baby monitoring		
3. I use CTG as routine care for all women during labor and birth whether they are low or high risk cases	55	4.58 ± 0.63
4. I use CTG on admission as a routine assessment for all women in labor regardless of her pregnancy condition	55	4.55 ± 0.77
General practices		
5. I ensure that all women have I.V. access during labor	55	4.73 ± 0.65
6. I conduct 2- to 4-hourly scheduled vaginal examinations during labor even though they are an uncomfortable procedure	55	4.22 ± 0.83
7. I support women to eat and drink during labor	56	2.70 ± 1.24
8. I do not recommend women to have routine intravenous infusions in labor unless required	54	2.00 ± 1.24
Delivery position		
9. I require women to lie on the bed during second stage of labor	54	4.28 ± 0.94
10. I always use the lithotomy position for the second stage of labor	54	4.19 ± 0.97
11. I use a suitable agreed (with the woman) position for delivery	55	3.69 ± 1.20
Pushing		
12. I encourage the woman to push as her body is telling her to	52	4.25 ± 0.86
13. I ask women to push by sustained bearing down during the birth of the baby	52	3.88 ± 1.26
14. I advise women to hold their breath during the birth of the baby	53	3.19 ± 1.58
15. I massage the perineum during the second stage of labor with the woman's permission	52	2.85 ± 1.16
Episiotomy	55	3.18 ± 1.14
17. I perform an episiotomy for every primipara woman at the birth stage	55	1.78 ± 0.83
18. I perform an episiotomy for every woman at the birth stage		

Third stage 16. I always actively manage the third stage of labor, i.e: oxytocin, early clamping, C.C.T	54	4.31 ± 0.95
C)- Tell me how you approach care of the pregnant/ laboring woman: **Centred care:** 1. I try my best to make the childbirth experience a good one for each woman 2. I treat every woman with individual care 3. I take into consideration each woman's feelings and circumstances	 55 51 54	 4.53 ± .716 4.43 ± .900 4.41 ± .659
Education: 4. I ask for women's consent for any procedure I plan to perform 5. I explain to women every procedure to be done during her childbirth 6. I stay with women all the time they need me or arrange for an alternate health professionals to stay with her 7. I encourage women to attend antenatal educational classes	 54 55 54 54	 4.46 ± .665 4.33 ± .818 3.89 ± 1.08 3.83 ± 1.255
Support: 8. I protect women's privacy all the time during labor and birth. 9. I give women all possible care and attention during their childbirth experience 10. There is a high level of safety for women and their babies during the childbirth experience in most birth units 11. I provide psychological and emotional support during labor 12. I allow women's families to provide psychological and emotional support to her during labor	 55 54 54 55 55	 4.60 ± .531 4.56 ± .604 4.26 ± .732 4.09 ± .845 3.04 ± 1.387

Regarding using baby monitoring, doctors 'always' use CTG as routine care for all women who are being assessed for admission (4.55 ±0.77) or who are actively in labor and birth, regardless of their risk level (4.58 ±0.63). Nurses and midwives 'very often' use CTG as routine care during admission (3.6 ±1.4) and it is 'always' their routine care for all women during labor and birth regardless of the risk level (4.70 ±0.83), especially if it is the doctor's order or hospital policy (4.79 ± 0.58).

Supporting women to eat and drink during labor was allowed 'sometimes' by doctors (2.70 ± 1.24) and 'rarely' by nurses and midwives (2.10 ± 1.36). Ensuring that every woman has I.V. access (4.73 ±0.65) and an I.V. infusion (4.73 ± 0.65) during labor is a routine practice recommended by obstetricians; this explains why nurses and midwives conducted it for all women in labor following doctors' orders (4.28 ± 1.32). Also, maternity clinicians "very often" conduct 2- to 4-hourly

scheduled vaginal examinations for all women in labor (Ob: 4.22 ± 0.83, N &M: 3.66 ± 1.11). In addition, nurses and midwives 'sometimes' recommend women walking around the ward during childbirth (2.77 ± 1.35).

The lithotomy position is the agreed birthing position that is 'very often' applied by obstetricians (4.19 ± 0.97) and nurses and midwives (4.39 ± 1.10) for all women during birth.

During the pushing stage, doctors, nurses and midwives 'sometimes' massaged the perineum (2.85 ± 1.16). Also, obstetricians agreed to 'sometimes' advise women to hold their breath during the birth of the baby (3.19 ± 1.58), while nurses and midwives 'always' conduct this technique (4.53 ± 1.00. Encouraging a woman to push according to what her body is telling her is a technique used 'very often' among doctors (4.25 ± 0.86) and a routine practice among nurses and midwives (4.70 ± 0.62). Furthermore, doctors, nurses and midwives conduct episiotomy 'sometimes' for primipara women (Ob: 3.18 ± 1.14, N&M: 3.20 ± 1.45) and 'rarely' for every woman in birth (Ob: 1.78 ± 0.83, N&M: 2.17 ± 1.37). After the birth of the baby, continuous cord traction (CCT) was the common management for the delivery of the placenta, applied by all maternity clinicians (Ob: 4.31± 0.95, N&M: 4.70 ± 0.86). Nurses and midwives 'always' encourage women to hold their babies when they want to (4.81 ± 0.52) and to breastfeed in the first hour after birth (4.71 ± 0.80).

Regarding the clinicians' general approach to care, almost all statements had high means (>3.5) and the approach was that of providing centred, educational, and supportive care. Obstetricians reported that they 'very often' give women the opportunity to contribute to their birth plan, and provide individualised care taking into consideration every woman's feelings and circumstances. They also 'very often' integrate educational sessions into their antenatal care and encourage women to attend antenatal educational classes, if any are available, as well as providing all possible

psychological and emotional support. However, obstetricians reported that their approach to care ‘always’ includes ensuring that every woman’s childbirth is a good one and that it is an important natural life event, plus protecting every woman’s privacy throughout labor and birth.

Similarly, nurses and midwives reported that their approach care ‘always’ included considering every woman’s feelings and circumstances, and helping every woman feel that her childbirth experience is a good one and an important natural life event. Participant nurses and midwives reported that they ‘always’ explained how every procedure would be conducted and asked for women’s consent, as well as keeping them updated about their birth progress. They also reported that they stayed with women for all the time needed, providing psychological and emotional support and protecting their privacy (4.61- 4.92).

The statement with the lowest mean was about allowing family members to provide support to women during labor and birth. Nurses and midwives said that they ‘very often’ applied it (4.16 ± 1.27), while obstetricians ‘sometimes applied it (3.04 ± 1.387).

Table 5.5: Nurses' and midwives' practices:

Statements	No.	Mean ± SD
A)- From your experience, how satisfied the women are with the care:	67	5.25 ± 11.73
1. Sharing the labor room with other women increases women's stress and anxiety	75	4.19 ± 0.90
2. After birth women are satisfied with the care provided to their babies	75	4.12 ± 0.89
3. Women feel comfortable in the care of registered nurses and midwives	74	3.91 ± 0.94
4.Overall, women are completely satisfied with the birthing services they received	74	3.69 ± 0.83
5. Women are happy with the care of the obstetricians or doctors	73	3.51 ± 0.88
6. The women are satisfied with the way their labor pain is managed		
B)- Tell me about your practice:		
For pain:	70	
1. I and the maternity care team do what we can to mediate women's labor pain	73	4.69 ± 0.67
2. I support the use of pharmacological pain control options for women in labor		4.45 ± 0.91
For baby monitoring:		
3. I use CTG only when the doctor orders it or as outlined by hospital policy	72	4.79 ± 0.58
4. I use CTG as routine care for all women during labor and birth whether they are low or high risk cases	73	4.70 ± .83
5. I use CTG as routine care on the orders of doctor or according to the institution's policy for all women during labor and birth regardless of their risk level	73	4.12 ± 1.51
6. I use CTG on admission as a routine assessment for all women in labor regardless of their pregnancy condition	72	3.63 ± 1.4
7. I offer the woman non-pharmacological pain relief options, e.g: shower, massage.	69	3.36 ± 1.76
General practice:	74	4.28 ± 1.32
8. According to hospital's, policy I do routine intravenous infusions in labor whether it is required or not	74	3.66 ± 1.11
9. I conduct 2- to 4-hourly scheduled vaginal examinations in labor even though they are an uncomfortable procedure	74	2.77 ± 1.35
10. I recommend women walk around the ward during their labor and birth.	73	2.10 ± 1.36
11.I allow food and drink for women in labor		
Delivery position	75	4.39 ± 1.10
12. I always use the lithotomy position for the second stage of labor	72	4.21 ± 1.24
13. I use a suitable agreed (with the woman) position for delivery	73	3.71 ± 1.20
14. I require women to lie on the bed during first stage of labor		
Pushing	71	4.70 ± 0.62
15. I encourage the woman to push as her body is telling her to	74	4.55 ± 0.86
16. I ask women to push by sustained bearing down during the birth of the baby	73	4.53 ± 1.00
17. I advise women to hold their breath during the birth of the baby	75	2.63 ± 1.61
18. I massage the perineum during the second stage of labor with the woman's permission		
Episiotomy	71	3.20 ± 1.45
19. I perform an episiotomy for every primipara woman at the birth stage	72	2.17 ± 1.37
20. I perform an episiotomy for every woman at the birth stage		

Care after birth	74	4.81 ± 0.52
21. I allow women to hold their babies when they want	75	4.77 ± 0.65
22. I conduct routine immediate post-partum examination for all neonates	75	4.71 ± 0.80
23. I encourage women to breastfeed within the first hour of birth	76	4.70 ± 0.86
24. I always actively manage third stage of labor, i.e: oxytocin, early clamping, C.C.T		
25. I transfer women to the ward within 1 hour after birth	75	2.75 ± 1.66
C)- Tell me how you approach care of the pregnant/ laboring woman:		
Centred care	77	4.83 ± 0.68
1. I help women to feel that the childbirth experience is an important natural life event	76	4.80 ± 0.59
2. I try my best to make the childbirth experience a good one for each woman	73	4.71 ± 0.77
3. I take into consideration each woman's feelings and circumstances	75	4.35 ± 1.12
4. I provide women with the opportunity to contribute to their birth plan		
Education and consultation	76	4.82 ± 0.65
5. I explain to women every procedure to be done during her childbirth	77	4.77 ± 0.72
6. I ask for women's consent for any procedure I plan to perform	76	4.76 ± 0.61
7. I provide women with information about the progress of their childbirth	74	4.38 ± 1.13
8. I support the use of antenatal education as an integral part of antenatal care.	73	4.19 ± 1.28
9. I encourage women to attend antenatal educational classes		
Support	76	4.92 ± 0.36
10. I provide psychological and emotional support during labor	76	4.89 ± 0.39
11. I give women all possible care and attention during their childbirth experience	77	4.83 ± 0.70
12. I protect women's privacy all the time during the childbirth.	76	4.75 ± 0.73
13. There is a high level of safety for women and their babies during the childbirth experience in most birth units	76	4.61 ± 1.02
14. I stay with women all the time they need me or arrange for an alternate health professionals	76	4.16 ± 1.27
15. I allow women's families to provide psychological and emotional support to her during labor		

5.3.3 Frequency of procedures

Participant clinicians were asked to choose how frequently they conduct a number of procedures (ARM, IOL, CS, Vacuum, forceps). Over 69% of obstetricians and over 63% of nurses and midwives believe that artificial rupture of membrane (ARM) is conducted on 70 to 100% of all births in which they were the main care providers. For induction of labour (IOL), 60% of obstetricians think that their conduction of this procedure occur in 10 to 50% of the total births. In contrast, while nurses and midwives only conduct IOL under doctors' orders, 54% of them think

that they are conducting IOL in 50 to 70% of all births. Conducting caesarean sections (CS), either elective or emergency, occurred in up to 50% of total births in obstetricians' practice, based on65% of obstetricians' beliefs. Nurses and midwives are not responsible for performing C.S., however they believe that elective C.S. conduct for up to 50% and emergency C.S. for up to 70% of all births, according to 71% of nurses and midwives. Operative vaginal births are not commonly conducted. Seventy-four percent of obstetricians and 66% of nurses and midwives believe that vacuum vaginal births are conducted in up to 30% of cases and forceps vaginal births in 10% of all births (see Tables 5.6 and 5.7).

Table 5.6 How frequently obstetricians believe birthing procedures are conducted?

Procedure		**10% No. [%]**	**30% No. [%]**	**50% No. [%]**	**70% No. [%]**	**90% No. [%]**	**100% of all births**
ARM (Artificial rupture of membrane)		2 [3.4]	2 [3.4]	5 [8.5]	10 [16.9]	21 [35.6]	10 [16.9]
IOL (Induction of labour)		8 [13.6]	18 [30.5]	11[18.6]	7 [11.9]	5 [8.5]	1 [1.7]
C.S (Caesarean section)	Elective	9 [15.3]	27 [45.8]	3 [5.1]	3 [5.1]	1 [1.7]	5 [8.5]
	Emergency	14 [23.7]	19 [32.2]	6 [10.2]	6 [10.2]	1 [1.7]	3 [5.1]
Vacuum vaginal delivery		35 [59.3]	9 [15.3]	2 [3.4]	2 [3.4]	1 [1.7]	2 [3.4]
Forceps vaginal delivery		46 [78.0]	1 [1.7]	1 [1.7]	-	1 [1.7]	1 [1.7]

Table 5.7: How frequently nurses and midwives believe birthing procedures are conducted?

Procedure		10% No. [%]	30% No. [%]	50% No. [%]	70% No. [%]	90% No. [%]	100% of all births
ARM (Artificial rupture of membrane)		3 [3.8]	3 [3.8]	5 [6.3]	13 [16.5]	29 [36.7]	9 [11.4]
IOL (Induction of labour)		5 [6.3]	4 [5.1]	22 [27.8]	21 [26.6]	3 [3.8]	6 [7.6]
4C.S (Caesarean section)	Elective	13 [16.4]	17 [21.5]	7 [8.9]	4 [5.1]	-	2 [2.5]
	Emergency	12 [15.2]	16 [20.3]	12 [15.2]	16 [20.3]	1 [1.3]	4 [5.1]
Vacuum vaginal delivery		44 [55.7]	11 [13.9]	2 [2.5]	-	-	4 [5.1]
Forceps vaginal delivery		53 [67.1]	2 [2.5]	1 [1.3]	-	-	4 [5.1]

5.3.4 Comparing clinicians' practices:

Comparing all clinicians' practices resulted in number of statistically significant findings. Nurses and midwives believed more than obstetricians did that women are satisfied with their care ($p \leq 0.001$). There were also significant differences ($p \leq 0.001$) between nurses' and midwives', and obstetricians' reported practices. With higher means for nurses' and midwives' practices, their care appeared to more be woman-centred, and to involve more education and consultation and providing more support. The use of baby monitoring CTG was significantly more common within obstetricians' practices than nurses' and midwives' ($p \leq 0.05$) (Table 5.8).

Table 5.8: Overall mean scores: comparison of obstetricians and nurses/midwives

Statements	Obstetricians			Nurses & Midwives			P-value
	n	**Mean ± SD**	**95% CI**	**n**	**Mean ± SD**	**95% CI**	
A-Women's satisfaction	57	3.7±0.442	3.58 – 3.82*	76	4.1±0.631	3.96 – 4.24*	<0.001
B-Practice: Baby monitoring	55	4.6 ± 0.553	4.45 – 4.75	74	4.3 ± 0.840	4.10 – 4.50	0.018
C-Approach: Woman-centred care	55	4.3 ± 0.571	4.15 – 4.45	77	4.7 ± 0.606	4.56 – 4.84	<0.001
Education and consulting	55	4.2 ± 0.607	4.04 – 4.36	77	4.6 ± 0.597	4.46 – 4.74	<0.001
Support	55	4.1 ± 0.503	3.96 – 4.24	77	4.7 ± 0.574	4.57 – 4.83	<0.001

5.4 Qualitative findings

5.4.1 Overview

This section includes quotes from participant clinicians' responses to the open question, and from the interviews with nursing directors, which were transcribed verbatim. These quotes included the clinicians' exact words, which will be identified as P15, P 28, and so on, where the letter P means participant and the number represents the number that has been allocated to each clinician who completed the questionnaire.

In addition, there will be the descriptors Ob M, and N in brackets at the beginning of each quote. This is used to indicate the speciality of the clinicians who provide this quote. (Ob) represents obstetricians, (M) represents midwives and (N) represents nurses.

Finally, nursing directors' quotes will be identified according to the location of the hospital where each nursing directors is currently working. For example, R represents the nursing director from B hospital, J represents the nursing director from A hospital, and D represents the nursing director from C hospital.

5.4.2 Thematic analysis

Thematic analysis was conducted for participant clinicians' responses to the open question and nursing directors' interview transcripts for every hospital separately. This was done to highlight similar descriptions and expressions and code them under certain themes. The same strategy was undertaken for every hospital. Then, the themes that arose from every hospital were compared, combining similar ones and rethinking those that were not similar. Themes then were defined, named and rewritten to be more representative of participants' views. This was conducted by

repeated thinking and reflection, to make sure there were no missed classifications and that the identified themes accurately represented the participants` perceptions of birthing services. The final themes are presented below, supported by participant clinicians' actual words and comments. The same analysis process was conducted for every interview transcript.

5.4.3 Responses to the open question

Adding an open question at the end of the clinicians' questionnaire provided participants with the space to express their concerns, opinions, and any additional information they wished to provide. Three main themes emerged that highlighted what the clinicians needed, and what they believed that women needed to achieve their care plan goals. These three themes were clinician support and encouragement; women empowerment; and hospital supplies and services.

5.4.3.1 Clinician support and encouragement

Midwifery is the main clinical group highlighted by most participant clinicians as requiring more support and attention within Saudi health care system.

> P64 (M): "Support midwives and provide them promotions to provide better and higher quality midwifery care."

> P44 (M): "Midwifery is a professional practice that needs structure. Hence it requires a regulating body (for licencing, to define the scope of practice) apart from nursing or as a nursing specialization. It needs a professional organization that is widely known to provide services specific to midwives, to provide support, advice (legal or otherwise), and socialization among the practitioners for an opportunity to exchange ideas, experiences and

expertise. It needs a newsletter that is organized among the professionals, with updates on the local and international issues that impact midwifery practice."

P38 (Ob): "Midwives need more support to take actions, make decisions, and perform procedures without contacting physicians."

P5 (Ob): "Involvement of midwives in antenatal care, especially with low-risk patients."

Participant clinicians also said that they require a number of classes and updates to improve their communication skills and care outcomes.

P47 (Ob): "high standard doctor, nurses and midwives. Enough man power. Research centre. Very good residency programme and qualified faculty"

P33: "more training programmes increase the number of female obstetrics and gynaecologist, more courses, seminars, and conferences."

P42: "arrange foe computer and Arabic language classes"

P 4M: "doctors need to be educated on how to interpret CTG, doctors need to be updated with latest evidence practices. Improve anaesthetic team (epidural infection most of the times). More midwives deliveries."

5.4.3.2 Empowering women

A. Education and explanation

Most participant clinicians highlight the need for Saudi women to be empowered with more information and explanations about pregnancy changes and progress, labor and birth stages and procedures, and after birth changes and care.

> P65 (M): "I suggest that we have specialized clinics for women's education during pregnancy, after birth, and a specialized clinic for pregnancy sports [classes to teach women what exercises suitable for pregnant women]."

> P20 (M): "We need women's classes for antenatal and OPD [Outpatient department] to teach patients about pregnancy and birthing."

> P70 (M): "A few important things to add: patient antenatal, perinatal, and postnatal education."

> P33 (M): "First, we should increase awareness about labor and childbirth through antenatal classes and exercise classes. Health education about labor and childbirth."

B. Woman-centred care

A number of participant clinicians stated that women need to be reminded that they are the centre of the care and that they have the right to make decisions and choices within their care.

> P9 (Ob): "In my opinion, the patient is the most important part of good management, so they should know the basics at least."

> P4 (M): "Women need to be given a chance to make choices regarding analgesia. Usually the husband decides whether she can have analgesia or not."

P42 (Ob): “The women in Saudi Arabia need more education that tells them that they have their own personality, not that they were born only to give birth to a child and to satisfy their husbands even if they lose their lives.”

P70 (M): “The case [situation] is not bad, but a few important things to add: patient privacy needs to be protected, patients need psychological support, postnatal care is not sufficient, and care must incorporate patients’ wishes.”

C. Family companion and psychological support

Participant clinicians highlighted another empowerment technique: receiving psychological and emotional support from the caring clinicians and from a family member chosen to attend the labor and birth.

P61 (M): “Allowing a companion with each woman in labor for psychological support.”

P53 (M): “The support person should be the one providing emotional support to their patients (of course from the nurses). Most of the time relatives are present but they rely on me and do nothing. I guess the barriers are uncooperative patients and relatives.”

P17 (Ob): “Allow family member supporters.”

P19 (M): “In all maternity hospitals of Ministry of Health (MOH), we are not permitted to allow a family member to attend the birth in delivery rooms, but this is very important for personal support during labor.”

5.4.3.3 Hospital policies, services and supplies

A. Hospital supplies

One of the limitations in managing labor pain was medication shortage or unavailability.

> P8 (M): "No more non-pharmacological is care used in the hospital, just massage and hot compression. We need more options to help patients be comfortable."

> P61 (M): "Using epidural is an effective anaesthesia for labour pain,"

> P52 (M): "To provide an epidural as a painkiller."

> P42 (Ob): "We need to alter regional anaesthesia during C.S., and also during labor for more pain management."

Also, limitations in hospital supplies affect the care that can be provided by clinicians.

> P51 (Ob): "Blood banks should provide blood in villages to improve facilities, as they always lack blood."

> P22 (Ob): "The other issue is the O.R., it does not seem to qualify as the aseptic environment it is set out to be. This is an issue that should be looked at and fixed immediately."

> P39 (Ob): "More obstetrics beds and more NICU beds."

> P19 (M): "Sometimes we have lack of medication, fetal scalp electrodes in delivery rooms, which is all that is needed for management of labor."

P46 (Ob): “We need to have disposable instruments, like enough speculums, vacuums, and other stuff for surgery. MOH supply it but not in sufficient volume.”

B. Hospital policy

A number of clinicians argued that some hospital policies, services and practices require an immediate review to update the old, dated ones and replace unbeneficial or harmful ones.

P41 (M): “Our hospital policy is to conceal the high-risk status of patients from them. High-risk patients should know their condition and how it is risky, so they will follow up regularly at out-patient clinics.”

P4 (M): “It is difficult to order and implement new practices due to the system and resistance from management. Baby-friendly hospitals (no bottles).”

