A survey on knowledge and perceptions of Thai pregnant women about the role of the midwife in Thailand

By

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SUMMARY

Midwives have long been recognized to have a major role in maternal care around the world. Despite this, midwives are continuously challenged to re-examine their role and scope of practice. This presentation reports on research which was based on the premise that there may be misunderstandings among pregnant women regarding the role of the midwife in Thailand. Multiple factors were found to influence the utilisation of different health care providers in intrapartum care. Whist it is well-known that the role of the midwife is to conduct normal vaginal delivery, there is limited knowledge of Thai pregnant women's perceptions of the scope of midwives' role in the context of intrapartum care.

This study is exploring Thai pregnant women's views about the role of the midwife and identifying the perceptions and views of Thai pregnant women in relation to the selection of intrapartum care providers. A descriptive survey was used to collect Thai pregnant women's responses through online survey. Respondents answered questions in relation to demographics, pregnancy, and their perceptions of midwives' role during labour and birth.

One hundred and forty-nine participants completed the survey. Findings revealed that most participants were ambivalent about the role of the midwife and were not in contact with a midwife during their pregnancy. The perceptions of the role of the midwife during labour included aspects of offering support, encouraging pushing, and assessing health in the labour room, rather than performing procedures such as normal vaginal delivery. Only one-third of women could identify the midwife's role with all of the tasks in their scope of practice, such as being qualified to perform normal vaginal delivery, placenta delivery and perineal suturing. In contrast, the majority of pregnant women believed that a physician is qualified to conduct normal vaginal delivery and many other midwifery tasks during labour and birth. These findings were attributed to the cultural norms

of midwifery, which remain linked to the midwife's subordinate position in practice, resulting in the perception that the midwife is merely the physician's assistant. Even though the majority of the pregnant women perceived the importance of having a midwife present in the labour room, they were likely to be more confident with a physician during labour than a midwife. Encountering previous negative experiences and the poor image of the midwife as the primary carer during labour may jeopardise perceptions of a midwife's competency in intrapartum care.

Understanding the role of the midwife from the perspective of pregnant women in this study informs current midwifery practice in relation to the current lack of visibility of the midwife in Thailand. In the future, it is hoped to further encourage the performance of normal vaginal delivery by midwives, and informing policy changes which can help to reduce the unnecessary caesarean rate in Thailand. Recommendations include awareness of the research to explore the factors that might have an impact on women's perceptions of the midwife and how best to promote their role in Thai society.

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed...

Date...

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Chapter 1 — INTRODUCTION

1.1 Introduction to thesis

The midwife is defined as a health professional who works alongside pregnant women to provide family planning, consultation, and support during pregnancy, labour, and birth for low-risk pregnant women (The International Confederation of Midwives [ICM], 2017). Midwifery practice in Thailand is similar in that midwives are capable of caring for, and helping, pregnant and post-natal women and their newborns, undertaking physical examinations, conducting normal vaginal deliveries, promotion of health, and the prevention of complications during pregnancy, delivery, and post-delivery, as well as assisting obstetricians in performing curative treatments (Thai Nursing and Midwifery Council [TNMC], 2019).

It is accepted worldwide that midwives are able to provide advice, support pregnancy, and conduct normal vaginal delivery for childbearing women (ICM, 2017). While giving birth by normal vaginal delivery in Thailand can be attended by a midwife, many women are opting for caesarean sections instead of vaginal deliveries. For example, Tanglakmakhong (2010) noted that pregnant Thai women are tending to choose caesarean section when they have their own private obstetrician. Therefore, in Thailand, women opting for an elective caesarean section is one major reason for the rising caesarean section rate (Chanthasenanont et al., 2007). Any decision-making choices by pregnant woman can be influenced by their attitude, their level of social support, and the type of healthcare provider (Phoodaangau, 2012). In Thailand, the 2016 statistics showed that 32.7% of women delivered by caesarean section, and of these, 21.2% chose a caesarean section (National Statistical Office Thailand [NSO], 2016). While the majority of normal vaginal deliveries (82.1%) were delivered by obstetricians, only 16.1 % of these women were willing to opt for a normal vaginal delivery with

a midwife (NSO, 2016). There is a gap in the research knowledge regarding the reasons why pregnant Thai women choose not to give birth with a midwife who can conduct normal vaginal delivery during a normal pregnancy. Understanding the perceptions and knowledge of pregnant Thai women about the role of the midwife might improve their levels of understanding and satisfaction with midwifery care.