P43 (Ob): “Improve communication between hospitals and PHC centres to share information about patients, especially when transferring from hospital to hospital or from PHC centrrs to hospitals.”

P2 (M): “To have a continuous card for every woman from antenatal to the delivery of her baby that contains all her pregnancy history and her types of previous deliveries. This can help to know the history of complications and type of delivery in order to detect early complications and to choose the type of delivery to be used.”

C. Services and practices:

Clinicians also commented on number of services and practices required because they could help providing better birthing care.

P17 (Ob): “Home visits for pregnant women by health providers. Home deliveries for low-risk cases.”

P2 (M): “Induction of labor should be done only in those cases that need it, not according to patient wishes. The same for caesarean section.”

P3 (M): “The policy for woman having premature rupture of the membrane and immediately after that to be augmented with syntocinon, without giving her the chance to start labor spontaneously, then observe for 12 hours and augment after the 12 hours. This early augmentation, according to evidence-based practice, increases the number of unnecessary caesarean sections. Another issue is the ambulation of laboring women. If we ambulate low-risk cases until they are 6-7cm dilated, this can speed the labour and soften the perineum, thereby decreasing perineal tears.”

P4 (M): “Initiation of breastfeeding within the first hour after birth. The use of tractocile/ atosibam for Rx of preterm labour. Tocolysis usage is not common here. Doulas during labor for support and education.”

P51 (Ob): “A good radiologist or ultrasound specialist must document that the blood transfusion is appropriate for the case or condition.”

P22 (Ob): “Although the patients’ rights and the opinions they share about their treatment should be respected, this can get in the way the clinicians in carrying out the mission they graduated to do. The refusal of a male doctor is every woman’s issue at MOH and it is completely unnecessary. Some women will prefer critical conditions rather than having a male doctor even talk to them. Not every hospital has the luxury of female doctors.”

P53 (M): “Patients [women] should know the possibilities of a male doctor on duty.”

Clinicians’ perceptions were not the only professional views obtained: nursing directors were also interviewed.

5.4.4 Interviews with Nursing Directors

At the designing and planning stage of this study, the intention was to include only women’s (as care consumers) and clinicians’ (as care providers) perspectives. However, the research team ultimately made the decision to include direct healthcare professionals and the first line of administrators in order to give a wider and more comprehensive view of current birthing services in Saudi Arabia. For this reason, three interviews were conducted with the nurse or the midwife who held the position of Nursing Director in each hospital. The thematic analysis drew upon these interview transcripts.

The three interviews were resulted in four themes which each considered an essential element for better care and for a better childbirth experience: satisfied women, qualified clinicians, improved hospitals services and resources, and up to date policies and procedures.

5.4.4.1 Women (care consumers)

A. Women’s satisfaction

Interviewees reported women’s satisfaction with the care delivered in their hospitals according to their personal opinions, their experience, and their general ideas about the care in birthing departments.

A: “Here in this hospital still we did not reach full satisfaction”. “There are reasons if we are talking from nursing side, we still have defects on the nursing side…I think the nurse is away from her responsibilities.” “Of course the result is that my patients are not satisfied, sure, not satisfied, and even if we get 50% satisfaction, it is very good.”

B: “Look, I haven’t seen a satisfaction survey, but on the rounds I have done – and that’s only been in the last week – I have heard nothing but good reports. So I can only say verbal feedback has been positive.”

C: “The different types of pain relief are still somewhat unavailable. This leaves the patients unsatisfied because I feel that pain can be better controlled for these patients, but we have only limited medications for pain control. I feel this is very important for the women. Another point for patient satisfaction would be whether they are allowed to have a watcher or somebody, a sister or a family member, with them, and for government hospital we are just admitting the women and we are not allowing a relative to stay with them. Again this is maybe reduces the satisfaction.”

Every interviewee claimed that they had some tool or way to assess women’s satisfaction, but it was not clear whether these tools were used properly.

A: “We have a file for patient satisfaction and another file for quality and clinicians’ satisfaction; for sure it has grades.”

B: “We do have satisfaction surveys, yes we do. Every ward has them and we do give them to women, but I haven’t actually looked at them yet. Mine has just been personal feedback as I go and speak to them.”

C: “That is specific for obstetrics and no, currently we do not.”

B. Women’s education

Similarly to professional care providers, administrators also realised women’s needs for information and explanations to empower them.

A: “The birthing services inside the hospital, these are OK, but we need to work on the community. This is the problem, unfortunately, as the maternity is followed by a child, so it is expected that most of the preparation occur in the community. I think this is very important. Also in this hospital, there is something missing, which is education, such as classes for women and things like that. It still missing but we are going to activate it because it is our focus. I just met the responsible person to start this program and God help us to succeed.”

B: “I would like to change a few things, but again it’s very difficult because women find it very hard to get here. I am used to far more antenatal education, then also post-natal education, but I know that women are very reliant on transport and things, so we perhaps haven’t expanded that as much because I think to do a lot more antenatal would be good. So that the woman is really prepared, her husband, her family are all prepared. But I do not think we do that probably as well as we could. Again that’s not a criticism; it is something we can perhaps look at down the track. I also wondering whether perhaps we might be able to do something that women can take home. These are my thoughts – perhaps a DVD or something that they could take home rather than having to come here, so looking at alternative ways of education for our population.”

C..Having choices and company

Another way of empowering women was by giving them the opportunity to make choices during their birth and having a chosen family member to provide emotional support during labor and birth.

C: "We have some challenges here, we have general anaesthesia and spinal anaesthesia but it is not like other developed countries where you are given a choice whether you can have spinal anaesthesia during delivery, this is still not available in our hospital…. I would rather have the pain relief as a choice for our patients."

C: "Whether they are allowed to have a watcher or somebody, a sister or a family member with them, and for government hospital we are just admitting the women and we are not allowing a relative to stay with them…. Having a relative or a member of the family or even a watcher available is something difficult to provide in our maternity and children's hospital. Will it make the patient more satisfied? Of course it will, just holding her hand during those last moments of cervical dilatation until the delivery of the baby, it makes the woman more comfortable."

"Also, the father/mother unit. Having the father/mother unit is – this again has to do with the community issue…the Kingdom of Saudi Arabia that in a government hospital the ladies' section is totally for females and the babies' fathers are not allowed. They cannot question or ask. They cannot see the doctor. Only the women can go and visit the doctor and this is again limiting. They are not able to function as a unit. It would be more beneficial if the – because all the information, they will hear it second-hand. Instead of hearing it directly from the doctors… they will hear it from their wives, which is again [unclear] there are some interpretation, communication problems. So, again it would be better if the husband and wife can be presented as a unit to the gynaecologist or obstetrician, which we are still not able to provide. Again, it's a

social thing that the husband would rather see a female unit with only females but we don't have the - even the physical structure so that maybe the husband can come through one door and the wife can go through another, and they can see the doctor together. This, again, we want because it's a unit, not just the – it's a family unit. But again we are not able to provide it. We hope to in the future, but up until now socially it's difficult to make it acceptable."

5.4.4.2 Clinicians

A. Training and support

Clinicians in A and C hospitals have a number of courses and training; however it was stated by the interviewees that they need more training and educational services.

> A: "The facilities here are OK, but we need more as our focus now is on in-service training for clinicians and so we need to encourage this point. Also the internet and websites supposed to be available for the clinicians, we should have websites available for the clinicians, and these are only simple things."

> C: "If there is new equipment, the clinicians will be trained in how to use it. There are courses for different types like CTG, or the training that the new clinicians have to go through."

B. Specific job description and its application

Each nursing director agreed that they have specific job description for each speciality, including midwives. Each hospital builds its own job descriptions for every professional. However, A and C hospitals' job descriptions for their midwives are very limited, because most of the midwives who work in birthing suites are Saudi graduates who had direct entry through their Diploma of

Midwifery. On the other hand, B hospital is different because most of the midwives are expatriates who have a Bachelor or Postgraduate Diploma of Midwifery.

B: "We have job descriptions for every level, we have them for midwives, clinicians, nurses, directors, managers, head nurses, charge nurses, PCAs, HCAs, ward clerks, everybody has an individualized… Regarding registration as a midwife, to work here we are saying you must be a registered nurse and midwife, not a direct entry midwife because we cannot bring them in to get registration. So we are saying that people must be a registered nurse with a secondary Diploma, Certificate, whatever in Midwifery."

C: "We have job description especially for a midwife. Currently we have job descriptions for the nurses that have BSN (Bachelor of sciences in nursing), which is preferred, but the nurses can have a health science college diploma. That is what we wrote in our job description. Currently, we do not have a BSN who is also specialized in midwifery. We hope to get them in the future because I know these programs are going on, but now what we have is Diploma graduate nurses and midwives. This is what is serving in the unit now. We receive the nurse, just a general nurse, and she goes through the orientation program, and after some time she goes to a labor and delivery course just like a midwife."

A: "There is a job description for midwives and another for the nurses, the nurses do what is not allowed for midwives, which is the opposite. The midwife is supposed to be a special person working in delivery rooms, and the expectation is that the midwife is better able to – you know their level is not that bad, they are specialized people. But they were educated wrongly; I mean they should have studied nursing as basic then they can be specialized as midwives. However they were taught to be midwives only and they lack the basics of

nursing, so when the midwife is caring for medical condition complicated pregnancy, she will be prevented from such cases. That's what makes us say no for medication and other things to given by the midwives, but we cannot say because they are useful in obstetrics and gynecology side and that's what we have problems with in Saudi Arabia in general. I mean they produce midwives in the wrong way, it is supposed to be the nursing as general then maybe Masters or speciality. They work wrong and the result is what we have, we cannot even get them to pass international standards. I mean if we talk about international, international supposed to be for example one midwife for three or four patients, and one nurse for every two patients in delivery rooms, because she (the nurse) is providing patients with total care, and the midwife will come in only in the second stage of labor for example. The first stage can be managed by the nurse, but the midwife could come and do something for the woman at this stage if required. She is like a doctor, but we cannot depend on that because the midwives are not highly qualified for that. While they are good, we still need complementary staff."

5.4.4.3 Hospitals

To support the care provided by the clinicians, Nursing Directors suggested a number of improvements in the hospital buildings.

A: "Some facilities to facilitate the work, such as a calling system for the patient, is very important, a calling system for the nurses is very important, any machines for a calling system between the clinicians such as mobiles. I do not mean mobiles themselves but anything to facilitate, especially in emergency situations, as there are things to be done in emergency situations, so just press and give your message. Here in this hospital the ER,

ICU, NICU, and DR are all critical areas, so we need fast communication connections. This would improve the work because our communication is a little bit difficult. Also the calling system for patients within the hospital is still very old, unfortunately. It is to press the button, and if you go outside you will not find anything in the control panel. There is a calling system project now, which has just been studied and reviewed. The new calling system can activate code blue and can be used when the patient in the toilet, which is not available now unfortunately. Even from here I could have a central screen monitor and if there is someone calling and no answer, I can be sure that my patients have a good response and someone responding to them. That is what is not available."

C: "We have some problems regarding cases that involve multiple conditions, like the woman might have diabetes and hypertension, or she may have epilepsy with her pregnancy. So the care that those women are receiving from different specialists and how to bring them to a maternity and children's hospital is one of the difficulties we face. We usually transferring these, patients, who really need ICU care, to other hospital. This is one of the issues we hope to overcome by having our own intensive care unit and our own specialists, whether cardiovascular, nephrology or neurology specialists. This is what we are hoping, because it's becoming evident that our patients are becoming more complicated cases because the population is growing. When it comes to the neonatal area, we sometimes don't have beds in the NICU. So we need to coordinate with other hospitals to transfer the patient because we don't have beds in NICU or we do not have an ICU for the women."

5.4.4.4 Policies and procedures

The three hospitals are under MOH regulations, so all policies and procedures are updated every two years and aligned with the recommendations of MOH and other accreditation bodies. The quality of care is also maintained through other measurements and indicators.

> B: "We follow JCIA (Joint Commission International Accreditation recommendations) and CBAHI (Central Board for the Accreditation of Healthcare Institution), so all of our policies are reviewed at least every two years and updated and are re-signed, unless we identify a need to update before that. As a team we discuss relevant things that have happened throughout the world and so we look at any relevant best-practice guidelines that perhaps could influence our policies. We also need to be aware though culturally, that some of the things that perhaps are done elsewhere may not be particularly relevant here. So- and we look at those things. Then we do a draft and then go forwards for recommendation."

> A: "All protocols are supposed to be reviewed and updated every two years if they were accredited before. If we need to do something in the middle of this period, for example, we talk with the quality people to prepare a new policy. They will study the situation, prepare the checklist and everything and put together the policy. Then the policy goes to the education side to see if it is applicable, because they are responsible for training the clinicians regarding any new policy. Then if the policy is approved, the clinical instructor (CI) in each unit starts training the clinicians in the new policy. We have a paper added at the end of each policy and procedure for any comments or opinion from those implementing the policy and procedure. So the quality people, by the end of the period, they can use these papers as data collected about the clinicians' opinions of each policy.

They are also supposed to monitor and update policies to new standards. After that I have to review all of standards to get approval from me, and then the next step is to get the approval from the quality people and finally to the general hospital director to sign them."

C: "They are updated according to - they are updated every two years and we are a Ministry of Health - Directorate of Nursing in the Ministry of Health. They have their main policy procedure for all nursing clinicians and midwives. On that we also - our own specialities, which is whatever updated journals and updated labor and delivery books, maternity - maternal books, we also take from this. Also, according to CBAHI requirements and according to JCIA. We had I think the midwife job description, we didn't have it for the last renewal of the policies and procedures so we added it."

Additionally, nursing directors explained how quality of care is ensured and maintained in each hospital.

B: "I think that what we need to do to maintain the quality of care is perhaps link into some- and I have been away so it may have happened so excuse me if I'm wrong- but I think we have a lot of things we can tap into these days. Lots of research models are out there. Coming from Australia I know about the Joanna Briggs, also I know that there's a Canadian model and I am sure there's other models around. However, we need to keep abreast of changes and look at what would be positive for our population and our clinicians to introduce any changes. Also looking at patient satisfaction is really important because often patients will identify something that perhaps we as nurses have not seen. Especially as 90% of the workforce are expats, so looking at their feedback and comments and if anything that we can do to adapt our practice to meet cultural needs, of course we need to incorporate it."

A: “We have in the area we have the head nurse, the manager and the clinical instructors who are there. The clinical instructors are supposed to work on the competency for all of the procedures there. Competency for all of the clinicians, and to make a developmental plan according to the competency level of those clinicians this is from one side. The head nurse is supposed to follow the standards and monitoring and continue in her work. The supervisor is responsible for continuously observing the area and what is going on according to the standards. Quality is monitored randomly at any time. This is number one. Two we now have the HERF [Health Care Events Reporting Form], which is for any wrong things or anything – these will be recorded and then it will be sent to the patient safety, OK, then they will have a look. After that, it is sent to patient safety on the same day but then the quality people will work on it. So quality people will work on the HERF, for example they will implement an action plan. They will begin by going to collect data from the site to determine why this has happened. They will do this immediately, they will not wait for it to recur. There are indicators that they work on, such as patient falls and medication errors, they work on them and if any incidents occurred in those areas there are special forms. So, if any incidents occur, they will do monitoring, and then they work on correction.”

C: “We follow the rules and regulations of the Ministry of Health. Their leadership gives us guidance that you have to have nurses who are trained, you have to have midwives who are able to take care of these types of patients. If there’s a complicated case, there are units provided for it by this many doctors and this many nurses. If there is any new equipment and they have to be trained on it, this is how to maintain quality. We have quality indicators like how many cases are twins, how many cases are vacuum delivery. For anything that is unusual we write a variance report. These reports are studied by risk management and then

an action plan is prepared. We also sometimes do a failure mode effect analysis. So they will see everything, or what will happen, what can happen, especially if the service is new. Like one of the services that was new was they are trying to limit the number of episiotomies for primi patients. So, to do this they had to see what can go wrong and what we can do to reduce the risk. In each unit we have a coordinator of the quality department."

5.5 Chapter summary

Participant clinicians' perspectives on the birthing services they provide are presented in this chapter. The chapter began by reporting quantitative results including participants' characteristics, descriptive findings regarding clinicians' daily practice, and number of significant findings. This was then followed by the qualitative findings reporting healthcare professionals' perspectives. There were major areas in which the quantitative and qualitative data were in agreement, for example the importance of empowering women through information and support; clinician support and training; hospital supplies and services; and policies and procedures. In the following chapter (Chapter 6), the quantitative and qualitative findings regarding women giving birth (Chapter 4) and clinicians and nursing directors providing care (Chapter 6) will be integrated, converged, and discussed in relation to the findings of other international studies.

Chapter 6-Integrated Discussion

6.1 Introduction

As stated in section 1.6 the aim of this study was to uncover for the first time the perspectives on birthing services of women, clinicians, and administrators in Saudi Arabia. The methodological approach of this study utilized a convergent mixed methods approach. Quantitative and qualitative data were collected, analysed, and described separately in Chapters 4 and 5. The integrated findings related to both consumers' and health care professionals' perspectives are discussed in this chapter.

The data for this research was collected from three maternity hospitals under MOH management in Saudi. For the aim of this study the three hospitals have been de-identified as follows: A hospital, B hospital, and C hospital. Whilst all three were MOH hospitals and having achieved CBAHI national accreditation, hospital B had JCIA international accreditation. Hospital B also offers additional maternity services and consequently experiences a strong demand by mothers seeking to give birth there.

Quantitative statistical results and qualitative themes (presented individually in Chapters 4 and 5) that arose from participant women (care consumers) and clinicians (care providers) are converged, compared, integrated, and interpreted in this chapter. The convergence and integration of different perspectives resulted in five themes, each of which represents an area that requires attention and improvement from policymakers and administrators within the maternity system in Saudi Arabia. These five themes are as follows: women's satisfaction and perception of control; interaction between women and clinicians; education and empowerment for women; and updating general care

practices and hospital policies. The chapter begins with a detailed interpretation of each theme within the safe motherhood framework (see section 3.14). The implications for the future that arise from the interpretation of the study findings for maternity services in KSA will then be discussed under the following subheadings: maternity workforce; maternity care policymakers; birthing services; and women (care consumers). Finally, recommendations for maternity care professionals and maternity service providers are discussed in order to improve maternity care and ensure safe motherhood for all women giving birth in Saudi Arabia.

6.2 Study participants

The characteristics of the women participating in this study (Tables 4.2, 4.3, and 4.4) were found to be similar and representative of women of childbirth age in Saudi Arabia (General Authority for Statistics, 2016; Ministry of Health, 2012). They are also similar to the characteristics of the Jordanian women who were the sample for the study from which the women's questionnaire was adopted (Oweis, 2009).

6.3 Convergent themes

6.3.1 Women's satisfaction and perception of control

Women's satisfaction and perception of control during childbirth varied significantly between the three maternity hospitals included in the study. These measures were highest at B hospital (Tables 4.7, 4.8, 4.16, and 4.17). At B hospital, women were mostly satisfied with how their feelings and emotions were handled, the support they received, and staff communication. In addition, women's perception of control was higher over their feelings and being informed during labor and birth at B

hospital than at the other hospitals. Women voices also elaborated on their satisfaction with the care delivered to them in B hospital in their comments, for example:

> B: "The best thing was that I gave birth at this hospital, which has better care and safety for patients and informs patients about their rights".

Moreover, the nursing directors of A and C hospitals were aware of the lower levels of women's satisfaction with the birthing care in their hospitals and the absence of an evaluation tool for women's feedback.

> B`: "The result is that my patients are not satisfied; sure, not satisfied and even if we get 50% satisfaction, it is very good."

In comparison, B hospital's nursing director made it clear that women's feedback is valued and collected using an evaluation tool, and is mostly positive.

> B: "I have heard nothing but good reports."

However, maternity clinicians' perceptions of women's satisfaction were the opposite, as they believe that women are satisfied with their care, which is not consistent with the findings from women and nursing directors.

This study's findings support the importance of evaluating women's feedback and satisfaction and using it as a quality measure for the care delivered. Utilizing women's feedback and satisfaction as quality care measure is considered a new direction for most maternity researchers. This is becoming a new trend, especially with the persistence of women's dissatisfaction with their childbirth experience and the care delivered to them (Bertucci et al., 2012; Mohammad, Alafi, Mohammad, Gamble, & Creedy, 2014). Evaluating women's satisfaction has become the main quality measure to improve the maternity care delivered in most developed countries, which in turn has big impact on the health and wellbeing of mother and newborn and on mother-infant bonding

(Bertucci et al., 2012; Kuo et al., 2010; Mohammad et al., 2014). Also, it is recommended that women feedback is essential for planning birthing services in all countries (Renfrew et al., 2014) The findings of the current study also showed that maternity clinicians within MOH hospitals used their personal opinions and experience to reflect on women's satisfaction of their care, which suggests a need for regular updates about women's feedback and satisfaction regarding the care. Women's birthing experiences in this study are similar to those in most maternity hospitals in the Middle East region. Some maternity studies conducted in this area showed women's dissatisfaction with the care, and provide similar recommendations for improvement (Mohammad et al., 2014; Oweis, 2009).

> B: "Women's satisfaction measurement is very important for the maternity health system in Saudi Arabia, because 90% of the workforce are expats and do not speak Arabic. So assessing the satisfaction of women can help in identifying what cannot be seen by nurses, and the areas that need improvement to meet cultural needs." (Nursing Director, B hospital).

Women's satisfaction and perception of control during childbirth were also affected by the clinicians' treatment and support, whether they were empowered to make decisions, routine clinical practices, and how their labor pain was managed. These factors form the main themes in the findings of this study, which are similar to what has been found in other recent research (Hatamleh, Shaban, & Homer, 2013; Rudman, El-Khouri, & Waldenstrom, 2007).

6.3.2 Woman-clinician interactions

The current study found that some women have insufficient, or even no access to, pain relief during labor, although they still report their satisfaction with their birthing experience. Women's satisfaction and perception of control during childbirth was significantly affected by clinicians' communication, support, and their management of labor pain and women's personal needs (Tables 4.13, 4.14, 4.15, 4.22, 4.23, and 4.24). The relationship between women and clinicians dominated all other factors, and it was the first and the main experience reported by most women who participated in the current study. It is the same story for most women around the world (Chalmers & Dzakpasu, 2015). This systematic review of 137 studies found that the quality of the relationship between women and clinicians, and how supportive they are, in addition to personal expectations and involvement in decision making, were the four predictors that overrode any others such as age, socioeconomic status, pain, and continuity of care when women report their satisfaction about their birthing experiences (Hodnett, 2002).

In this study, women who gave birth in Saudi hospitals put their relationship with the clinicians who provide care during birth on the top of their list for satisfying experiences, even with the presence of pain and resource limitations. Findings of this and other studies highlight the fact that no matter the culture and the language differences of all women in the world, it is important for them to be cared for by clinicians who are supportive, respectful, cooperative, good listeners, empowering, have a positive attitude and provide safe care (Abdulsalam et al., 2008; Chalmers & Dzakpasu, 2015; Spaich et al., 2013). This is not far from what nursing directors and some clinicians providing birthing care in Saudi hospitals reported in this study: that women who give birth within Saudi hospitals require more respect and privacy, psychological support either from

the staff or family, to be the centre of the care, and finally to be empowered with more and more education and explanations. These findings agreed with other research findings from most developed and developing countries (Eleonora et al., 2014; Rudman, El-Khouri, & Waldenström, 2007).

Women can be more satisfied with their birthing experience if they build a high-quality positive relationship with the health care provider. In this relationship, women must be able to trust the clinicians in order for them to feel in control of their birth through the support, respect, privacy, information and safe care provided by clinicians (Mosallam et al., 2004; Oweis, 2009). Providing support to women during birth includes both physical and emotional support, for example being present for woman when she needs, reassuring, and answering questions. There are other forms of individualized support that clinicians can provide to women during birth that are based on every woman's personal needs. Women and clinicians who participated in the current study agreed that providing individualized care for women during birth is required to improve their satisfaction. Individualized, woman-centred care is the recommendation of a range of recent research for all patients, not only women giving birth, because it improves their satisfaction and the outcome of the care. In this kind of individualized care, the main objective is to plan the care based on patients' personal needs instead of providing routine care (Forster et al., 2014; Heatley, Watson, Gallois, & Miller, 2015; Kardaş Özdemir & Güdücü Tüfekci, 2014; Sporek, 2014).

Maternity healthcare providers have a great impact on the atmosphere of the birthing room, and they are capable of giving women the strength and confidence to face the birth and all the feelings associated with the birth, such as anxiety, fear and pain (Sporek, 2014).

6.3.3 Empowering women for decision making

One of the major demands coming from the women who participated in this study was education and explanation. This study confirmed that women giving birth within Saudi hospitals require more education about the following areas: pregnancy and its changes and how they can cope with them; labor and birth, and when to seek advice; and the challenges of the postpartum period and how to manage them. Similar to that, most previous maternity research findings support the need of women for education (Cy Chan, Wong, Lam, Wong, & Kwok, 2014; Hollins Martin & Robb, 2013). This study's findings also showed that women's participation in decision making during childbirth was one of the main factors that significantly improved their satisfaction and perception of control (Tables 4.11 and 4.21). The majority of participant women who had CS showed higher participation in decision making and that could be related to the legal consent requirement for caesarean section. Within the Saudi health care system, which is still medically dominant (Altaweli et al., 2014), women should be encouraged to discuss all the risks and benefits of their care, to make an informed decision in collaboration with clinicians, and to be in control of their birth. This is one of the main values directing care in most maternity care services in developed countries, and it has documented effectiveness in improving women's satisfaction (Chalmers & Dzakpasu, 2015; Dugas et al., 2012; Miller & Shriver, 2012; Moosavisadat et al., 2011).

Maternity clinicians and nursing directors commented on the lack or limited nature, of educational classes and materials and the need for these informational resources to be available to all pregnant women. To remedy this, an educational package that consists of various brochures and CDs should be provided to all women during their first antenatal visit. In addition, women during their first antenatal visit should be introduced to educational classes and informed that attending them is an

option. The majority of maternity research findings over the years and across the world emphasis the need for, benefits of, and satisfied outcomes associated with providing educational resources for pregnant women (Chalmers & Dzakpasu, 2015; Hildingsson & Thomas, 2007). These educational classes and packages should provide an adequate explanation of every stage that women will experience, from the day they knew they are pregnant until at least six weeks after birth. Antenatal classes may include an optional tour of the birthing room, to familiarize women with the environment and reduce the anxiety of the unknown on the day of birth. These educational resources give every woman the opportunity to find an answer to her questions and obtain a medical understanding of all of the changes they are going through, especially if they have not had sufficient time to ask during antenatal visits. Having these resources will replace the current primary source of information, which is the surrounding female environment in the form of relatives and friends. However, this does not mean that education should only occur through these resources. Education is also the job of every clinician who provides care to women at some stage during their pregnancy and birthing experience. It is also the responsibility of clinicians to provide a short simple explanation of, and to obtain women's consent for, every procedure or practices that will be conducted for them, so they are empowered and aware and feel in control of their birth (Cy Chan et al., 2014; Hollins Martin & Robb, 2013; Mohammad et al., 2014; Moosavisadat et al., 2011).

Moreover, the recommendation that maternity health care providers must work with women includes providing all the information they might need to make informed decisions, as well as supporting them in all of the decisions they make

6.3.4 General practices

6.3.4.1 Routine clinical practices

The majority of maternity care providers in this study were mostly confident about the inclusion of the latest birth evidence-based practices in their care (Tables 5.2 and 5.3). This is despite the fact that some of their current routine birth practices (Table 5.5 and 5.6) were classified as unnecessary or harmful practices by WHO and are not compatible with evidence-based practice. This disconnect may represent the situation within most hospitals in Saudi Arabia (Altaweli et al., 2014; World Health Organization, 1996). Using continuous electronic monitoring (CTG) for the baby (Alfirevic, Devane, & Gyte, 2013), using an I.V. infusion as replacement of food and drink (Dawood, Dowswell, & Quenby, 2013) for every woman throughout the labor and birth, conducting a vaginal examination every four hours (Downe, Gyte, Dahlen, & Singata, 2013), and conducting an episiotomy for primipara mothers are examples of practices applied routinely within maternity departments in Saudi hospitals (Altaweli et al., 2014).

These practices were originally designed for the safety of the mother and her baby only when needed, but they become a routine intervention for every woman (including low-risk cases) in most developing countries as ways to reduce maternal and perinatal morbidity and mortality (Al-Suleiman et al., 2004; World Health Organization, 2011b). However, recent research provides evidence that limiting interventions during labor and birth for low-risk women is associated with a reduction in instrumental vaginal deliveries and caesarean sections, and improves the wellbeing of women and babies (Alfirevic et al., 2013; Lawrence, Lewis, Hofmeyr, & Styles, 2013). This could be explained by the fact that conducting unnecessary interventions interferes with the natural birth process and has no benefits for women, instead sometimes causing pain and discomfort. Further,

restraining women to bed also affects women's satisfaction with their birthing experiences (Alfirevic et al., 2013; Dawood et al., 2013; Downe et al., 2013; Kessler & Yli, 2013; Lawrence et al., 2013; Singata, Tranmer, & Gyte, 2013).

Birthing care within most developed countries is directed toward giving women the option to have natural and low-interventions birth care that assists them to cope with the pain, improving satisfaction and assisting them to feel in control of the birth. Policymakers within the maternity health care system in Saudi Arabia must work hard toward limiting unnecessary interventions and encouraging more natural births. MacDonald (2011) described the cultural evolution of natural birth by saying that the world 'natural' here does not mean that women must be forced to give birth without painkillers or any medical assistance; it means that women in all over the world must have the choice about almost everything in their birth care. The role of maternity health care providers is to support them in every decision they make.

6.3.4.2 Pain Management

Women were significantly more satisfied and perceived more control over their labor pain management if they had the choice of having pain control and if they received pain control. They also reported negative feelings about not receiving any pain control or the ineffectiveness of pain control received (Tables 4.13, 4.14, 4.15, 4.22, 4.23 and 4.24).

On the other hand, participating maternity clinicians said that they do what they can to mediate women's labor pain; however, obstetricians only sometimes recommended giving options to women about the available pharmacological pain relief. Nurses and midwives in their responses always supported the use of pharmacological pain relief options for women in labor, and very often offered non-pharmacological pain relief options to women in labor. In addition, clinicians and

nursing directors commented that the limited pain control supplies in the hospitals restricted them from providing pain control.

Fear of pain is a thought that comes to every women's mind when it comes to giving birth. Giving birth without pain is not impossible nowadays; however every woman experiences labor pain at some stage of labor, even if it is not throughout the whole duration of labor. Improving women's satisfaction in relation to their birthing experience can be enhanced by better individualized pain management. This is affirmed by the participants in this study as well as in the findings of other research (Hodnett, 2002; Marzouk, Abd-Elfttah, & Nabil, 2015; Mucuk & Baser, 2014).

There is no perfect way to manage labor pain, because women's pain thresholds and personal needs are different (Hodnett, 2002). However, the key for clinicians is to be flexible and cooperative when managing labour pain, through informing women about the available options and engaging them in making the choice. Also, receiving pain analgesia when needed increases women's satisfaction during childbirth (Spaich et al., 2013). This is how clinicians assist in achieving a more satisfied birthing experience (Australian Drug Information Service, 2010; Hodnett, 2002). Other factors that may improve pain management within labor and birth departments are the availability of resources and pain medication within the institution, in addition to maternity clinicians' training in regard to the application of different pain management methods (Cooney & Long, 2008).

There are various ways to control labor pain available in most maternity wards. These include nitrous oxide gas, pethidine, and epidural injections (pharmacological). On the other hand, and in response to recent research recommendations about having more natural, drug-free births, many studies have been conducted to evaluate the effectiveness of different non-pharmacological pain relief methods on labor pain (Madden, Middleton, Cyna, Matthewson, & Jones, 2012; Smith,

Levett, Collins, & Crowther, 2011). This is to give women a substitute for pharmacological options. These methods include acupuncture, hypnosis, water injection, relaxation, and others (Madden et al., 2012; Shirvani & Ganji, 2014; Smith et al., 2011; Vixner, 2015). Giving women the opportunity to know about the available options and to make an informed choice about labor pain control puts a woman in control of her labor pain which leads to her satisfaction.

6.3.5 Hospital policies and supplies

One of the main findings of this study was recommendations regarding a number of hospital policies according to women's feedback and satisfaction.

6.3.5.1 Family support

Women in this study made it clear through all data sources that they wished to have the support of their husbands, mothers, sisters, or a chosen female during labor and birth. Moreover, having the choice available for every woman to have a family member accompany her during labor and birth, and not living through this experience alone, was one of women's strongest demands in the current research. Satisfying this demand through hospital policy would improve their satisfaction with the birth experience. Clinicians and nursing coordinators also discussed the need of women for family support during labor and birth, showing an understanding of the current situation within Saudi hospitals.

In Saudi Arabia, seeing men in the labor room with their wives is not a familiar picture within most maternity departments. It is also not a common concept among the women themselves. Generally, most MOH hospitals have a clear policy of not allowing any non-professional company, either husbands or other female relatives, during labor and birth and post-partum (Altaweli et al., 2014).

However, hospital B in this study leaves this decision to doctors, who may allow a family member during labor only but not during the actual birth. Nursing directors stated that this policy was put into action because of the high number of births conducted every day in MOH hospitals. In addition, sometimes companions put pressure on clinicians when they do not help, and increase women's anxiety by asking a lot of questions. Finally, the sensitivity surrounding the topic of labor and birth topic within Saudi culture, and its strong connection to the female community, plays a major role in isolating women from their loved ones during labor and birth. The situation in most maternity health care systems in Arab countries is the same: allowing female companion during labour is still not encouraged. The benefits of family support are recognized by a number of researchers in the Arab region; however the stress placed by those companions on clinicians delays the application of this policy (Khresheh & Barclay, 2010; Mohammad et al., 2014; Oweis, 2009).

Part of medicalizing women births worldwide was isolating women in childbirth from their usual community and not allowing any non-professional persons to attend the labor and birth (Hodnett, Gates, Hofmeyr, Sakala, & Weston, 1996). This opposes the timeless tradition of women giving birth with the support of their known female network (Mosallam et al., 2004). Most recent research evidence confirms the benefits of having psychological support and encouragement from known and trusted persons throughout labor and birth, and how this accelerates labor, reduces interventions, and improves women satisfaction (Hodnett, Gates, Hofmeyr, & Sakala, 2013). Also, the presence of women's chosen company is associated with feeling safe, communicating women's needs with professionals caregivers, and physical help (Khresheh & Barclay, 2010). As a result, men in most developed countries are encouraged to take an active part in the birth of their babies by providing support and help for women through the birth (Ip, 2000; Sapkota, Kobayashi, &

Takase, 2013). Also, women in most developed countries have the choice to have their chosen companion to provide the support they need throughout the whole birth (Khresheh, 2010).

6.3.5.2 Baby-Friendly hospital Breastfeeding Initiative

The application of the Baby-Friendly Initiative was not originally an intended area of investigation in the current study. That is why clinicians and nursing directors were not asked to comment on it explicitly. However, participant women highlighted their dissatisfaction with immediate skin to skin after birth, 'rooming in', and no bottle feeding policy, referring to these things as neglect, ignoring, and lack of support from nurses. This shows that women did not understand the objectives of these policies and their benefits.

The Baby-Friendly Hospital Initiative (BFHI) was launched by the WHO and UNICEF in 1991 to represent breastfeeding recommendations (World Health Organization, 2003). These recommendations relate to placing more efforts on encouraging women to breastfeed, and making sure that support is available for early initiation and maintaining breastfeeding as long as possible (World Health Organization, 2011a). This initiative is also an answer to a drop in the rate of women who continue to breastfeed after the first three months (Australian Breastfeeding Association, 2013; Howe-Heyman & Lutenbacher, 2016).

The BFHI has been considered by most international accreditation organizations as one of the required quality measures that hospitals must comply with (Australian Breastfeeding Association, 2012). Implementing this initiative active consists of ten steps which include, for example, that breastfeeding must be initiated by skin to skin in the first hour after birth, rooming in, and no food or drink for infants other than breast milk unless medically prescribed (Australian Breastfeeding Association, 2012).

Most MOH hospitals have the baby-friendly policy active, as it is one of the requirements for the national accreditation organization. However, this study suggests that women need to know about it and its effect on breastfeeding initiation and maintenance. It is therefore recommended that women be educated about any changes in hospital policies and the benefits of these changes.

6.4 Women's perception of control

Women's perception of control during labor and birth has been investigated by researchers as the second-most important quality measure for the care delivered during labor and birth (after women's satisfaction). The impact of the five aforementioned themes on women's satisfaction regarding the birth care delivered to them was just discussed in section 6.3. Similarly, hospital characteristics, the interaction between women and clinicians, empowering and educating women, general practices, and hospital policies significantly affected women's perception of control during labor and birth.

Working to improve women's satisfaction with their birth experiences would undoubtedly improve women's perception of control. Feeling in control of the birth can be strengthened by effective woman-clinician relationships that involve trust, respect, and providing continuous physical and emotional support to women during labor and birth. Moreover, keeping women informed about labor progress and any predictions of the birth process and outcome is the responsibility of clinicians. It is also clinicians' responsibility to work with women during labor and birth to help them to make the right decision for them, thereby increasing feelings of being in control. One of the important decisions that needs to be made by women is the choice of whether or not to have a painkiller; and, if yes, which one to go with. The pain control decision is one of the crucial elements in improving a woman's perception of control during labor, even if she decides not to

have any pain control. This study's examination of routine clinical practices during birth confirmed that women who had less interventions during vaginal birth perceived a higher degree of control than those who had vaginal birth full of interventions. For example, the perception of control for women gave birth by C.S. was lower than those who gave birth vaginally (Somera, Feeley, & Ciofani, 2010).

The current findings indicate that there is a significant relationship between women's satisfaction with their birth experience and women's perception of control during the birth, as each one affects the other. Furthermore, all factors that improve women perception of control would also improve women satisfaction, resulting in healthy women and babies, improved birth services, and safe motherhood.

6.5 Future directions for maternity care in KSA

6.5.1 Implications for women

The findings of this study have demonstrated considerable limitations in the sources of maternity information provided to women during antenatal, labor and birth, and postnatal periods, a shortcoming that is clearly recognised by clinicians and nursing directors. In addition, the findings highlighted that women in Saudi Arabia require empowerment to take the lead in their births, feeling in control and making decisions for themselves. Empowerment and education are the key elements in safe motherhood.

Women are empowered when they know that they are the experts in their own births, knowing better than anyone else what they need. Women are empowered when they feel respect, trust,

support, privacy, and that they are fully informed. Encouraging women to make decisions without an informational base will not be successful – this is why women first need to be empowered with the information required to make an informed decision.

A solution to this would be introducing maternity and childbirth education to the curriculum of some girls' schools, designed to educate the girls about one of the potential transitional stages in their lives, 'Motherhood'. This curriculum would be rich in all of the basic information about pregnancy-related physiological changes, common signs and symptoms, warning signs, and how pregnant women can take care of themselves physically and psychologically. It would also provide brief information about labor signs, when to go to the hospital, women's physical and psychological needs post-partum, and how to take care of the new baby at different ages.

Such an education program would be a huge step for the Saudi community because menstrual periods, pregnancy, labor, and birth are sensitive topics and associated with a great deal of secrecy, especially in regard to unmarried girls. During their school years, girls in Saudi Arabia used to be introduced to menstrual periods in physiological, psychological, and religious terms. Now this curriculum is active only in some girls' secondary schools (called 'improved schools'), but many teachers still avoid teaching some of the contents or they just touch on the material very briefly. To achieve the goal of introducing this curriculum, there needs to be support and encouragement from the Ministry of Education (MOE) to the teachers and girls to be open and discuss these topics together, sharing this information with their surrounding female communities. Maternity and childhood education should also include brief information about the importance of pre-marriage counselling and early antenatal follow up to the delivery of the baby. It might be useful to introduce this subject at all girls' schools in Saudi Arabia.

Early maternity education for teenagers is crucial, especially for a culture as in Saudi Arabia in which it is acceptable for girls under 20 years of age to get married and become mothers, however there are no specialized maternity clinics for teenage mothers (there may be now the best of our knowledge). Early maternity education prepares women for motherhood and all of its associated changes, which makes it safer than seeing it as mysterious period full of fear, pain, and the unknown. Empowering women with the required information is considered an early step toward safe motherhood; however educating childbearing women does not stop at this stage.

Detailed information about pregnancy, its changes, warning signs, labor and birth must be available for women who have just found out that they are pregnant. This information could be prepared in various forms, such as audio-visual materials, brochures and booklets, and antenatal educational sessions, so they are accessible and suitable for all women of different ages, educational levels and working status.

6.5.2 Implications for the workforce

The findings are likely to contribute to an improvement in birthing services and midwifery practice in Saudi Arabia. In particular, the way in which the study draws attention to closing the gap between women's and clinicians' perceptions of midwifery care and makes it of value to educators, researchers, clinicians, policymakers and administrators in the maternity health care system in Saudi Arabia.

This study has provided evidence that midwifery is not well established in the Saudi maternity health care system. Though midwives are present in the labor wards of all three hospitals, they have different qualifications: this is evidenced by the fact that there is a separate midwife job

description at each hospital. For example, according to the nursing directors, midwives who work at hospitals A, and C are not skilled in nursing basics, so these midwives still need the help of a nurse when they provide birthing care. This means that they cannot work independently, even with low-risk cases. On the other hand, midwives who work at hospital B are not Saudi Arabian and hold either Bachelor or Postgraduate Diploma qualification. There are no accredited midwifery courses available at Saudi universities, other than a Master degree at King Saud University, which does not serve the needs of the entire country. To remedy this, midwifery courses must be designed by the Ministry of Health and Ministry of Education in order to deliver course content that will satisfy the needs of care providers and care consumers. These courses could be a Bachelor and Postgraduate Diploma of Midwifery, which would be taught by qualified nurses and midwives with a nursing background.

In this study, it was highlighted by most clinicians that the midwifery profession in Saudi Arabia needs attention, support, and more development in the coming years. Midwives in Saudi Arabia need to be strengthened by a clear identity or protected title, a license to practice, and recognised to work as an autonomous profession. This is can be achieved by increasing community and clinicians' awareness of the midwifery role. This will assist other clinicians in being aware of midwives' role in birthing rooms, and how they can be part of a multidisciplinary team that works to deliver the best care for women.

Quantitative findings of the current study supported the point that a high percentage of women felt safer and more satisfied with the presence of a doctor at the birth, whether or not there was a midwife. However, the qualitative findings suggested that some women were very satisfied and happy when they were cared for by midwives. This contradictory finding represents the confusion

around midwives' role in Saudi hospitals, and highlights the need to educate women about midwives' role and qualifications. To address this, simple brief workshops and various educational materials directed to the Saudi community are needed to explain what midwifery means, midwives' qualifications and roles, what they have the capacity for, and how this is different from nursing. It is also important to emphasize that midwives' qualifications and roles are not limited to birthing rooms but also extend to antenatal and postnatal periods. Moreover, the midwifery role could be introduced briefly to the Saudi female community early, through the curriculum at girls' secondary schools. This is already happening in some girls' schools, in which there is a specified section for maternity and childhood within a subject called 'Health and Maternity Education'.

One of the strategies needed to support the midwifery profession in Saudi Arabia is a recognition of midwifery as an independent profession by the Saudi Commission for Health Specialities (SCHS), which is the representative body for all health specialities in Saudi Arabia. In SCHS website materials and documents there is no mention of the midwifery profession, except as health assistants, or as one of the subspecialties of nursing called 'Nursing Midwifery' (Saudi commession of health specialities, 2015). According to the SCHS definition of the word 'subspecialty', one must first be a registered nurse in order to be a registered midwife in Saudi Arabia (Saudi commession of health specialities, 2015). Most Saudi midwives who are still working in birthing rooms have completed either a one- or a two-year diploma after secondary school, a qualification that is no longer available, SCHS classifies these professionals as health assistants rather than registered midwives. All of this confusion around midwifery has an impact on health professionals' and the community's understanding of midwifery in Saudi Arabia. SCHS needs to recognize midwifery as an independent health speciality, and must accredit standardized midwifery degrees which will ensure competent and confident practice.

Most midwives working at B hospital are recruited from different countries, which helps in improving the services delivered to birthing women because of their understanding of midwifery as holistic care. In addition to this, the current and previous nursing directors at hospital B were Australian midwives, which has helped considerably in introducing the first midwifery model of care in this hospital. Obstetricians' and women's misunderstanding and underestimation of the midwifery role was an obstacle to the application of a continuous midwifery care model, and many efforts were applied to educate women and medical clinicians about midwifery capabilities.

Midwifery general practice within the maternity health care system is considered by the WHO as the first general standard of safe motherhood, because midwifery is working with women toward healthy women and babies during the pre-conception, pregnancy, birth and postnatal periods (WHO Regional Office for South-East Asia, 1999). "Midwifery is a vital solution to the challenges of providing high-quality maternal and newborn care for all women and newborn infants, in all countries" (Renfrew et al., 2014).