This study therefore proposes an exploration of the perceptions of pregnant women in Thailand about the role of the midwife in metropolitan and rural areas. Enhancing pregnant women's assurance of a normal vaginal delivery, and building trust in the role of the midwife, are essential strategies that might help to decrease the unnecessary caesarean section rates. This chapter will present an outline of the context of this study and its overall aims.

1.2 Background of study

Caesarean section is a common and relatively safe surgical procedure, and can be a lifesaving intervention for women with complicated pregnancies and births (Cavallaro et al., 2013). However, the rate of caesarean section has been increasing around the world from 12% in 2000 to 21% of births globally in 2015, which was an almost two-fold rise over 15 years (Boerma et al., 2018). An average of no more than 15% of births by caesarean section is recommended for optimal maternal and infant outcomes (World Health Organization [WHO], 2015). Several developed countries have had rates of caesarean section higher than the average over the past few decades. In Australia, caesarean sections have risen from 31.7 to 38.2% in the private hospitals and 20.4 to 25.8% in the public hospitals between 2000 and 2015 (Fox, Callander, Lindsay, & Topp, 2019). Similarly, the rate of caesarean section in Italy was 38.1% in 2011 (Boerma et al., 2018). Findings have also been reported from the United Kingdom, in which caesarean section rose from 19.7% of births in 2000 to 26.2% in 2015 (Wise, 2018).

The caesarean rates in developing countries are similar to that in developed countries. A current study in The Lancet, using data from the WHO and the United Nations Children's Fund, revealed that in many developing countries, caesarean sections are overused in more than half of all births, with Brazil at 55.5% in 2015; Egypt at 55.5% in 2014, and Turkey at 53.1% in 2015 (Boerma et al., 2018). Surprisingly, caesarean sections were significantly rare among low-income countries (Cavallaro et al., 2013). For example, the caesarean section rate in Nepal was less than 5% per year (Cavallaro et al., 2013). Countries in sub-Saharan Africa also had national rates of caesarean section at less than 2% of all births from 1990 to 2011 (Wise, 2018). Several factors are responsible for these lower caesarean section rates, particularly the inadequate number of obstetricians and the lack of health facilities to provide such procedures (Cavallaro et al., 2013; Wise, 2018).

A majority of caesarean deliveries were found to be undertaken in private hospitals or in metropolitan areas where obstetricians are accessible and available to perform these procedures (Wise, 2018). A recent study from the United Kingdom noted that most women requesting caesarean sections are wealthier women, and this has an influence on the rate of caesarean sections within a country (Wise, 2018). However, caesarean rates in sub-Saharan Africa were very low among both richer and poorer women who lived in rural areas due to the lack of access to appropriate healthcare (Cavallaro et al., 2013).

Thailand has been reported as having the third highest caesarean section rate in Asia (Lumbiganon et al., 2010). The caesarean section rate is also on the increase, having risen from 15.2% in 1990 to 32.7 % in 2016 (NSO, 2016). Despite the impact of caesarean sections on safe births, they can also lead to complications and increased risks in subsequent pregnancies (Carolan-Olah, Kruger, & Garvey-Graham, 2015). Caesarean sections are also associated with long hospital stays after women give birth, resulting in an additional burden on health service resources (Homer, Leap, Brodie, & Sandall, 2019). This should thus be considered when addressing problems in Thai maternity services.

In contrast, normal vaginal delivery has several benefits for both the mother and the infant (Carolan-Olah et al., 2015). Normal vaginal delivery is associated with decreasing postpartum complications and enhanced mother–baby attachment, leading to a greater likelihood of successful breastfeeding (Carolan-Olah et al., 2015). Having a normal vaginal delivery also improves maternal satisfaction, resulting in shorter hospital stays and recovery time compared to caesarean sections (Uivaroșan, Endres, & Zdrinca, 2016).

Despite midwives being specialists in conducting normal vaginal delivery in low-risk pregnant women (ICM, 2017), there is a lack of understanding of the role of the midwife, which is a serious issue around the world (Edwards, Crowley, Elsori, & Sarr, 2014). One study, for example, found that Asian women believe that doctors are more trustworthy in caring compared to midwives (Rice & Naksook, 1998). Homer et al. (2009) suggested that the invisibility of midwifery care leads to a lack of clarity on the role of the midwife in the public arena. Even though a midwife is responsible for taking care of pregnant women as specialists in childbirth, women in the Germany did not know enough about the role of the midwife (Mattern, Lohmann, & Ayerle, 2017). Another study found that a number of pregnant women in Abu Dhabi felt safer when receiving care by obstetricians, which was stemmed from a lack of understanding of the role of the midwife (Edwards et al., 2014). In Cambodia, the decision-making of women regarding their healthcare providers was found to be based on the safety and attitudes of the staff (Ith, Dawson, & Homer, 2013). Thus, the midwife's role is rarely acknowledged or understood by the general public, and is most likely due to the invisibility of midwifery care or the midwives themselves.