The findings of this study identify a need of maternity clinicians for support from administrators to help them provide better care to women. A number of training courses are required by clinicians, such as computer courses, because the direction of most hospitals is toward complete online database and not paper documentation. Also, Arabic language lessons were demanded by foreign clinicians to improve their communication with women. More generally, all clinicians who work with women during pregnancy, labor and birth, and pot-partum require frequent educational and training sessions to discuss women's feedback on their care and what should be done to address both negative and positive comments. Those clinicians also need to be reminded of how to provide woman-centred care and how to deliver this in a supportive and respectful manner.

6.5.3 Implications for policymakers

Hospitals' policymakers must consider women's feedback when updating their policies and services, in addition to reviewing the latest evidence-based practice. This is affirmed in the findings of the current study, as women's satisfaction and perception of control were higher at B hospital, where according to the Nursing Director, women's feedback is collected regularly and used to improve the quality of care provided.

Hospital B's Nursing Director also believed that women who gave birth at that hospital were satisfied based on their verbal comments, in addition to the regular written feedback from women that was received. On the other hand, Nursing Directors of hospital A and C reported that there was no evaluation tool for women's satisfaction currently used in these hospitals; women's satisfaction with the care in these hospitals is limited and several areas require change to improve satisfaction.

So that's what make Hospital B different from other MOH hospitals is by recognizing women's needs and improve the services based on them plus the latest evidence based practices.

For example, one of the policies that requires immediate attention from administrators based on women's feedback is allowing a family companion to attend women's labor and birth. This companion could be the woman's husband or one of her female relatives; whatever is her choice. In some hospitals, having the women's husband attendance might be impossible, but the choice must be still available for women to have a female companion. Another example of the effectiveness of women's feedback in improving some policies is the application of hospital Baby-Friendly Breastfeeding initiative. While most MOH hospitals had this policy active, this study revealed that

women's perceptions of this policy are not positive and that attention is needed from policymakers and administrators to educate women about the benefits of this policy.

6.5.4 Implications for services

The accessibility of maternal and child health services to women in Saudi Arabia has been improved by integrating maternal services into primary health care centers, which are distributed on most regions in KSA (Al-Nasser et al., 1994; Baldo et al., 2000a; Habib et al., 2011). However, the quality of the services provided is still questionable.

As previously mentioned, hospital B provides improved maternity care compared to other MOH hospitals because it follows the latest evidence-based practices and JCA international accreditation recommendations. Moreover, women's feedback and comments are valued and encouraged at this hospital. This high-quality care places B hospital under strong demand by mothers seeking to give birth in it, because they recognize the difference that comes with respect, listening, individualized care, support, control, and safety. All these features are recognized by the women through the services provided by professional care providers and the availability of required supplies for women and their babies.

Clinicians who participated in the current study still engage in a number of routine practices that has been found by the WHO and latest evidence-based practice to be unnecessary, not beneficial, or harmful to women. These practices must be controlled or banned. This study and others (Altaweli et al., 2014) emphasize the need for administrators and quality managers to urgently review the current birthing services delivered at Saudi hospitals and update them according to WHO recommendations and evidence-based practices.

6.6 Safe motherhood

The safe motherhood initiative was introduced in 1987 with the aim to reduce the number of woman and infant deaths, mainly within developing countries. An example of some of the messages of this initiative include: making professional facilities and care accessible to all women; conducting the in the presence of skilled midwifery attendants, encouraging antenatal care, and educating women (Islam, 2007; Starrs, 2006). KSA is one of the developing countries that has managed to effectively reduce maternal mortality; however KSA can still improve the quality of maternal services and emphasize safe motherhood by updating current care according to evidence-based practices and women's and clinicians' feedback, as well as by educating women and the community as a whole. The findings of this study emphasis that safe motherhood concept is not limited to reduce the number of women died intrapartum, however it must be expanded to include women receiving evidence-based birthing care, and all possible information that will help them to make an informed decision, in addition to improve the services according to women feedback as much as medically possible.

6.7 Study strengths and limitations

The current study is the first in the Middle Eastern region to combine the perspectives of women, clinicians, and administrators. In addition, it is the first study to explore women's satisfaction and perceptions of control in birthing services in the Kingdom of Saudi Arabia. The study's findings about women's birth experiences and satisfaction, and clinicians' views of the care provided, can be generalized to MOH hospitals, because the study was limited to Ministry of Health hospitals (which provide maternity care for the majority of women in KSA). The study was designed to be

generalizable in this way through the choice to include three main maternity and children's hospitals that are located in three main cities in KSA. The exclusion of other public hospitals under different government administration, such as educational and military governance, may be seen as one of the limitations of the study. Further, the nursing workforce that was consulted in this study includes a mix of gynaecology nurses and midwives who deliver care to birthing women, with various levels of educational preparation for their role. This is likely to result in a lack of standardisation in competencies, care quality, and care outcomes. Also, clinicians who opted to participate would take the time to do so because they care a lot about the service they deliver, this may skew the results considerably and accordingly the sample of clinicians may not be representative of all clinicians at the three hospitals.

The average age, educational level, nationality, and number of pregnancies of the women who completed the questionnaire in this study are representative of the population of Saudi Arabia. However, women who do not read and write Arabic were excluded, including both women who are not literate and those who are not Arabic speakers. This is also a limitation of the current study.

The survey tool used for women captured some of the universal concepts regarding the birth experience, such as respect, privacy, clinician support and family support. However, it was adopted from another study conducted in an Arabic country, and few adjustments were made for translation purposes. There are limitations in terms of the extent to which this tool might be used in different linguistic and cultural contexts, because it includes some specific terminology such as the word 'allow'. However, the tool does not contain any purely culture-specific aspects.

6.8 Chapter summary

Incorporating women's feedback regarding the care delivered within maternity departments is the missing element in the regular review of birthing policies at MOH hospitals. Updating services with evidence-based practices and clinicians' feedback is not enough to improve the quality of care: reviewing the perceptions of these services' customers is also essential in ensuring their satisfaction with any updates to the care. This chapter has discussed the findings reported in previous chapters, converging both groups to illuminate factors that could improve women's satisfaction and perception of control during childbirth at Saudi Arabian hospitals. The implications of this study for the workforce, policymakers, services, and women were also described.

Chapter 7-Conclusion

7.1 Introduction

The aim of the current study aim was to uncover for the first time the perspectives on birthing services of women, clinicians and administrators in Saudi Arabia. A convergent mixed methods approach was used to gather these perceptions in order to answer the question of how birthing services and practices in Saudi Arabia are viewed by women and maternity health care providers. Quantitative and qualitative data was collected and analysed to determine the findings and implications of the study for maternity care in Saudi Arabia. This chapter concludes the study, presenting the recommendations.

7.2 Study recommendation

The Kingdom of Saudi Arabia is moving from a developing to a developed country in many ways including economically, socially and medically. Birthing services also need to move forward in the same direction. The recommendations of this study will assist in achieving this. The recommendations of this study may be of interest to all maternity care departments in Saudi Arabia and fall into several categories: women's empowerment, the gap in perceptions between services provided and services received, birthing services, midwifery, and future research.

7.2.1 Women's empowerment

Globalization and modernization have affected women's lives and roles within the conservative society of Saudi Arabia. Nowadays, women in Saudi Arabia are getting higher degree certificates, working in different jobs not just limited to teaching and medical fields, holding higher positions in

the country, and participating in making decisions as part of consulting councils. As a top priority, women's voices need to be taken into account by hospital administrators, policymakers and quality administrators whenever they plan a review of the birthing care delivered within maternity institutions. Continuous feedback from every woman who receives care must be obtained and reviewed frequently in order to point out areas of reduced satisfaction that require attention and updating according to evidence-based practices. Additionally, areas associated with higher satisfaction need to strengthened and encouraged.

It is the role of every clinician providing care for a woman to encourage and work with her to plan the care, make decisions, and ask questions. It is every clinician's job to support and empower women with the details of progress regarding her condition, all of the care choices available to her, and all of the information required to make an informed decision.

Moreover, antenatal educational classes should be conducted by health education specialists at every hospital, primary health care center or private clinic that provides antenatal care for pregnant women. The contents of these classes and any educational materials should be prepared by midwifery specialists from the MOH according to the latest evidence and provided to all hospitals. Various media avenues can also be used in communicating with a large number of women and educating them about essential information on pregnancy and birth.

An on-call midwife is another service missing within the maternity health care system. Pregnant women, especially primipara, could attend emergency departments (ER) several times for false symptoms or early labor. This problem could be controlled by assigning a free 24-hour telephone number to on-call midwives, who can take the women's calls and assess through asking questions whether or not they need to come to the hospital.

7.2.2 Midwifery

Midwives are only seen in labor wards within Saudi hospitals, and their care is mainly delivered under doctors' orders. Midwifery care models are associated with higher satisfaction from women regarding the care and with fewer interventions and caesarean sections. This is why midwifery needs more attention from decision makers in the Saudi Arabian maternity care system. First, every nursing department, college, or administration center must have the word 'midwifery' connected to the word 'nursing', for example 'Nursing and Midwifery College', because nursing and midwifery are interrelated but do not replace each other. This will assist in building the identity of midwifery and its attendant regulations in Saudi Arabia. In addition, the Ministry of Health and Ministry of Education must collaborate in building midwifery-specific courses that satisfy maternity departments' needs, and SCHS must accredit these courses and assign separate registration requirements for midwives.

Appropriately qualified midwives have all of the knowledge and skills to provide complete independent care to normal and low-risk cases during ante-, peri-, and post-natal periods, and are capable of dealing with most pregnancies and birth emergencies. This means that the main care providers in every birthing unit must be midwives, and, if possible they should also be active in every post-partum and antenatal ward. Giving the midwives the load of providing care to normal and low-risk cases, and supporting them with all authorities and referral systems needed, will help to reduce the load of obstetricians, giving them the time required for high-risk cases. The Saudi maternity healthcare system may not yet be ready to incorporate different midwifery care models, such as those available in other countries (for example birth centers or private midwifery).

However, applying the recommendations of this study will be the first few steps toward an application of different midwifery care models.

Women who will be receiving midwifery care also need to be informed about the midwifery role and skills. This will assist midwives in gaining women's trust and working with them to deliver optimum care.

7.2.3 Birthing services

Incorporating recent evidence-based practice into current routine birthing services is not as easy and simple as it may appear. Every new technique introduced is a change process, facing objections from those who are used to applying the old technique and are convinced of its benefits. Banning an old technique, introducing a new one, limiting the application of some, or replacing one technique with another do not occur in one day. First, the quality managers, policymakers, and administrators must ensure the availability of the workforce, supplies, and environment required. Then several educational sessions must be conducted for all clinicians about the new policies and why they are being implemented. Some policies also require training sessions so that healthcare professionals can successfully implement them. This is the usual procedure within health institutions. However, women as care receivers also need to know about some of these updates, because they are used to certain routine care. Sudden changes may cause women dissatisfaction and lead them to blame the clinicians for neglect. Nowadays, social media plays an essential part in making information accessible to the public. Using social media to introduce women to recent changes in care is a useful method and is convenient for most women. For example, a hashtag has been launched on twitter by the Saudi Society of Obstetrics and Gynaecology for banning the routine episiotomy practice (#say_NO_to_liberal_episiotomy). The hashtag is associated with a

picture that has brief information about the findings of recent studies on episiotomy its consequences. This information is not new for clinicians and this policy was introduced in some hospitals several years ago; however women in the Saudi community are still resisting the change (Jahlan, McCauley, & Lyneham, 2011). Distributing informative pictures such as this through social media will assist in women's acceptance of policy changes.

7.2.4 Breastfeeding

Applying the breastfeeding Baby-Friendly Hospital Initiative has proven its effectiveness in most research findings in increasing the number of breastfeeding mothers. However, the success of this initiative is not complete without educating women, not only about the benefits of breastfeeding for mothers and babies, but also providing them with the support required to initiate and maintain breastfeeding. Supporting breastfeeding mothers includes organizing educational sessions and informational materials about the ten steps of the Initiative and what changes can be expected to services after the its introduction. In addition, most women know about the advantages of breastfeeding but they do not know about breastfeeding on demand, the letdown reflex, and when to start and how to start. Other information required by women includes the different breastfeeding positions, signs of good attachment, signs indicating that the baby has had enough, expressing breast milk, and how women can manage breastfeeding after they return to their normal life and responsibilities. This information is particularly required by most women who are breastfeeding for the first time or who have had unsuccessful breastfeeding experiences. Moreover, women need to know how to take care of their breasts, including what to do when the breasts are full and painful; when nipples are flat, inverted or cracked; and also about warning signs that require medical consultation. Women who are separated from their babies after birth due to health reasons hunger

for information about how to express breast milk in order to maintain the demand and milk flow, and the right temperature and duration for storage. Women also require information about the right way to manage the accumulation of milk in their breasts if they decide not to breastfeed.

Clinicians who provide birthing care to women are the most important care providers for giving women support and encouragement around breastfeeding. This means that they need to know all of these details about breastfeeding in order to provide the right advice.

In addition, in every hospital there should be a specialized breastfeeding clinic, regulated by a breastfeeding, consultant that is involved in designing the informational materials and sessions and distributing them to women. This clinic would also be a resource for professional care providers, who could refer to the clinic every woman who struggles with breastfeeding or needs continuous support and observation. The breastfeeding clinic must also be accessible to women via telephone, so they can call and find the support they need to continue to breastfeed. Social media could also be used to facilitate contact between woman and the breastfeeding consultant, and between woman and other women, for example via WhatsApp groups or Facebook pages.

7.2.5 Family birth companion

Allowing husbands to attend their wives' birth may not be supported by some women and men, so the choice of having a female relative or friend attend the birth should still be open for all childbearing women. If husbands or female relatives are willing to attend the birth, then they should be offered a brief educational and training session, and/or written materials about the things they can do for women during labor and birth and how they can be supportive and helpful to women and health care professionals.

7.2.6 Future research

This study is the first to assess women's and clinicians' perceptions of birthing services in Saudi Arabia, and was limited to three hospitals for feasibility. A larger national survey is needed to assess women's perceptions of care received within a broader range of hospitals and populations. A study in hospitals delivering maternity care in areas outside the three major cities in this study is required. This larger survey will identify perspectives of birthing services across the broader scope of Saudi society.

The findings of the current study draw researchers' attention to the importance of conducting specific research that evaluates current midwifery care and women's perception of this care. Generally, more research activities are required to evaluate the quality of maternity care delivered in all departments (ante-, peri- and post-natal) from both the care consumers' and care providers' perspectives.

It is also important to undertake research in the area of undergraduate education for clinicians, for doctors, nurses, midwives and post-graduate education for those who aspire to be Directors of Nursing to determine how course content and philosophy approaches women centred-ness.

Most importantly, the relationship between the gap in perspectives of birthing services for women and clinicians and outcomes for women and their babies needs to be explored.

7.3 Chapter summary

Integrating multiple perspectives about birthing services in KSA in this study reveals a holistic view of the current birthing services provided within MOH hospitals. The findings suggest that improving

birthing services is possible by regularly capturing women's feedback and determining their satisfaction with the care, as well as by updating care practices and hospital policies according to the latest evidence-based practices in a culturally suitable way with a view to improving women's satisfaction and safety. In addition, the relationship between women and clinicians is one of the key elements affecting women's satisfaction with their childbirth experience, and requires attention from clinicians to their communication, support skills, and care. This study suggests that women must be the center of care, and that they must be the main decision makers in childbirth, with the support of the clinicians through education, explanation, and empowerment.

Implementing the recommendations of this study will ensure that women and clinicians are partners in care and that women's voices are heard by clinicians and maternity care system policymakers and administrators in KSA. These recommendations highlight the areas that clinicians need to target in order to improve women's satisfaction and deliver safe care. The findings will also inform policymakers and administrators in their policy review and attempts to improve birthing services. Moreover, they will assist in improving the safety of bringing new life into the world which will improve the quality of birthing services in KSA as part of its 2030 vision.

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Appendices

Appendix I: MUHREC ethical Approval

Monash University Human Research Ethics Committee (MUHREC)

Research Office

Human Ethics Certificate of Approval

Date: **4 February 2013**

Project Number: **CF12/1331 – 2012000685**

Project Title: **A Review of Maternity Services in Saudi Arabia**

Chief Investigator: **Dr Virginia Plummer**

Approved: From: **4 February 2013** **To: 4 February 2018**

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research**.

2. Approval is only valid whilst you hold a position at Monash University.

3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.

4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.

6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.

7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.

8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.

9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.

10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.

11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

Professor Ben Canny

Chair, MUHREC

cc: Dr Carole Gilmour, Ms Ibtesam Omar Jahlan

Postal – Monash University, Vic 3800, Australia

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ABN 12 377 614 012 CRICOS Provider #00008C

Appendix II: Women's Survey [English]

MONASH University

Explanatory Statement

Title: Birthing Services in Saudi Arabia

Women Survey

/2013

This information sheet is for you to keep.

My name is Ibtesam Omar Jahlan and I am conducting a research project towards a PhD at Monash University with Dr. Virginia Plummer a Senior Lecturer,Dr. Meredith McIntyre a Senior Lecturer, Dr.Carole Gilmour a Lecturer in the Department of Nursing and Midwifery at Monash University and as external supervisor Dr. Salma Moawed a Professor in the College of Nursing at King Saud University. This means that I will be writing a thesis, which is the equivalent of a 300-page book.

You are invited to take part in this study. Please read this Explanatory Statement in full before making a decision.

Why were you chosen for this research?

I am seeking women's opinions toward the birthing services they received in Saudi Arabia. So, as you have recently given birth in one of three selected hospitals within Jeddah, Riyadh, and Dammam, you are invited to participate in the study.

The aim/purpose of the research

The aim of this study is to uncover for the first time women's perspectives and satisfaction to the current birthing care received in Saudi Arabia. I am conducting this research to bring women's and maternity care providers' opinions regarding birthing services to the light for policy makers and organisational administrators. These perspectives will provide useful recommendations to improve birthing services provision in Saudi Arabia.

Possible benefits

There may be no direct benefits for you or anyone, who takes part in this study, but the study's findings will help improve birthing services provision in Saudi Arabia in the future and this will be beneficial for childbearing women in Saudi Arabia and possibly internationally.

What does the research involve?

The study involves self-administered questionnaires.

How much time will the questionnaire take?

You will need 10 minutes to complete the questionnaire

Inconvenience/discomfort

These tasks are considered to be low risk and we do not anticipate that you may have any inconvenience except the time for filling the questionnaire. Further discomfort is not anticipated, however, if they do please refer to your doctor.

You can withdraw from the research

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage but you will only be able to withdraw data prior to the anonymous questionnaire being submitted.

Confidentiality

Your identity will be kept anonymous, as you do not have to reveal, in questionnaires, your name or any information that may lead to you.

Storage of data

Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results

If you would like to be informed of the aggregate research finding, please contact Ibtesam Jahlanon**+966504672740.** The findings are accessible from the researcher after 2015.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	**If you have a complaint concerning the manner in which this research** CF12/1331 – 2012000685**is being conducted, please contact:**
Main Researcher: **Ibtesam Jahlan.** **PhD candidate at Monash University** Mobile**: +966504672740 (Saudi Arabia)** **+61421448127 (Australia)** Email:**ibtesam.jahlan@monash.edu** **Dr Virginia Plummer** Phone: +61 3 990 44064 Email: Virginia.Plummer@monash.edu	Dr.Salma Moawed **Professor of maternity nursing and family planning at King Saud University** Mobile: +966505237509 Email: smoawed1993@hotmail.com

Thank you.

The researcher: Ibtesam Omar Jahlan

Study Title: Birthing Services in Saudi Arabia

Women Survey

Thank you for taking the time to complete this survey: **(Please tick the relevant boxes):**

Section1: Demographic data:

1) In what country were you born?

☐ Saudi Arabia ☐ Other country.....please specify.....

2)What is your age?.....

3) What is your highest level of education you have completed or the highest degree you have received?

☐ Did not complete high school ☐ Associate degree

☐ High school or equivalent ☐ College (e.g: B.A, B.S)

☐ College, but no degree ☐ Graduate school (e.g: M.S., M.D., Ph.D.)

4) In what town do you live mainly?

.....

5) Are you a working woman?

☐ No
☐ Yes..... What do you do?.....

6)Is this your first childbirth experience?

☐ Yes ☐ No

6.1) If no; including this pregnancy, how many times in total have you been pregnant..... ..and have given birth?.....

Section 2: please answer the following questions regarding your recent pregnancy and birth:

7) How well do you feel that you coped with giving birth of this baby?

☐ Coped very well ☐ Coped well ☐ Did not cope at all

8) Overall, how satisfied are you with the health care you have received during this pregnancy?

☐ Highly satisfied ☐ Somewhat satisfied ☐ Not at all satisfied

9) Overall, how satisfied are you with the health care you have received during this labour?

☐ Highly satisfied ☐ Somewhat satisfied ☐ Not at all satisfied

10) Overall, how would you rate the quality of health care provided to women having babies in Saudi Arabia?

☐ Excellent ☐ Acceptable ☐ Poor

11) How far did you participate in decision –making during your last childbirth:

☐ I was consulted on all decisions and actively participated in decision-making.

☐ I was not consulted on all decisions until I insisted that my views be included in the decision-making.

☐ I was not consulted and so did not participate in decision-making.

☐ I did not participate in all decisions, which was my choice.

12)Who was the main caregiver during pregnancy:

☐ An obstetrician
☐ A doctor but not sure of his/ her speciality
☐ A midwife
☐ A nurse who is not a midwife
☐ Shared care by Midwife and Obstetrician

13)Who was the main caregiver during labour and at the birth:

☐ An obstetrician
☐ A doctor but not sure of his/ her speciality
☐ A midwife
☐ A nurse who is not a midwife
☐ Shared care by Midwife and Obstetrician

14) How did your labour start?

☐ Naturally
☐ Induced by medication
☐ Induced by a midwife or a doctor breaking the waters.

15) Did you receive any pain control during labour?

☐ Yes ☐ No

15.1-If yes, how effective do you think the pain control was?

☐ Very effective ☐ Somewhat effective ☐ Not at all effective

15.2- If No was this your choice not to have pain control?

☐ Yes ☐ No, My request for pain relief was refused

16) Before labour commenced which of the following statements would describe your feelings regarding the labour pain?

☐ Was very scared ☐ Was somewhat scared ☐ Was not scared at all

17) What was your experience of labour pain intensity; was it:

☐ As expected ☐ Less than expected ☐ More than expected

18) Was your baby born.....?

☐ Vaginally. ☐ By Caesarean.

18.1- if Vaginally, was it:

☐ Normal ☐ Vacuum ☐ Forceps
☐ Breech

19) Did you have an episiotomy?

☐ Yes ☐ Not sure ☐ No

19.1- If No or not sure, Did you have a vaginal tear or other trauma required suturing?

☐ Yes ☐ Not sure ☐ No

20) How would you describe this birth?

☐ Very difficult ☐ Somewhat difficult ☐ Easy

21) Overall, how would you describe your physical health throughout your pregnancy?

☐Poor ☐Fair ☐Good ☐Very good ☐Excellent

22) Now that you have given birth to your baby how would you describe your psychological wellbeing?

☐ Poor ☐Fair ☐Good ☐Very good ☐Excellent

Section 3: Please indicate to what extent, you agree with following statements regarding your recent childbirth experience:

Statements	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1- I was completely satisfied with the health care I received during pregnancy, labour and immediately following birth.					
2- I felt there was high level of safety for me and my baby, throughout the pregnancy and my labour and immediately following birth					
3- The health team provided me all possible care and attention during pregnancy, labour and immediately following birth.					
4- I felt happy and comfortable with this childbirth experience					
5- I felt that some medical mistakes occurred in the care provided to me during pregnancy.					
6- I felt that some medical mistakes occurred in the care provided to me during labour and the birth of my baby.					
7- I felt comfortable during my childbirth because the health-care team listened to my concerns					
8- I felt comfortable during my childbirth because the health care team were well trained and experienced.					
9- The nurse in labour took very good care of me and gave me all the attention I need during childbirth					
10- The nurse/doctor provided me with pain relief when I asked for it.					
11- Overall, I was satisfied with the way my labour pain was managed					
12- The Health care team did not treat me with respect during my childbirth					
13- I felt comfortable with the presence of the health care provider throughout childbirth					
14- The health care providers treated me as an individual					
15- The health care team helped me to feel the childbirth experience is an important natural life event					
16- The health care team adequately monitor the progress of my labour and delivery					
17- There were times that no one told me what was happening					
18- I was prevented from walking around the ward during my labour and birth					
19- I had my own clothes on throughout labour and birth					
20- I was consulted on the most comfortable position in which to give birth.					

Statements	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
21- I was allowed to hold my baby immediately he/she was born					
22- I was fully informed of what to expect during pregnancy and labour.					
23- I was never left unattended during labour					
24- I was able to talk to my doctor regularly					
25- Immediately after the baby was born, I was transferred to the ward.					
26- The nurse made this labour experience of childbirth a good one for me					
27- The nurse protected my privacy during labour and at birth					
28- My husband or close family were allowed to stay with me during labour					
29- My husband or close family were allowed to stay with me at the birth					
30- I received psychological and emotional support from the nurse during labour					
31- Sharing the labour room with other women increased my stress and anxiety					
32- I felt scared when I was transferred from the labour room to the delivery room					

Section 4: Please indicate how often you had the chance to experience the following during your recent childbirth:

Statements	Rarely	Often	Sometime	Usually	Always
1-I coped well during the labour and birth					
2-Everything that was done was done for a good reason during labour and delivery					
3-I was involved in the decision making through my labour and birth					
4-I felt safe in the care of the nurse during labour and birth					
5-I felt helpless without my family to support during labour and birth					
6-I felt stress and tension during labour and birth as I did not know what to expect					
7-I felt happy about my interaction between me and the health care team during labour and birth					
8-I was satisfied with my ability to cope with the pain of labour.					
9- My pain was well managed so I was able to maintain control during labour and giving birth.					
10-I felt that the health care providers who attended my labour and birth were very caring					
11-I knew what might happen to me during labour and birth					
12-I felt like it was a dream and that I was on the outside looking in					
13-I felt calm during labour and birth as I was in good hands					
14-I felt that my childbirth was agony as my pain was not well managed					
15-I felt scared during labour and birth					
16-I felt that I was treated with respect during labour and birth					
17-I felt there was something wrong all throughout labour and birth					
18-I searched for assistance and help from people around me					
19-I felt isolated during labour and birth					
20-I felt I had no control over anything during labour and birth					
21-I felt good during and after labour and birth					
22-I was aware of what was happening throughout labour and birth					

Section 5:

Apart from meeting your new baby, and knowing that your baby had no serious health concerns, and apart from the pain you had during labour and birth, what was the best and the worse thing about your recent experience of giving birth? **We would appreciate knowing as much details as you can provide.**

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Appendix III: Women's Survey [Arabic]

MONASH University

إفادة إيضاحية

العنوان: تقييم خدمات الأمومة في المملكة العربية السعودية

٢٠١٣/

ورقة المعلومات هذه هي لك لتحتفظي بها.

إسمي إبتسام عمر جحلان وأفيدكم بأنني أقوم بمشروع بحث تحت إشراف الدكتورة فيرجينيا بالمير، إحدى كبار المحاضرات، والدكتورة كارول غيلمور المحاضرة في كلية التمريض والقبالة لنيل شهادة الدكتوراه من جامعة موناش باستراليا.

هذا يعني أنني سوف أقوم بكتابة أطروحة تعادل كتاباً مؤلفاً من 300 صفحة.

أنت مدعوة للمشاركة في هذه الدراسة. الرجاء قراءة هذه الإفادة الإيضاحية بالكامل قبل اتخاذ أي قرار.

لماذا تم اختيارك للمشاركة في هذا البحث؟

أسعى للحصول على آراء السيدات تجاه خدمات الأمومة التي حصلن عليها في المملكة العربية السعودية. لذلك، بما أنك قد ولدت حديثاً في إحدى المستشفيات الإثنتا عشر التي تمّ إختيارها من ضمن مستشفيات جدة والرياض والدمام، أنت مدعوة للمشاركة في هذه الدراسة.

الهدف/الغاية من البحث

الهدف من هذه الدراسة هو الكشف، لأول مرة، عن وجهات نظر السيدات ورضاهن عن خدمة رعاية الأمومة الحالية التي يحصلن عليها في المملكة العربية السعودية. أقوم بإجراء هذا البحث لأسلط الضوء على آراء السيدات ومقدمي خدمات رعاية الأمومة فيما يتعلق بخدمات الأمومة لتقديمها لصناع السياسات والمسؤولين التنظيميين. ستقدم وجهات النظر هذه مقترحات مفيدة لتحسين تقديم خدمات الأمومة في المملكة العربية السعودية.

الفوائد المحتملة

قد لا تكون هناك فوائد مباشرة بالنسبة لك أو لأي شخص يشارك في هذه الدراسة، ولكن سوف تساعد نتائج الدراسة في تحسين تقديم خدمات الأمومة في المملكة العربية السعودية في المستقبل، وسيكون ذلك مفيداً للسيدات اللواتي لهن القدرة على الإنجاب في المملكة العربية السعودية وربما على الصعيد الدولي.

على ماذا ينطوي هذا البحث؟

تنطوي الدراسة على إستبيانات مدارة ذاتياً.

كم من الوقت سوف يستغرق هذا الإستبيان؟

سوف تحتاجين إلى ١٠ دقائق لاستكمال الإستبيان

إزعاج/مشقة

تعتبر هذه المهام منخفضة المخاطر ونحن لا نتوقع أن نسبب لك أي إزعاج ما عدا الأخذ من وقتك لملء الإستبيان. لا نتوقع أن تتكبدي أية مشقة أخرى، ولكن، إذا حصل لك ذلك من جراء هذه المهام، الرجاء الرجوع إلى طبيبك.

بإمكانك الإنسحاب من البحث

المشاركة في هذه الدراسة تطوعية ولست ملزمة على الموافقة على المشاركة. ولكن إذا وافقت على المشاركة، باستطاعتك الإنسحاب من أية مشاركة إضافية في أي مرحلة من المراحل ولكن سوف يكون بإمكانك سحب البيانات فقط قبل تقديم الإستبيان الذي سوف يكون مجهول الهوية.

السرية

ستبقى هويتك مجهولة، بما أنه ليس مطلوباً منك الإفصاح، في الإستبيانات، عن إسمك أو أية معلومات قد تؤدي إلى التعرف على هويتك.

تخزين البيانات

تتقيد عملية تخزين البيانات بأنظمة التخزين الخاصة بجامعة موناش حيث ستحفظ داخل حرم الجامعة في خزانة مقفلة خاصة بالملفات لمدة خمس سنوات. قد يتم نشر تقرير حول الدراسة ولكن لن تكون هوية الأفراد المشاركين محددة في هذا التقرير.

النتائج

إذا كنت ترغبين في الحصول على معلومات حول إجمالي نتائج هذا البحث، يرجى الإتصال بإبتسام جحلان على الرقم **+966504672740** أو عبر الإيميل **iojah1@student.monash.edu.au**. يمكن الحصول على هذه النتائج بعد ٦ أشهر.

إذا أردت الإتصال بالباحثين بخصوص أية ناحية من نواحي هذه الدراسة، الرجاء الإتصال بالباحثة الرئيسية:	**إذا كانت لديك أية شكوى بخصوص الطريقة التي أجري فيها هذا البحث <أدخلي هنا رقم المشروع الخاص بلجنة أخلاقيات البحوث المرتبطة بالأفراد التابعة لجامعة موناش>، الرجاء الإتصال ب:**
الباحثة الرئيسية: إبتسام جحلان **المرشحة للحصول على شهادة الدكتوراه من جامعة موناش** رقم الجوال: **+96650472740 (السعودية)** **+61421448127 (أستراليا)** البريد الإلكتروني: **iojah1@student.monash.edu.au** **الدكتورة فيرجينيا بلامير** **Dr Virginia Plummer** هاتف: +61 3 990 44064 بريد إلكتروني: Virginia.Plummer@monash.edu	نجوى الصوماللي **المعيدة في كلية التمريض في جامعة الملك سعود** رقم الجوال: **+966506202652** البريد الإلكتروني: nalsomali@ksu.edu.sa

شكراً

إبتسام عمر جحلان

عنوان الدراسة: تقييم خدمات الأمومة في المملكة العربية السعودية

شكراً لأخذك الوقت لاستكمال إستطلاع الرأي هذا:

الفقرة ١: البيانات الديموغرافية:

١ـ في أي بلد ولدت؟

١. السعودية
٢. في بلد آخر..... أين؟ .....

٢ـ كم عمرك؟ ..... سنة

٣ـ ما هو أعلى مستوى من التعليم وصلتي إليه أو أعلى شهادة حصلتي عليها؟

١. أقل من الثانوية العامة
٢. الشهادة الثانوية أو ما يعادلها
٣. فترة في الكلية ولكن لم أحصل على شهادة
٤. درجة مشارك
٥. كلية (على سبيل المثال: بكالوريوس، دبلوم)
٦. كلية الدراسات العليا (على سبيل المثال: ماجيستير في العلوم، دكتورة في الطب، دكتوراه)

٤ـ في أي مدينه تعيشين بشكل رئيسي؟

.....

٥ـ هل أنت إمرأة عاملة؟

١ـ كلا
٢ـ نعم ..... ماذا تفعلين؟ ....

٦ـ هل هذه تجربتك الأولى مع الولادة؟

١ـ نعم
٢ـ كلا

٦.١ إذا لم تكن تجربتك الأولى، بما في ذلك هذا الحمل، كم مرة بالإجمال كنت حاملاً .... وكم مرة أنجبت؟ .....

الفقرة ٢: الرجاء الإجابة على السؤال التالي فيما يتعلق بحملك وولادتك الأخيرة:

٧ـ هل خططت لهذا الحمل؟
١ـ نعم
٢ـ كل

٨ـ بشكل عام، كيف تصفين صحتك الجسدية؟

١. ضعيفة
٢. معتدلة
٣. جيدة
٤. جيدة جداً
٥. ممتازة

٩ـ كيف تَصفين صحتَك النفسية؟

١. ضعيفة ٣. جيدة ٥. ممتازة
٢. معتدلة ٤. جيدة جداً

١٠ـ من هو مقدم الرعاية الرئيسي الخاص بولادة طفلك:

١ ـ طبيب التوليد/طبيب نسائي
٢ ـ طبيب ولكن لست متأكدة من تخصصه/تخصصها
٣ ـ قابلة
٤ ـ ممرضة وهي ليست قابلة
٥ ـ مساعد طبيب أو طالب طب
٦ ـ رعاية مشتركة من قبل قابلة وطبيب توليد
٧ ـ لست متأكدة

١١ـ هل حاول مقدم رعاية الأمومة الخاص بك إعطاءك طلقاً صناعياً؟ بما معناه، هل حاول مقدم الرعاية تحريك الطلق لديك من خلال استخدام الأدوية أو بعض التقنيات الأخرى؟

١. نعم ٢. كلا ٣. غير متأكدة

١٢ـ هل تلقيت أي شيء للتحكم بالألم أثناء المخاض؟

١ـ نعم ٢ـ كلا

١٢.١ ما مدى فعاليته برأيك؟

١ـ فعالاً جداً ٢ـ فعالاً إلى حد ما ٣ـ ليس فعالاً بالمرة

١٣ـ هل ولد طفلك .....؟

١ـ بشكل مهبلي ٢ـ بقيصرية ٣ـ لست متأكدة

١٣.١ـ إذا كانت الولادة بشكل مهبلي، هل كانت:

١ـ طبيعية ٢ـ عن طريق الشفط ٣ـ باستخدام الملقط ٤ـ ولادة متعددة

١٤ـ هل اختبرتي عملية قص العجان؟

١ـ نعم ٢ـ كلا

١٤.١ إذا لم تختبري ذلك، هل حصل لك تمزق للمهبل أو أي جرح آخر استدعى التقطيب؟
١ـ نعم ٢ـ كلا

١٥ـ ما هو جنس طفلك؟

١ـ ولد ٢ـ بنت

١٦ـ ما رأيك بالألم خلال المخاض؛ هل كان شديداً:

١ـ بالنسبة التي توقعتها ٢ـ أقل من المتوقع ٣ـ أكثر من المتوقع

١٧ـ الآن، كيف تصفين شدة ألم المخاض خلال تجربة ولادتك الأخيرة:

١ـ ألم شديد جداً

٢ـ ألم شديد إلى حد ما

٣ـ ألم شديد قليلاً

١٨ـ إلى أي مدى شاركت في عملية اتخاذ القرارات أثناء ولادتك الأخيرة:

١ـ شاركت في كافة القرارات

٢ـ لم أشارك في كل القرارات

٣ـ لم أشارك في أي قرار

٤ـ لم أرغب في المشاركة

١٩ـ كيف تصفين ولادتك الأخيرة؟

١ـ صعبة جداً

٢ـ صعبة إلى حد ما

٣ـ سهلة

٢٠ـ أي من العبارات التالية تصف شعورك تجاه آلام المخاض قبل بدايته؟

١ـ كنت خائفة جداً

٢ـ كنت خائفة بعض الشيء

٣ـ لم أكن خائفة على الإطلاق

٢١ـ بظنك، ما مدى تعاملك بشكل جيد مع ولادة هذا الطفل؟

١ـ تعاملت معها بشكل جيد للغاية

٢ـ تعاملت معها بشكل جيد

٣ـ لم أتعامل معها بشكل جيد مطلقاً

٢٢ـ بشكل عام، ما مدى رضاك عن الرعاية الصحية التي تلقيتها؟

١ـ راضية للغاية

٢ـ راضية إلى حد ما

٣ـ لست راضية على الإطلاق

٢٣ـ بشكل عام، كيف تقيمين نوعية الرعاية الصحية في المملكة العربية السعودية؟

١ـ ممتازة ٢ـ جيدة ٣ـ مقبولة ٤ـ رديئة

الفقرة ٣: يرجى تبيان إلى أي مدى توافقين على العبارات التالية فيما يتعلق بتجربة ولادتك الأخيرة:

العبارات	أعارض بشدة	أعارض	لا أوافق ولا أعارض	أوافق	أوافق بشدة
١ـ كنت راضية تماماً عن الرعاية الصحية التي تلقيتها خلال تجربة ولادة طفلي					
٢ـ حصلت على مستوى عال من الأمان لي ولطفلي خلال تجربة الولادة					
٣ـ قدم لي فريق الصحة كل ما أمكن من رعاية وإهتمام خلال تجربة ولادة طفلي					
٤ـ شعرت بالسعادة والراحة خلال تجربة الولادة هذه					
٥ـ أحسست بأنّ بعض الأخطاء الطبية وقعت أثناء تقديم الرعاية لي					
٦ـ شعرت بالراحة أثناء ولادتي لأنّ فريق الرعاية الصحية كان مدرباً تدريباً جيداً للإعتناء بي					
٧ـ شعرت بالراحة أثناء ولادتي لأنّ فريق الرعاية الصحية أخذ مشاعري وظروفي بعين الإعتبار					
٨ـ إهتمت الممرضة/ القابلة بي بشكل جيد جداً وقدمت لي كل العناية التي احتجت إليها أثناء ولادتي					
٩ـ قام فريق الرعاية الصحية بكل ما في وسعه للتحكم بألم المخاض لدي					
١٠ـ كنت راضية عن الطريقة التي تمّ فيها التعامل مع ألم المخاض لدي					
١١ـ تمنيت لو أنّ فريق الرعاية الصحية تعامل مع ولادتي بشكل مختلف					
١٢ـ لم يعاملني فريق الرعاية الصحية بشكل جيد أثناء ولادتي					
١٣ـ شعرت بالراحة من تواجد مقدّم الرعاية الصحية في كل موقف					
١٤ـ عاملني مقدمو الرعاية الصحية مثل أي حالة أخرى					
١٥ـ ساعدني فريق الرعاية الصحية على الشعور بأنّ تجربة الولادة هي حدث طبيعي مهم في الحياة					
١٦ـ استخدم فريق الرعاية الصحية معدات كافية لرصد التقدم المحرز فيما يختص بالمخاض والولادة					
١٧ـ كانت هناك أوقات لم يقل لي أحد خلالها ماذا كان يحدث					
١٨ـ منعت من التجول في الجناح أثناء عملية المخاض والولادة					
١٩ـ استُخدمت وضعية مناسبة موافقة عليها في الولادة					
٢٠ـ تلقى الطفل الرعاية اللازمة بعد الولادة					
٢١ـ سُمح لي بأن أحمل طفلي كلما أردت					
٢٢ـ زوّدت بكافة المعلومات حول المخاض والولادة					

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العبارات	أعارض بشدة	أعارض	لا أوافق ولا أعارض	أوافق	أوافق بشدة
٢٣ـ بقيت الممرضة/ القابلة معي خلال كل الوقت الذي كنت بحاجة إليها فيه					
٢٤ـ كان بإمكاني رؤية الطبيب في أي وقت احتجت إليه/ إليها					
٢٥ـ لقد خضعت للعديد من الفحوصات المهبلية التي كانت مزعجة					
٢٦ـ لم تعط لي الفرصة أو الوقت الكافي للراحة بعد الولادة وتم نقلي إلى الجناح على الفور					
٢٧ـ جعلت الممرضة/ القابلة من تجربة الولادة هذه تجربة جيدة بالنسبة لي					
٢٨ـ قامت الممرضة/القابلة بصون خصوصيتي أثناء الولادة					
٢٩ـ حصلت على الدعم النفسي والمعنوي من عائلتي أثناء المخاض					
٣٠ـ حصلت على الدعم النفسي والمعنوي من الممرضة / القابلة أثناء المخاض					
٣١ـ مشاطرة غرفة المخاض مع نساء أخريات زاد من توتري وقلقي					
٣٢ـ شعرت بالخوف عندما تم نقلي من غرفة المخاض إلى غرفة الولادة					

الفقرة ٤: يرجى بيان عدد المرات التي سنحت لك الفرصة بتجربة ما يلي أثناء ولادتك الأخيرة:

العبارات	نادراً	غالباً	أحياناً	عادة	دائماً
١ـ أحسست أنني خبيرة بأمور المخاض والولادة					
٢ـ تحملت مراحل المخاض والولادة					
٣ـ كان هناك سبب منطقي لكل ما فعلوه لي أثناء المخاض والولادة					
٤ـ شاركت في اتخاذ القرارات خلال عملية المخاض والولادة					
٥ـ شعرت بالأمان أثناء عملية المخاض والولادة					
٦ـ شعرت بالعجز أثناء عملية المخاض والولادة					
٧ـ شعرت بالإجهاد والتوتر أثناء عملية المخاض والولادة					
٨ـ لقد شعرت بالسعادة بتفاعلي مع الآخريات أثناء عملية المخاض والولادة					
٩ـ كنت راضية عن سلوكي					
١٠ـ لقد بقي ألمي تحت السيطرة					
١١ـ أحسست بأنّ مقدمي الرعاية الصحية الذين حضروا عملية المخاض والولادة كانوا مهتمين للغاية					
١٢ـ كنت على علم بما قد يحدث لي أثناء عملية المخاض والولادة					
١٣ـ أحسست كما لو أنه كان حلماً					
١٤ـ شعرت بالهدوء أثناء المخاض والولادة					
١٥ـ أحسست بأنّ ولادتي كانت عذاباً					
١٦ـ شعرت بالخوف أثناء المخاض والولادة					
١٧ـ أحسست كأنني إنسانة لها حياة ذات مغزى أثناء المخاض والولادة					
١٨ـ شعرت بأنّ هناك شيئاً خاطئاً طوال المخاض والولادة					
١٩ـ طلبت المساعدة والعون من الناس الموجودين حولي					
٢٠ـ شعرت بالعزلة أثناء المخاض والولادة					
٢١ـ أحسست بأنه ليس لي سيطرة على أي شيء أثناء المخاض والولادة					
٢٢ـ أحسست بإحساس جيد أثناء المخاض والولادة وبعد ذلك					
٢٣ـ كنت على علم بما كان يجري طوال عملية المخاض والولادة					

10

الفقرة ٥:

بصرف النظر عن لقائك طفلك الجديد، ومعرفة أنَّه ليس لدى طفلك أية مخاوف صحية خطيرة، وبصرف النظر عن الألم الذي أحسست به أثناء المخاض والولادة، ما هو أفضل شيء وأسوأ شيء حول تجربة ولادتك الأخيرة؟ **تتمنى، شاكرين، أن تطلعنا على أكبر عدد من المعلومات التي يمكنك تزويدنا بها.**

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Appendix IV: Clinicians' Survey [English]

MONASH University

Explanatory Statement

/2013

Title: Birthing Services in Saudi Arabia

Maternity Care Providers Survey

This information sheet is for you to keep.