In Thailand, traditional midwives or "Moh Tum Yae" were accepted in the past, as they were well-practised at caring for pregnant women in the home (Kansukcharearn, 2014). These midwives attended most births and far outnumbered obstetricians. However, they have faded out in recent

times due to more modern midwifery care (Kansukcharearn, 2014). Nowadays, most women in Thailand give birth in hospitals and receive care from different healthcare professionals in the maternity services (Wisanskoonwong, 2012). Normal pregnancies can be managed by midwives, while high-risk pregnancies are monitored by obstetricians (Wisanskoonwong, 2012). However, in Bangkok, the capital city of Thailand, a recent cluster survey revealed that the majority of births (98%) were delivered by obstetricians, and midwives who assisted with the delivery made up only one per cent of these women (NSO, 2016). In comparison, in rural areas nearly 78.6 per cent were assisted by obstetricians and 20 per cent by midwives (NSO, 2016). While 20.4 per cent of women living in rural areas had their babies delivered by a midwife, only 10.7 per cent of women in metropolitan areas had such a delivery (NSO, 2016).

In the biomedical model, women seem to be predominantly influenced by perceptions of safety and comfort (Ferrer et al., 2016). Voon, Lay, San, Shorey, and Lin (2017) noted that from a biomedical perspective, labour and birth are considered as high-risk concepts in Singapore; therefore, obstetric interventions are considered routine to ensure patient safety. Crowded hospitals prompt shorter stays in public hospitals, so medical interventions such as caesarean section are commonly used to control labour and birth (Anderson & Stone, 2013). The evidence is widespread that obstetric involvement for low-risk women leads to increasing rates of unnecessary interventions, such as caesarean section (Johanson, Newburn, & Macfarlane, 2002; Phelan & Connell, 2015). The current research points out that medical power sometimes negatively influences the role of midwifery support during labour and birth (Clesse, Lighezzolo-Alnot, De Lavergne, Hamlin, & Scheffler, 2018).

In Thailand, midwives seem to lack autonomy as primary carers in public health services, leading to their role being not well recognised by pregnant women (Thadakant & Kritsupalerk, 2009). Thai midwives are thus expected to provide care and practice as defined by the Thai Nursing and Midwifery Council. Ekott, Ovwigho, Ehigiegba, Fajola, and Fakunle (2013) noted that the perceptions

of women in relation to their healthcare providers influenced their utilisation of healthcare. There have been no previous studies investigating the reasons why pregnant Thai women prefer not to give birth with midwives who specialise in conducting normal vaginal delivery in low-risk pregnancies. Therefore, an understanding of the role of the midwife from the viewpoint of pregnant women will allow researchers to clearly identify and further understand current midwifery practice in Thailand.

1.3 Significance of the study

Multiple factors can influence the use of different healthcare providers in intrapartum care. The literature suggests that pregnant women's perceptions of healthcare providers is a factor that contributes to making decisions about intrapartum care (Ekott et al., 2013). The purpose of this study is to add to the body of knowledge by exploring the perceptions of Thai pregnant women in relation to intrapartum care. If the perceptions of various pregnant women about the role of the midwife are identified, then evidence about the acceptance of the midwife in metropolitan and rural areas might be obtained. The results of this study will be transferable to the midwifery profession and will benefit childbearing women and their families in Thailand.

1.3.1 Midwifery practice

The findings of this study can be used to guide midwifery systems to enhance education and improve the quality of professionally-trained midwives and professional development in Thailand. If pregnant Thai women have negative views about midwifery care in the labour room, it is important to develop an awareness of the midwife to enhance the quality of midwifery service. As one study has suggested, it is the trust in the midwifery profession that will promote the use of, and demand for, midwives (Ten Hoope-Bender, Campbell, Fauveau, & Matthews, 2011). Thus, improvements in supportive policies, practices, and professional training will enhance better service delivery and the

quality of intrapartum care, which will in turn, work towards restoring public confidence in the service.