My name is Ibtesam Omar Jahlan and I am conducting a research project towards a PhD at Monash University with Dr.Virginia Plummer a Senior Lecturer, Dr. Meredith McIntyre a Senior Lecturer Dr.Carole Gilmour a Lecturer in the Department of Nursing and Midwifery from Monash Univercity; and Dr. Salma Moawed a Professor in the College of Nursing from King Saud University. This means that I will be writing a thesis, which is the equivalent of a 300-page book.

You are invited to take part in this study. Please read this Explanatory Statement in full before making a decision.

Why were you chosen for this research?

I am seeking health professionals' opinions about the birthing services provided in Saudi Arabia. As you are an obstetrician, midwife, or nurse, working in one of three selected hospitals within Jeddah, Riyadh, and Dammam, you are invited to participate in the study.

The aim/purpose of the research

The aim of this study is to assess professional health care providers' perspectives of maternity care provided.

I am conducting this research to bring women's and maternity care providers' views regarding the birthing services to the light for policy makers and organisational administrators. These perspectives will provide useful recommendations to improve birthing services provision in Saudi Arabia.

Possible benefits

There will be no direct benefits for the participants of this study, but the study's findings will provide recommendations to improve birthing services provision in Saudi Arabia and this will be beneficial for all childbearing women in Saudi Arabia and possibly internationally.

What does the research involve?

The study involves self-administered questionnaires.

How much time will the research take?

You will need 10 minutes to complete the questionnaire

Inconvenience/discomfort

We do not anticipate that you may have any inconvenience.

You can withdraw from the research

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage but you will only be able to withdraw data prior to an anonymous questionnaire being submitted.

Confidentiality

Your identity will be kept anonymous, as you do not have to reveal, in questionnaires, your name or any information that may lead to you.

Storage of data

Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results

If you would like to be informed of the aggregate research finding, please contact Ibtesam Jahlan on +966504672740. The findings are accessible from the researcher after 2015.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	**If you have a complaint concerning the manner in which this research** CF12/1331 – 2012000685 **is being conducted, please contact:**
Main Researcher: **Ibtesam Jahlan.** **PhD candidate at Monash University** Mobile: **+966504672740 (Saudi Arabia)** **+61421448127 (Australia)** Emai:**ibtesam.jahlan@monash.edu** **Dr Virginia Plummer** Phone: +61 3 990 44064 Email: Virginia.Plummer@monash.edu	Dr.SalmaMoawed **Professor in King Saud University** Mobile: +966505237509 Email:smoawed1993@hotmail.com

Thank you.

Ibtesam Omar Jahlan

Study Title: Birthing Services in Saudi Arabia

Maternity Care Providers Survey

Thank you for taking the time to complete this survey:(**Please tick the relevant boxes**)

Section I: Personal Information

1)- Are you

☐ Female ☐ Male

2)-In what country were you born?

☐ Saudi Arabia. ☐ Other country. Which?.....

3)-How old are you?.....years

4)-Which type of care provider are you?

☐ An obstetrician ☐ A midwife

☐ A Registered nurse who is not a midwife

5)-How long is your experience in your Maternity speciality?

☐ Less than 1 year ☐ 10 to 15 years

☐ 1 to 4 years ☐ More than 15 years

☐ 5 to 9 years

6)-Where are you currently working? (Tick all areas in which you work regularly)

☐ Ante-natal departments ☐ Labour and Delivery wards

☐ Post-natal departments ☐ Special Care Nursery

☐ Research ☐ Teaching

☐ Administration Other.....

7)-What are your main sourcesfor keeping up with the new evidences?(Tick all sources you use regularly)

☐ Expert consultants' opinions ☐ Colleagues' experience

☐ Personal experience ☐ Journals

☐ Internet ☐ Seminars and conferences

☐ Case Reviews ☐ Other.....

8)-How satisfied are you with the level of access you receive at the hospital to the latest medical research evidence?

☐ Very unsatisfied ☐ Unsatisfied ☐ Satisfied ☐ Very satisfied

9)-To what extent do you participate in the following processes at the hospital so that your practice is regularly updated with the latest medical research evidences?

	Never	Rarely	Sometimes	Usually	Not Available
In services education					
Policy Reviews and updates					
Procedure reviews and updates					
Journal clubs					
Grand rounds/ case discussion					
Clinical review of critical incidents					
Other (please mention).....					

10)-Do you believe that your care includes the latest evidence based practices during pregnancy?

☐ Mostly Not confidant ☐ Slightly Not confidant
☐ Slightly Confident ☐ Mostly confidant

11)- Do you believe that your care includes the latest evidence based practices during labour?

☐ Mostly Not confident ☐ Slightly Not confidant
☐ Slightly Confident ☐ Mostly confidant

12)-How satisfied overall are you with the health care you have provided?

☐ Mostly Not confident ☐ Slightly Not confidant
☐ Slightly Confident ☐ Mostly confidant

Section II: Please indicate to what extent you agree with the following statements regarding your daily care: please fill up the part that belong to your speciality (comments can be added at the end of the survey)

Part A: Obstetricians

Statements	Never	Rarely	Sometime	Very Often	Always
A)- From your experience, how satisfied the women are with your care: 1.Overall, women are completely satisfied with birthing services they received					
2. Women are happy with the care of the obstetricians or doctors					
3. Women feel comfortable in the care of registered nurses and midwives					
4. After birth women are satisfied with the care provided to their babies					
5. Sharing the labour room with other women increases women's stress and anxiety					
6. The women are satisfied with the way their labour pain is managed					
B)- Tell me about your practice: 1. I use Electronic Cardio Tocograph(CTG) on admission as a routine assessment for all women in labour regardless of her pregnancy condition					
2. I and the maternity care team do what we can to mediate women's labour pain					
3. I recommend the woman be offered all pharmacological pain control options which are available and let her choose					
4. I use CTG as routine care for all women during labour and birth whether they are low/ high risk cases					
5.I support women eating and drinking in labour					
6. I do not recommend women to have routine intravenous infusion in labour unless required					

Statements	Never	Rarely	Sometime	Very often	Always
7. I ensure that all women have I.V access during labour					
8. I conduct 2-4 hourly scheduled vaginal examinations in labour even though they are an uncomfortable procedure.					
9. I use a suitable agreed (with the woman) position for delivery					
10. I require women to lie on the bed during second stage of labour					
11. I always use lithotomy position for the second stage of labour					
12. I massage the perineum during the second stage of labour with the woman's permission					
13. I ask women to push by sustained bearing down during the birth of the baby					
14. I encourage the woman to push as her body is telling					
15. I advise women to hold their breath during the birth of the baby					
16. I perform an episiotomy for every primiparous woman at the birth stage					
17. I perform an episiotomy for every woman at the birth stage					
18. I always actively manage third stage of labour, i.e: oxytocin, early clamping, C.C.T					
C)- Tell me how you approach care of the pregnant/ labouring woman: 1. I try my best to make the childbirth experience a good one for each woman					
2. I provide the women with the opportunity to contribute to their birth plan					
3. I provide antenatal education as an integral part of antenatal care.					
4. I encourage women to attend antenatal educational classes					

Statements	Never	Rarely	Sometime	Very often	Always
5. I explain to women every procedure to be done during her childbirth					
6. I stay with women all the time they need me or arrange for an alternate health professionals					
7. I allow women's families to provide psychological and emotional support to her during labour					
8. I provide psychological and emotional support during labour					
9. I provide women with information about the progress of their childbirth					
10. I ask for women's consent for any procedure I plan to perform					
11. I take into consideration each woman's feelings and circumstances					
12. There is a high level of safety for women and their babies during the childbirth experience in most birth units					
13. I protect women's privacy all the time during labour and birth.					
14. I give women all possible care and attention during their childbirth experience					
16. I treat every woman with individual care					
17. I help women to feel the childbirth experience is an important natural life event					

Part B: RegisteredNurses or Midwives

Statements	Never	Rarely	Sometime	Very often	Always
A)- From your experience how satisfied the women are with your care: 1.Overall, women are completely satisfied with birthing services they received					
2. Women are happy with the care by the obstetricians and doctors					
3. Women feel comfortable with the care by registered nurses and midwives					
4. After birth, women are satisfied with the care provided to their babies					
5. Sharing the labour room with other women increases women's stress and anxiety					
6. The women are satisfied with the way their labour pain is managed					
B)- Tell me about your practice: 1. I use Electronic Cardio-Toco-graph (CTG) on admission as a routine assessment for all women in labour regardless of her pregnancy condition					
2. I use CTG only when Dr orders it or as outlined by hospital policy					
3. I and the maternity care team do what we can to mediate women's labour pain					
4. I support the use of pharmacological pain control options for women in labour					
5. I offer the woman non-pharmacological pain relief options, e.g: shower, massage.					
6. I use CTG as routine care for all women during labour and birth whether they are low/ high risk cases					
7. I use CTG as routine care on orders of Dr or according to the institution policy for all women during labour and birth regardless of their risk level					
8.I allow food and drink for women in labour					
9. According to hospital' policy I do routine intravenous infusion in labour whether it is required or not					
10. I conduct 2-4 hourly scheduled vaginal examinations in labour even though they are an uncomfortable procedure.					
11. I do not recommend women walking around the ward during their labour and birth.					

Statements	Never	Rarely	Sometime	Very often	Always
12. I use a suitable agreed (with the woman) position for delivery					
13. I require women to lie on the bed during first stage labour					
14. I always use lithotomy position for the second stage of labour					
15. I massage the perineum during the second stage of labour with the woman's permission					
16. I ask women to push by sustained bearing down during the birth of the baby					
17. I encourage the woman to push as her body is telling					
18. I advise women to hold their breath when pushing during the birth of the baby					
19. I perform an episiotomy for every primiparous woman at the birth stage					
20. I perform an episiotomy for every woman at the birth stage					
21. I always actively manage third stage of labour, i.e: oxytocin, early clamping, C.C.T					
22. I conduct routine immediate post-partum examination for all neonates					
23. I allow women to hold their babies when they want this					
24. I encourage women to breastfeed within the first hour of birth					
25. I transfer women to the ward within 1 hour after birth					
C)- Tell me how you approach care of the pregnant/ labouring woman in 2012: 1. I try my best to make the childbirth experience a good one for each woman					
2. I provide the women with the opportunity to contribute to their birth plan					
3. I support the use of antenatal education as an integral part of antenatal care.					
4. I encourage women to attend antenatal educational classes					
5. I explain to women every procedure to be done during her childbirth					
6. I stay with women all the time they need me					

Statements	Never	Rarely	Sometime	Very often	Always
7. I allow women's families to provide psychological and emotional support to them during labour					
8. I provide psychological and emotional support during labour					
9. I provide women with information about the progress of their childbirth					
10. I ask for women's consent for any procedure I plan to perform					
11. I take into consideration each woman's feelings and circumstances					
12. There is a high level of safety for women and their babies during the childbirth experience					
13. I protect women's privacy all the time during the childbirth					
14. I give women all possible care and attention during their childbirth experience					
15. I help women to feel the childbirth experience is an important natural life event					

Section III:How frequent do you think the following procedures are conducted within your care: (Please estimate how frequently you conduct the following procedures)

Procedure		10%	30%	50%	70%	90%	100% of all births
ARM (artificial rupture of membrane)							
IOL (induction of labour)							
C.S (Caesarean section)	Elective						
	Emergency						
Vacuum vaginal delivery							
Forceps Vaginal Delivery							

Section IV:

Please use the space providedto share your views and opinions toward maternity services in Saudi Arabia? What do you think need to change? What are the barriers? What would you like to offer more than what you are offering? We would appreciate knowing as much details as you can provide.

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Appendix V: Clinicians Survey [Arabic]

جامعة موناش

بيان تفسيري

2013 /

العنوان : خدمات الولادة في المملكة العربية السعودية

مسح عن مقدمي خدمات رعاية الأمومة

وضعت ورقة المعلومات هذه من أجلك فحافظ عليها.

اسمي ابتسام عمر جحلان , اجري مشروع بحث دكتوراه بجامعة موناش مع الدكتورة / فرجينيا بلامر , مدرس مساعد اول , والدكتورة كارول جليمور – مدرس مساعد بقسم التمريض والتوليد - جامعة موناش , والدكتورة سلمى معوض ,الأستاذة بكلية التمريض , جامعة الملك سعود. هذا يعني أنني سوف أكتب أطروحة، أي ما يعادل كتاب مكون من 300 صفحة.

انتم مدعوون للمشاركة في هذه الدراسة. يرجى قراءة هذا البيان التوضيحي بالكامل قبل اتخاذ أي قرار.

لماذا انتم مختارون لهذا البحث؟

أسعى للحصول على آراء المهنيين الصحيين حول خدمات الولادة المقدمة في المملكة العربية السعودية. وبصفتكم أخصائي توليد، قابلة، أو ممرضة، او تعملون في واحدة من ثلاثة مستشفيات مختارة داخل جدة، الرياض والدمام، فأنتم مدعوون للمشاركة في الدراسة.

الهدف / الغرض من البحث

الهدف من هذه الدراسة هو تقييم وجهات نظر مقدمو خدمات الرعاية الصحية المهنية تجاه خدمات رعاية الأمومة المقدمة.

أجري هذا البحث لإخراج أراء مقدمو خدمات رعاية المرأة والأمومة فيما يتعلق بخدمات الولادة إلى النور وتقديمها لصانعي السياسات ورؤساء التنظيم. سوف تقدم وجهات النظر هذه توصيات مفيدة لتحسين أحكام خدمات الولادة في المملكة العربية السعودية.

الفوائد الممكنة

لن يكون هناك فوائد مباشرة للمشاركين في هذه الدراسة، ولكن نتائج الدراسة ستمنحنا توصيات لتحسين مخصصات خدمات الولادة في المملكة العربية السعودية وهذا سيكون مفيدا لجميع الحوامل في المملكة العربية السعودية وربما دوليا.

ماذا ينطوي عليه البحث ؟

وتشمل الدراسة على استبيانات تدار ذاتيا.

كم من الوقت سيستغرقه هذا البحث؟

سوف تحتاج 10 دقائق لإكمال الاستبيان .

الإزعاج / عدم الراحة

لا نتوقع أن قد يكون لديك أي شعور بالازعاج.

يمكنك الانسحاب من البحث

وضعك في هذه الدراسة هو طوعي كما انك لا تخضع لأي التزام للموافقة على المشاركة. ومع ذلك، إذا كنت لا توافق على المشاركة، قد تنسحب من مشاركة إضافية في أي مرحلة ولكنك ستكون قادرا على الانسحاب من إدلاء بالبيانات فقط قبل تقديم استبيان ما غير معلوم .

الخصوصية

ستبقى هويتك دون افصاح عنها ، كم انه ليس عليك أن تكشف ، في الاستبيانات، اسمك أو أي معلومات قد تقود الى الوصول اليك .

تخزين البيانات

سيتم تخزين البيانات التي تم جمعها وفقا للوائح جامعة موناش، تحفظ في مباني الجامعة، في خزانة ملفات مغلقة لمدة 5 سنوات. من الممكن تقديم تقرير الدراسة للنشر ، ولكن المشاركين الفرديين لن تكون قابلة للتمييز في مثل هذا التقرير.

النتائج

إذا كنت ترغب في معرفة نتائج هذا البحث على وجه الإجمال ، يرجى الاتصال بابتسام جاحلان على رقم 966504672740+ يمكن الوصول إلي النتائج من الباحثة بعد عام 2015.

إذا كنت ترغب في الاتصال بالباحثين للاستفسار عن أي جانب من جوانب هذه الدراسة، يرجى الاتصال بالباحث الرئيسي	اذا كانت لديك أي شكوى تتعلق بطريقة إجراء هذا البحث رقم 2012000685 - CF12/1331 , يرجى الاتصال ب:
الباحث الرئيسي: ابتسام جحلان مرشح لنيل درجة الدكتوراه بجامعة موناش الجوال: 966504672740+ (المملكة العربية السعودية) 61421448127+ (أستراليا) البريد الالكتروني: ibtesam.jahlan @monash.edu الدكتور فيرجينيا بلامر الهاتف: 61 3 990 64044+ البريد الإلكتروني: monash.edu@Virginia.Plummer	الدكتورة / سلمى معوض أستاذة بجامعة الملك سعود جوال : 966505237509+ البريد الاليكتروني Virginia.Plummer@monash.edu

شكرا لكم .
ابتسام عمر جحلان

عنوان الدراسة: خدمات الولادة في السعودية

مسح عن مقدمي خدمات رعاية الأمومة

أشكركم على أخذ الوقت لإكمال هذه الدراسة: (الرجاء وضع علامة في المربعات ذات الصلة)

القسم الاول : المعلومات الشخصية

1) - هل أنت

أنثى ☐ ذكر ☐

2) في أي بلد ولدت؟

☐ المملكة العربية السعودية ☐ بلد آخر . في أي ؟ .....

3)كم عمرك؟ .....سنوات

4)-أي نوع من مقدمي الرعاية أنت؟

☐طبيب توليد ☐ القابلة

☐ ممرضة معتمدة ليست قابلة

5) ما هي مدة خبرتك في تخصص رعاية الأمومة ؟

☐ أقل من 1 سنة ☐ من 10 إلى 15 سنة

☐ 1 سنة إلى أربع سنوات ☐ أكثر من 15 سنة

☐ من 5 إلى 9 سنوات

6)- أين تعمل حاليا ؟ (ضع علامة على كل المجالات التي تعمل بها بانتظام)

☐أقسام الرعاية قبل الولادة ☐ جناح الولادة

☐أقسام الرعاية بعد الولادة ☐ حضانة الرعاية الخاصة

☐ البحث العلمي ☐ التدريس

☐ الإدارة ☐ أخرى

7) ما هي مصادرك الرئيسية لمواكبة الأدلة الجديدة؟ (ضع علامة على كل المصادر التي تستخدمها بانتظام)

☐ آراء الاستشاريين ذوي الخبرة ☐ خبرات الزملاء

☐ التجربة الشخصية ☐ المجلات العلمية

☐ الانترنت ☐ الندوات العلمية والمؤتمرات

☐ مراجعة الحالة ☐ أخرى.....

8)، ما مدى رضاك عن المستوى الذي توفره لك المستشفى للوصول لأحدث الأدلة المتعلقة بالأبحاث الطبية ؟

☐ غير راض جدا ☐ غير راض ☐ راض ☐ راض جدا

9) إلى أي حد تشارك في الأنشطة التالية داخل المستشفى بحيث تساعدك في تحديث رعايتك بانتظام مع أحدث أدلة الأبحاث الطبية ؟

	ابدا	نادرا	احيانا	عادة	غير متاحة
في تعليم الخدمات					
مراجعة السياسات وتحديثاتها					
مراجعة الإجراءات وتحديثاتها					
نوادي المجلات العلمية					
الحلقات الدراسية الكبيرة / مناقشة الحالة					
المراجعة السريرية للحالات الحرجة					
أخرى (يرجى ذكرها)					

10) هل تعتقد أن رعايتك أثناء الحمل تشتمل على الممارسة المستندة على أحدث الأدلة العلمية؟

☐ غير واثق/ة في الغالب ☐ غير واثق/ة نوعا ما

☐ واثق/ة نوعا ما ☐ واثق/ة في الغالب

11) - هل تعتقد أن رعايتك أثناء الولادة تشتمل على الممارسة المستندة على أحدث الأدلة العلمية ؟

☐ غير واثق في الغالب ☐ غير واثق نوعا ما

☐ واثق نوعا ما ☐ واثق في الغالب

12)، ما مدى رضاك بصورة إجمالية عن الرعاية الصحية التي تقدمها ؟

☐ غير واثق في الغالب ☐ غير واثق نوعا ما

☐ واثق نوعا ما ☐ واثق في الغالب

القسم الثاني: يرجى الإشارة إلى أي مدى توافق على البيانات التالية بشأن الرعاية اليومية: يرجى ملء الجزء الذي ينتمي إلى تخصصك (يمكن إضافة التعليقات في نهاية المسح الدراسي)

الجزء ب: الممرضات المعتمدات أو القابلات

البيانات	أبدا	نادرا	أحيانا	في اغلب الأحيان	دائما
أ) من خلال تجربتك، ما مدى رضى السيدات على الرعاية التي تقدمها 1- بصفة عامة, السيدات راضون تماما عن خدمات الولادة التي يتلقونها					
2. السيدات سعيدات بالرعاية التي يقدمها أطباء التوليد أو الأطباء الآخرون لهن					
3- تشعر السيدات بالراحة لرعاية الممرضات والقابلات المعتمدات لهن					
4. بعد الولادة , السيدات راضون عن الرعاية المقدمة لأطفالهن					
5. مشاركة غرفة الولادة مع أخريات يزيد من حدة التوتر والقلق للسيدات					
6- السيدات راضون عن طريقة معالجة آلام المخاض والولادة لهن					
ب) - أخبرني عن ممارستك: 1- أستخدم جهازُ مُراقَبَةِ قَلْبِ الجَنين الالكتروني **كتقييم** روتيني لجميع النساء لتحديد دخولهم للمستشفى بغض النظر عن ظروف الحمل لديهن					
2- أستخدم جهازُ مُراقَبَةِ قَلْبِ الجَنين عندما يأمر به الطبيب او كما هو موضوع حسب سياسة المستشفى					
3- ابذل أنا وفريق رعاية الأمومة ما نستطيعه لتخفيف آلام المخاض والولادة للسيدات .					
4- اقوم بتشجيع استخدام الخيارات الدوائية للتحكم بالألم بالنسبة للمرأة في مرحلة المخاض .					
5- اقوم بعرض الخيارات غير الدوائية على السيدات لتسكين الم المخاض مثل :أخذ دش , التدليك و المساج					
6 - أستخدم جهازُ مُراقَبَةِ قَلْبِ الجَنين كنوع من الرعاية الروتينية لجميع السيدات خلال عملية المخاض و الولادة بغض النظر عن كون الحالة قليلة او عالية الخطورة					
7- أستخدم جهازُ مُراقَبَةِ قَلْبِ الجَنين كنوع من الرعاية الروتينية بناء على أوامر الطبيب او وفقا لسياسة المستشفى لجميع السيدات خلال عملية المخاض و الولادة بغض النظر عن مستوى الخطورة لديهن					

8- أسمح للسيدات بالأكل والشرب أثناء مرحلة المخاض .					
9- وفقا لسياسة المستشفى اقوم بعمل التغذية الوريدية الروتينية أثناء المخاض سواء اكانت مطلوبة ام لا.					
10- أقوم بإجراء فحوصات مهبلية مجدولة كل 2/-4 ساعات أثناء مرحلة المخاض على الرغم من أنه إجراء غير مريح.					
11- لا أوصى المرأة بالمشي داخل قسم الولادة خلال مرحلة المخاض والولادة .					
12. استخدم وضعية مناسبة للولادة متفق عليه (مع المرأة)					
13- اطلب من المرأة الاستلقاء على السرير خلال المرحلة الأولى من المخاض .					
14- استخدم دائما وَضْعِيَّةُ lithotomy للمرحلة الثانية من المخاض(وقت الدفع)					
15- اقوم بتدليك منطقة العجان خلال المرحلة الثانية من المخاض وذلك بعد موافقة المرأة.					
16. أطلب من السيدات بالدفع من خلال الحزق المتواصل أثناء ولادة الطفل .					
17. أشجع المرأة للدفع حسب استطاعة جسدها					
18- انصح السيدات بحبس انفاسهن اثناء ولادة الطفل					
19 – اقوم بعملية شق العجان لكل أمراة بكرية (حامل للمرة الاولى) في مرحلة الولادة					
20 - اقوم بعملية شق العجان لكل امراة في مرحلة الولادة					
21- - أستخدم دائما active managment للمرحلة الثالثة من المخاض وتشمل: الأوكسيتوسين , الربط المبكر , جذب الحبل السري CCT					
22- اقوم باجراء فحص روتيني فوري بعد الولادة لجميع حديثي الولادة .					
23- اسمح للمرأة بحمل وليدها عندما تريد ذلك					
24- اقوم بتشجيع المراة على الرضاعة الطبيعية خلال الساعة الاولى من الولادة					
ج) اخبرني كيف تنتهج أسلوب رعاية المرأة الحامل / المرأة في مرحلة المخاض لعام٢٠١٣:					
1- ابذل قصارى جهدي لجعل تجربة الولادة تجربة جيدة لكل امراة حامل					
2- امنح السيدات الفرصة لكي يشاركن في وضع خطة الولادة					

3- أقوم بتشجيع استخدام التثقيف الصحي في مرحلة ما قبل الولادة كجزء لا يتجزأ من الرعاية لما قبل الولادة					
4- اقوم بتشجيع السيدات لحضور الدروس التعليمية في مرحلة ما قبل الولادة .					
5اقوم بشرح كل إجراءسيتم تنفيذه للمرأة أثناء عملية المخاض والولادة لها .					
6- امكث مع المرأة في كل وقت تحتاجني فيه					
7- أتيح لعائلات السيدات بتقديم الدعم النفسي والعاطفي لهن خلال فترة المخاض					
8- أقوم بتقديم الدعم النفسي والعاطفي خلال فترة المخاض و الولادة					
9- أقوم بتزويد السيدات بالمعلومات عن تطور الولادة لديهن .					
10- اطلب موافقة السيدات عن أي إجراء اخطط لتنفيذه					
11- اضع في حسباتي مشاعر كل امرأة والظروف الخاصة بها					
12- هناك مستوى عالي من السلامة تجاه السيدات وأطفالهن خلال تجربة الولادة في معظم وحدات الولادة					
13- احمي خصوصية المرأة في كل وقت أثناء الولادة					
14- امنح السيدات كافة الرعاية الممكنة والاهتمام خلال تجربة الولادة .					
15- أعامل كل امرأة رعاية فردية خاصة بها					
16- أساعد السيدات لكي يشعرن أن تجربة الولادة هو حدث هام وطبيعي في حياتهن .					