In Thailand, a pregnant woman is generally supported and consulted by different midwives during her pregnancy. Midwifery continuity of care, where one or two midwives can support a woman throughout her pregnancy, does not yet exist in Thailand (Wisanskoonwong, 2012). The World Health Organization (2016) has recommended that the midwifery continuity of care model increases the chance of a normal vaginal delivery and might reduce caesarean section rates. This recommendation may be helpful in raising public awareness about this model of care, which will also enhance the role of the midwife while improving outcomes for women and their babies. As a result, this awareness will promote the public services of midwifery, which is a strategic initiative for developing the professional status of midwifery through continuity of care models in Thailand.

1.3.2 **Societal benefits**

Currently, the Royal Thai College of Obstetricians and Gynaecologists in Thailand (2017) is launching a project to reduce the growth in the rate of caesarean sections. Involving midwives in supporting pregnant women's choices and increasing their confidence in vaginal delivery, is an essential strategy to assist in reducing the caesarean section rate (Phoodaangua, 2012). Therefore, promoting normal vaginal delivery with the support of a midwife may result in achieving the goal of the policy to decrease the caesarean rate. In addition, other reasons why vaginal delivery is preferable to caesarean section are that there are fewer complications and lower costs (Uivaroșan et al., 2016). This could mean that giving normal vaginal delivery with a midwife is associated with less expensive interventions, and so, are more cost-effective (Kozhimannil, Attanasio, Yang, Avery, & Declercq, 2015). In the context of Thailand, the cost of caesarean section is usually higher than vaginal delivery costs (Thailand Medical Services Profile, 2014). Hence, promoting normal vaginal delivery with a midwife might lead pregnant women to understand that a caesarean section is an unnecessary

surgery, especially in low-risk pregnancies. As a result, this will reduce the cost of birthing and will lead to a decrease in the overall caesarean section rate.

1.4 Aim and objectives of the study

This study aims to explore the perceptions of pregnant Thai women about the role of the midwife. To achieve the aim of the study, the objectives are to:

1. Explore the perceptions of pregnant Thai women*about the role of the midwife during labour and birth.
2. Identify the perceptions and views of pregnant Thai women in relation to the selection of intrapartum care providers.

*Originally, this research intended to explore the views of metropolitan Thai women, but sampling methods were inclusive of women from both metropolitan and rural areas. As a result, the researcher was able to make comparisons across these areas.

1.5 Overview of chapters in the thesis

This thesis consists of five chapters. The first chapter has provided a background to midwifery practice, particularly in Thailand, and its importance in supporting normal vaginal deliveries. The use of maternity care relies on the perceptions of pregnant women, which can reveal their decision-making in relation to their preferred types of birth. The rationale for this study is to explore the perceptions of pregnant Thai women about the role of the midwife. It was hypothesised that this would help to clarify the current status of midwifery practice in Thailand, with a desire to improve normal vaginal delivery with the support of a midwife in an effort to reduce caesarean rates.

Chapter Two will examine the literature regarding the perceptions of pregnant women towards midwifery care, and identify the existing gaps in the research literature. The chapter will validate

the concept of current midwifery practice, whereby the role of the midwife is both facilitated and inhibited. It will then discuss the three core findings consisting of the scope of midwifery practice, the autonomy of the profession of midwifery, and the expectations of pregnant women of midwifery practice in greater detail. The chapter will conclude with a summary of the current midwifery situation and any gaps which might reveal more about the perceptions of women in relation to the role of the midwife or the profession itself.

The third chapter will present the methods used for this study. It will begin with an outline of the methodological principles that provided the framework for this quantitative study, and justified its use to answer the research question. The chapter will then discuss the quantitative research approach used, and the ethics approval process and considerations. The setting and the types of participants will be explained, and the data collection and data analysis approaches described.

The fourth chapter will report the findings through descriptive results for the quantitative data and statistical analysis by presenting the figures and tables from each section of the survey. The findings of the free-text responses to questions will be reported through a thematic analysis as well as quantification of the responses and will finish with a discussion of the interpretation of the content.

Chapter Five will provide a discussion and conclusion of what this study determined about women's perceptions of the role of the midwife. Throughout this discussion, the results of the study will be considered within the context of the existing literature. The implications of the study's findings to midwifery practice will be argued, as will avenues for future research related to this topic. The conclusion will make recommendations for future research and suggestions for midwifery policy and practice in Thailand.

Chapter 2 — LITERATURE REVIEW

2.1 Introduction

This literature review explores the research related to perceptions of Thai women towards midwifery care. The findings will validate current midwifery practice through which the role of the midwife is both facilitated and inhibited. The perceptions of women will be explored in relation to expectations of and scope within the role of the midwife. The eleven articles included in the review have been evaluated using the critical appraisal tool to analyse the quality of each article before highlighting their individual strengths and limitations (Critical Appraisal Skills Program [CASP], 2018; Long, Godfrey, Randall, Brettle, & Grant, 2005). Subsequently, a thematical analysis resulted in the identification of three themes.