القسم الثالث : كم غالبا تعتقد أن الإجراءات التالية تنفذ في إطار الرعاية التي تقدمها : (يرجى تقدير عدد المرات التي تقوم فيها بالإجراءات التالية)

الإجراء		% 10	% 30	% 50	% 70	% 90	% 100 في كل حالات الولادة
تَمْزِيقُ أَغْشِيَةِ الجَنِيْن ARM							
تَحْرِيضُ المَخَاض IOL							
عملية قيصرية C.S	اختياري Elective						
	في حالة الطوارئ Emergency						
ولادة مهبلية عن طريق الشفط Vacuum							
ولادة مهبلية بالملقط Forceps							

القسم الرابع:

الرجاء استخدام الفراغ المخصص لتبادل وجهات نظركم وأرائكم تجاه خدمات الأمومة في المملكة العربية السعودية؟ ما رأيك فيما هو بحاجة إلى التغيير؟ ما هي العوائق؟ ماذا تريد أن تقدم أكثر مما تقدمه؟ سنكون مقدرين لمعرفة اكبر قدر من التفاصيل يمكنك تقديمه لنا .

Appendix VI: Administrators Interview outline

MONASH University

Explanatory Statement
/2013

Title: Birthing Services in Saudi Arabia

This information sheet is for you to keep.

My name is Ibtesam Omar Jahlan and I am conducting a research project towards a PhD at Monash University with Dr.Virginia Plummer a Senior Lecturer, Dr. Meredith McIntyre a Senior Lecturer Dr.Carole Gilmour a Lecturer in the Department of Nursing and Midwifery from Monash Univercity; and Dr. Salma Moawed a Professor in the College of Nursing from King Saud University. This means that I will be writing a thesis, which is the equivalent of a 300-page book.

You are invited to take part in this study. Please read this Explanatory Statement in full before making a decision.

Why were you chosen for this research?

I am seeking in charge health care providers' perspectives of the birthing services provided in Saudi Arabia. You have been identified as being in charge of maternity departments in one of three selected hospitals within Jeddah, Riyadh, and Dammam. Therefore you are invited to participate in the study.

The aim/purpose of the research

The aim of this study is to uncover for the first time women's, health professionals' and administrative staff perspectives and satisfaction with birthing services in Saudi Arabia.

I am conducting this research to bring women's and maternity care providers' opinions regarding birthing services to the light for policy makers and organisational administrators. These perspectives will provide useful recommendations to improve birthing services provision in Saudi Arabia.

Possible benefits

There will be no direct benefits for the participants who take part in this study, but the study's findings will provide recommendations to improve maternity services provision in Saudi Arabia and this will be beneficial for all childbearing women in Saudi Arabia and possibly internationally.

What does the research involve?

The study involves one to one audio taped interviews.

How much time will the research take?

You will need 30-45 minutes for the interview to complete.

Inconvenience/discomfort

We assure you that neither the staff nor the hospital identity will be identified in this reports arising from the study, because you choose any pseudo-names to be called during the interview and the hospitals will be coded and de-identified.

You can withdraw from the research
Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage.

Confidentiality

Your identity will be kept anonymous, as you do not have to reveal, in interviews, your name or any information that may lead to you. You could choose any other name to be called by.

Storage of data

Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results

If you would like to be informed of the aggregate research finding, please contact Ibtesam Jahlan on +966504672740 The findings are accessible for after 2015.

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	**If you have a complaint concerning the manner in which this research** CF12/1331 – 2012000685 **is being conducted, please contact:**
Main Researcher: **Ibtesam Jahlan.** **PhD candidate at Monash University** Mobile: **+966504672740 (Saudi Arabia)** **+61421448127 (Australia)** Emai: ibtesam.jahlan@monash.edu **Dr Virginia Plummer** Phone: +61 3 990 44064 Email: Virginia.Plummer@monash.edu	Dr.SalmaMoawed **Professor of maternity nursing and family planning at King Saud University** Mobile: **+966505237509** Email:smoawed1993@hotmail.com

Thank you
Ibtesam Omar Jahlan

MONASH University

Consent Form

Title: **Birthing Services in Saudi Arabia**

NOTE: **This consent form will remain with the Monash University researcher for their records**

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher ☐ Yes ☐ No

I agree for the interview to be audio-recorded ☐ Yes ☐ No

And/or

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

And/or
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.

And/or

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name:

Signature:

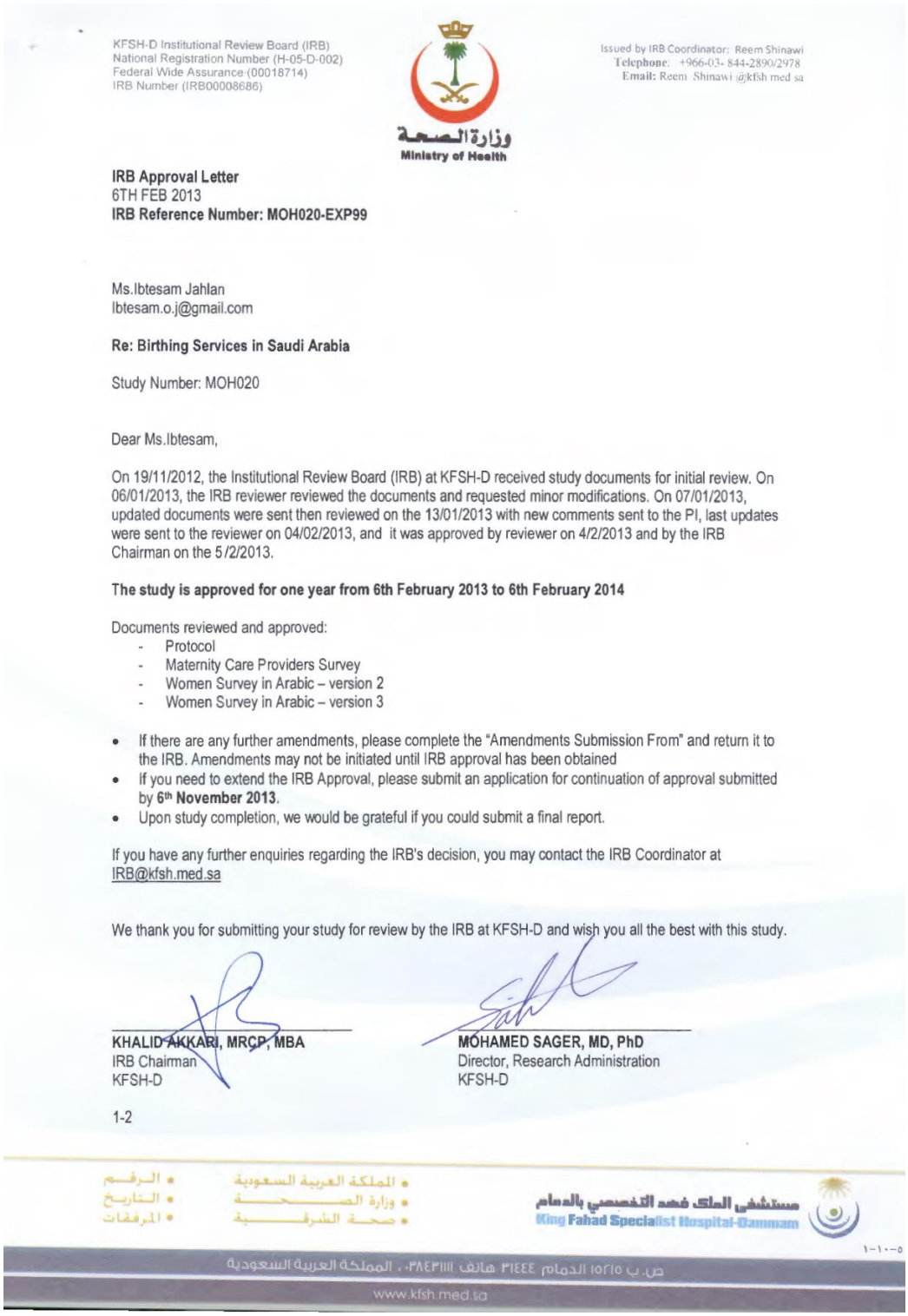
Date:

Study title: Birthing Services in Saudi Arabia

Interview topics:

1) How do you see birthing services in Saudi Arabia in general?
2) What do you think about women's satisfaction with birthing services in Saudi Arabia?
3) What do you think about maternity care providers' job fulfilments?
4) How do you maintain the quality of care in labour and delivery ward in your hospital?
5) If you have the chance to change something in birthing care provided by your hospital, what would it be?
6) Who is attending the maternity protocols developments and improvements committee? How often does it occur?

Appendix VII: Ministry of Health Approval



KFSH-D Institutional Review Board (IRB)
National Registration Number (H-05-D-002)
Federal Wide Assurance (00018714)
IRB Number (IRB00008686)

وزارة الصحة
Ministry of Health

Issued by IRB Coordinator: Reem Shinawi
Telephone: +966-03- 844-2890/2978
Email: Reem Shinawi @kfsh med sa

IRB Approval Letter
6TH FEB 2013
IRB Reference Number: MOH020-EXP99

Ms.Ibtesam Jahlan
Ibtesam.o.j@gmail.com

Re: Birthing Services in Saudi Arabia

Study Number: MOH020

Dear Ms.Ibtesam,

On 19/11/2012, the Institutional Review Board (IRB) at KFSH-D received study documents for initial review. On 06/01/2013, the IRB reviewer reviewed the documents and requested minor modifications. On 07/01/2013, updated documents were sent then reviewed on the 13/01/2013 with new comments sent to the PI, last updates were sent to the reviewer on 04/02/2013, and it was approved by reviewer on 4/2/2013 and by the IRB Chairman on the 5/2/2013.

The study is approved for one year from 6th February 2013 to 6th February 2014

Documents reviewed and approved:
- Protocol
- Maternity Care Providers Survey
- Women Survey in Arabic – version 2
- Women Survey in Arabic – version 3

- If there are any further amendments, please complete the "Amendments Submission From" and return it to the IRB. Amendments may not be initiated until IRB approval has been obtained
- If you need to extend the IRB Approval, please submit an application for continuation of approval submitted by **6th November 2013**.
- Upon study completion, we would be grateful if you could submit a final report.

If you have any further enquiries regarding the IRB's decision, you may contact the IRB Coordinator at IRB@kfsh.med.sa

We thank you for submitting your study for review by the IRB at KFSH-D and wish you all the best with this study.

KHALID AKKARI, MRCP, MBA
IRB Chairman
KFSH-D

MOHAMED SAGER, MD, PhD
Director, Research Administration
KFSH-D

1-2

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• التاريخ • وزارة الصحة
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مستشفى الملك فهد التخصصي بالدمام
King Fahad Specialist Hospital-Dammam

ص.ب ١٥٢١٥ الدمام ٣١٤٤٤ هاتف ٠٣٨٤٣١١١١ المملكة العربية السعودية
www.kfsh.med.sa

KFSH-D Institutional Review Board (IRB)
National Registration Number (H-05-D-002)
Federal Wide Assurance (00018714)
IRB Number (IRB00008686)

وزارة الصحة
Ministry of Health

Issued by IRB Coordinator: Reem Shinawi
Telephone: +966-03- 844-2890/2978
Email: Reem Shinawi @kfsh med.sa

Conditions of Approval

- If the study is to be conducted outside king fahad specialist hospital- Dammam, permission of the administration of that institution and or its IRB (if available) must be sought and secured before the study can be conducted.
- Failure to obtain this permission may result in a delay in the start of your research.
- No subjects may be included in a study procedure prior to the first patient in (FPI) as specified in the protocol. This means that nothing can be done with subjects until after the date of the FPI.
- All unanticipated or serious adverse events must be reported to the IRB within 5 days.
- All protocol modifications must be IRB approved prior to implementation unless they are intended to reduce risk. This includes any change of investigator, or site address.
- Inform the IRB prior to making prospective changes to the study procedures. If you know something will change, the IRB should also know.
- All protocol deviations must be reported to the IRB within 5 working days.
- All recruitment materials and methods must be approved by the IRB prior to being used, as these would be considered modifications.
- If a study activity will continue after the expiration date, the sponsor and investigator(s) are responsible for initiating the Continuing Review proceedings.

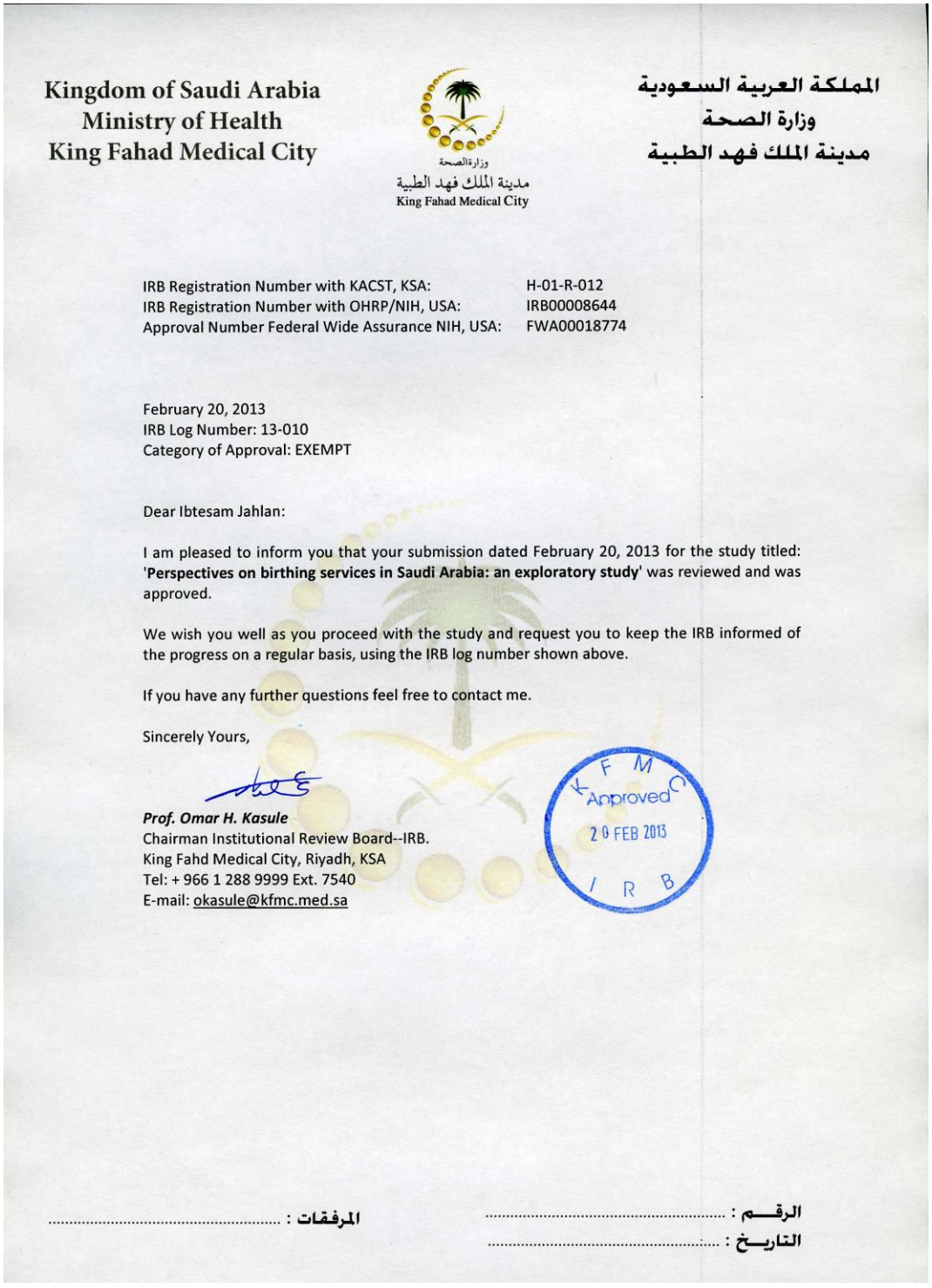
KHALID AKKARI, MRCP, MBA
IRB Chairman
KFSH-D

MOHAMED SAGER, MD, PhD
Director, Research Administration
KFSH-D

IRB Reference Number: **MOH020-EXP99**

2-2

Appendix IX: Riyadh Hospital Approval



Kingdom of Saudi Arabia
Ministry of Health
King Fahad Medical City

المملكة العربية السعودية
وزارة الصحة
مدينة الملك فهد الطبية

وزارة الصحة
مدينة الملك فهد الطبية
King Fahad Medical City

IRB Registration Number with KACST, KSA: H-01-R-012
IRB Registration Number with OHRP/NIH, USA: IRB00008644
Approval Number Federal Wide Assurance NIH, USA: FWA00018774

February 20, 2013
IRB Log Number: 13-010
Category of Approval: EXEMPT

Dear Ibtesam Jahlan:

I am pleased to inform you that your submission dated February 20, 2013 for the study titled: '**Perspectives on birthing services in Saudi Arabia: an exploratory study**' was reviewed and was approved.

We wish you well as you proceed with the study and request you to keep the IRB informed of the progress on a regular basis, using the IRB log number shown above.

If you have any further questions feel free to contact me.

Sincerely Yours,

Prof. Omar H. Kasule
Chairman Institutional Review Board--IRB.
King Fahd Medical City, Riyadh, KSA
Tel: + 966 1 288 9999 Ext. 7540
E-mail: okasule@kfmc.med.sa

K F M C
Approved
20 FEB 2013
I R B

المرفقات : .....

الرقـــم : .....
التاريـــخ : .....

Appendix X: Publication

ORIGINAL CONTRIBUTION/CLINICAL INVESTIGATION

WHAT WOMEN HAVE TO SAY ABOUT GIVING BIRTH IN SAUDI ARABIA

Ibtesam Jahlan (1)
Virginia Plummer (2)
Meredith McIntyre (3)
Salma Moawed (4)

(1) Ibtesam Jahlan, PhD candidate, MCM RN RM,
Monash University/King Saud University
(2) Plummer, V., Associate Professor Nursing Research, RN PhD FACN FACHSM,
Monash University
(3) McIntyre, M., Director of Education, Coordinator Master of Clinical Midwifery,
PhD MEdSt B.AppSc RN RM, Monash University
(4) Moawed, S. Prof. Dr. Salma Moawed, Professor of Maternity & Gynaecological Nursing,
Ph. D., M.Sc.N., B.Sc.N., King Saud University

Correspondence:
Ibtesam Jahlan
Monash University/King Saud University
Telephone: +61 0421 448 127
Email: ibtesam.o.j@gmail.com

Abstract

Background: Reporting the voices of women giving birth in KSA in order to inform policy developments within the Saudi maternity healthcare system is important to understand what the women want from the service and how to improve it.

Aim: to explore current birthing services in KSA from care consumers' perspectives by reporting women's birthing experiences and voices.

Methods: Within the first 24 hours after giving birth in one of the three selected public hospitals, 169 women shared their birth experience through their responses to an open-ended question on a questionnaire or by contributing in one-to one conversation with the researcher.

Findings: Thematically analysing 169 written responses and notes for conversation have produced two main categories which include themes and a number of sub-themes. The first and major category is "The relationship between women and care providers during birth" which is considered by most women the leading cause for better and satisfied birth experience if this relationship is characterised by support, respect, trust, and empowerment. The second category is "Hospital rules and policies and childbirth experience" especially if these policies restrict women's choices and are brought into action without full explanation to women about why these policies are active.

Conclusion: Maternity care policy makers in Saudi Arabia have to consider women's voices in building and reviewing maternity policies and focus on empowering childbearing women and ensuring safe motherhood.

Key words: Childbirth, Maternity services in Saudi Arabia

1. Introduction and Literature Review

Maternity services in the Kingdom of Saudi Arabia (KSA) have been classed by the World Health Organization (WHO) as comparable with developing countries (1), concurrently, health services in KSA are experiencing rapid modernization, economic growth and diversity (2). Maternity services are also being influenced by these changes. In order to inform policy developments within the Saudi maternity healthcare system as part of the modernisation process it is important to understand what the women giving birth in KSA say about maternity services.

Australia was one of the first countries to conduct reviews of maternity services inviting submissions from women who have been consumers of those services. The review sought women's opinions, experience and degree of satisfaction experienced with the model of maternity care they received (3-7). Globally, scholars used women's birthing experience and their voices to reflect on maternity services. In Scotland, Sweden, Finland and the USA, reviews for maternity services were undertaken by exploring women's and/or health care providers' and policy makers' views about their experiences within the current maternity care system (8-11). It was suggested that more effort is required to improve the information provided to women and the choices available for women regarding the care they receive during pregnancy and birth (9). Trusting the system was found to be a major issue for those women who sought non medicalised care (10). Women reported feeling dissatisfied with the care they received despite the fact that they were deemed to have been provided quality care, as measured by the low perinatal mortality rates. Lack of choice and loss of personal autonomy in decision making regarding the care they received was reported as a major source of dissatisfaction (12, 13).

Maternity research in the Middle East region has been focused on reporting a number of clinical outcomes such as maternal and perinatal mortality and morbidity and common birthing practices in line with the medicalization of birth to reflect on the quality of the maternity services in these countries. A number of studies were conducted in Jordan and were considered to be among the first of their kind in the Middle East reporting women's childbirth experience. These studies show women's negative childbirth experience using different quantitative and qualitative methodologies (14, 15) (16). The lack of inclusion of women's personal experiences of maternity services evidences a gap in the literature resulting in limitation of maternity services review findings for the Middle East area.

The voices of Middle Eastern women until now have been silent and unreported, excluded from policy decisions related to quality of maternity care improvement. This situation is at odds with maternity services reviews and research findings globally, that sought the views of women, the key stakeholders of the service when it comes to the quality and safety of maternity services (11, 12, 16, 17).

This study reports Saudi women's experiences of the maternity care they received, viewed through the lens of safe motherhood to provide these women's voices with the opportunity to be heard and in doing so potentially influence maternity service policy developments in KSA.

2. Methods

2.1 Research design

This study is part of a large mixed method study that explored birthing services in KSA from two perspectives, women and health care professionals. Data was collected using the survey and interviews techniques to describe birthing services in Saudi Arabia and how these are viewed by women and maternity health care providers. This paper addresses the findings of the qualitative section of the study related to the women, as consumers of maternity care.

2.2 Study sites and participants

This study took place in three specialised maternity hospitals located in three main cities in Saudi Arabia; Jeddah, Riyadh, Ad Dammam. The number of births in each hospital is approximately 6000 births/ year (18). One of the three hospitals has achieved JCA international accreditation, and offers additional services to those offered by the other two hospitals and consequently experiences a strong demand by mothers seeking to give birth in this hospital. For example, the hospital that had JCA accreditation provides breast feeding classes and consultation through a breast feeding specialised clinic which is run by breastfeeding specialist. The other two hospitals provide routine maternity care. Ethical approval to conduct the research was obtained from Monash University Human Research Ethics Committee after the approval was gained from the three individual participating maternity hospitals in KSA.

2.3 Data collection

One hundred and thirty seven women shared their experiences related to the maternity care they received, in response to an open-ended question on a questionnaire. The questionnaire results are reported elsewhere.

Apart from meeting your new baby, and knowing that your baby had no serious health concerns, and apart from the pain you had during labour and birth, what was the best and the worse thing about your recent experience of giving birth?'. The questionnaires were distributed to all eligible women giving birth in one of the selected hospitals. Participating women were aged over 18 years, able to read and write Arabic language, had given birth within the previous 24 hours and cleared for discharge from hospital after giving birth to a single / multiple babies (Table 1). The questionnaires were collected in a designated sealed box at the reception desk in each ward. In addition, 32 of the participating women joined the study through one-to-one conversation about their last childbirth experience with the researcher, which was initiated during the distribution and collection of the questionnaires in the hospital wards.

Table 1: Participants' Demographics

Variable	No.	Percent %
Hospital sites		
Jeddah	49	36.0
Riyadh	45	33.1
AdDammam	42	30.9
Place of birth		
Saudi	129	94.2
Non-Saudi	8	5.8
Education		
Not completed high school	18	13.4
High school or equivalent	32	23.9
College but no degree	12	9.0
College	70	52.2
Postgraduate degree	2	1.5
Working Status		
Yes	23	17.0
No	112	83.0
First Child birth experience		
Yes (primipara)	46	33.8
No (multipara)	90	66.2

Those women either were unable or did not wish to write down their experiences, but wanted to participate in the study. Those women enjoyed having the opportunity to join the conversations to share their birth experiences especially when these conversations took place in a post-natal shared room. Within Saudi culture, women enjoy speaking to other women of their birthing experiences as part of an informal debriefing process providing opportunity to express feelings and fears. This unplanned outcome of this study (female conversations) enriched the qualitative data findings with the researcher notes that were written immediately after each conversation.

2.4 Data Analysis

All women's answers for open-ended question and researcher notes for women's quotes were recorded in Arabic requiring the data to be translated into English. Following translation thematic analysis was used to discover patterns hidden within the texts (19). Thematic analysis began with preparing the data by transcribing, translating and organizing the documents. Then the data was explored through reading and re-reading to a point where the researcher felt totally integrated and familiar with the participants' words. After that, the researcher generated initial codes and searched for themes by grouping the similar descriptions and expressions coded until themes emerged. Next, the data analysis findings were validated by reviewing the themes with other research and repeatedly reflecting to ensure there was no missed classification and that the identified themes were valid representations of the participants' perceptions. The final steps were presenting the data analysis and producing the findings report, wherein the resulting themes were identified and described using the participants' words and comments (19, 20).

Rigor was maintained using the golden criteria of trustworthiness for qualitative research outlined by Guba and Lincoln (21), which has been applied widely for ensuring the rigor in most qualitative studies. The criteria, including credibility, dependability, confirmability and transferability were attained through reporting the findings by supporting each theme with women's own words and commentary reflecting women's voices clearly through each theme. Moreover, sufficient description for the sample, data collection and analysis is provided for any possible transferability (22).

3. Results

Thematically analysing women's written responses provided through returned questionnaires and researcher's notes for woman-to-woman conversations resulted in a variety of women's comments that reflect the approach of maternity care delivered in each hospital. Two main categories of comments evolved from the data collected regarding what women believed was the best and the worse things that happened to them during their experiences of maternity care. A variety of themes and subthemes have been reported within these two categories. The extracted categories and themes represent women's childbirth experience in Saudi Arabia. The first and major category is "the relationship between woman and care providers". The second category is 'hospital rules and policies and the childbirth experience'. (Table 2)

3.1 The relationship between women and care providers during childbirth

The relationship between women and care provider is one of medical domination in Saudi Arabian maternity services where women are expected to leave all important decisions to the staff (nurses and doctors) as they are perceived to know best. The first common experience reported by women relates to the maternity care providers' support and attitude towards the women and their respect and interactions with the women. This category has been divided into seven themes.

3.1.1 To be respectful "treating me with respect and not underestimating me as a human":

A number of mothers reported appreciation of the staff who treated them respectfully:

Table 2

Qualitative Themes	Sub themes
1-Woman-care providers' relationship during childbirth	1- To be respectful "treating me with respect and not underestimating me as a human" 2- Explain everything "I did not have any choice in anything" "no enough information was given to me" 3- To be good listener and trust women's body "the best was listening to my fears and calm me down" 4- To provide safe care "I felt safe because I was in caring hands" 5- Caring and helpful staff "they treated me as a princess" 6- I needed support and cooperation "support during labour to relieve psychological stress" 7- To provide the care with a positive attitude "The staff treated us very badly, they have bad attitude"
2- Inflexible hospital rules and policies hindered pleasant childbirth experience	1. Family Company "I thank everyone assist in spreading this culture" 2. Breast feeding initiative BFI policy "the worse thing was leaving the baby with the mother all the time"

P23: "In the labour and delivery room the staff treated me very well and with respect.

P134: "the best thing was treating me with respect and humanity and not underestimating me as a human".

Conversely, women who were treated with disrespect during their birth experience expressed their unpleasant feelings in their words.

P6: "The worse thing was ignoring me…and not respecting my psychological condition during labour".

P300: "I felt the difference between the treatment of the nurse who treats with more respect than the consultant did."

Similarly, a number of women described feeling embarrassed by some staff actions that they considered as disrespectful and humiliating:

P189: "the worse thing was that during suturing time after birth, the situation was bad as the Dr.(F) and complete medical team were in the room which embarrassed me."

C31: "during pushing and delivering the baby's head, some blood splashed over the doctor. So, she got angry and said "what brings me here?" what does she means by that? Why she is working in this area if it cause her disgust ….."

3.1.2 Explain everything "I did not have any choice in anything" "not enough information was given to me":

A number of women expressed their satisfaction with the information and explanation they received during their last birthing experience. This was dominated by women who gave birth via caesarean section because of its surgical requirements and by those who had previous childbirth experiences.

P51: "as it was a caesarean section I knew everything".

P173: " the best thing was knowing the labour and birth stages".

A group of women from the three hospitals expressed their needs for adequate ante-natal education and during birth explanations to understand what would be done to them during labour and birth and why.

P267: "I did not know what was the injection given with I.V? Also what was the injection given in my thigh?"

P12: "I did not have any choice in everything, the midwife left me without dilatation [episiotomy] till the baby came out without any assistance."

Moreover, women sought for more information during pregnancy to correct any misconceptions about labour and birth and how to take care of themselves and their babies after birth.

P273: "when the labour pain started I had too much of (flower water + saffron) which increased the pain with no cervical dilatation occurring. I do not recommend taking anything without a doctor's prescription"

P193: "Not enough information given to me about my stitches and how to take care of them."

P80: " "I refused to take a deep breath during pushing because that will draw the baby water…"

Some women needed more information about their childbirth experience than others.

P80: "my daughter had the umbilical cord tied around her neck and I think this is happened because they did not let me push when I was ready to, is that true?"

Another group of mothers questioned the presence and the role of some maternity care providers who attended their labour and birth.

P11: "I am a human, and having student trainer during my birth increased my fears. They should ask for my permission on that."

P309: "the worse thing was having a male doctor and nurses in my birthing room while no need for that."

A large number of women have not understood the breastfeeding policies implemented across a number of the hospitals included in this study. More antenatal education is required to adequately prepare women for the change. The main area that women required more education before the birth was the mechanism of the breastfeeding and the reasons why breastfeeding was enforced immediately following the birth.

P100: "I do not know how to breast feed my baby and know how to latch my baby to my breast"

C10: This woman's son was in the nursery and she did not know what to do with the milk accumulated in her breast.

3.1.3 To be good listener and trust women's body "the best was listening to my fears and calm me down":

Being cared by someone who listened to women's needs was a significant factor in a good birthing experience for some participants:

P279: "the best was the doctor (F) and the nurse because they were the only two who listened to my fears and calmed me down during the birth".

Women reported feelings of humiliation because no one listened to them when they were in labour. For example several women were very upset and described their experiences:

C31: "I was in pain and I almost kissed their hands to check me up "sit down just sit" they said. So I kept bothering them until they examined me and they found that I was 8 cm dilated."

Then, P80 supports that:

P80: "I felt ready to push, but the nurse stopped me from pushing and called me a liar. Then someone came and examined me and saw my baby's head clear just sitting there."

Another woman described her experience of medical errors as a consequence of staff not listening to her.

P105: "The decision was to do caesarean section and they start assessing my sensations by pinching me and I told them that I felt that but the Dr.(M) said to me 'you are joking' and I replied 'it is not the time for jokes, I am in the O.R and I am between life and death'. So they started cutting the incision and I felt the scalpel and the stretching; and off course I screamed very loudly. Then they said fine, fine and they gave me complete anaesthesia".

3.1.4 To provide safe care "I felt safe because I was in caring hands"

Despite the fact that mothers believed that feeling safe during labour and birth required a good relationship with the staff and being informed of the progress, many women did not have that experience. These women felt unsafe which lead them to not have a pleasant childbirth experience.

P171: "the best thing was I gave birth in this hospital which has better care and safety for patients and informing patients about their rights".

C31: "They documented my blood type as positive while I am negative, so when I asked for the injection they told me I do not need it. So, I told them I had an abortion before in this hospital and I had the injection. Finally, they did blood test for me. To be honest, I am very scared about my baby because of the wrong information they have so they may give my baby the wrong treatment"

Feeling safe for many women was associated with receiving kindness from their caregiver:

P204: "the best thing occurred to me during my last birth was the treatment of the health team with humanity. I felt safe in their hands".

P219: "I felt safe because I was in caring hands. This was my best birth".

3.1.5 Caring and helpful staff "they treated me as a princess"

Participating women reported their pleasant childbirth experience when in the care of helpful, caring staff, and described how this improved their psychological status and assisted in their ability to cope with the difficulties of their births:

P120: "the best thing was the help of the staff during labour and birth."

P134: "The midwife who took care of me was better than the doctor (F) who I met. Those midwives knew everything about my condition better than the doctor herself and they treated it very well, my regards to them."

Alternatively, one woman who reported receiving good care also expressed her feelings when encountering uncaring staff.

3.1.6 I needed support and cooperation "support during labour to relieve psychological stress"

Being cared by supportive cooperative staff was a primary factor in the mothers' assessment of a better birthing experience:

P298: "the best thing was the medical team continuous support till the birth complete"

P281: "the medical staff team in the birthing room were very cooperative and understanding".

Many women reported looking for support and cooperation from staff and not finding it:

P196: "I waited for 2-3 hours in the waiting area until I could not tolerate the pain anymore and I was deteriorating physically and psychologically."

P279: "After all this I have been left in the birthing room till 4 pm without food or pain killer and with complete ignorance to all my calls and no kindness".

Experiencing pain is the first characteristic for any birth experience; a number of women reported their needs for staff support and cooperation in order to gain control over pain.

P49: "one of the worse things was the labour pain it was very intense, but it was treated very well and I was satisfied"

P45: "the worse thing was the pain and contraction without analgesics."

P12: "....I did not have any pain relief or oxygen [nitrous oxide]".

Having an induction was not a pleasant experience for some women and they took the time to express their feelings about it.

P121: "the worse thing was being induced in my first birthing experience but then everything went good with staff help."

Having vaginal examination and episiotomy or stitches are considered by most Saudi women as a sensitive uncomfortable procedure and one that increases women's fears and anxiety.

P305: "they agonize us with vaginal examination."

P146: "My birth was soft, easy because I did not have any operation or episiotomy".

3.1.7 To provide the care with a positive attitude "The staff treated us very badly, they have bad attitude":

Many mothers described what they considered to be bad birth experiences:

P195: "the worse things were the nervousness of the nurses and doctor (F)".

P116: "the worse thing was the treatment by the midwife or nurse. It was bad to the extent that she told me if you have any problem go out of the hospital".

C18: "the staff are treating us very badly, they have a bad attitude"

The experience of being treated badly during labour and birth affected women's ability to cope. Some women were unable to overcome this experience:

C28: a woman said after a quiet period "the doctor treated me badly and kept saying "come on come on open your legs stop (Dalaa) [this word means acting like a kid or speaking softly]".

P273: "Everyone I met treated me with respect except the vaccination nurse, she had a very bad manner and had religious racism and no kindness".

Several women who experienced staff with bad attitude reported that this situation prevented them from speaking out for themselves and their babies.

P89: "after she took the baby from me she threw him on cot, he was hurt and cried and I could not say anything because I was tired".

C12: "this woman was very upset because the nurse

forced her to breastfeed her twin. "I was scared and cried as the nurse pinched and hit my thigh in a funny way to make me breastfeed but I did not like the way the nurse treated me".

3.2 Hospital rules and policies and childbirth experience:

Childbirth experiences in Saudi Arabia are influenced by what is offered and allowed in the hospital in which the woman chooses to give birth. For example, having the husband or family member attending the birth is not a choice offered to women in some hospitals in Saudi Arabia. On the other hand, establishing a new policy such as BFI (Breastfeeding initiation) required better explanation to women in order to prevent any misunderstanding or misinterpretation.

3.2.1 Family Company "I thank everyone who assists in spreading this culture":

For some women having their husband or a family member during labour and birth was an essential element to improving their birthing experience.

P11: "the worse thing was not allowing someone to stay with the patient [woman] although this is the time when they are desperate to have someone with them".

P84: "allow husbands of women to attend the labour, and this should be optional".

P161: ":the best thing happened during my birth experience and I thank everyone who assists in spreading this concept which is allowing my husband to be with me in birthing room, because him being beside me helped me a lot and made my birth easier."

C24: "They did not allow my mother until the doctor came and allowed her"

3.2.2 Breast feeding initiative BFI policy "the worse thing was leaving the baby with the mother all the time"

Participating women were not happy with the 'rooming in' policy introduced by the hospital to support and encourage breastfeeding (BFI). Women expressed their needs for family company during their hospital stay to help them to take care of the baby.

P49: "I was not expecting to care of my daughter because I was in a very bad condition, I was not able to control myself how can I provide care to my daughter".

P214: "the worse thing was leaving the baby with the mother all the time, and not helping the mother changing the baby, because the mother needs someone to help".

C26: a primi (caesarean section) woman was so confused and very overwhelmed….She said "I am very depressed from the pregnancy and birth, I need someone with me I am primi and gave birth caesarean section".

On the other side, women were unaware that this policy has been done for a purpose and interpreted this as neglect on the nurses' behalf. This issue caused an inconvenience for the women and affected their birthing experiences.

C30: "the important thing is their limited care to the baby".

P309: "…Also they did not care of the baby after birth but leaving that to the mother while she is tired"

P12: "…Nurses refuse to provide mums with milk for babies although they knew there is no milk still in their breasts."

P38: "Looking for the nursery for healthy baby to take them from mothers after birth, so she can rest for at least three hours".

4. Discussion

Women were willing to share their birth experiences and were not hesitant to make the most of this opportunity to reflect on what could be changed to improve experiences for other women. The relationship between women and maternity care providers was reported as the dominant factor that influences Saudi mothers' satisfaction with the maternity care they received. The most empowering experience for these women was to be cared for by staff with a positive attitude, someone who provided continuous support, who showed respect for the person and who could be trusted to ensure their safety. This finding has been supported by a number of studies which reported that positive, trusting and cooperative relationships between women and maternity care providers were the greatest influence in women feeling empowered when giving birth (23). The pain associated with labour and birth can be very difficult experiences for women who are feeling vulnerable and unsafe. Women's ability to manage pain during labour is negatively influenced when feeling unsupported and unsafe (24, 25).

Women reported feeling dissatisfied with their birth experiences as a result of lacking trust in the maternity care providers who did not give them the respect they deserved. Respect was not shown when staff did not provide them with necessary information on their care and the reasons this care was required, and or not listening to their needs or ignoring their distress. This is evidenced when some participating women took the opportunity to ask the researcher questions about their birth or the condition of their baby. Educating women regarding what to expect during pregnancy, labour, birth and breast feeding, and explaining the role of each member of the maternity care team is a crucial element in the development of a respectful trusting relationship which in turn leads to safe maternity care. The need to be able to trust maternity care providers is closely linked with the degree of respect that was shown to women by the staff (25-28).

Having family members to provide support during labour and birth and post-natally is one of the choices available for women in most maternity settings within developed countries. The attendance of family during labour and birth choice was incorporated into hospitals' policies

because of its strong relationship with the women feeling empowered, in control of their birth and being more satisfied with their birth experience. This positive relationship was evidenced by a number of studies conducted worldwide (25, 27, 29). For Saudi women, it was a different story as they reported their dissatisfaction and loss of control as a result of not having the choice to have a family member attending their labour and birth. Only 22% of public hospitals in Jeddah one of the biggest cities in KSA allow a companion to attend labour and birth (2). Nevertheless, participating women highlighted their needs for family support through labour and birth as this would help them feel safe, satisfied and in control. Consequently, women must have the choice to have a family member throughout their labour and birth. To do so maternity policies in KSA required some modification and updating according to women's preferences and latest evidence regarding having family company during labour and birth.

Moreover, women misunderstood the application of the BFI ten steps policy as recommended by WHO within public Saudi hospitals (30). They interpreted the implementation of the policy as maternity caregiver neglect and carelessness, which was accentuated in women's words describing their experiences. Having their babies with them 24 hours and the fact that there is no bottle feeding provided to babies are the reasons causing women's misinterpretation and dissatisfaction with birthing experiences. Changing this policy is not the answer. However, women need to be informed about this policy early during pregnancy, and they must be educated why and how the application of this policy is important (30). This information can be delivered to pregnant women during antenatal education sessions, which will prepare them to accept the care delivered to them later and protect the staff from being misinterpreted.

This study is the first to explore women's birthing experiences in public hospitals in Saudi Arabia. Women have highlighted their needs for better, more satisfying birthing experiences. The overarching need for all women is to be cared for by supportive cooperative positive maternity care providers who deliver safe birth care. In addition to the staff support, women were looking for family support throughout labour and birth as this is not currently an option for them in most public hospitals in Saudi Arabia while it was one of the major women's claims. Furthermore, women showed their demand for more information about labour and birth, that could be fulfilled with frequent accessible affordable antenatal educational classes. This demand also requires continuous explanation and consultation from the staff during labour and birth. This research sets off the base for further research reporting Saudi women's perspectives, voices and experiences regarding maternity care they receive.

The limitation of this study is that the sample excludes women who do not read or write Arabic. Also, while this study was conducted within three large public maternity hospitals that have high birth rate, this is limiting the representativeness of the sample of the study.

Conclusion

Maternity care policy makers and maternity care providers in Saudi Arabia have to consider empowering childbearing women and ensuring safe motherhood. This can be accomplished by reviewing and updating maternity policies with women's preferences and latest up to date research evidence. This study provides findings that focus on empowering women throughout labour and birth with the staff and family support, adequate education and explanation, and availability of choices. The main updates that this study could add are introducing ante-natal educational classes during pregnancy, explaining and consulting women about everything.

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