These themes explore how the role of the midwife is understood, consisting of the scope of midwifery practice, the image of the midwife, and women's expectations about the role of the midwife. Initially, the discussion focuses on the literature exploring the scope of midwifery practice in both developing and developed countries, followed by the research on the image of the midwife and their autonomy as primary carers. Finally, the review will explore the expectations of women in relation to the role of the midwife.

A "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) chart (see appendix 1) has been used to present the literature review process, while an article summary table (see appendix 6) was used to organise and summarise the review. The findings section discusses the gaps identified in the literature and shows how the perceptions of women towards midwifery practice and knowledge development, need further investigation, particularly in the Thai context.

2.1.1 Article Selection Process

Initially, an electronic database search focused on medical, nursing, and midwifery publications in the Medline, PubMed, CINAHL, and Science Direct databases. The inclusion criteria for the search included primary research journals in English with a publication date from 2013 to 2019 using the following keywords and combinations: midwives' role; midwife or midwives or midwifery; perception or knowledge or perceive or perspective or viewpoint; birth or spontaneous labour or vaginal delivery; and Thai pregnant women. The PRISMA chart (see Appendix 1) represents the flow of the review process, including the initial search, the second search, and the final results of the search.

A search of the MEDLINE database failed to find any articles matching the specified search terms. The PUBMED, CINAHL, and Science Direct databases were searched for articles relevant to the proposed review question. The primary search elicited seven articles; however, all of these were excluded after reading the abstract because they were not relevant to the specific keywords. As a result, the initial search resulted in a limited number of articles being retrieved. In order to broaden the scope of the search, the researcher accessed additional literature. This involved extending the keywords by removing "Thai" from the inclusion criteria and changing to no date restriction. In addition, articles from the Thai journals online database were included to access the Thai literature. The subsequent literature search resulted in 359 articles being retrieved; however, 300 of these were excluded as they did not match the specific keywords.

After reading 59 full-text articles, 48 were discarded as they did not meet the criteria; 25 articles did not include pregnant women or midwives' perceptions; 20 focused on the experience of birth or birth options; and 3 focused on traditional birth attendants. These were not related to perceptions of the role of the midwife. As a result, a total of 11 articles were included in the review. The original and the expanded search criteria used to locate the articles are identified in Appendix 1.

Only one study conducted in Thailand revealed the beliefs of women about the role of the midwife (Thadakant & Kritsupalerk, 2009). Although this information is rarely identified in the Thai research, three studies discussed the experiences of women toward midwives from another country (Boon, 2004; Homer et al, 2009; Plested & Kirkham, 2016). The quality of midwifery care explored in these studies considered overall midwifery care in relation to the differences in the perceptions of clients. Therefore, the articles discussing perceptions of good midwifery care were included (Borreli, Spiby, & Walsh, 2016). Furthermore, maternal care focuses on the role of the midwife; therefore, the perceptions of women and midwives toward maternal services were also included (Dickerson, Foster, & Andes, 2014; Ith et al., 2013; Lohmann, Mattern, & Ayerle, 2018; Mattern et al., 2017; Shafiei, Small, & McLachlan, 2012; Sharma, Johansson, Prakasamma, Mavalankar, & Christensson, 2012).

The PRISMA chart shows the outcomes of the search with a total of 11 articles being deemed to be relevant to the topic (see Appendix 1). The final 11 articles for the review originated from Australia (3), The United Kingdom (2), Germany (2), India (1), Paraguay (1), Thailand (1), and Cambodia (1). As well, 7 studies used qualitative methodologies, 2 used quantitative, and 2 used mixed-methods. The year of publication ranged from 2004 to 2018.

2.1.2 **Critical Appraisal and Critique**

The main aim of the literature review was to explore the perceptions of women towards midwives in Thailand. The research methods used for the 7 qualitative studies included phenomenological approach (Plested & Kirkham, 2016), grounded theory approach (Borrelli et al., 2016; Sharma et al., 2014), hermeneutics (Lohmann, et al., 2018; Mattern et al., 2017), and descriptive research (Dickerson et al., 2014; Ith et al., 2013). These were critically appraised through the use of the Critical Appraisal Skills Program (CASP) tool for qualitative research to establish the rigour of the research (CASP, 2018). Two mixed-methods studies (Homer et al., 2009; Shafiei et al., 2012) were

appraised using the Evaluative Tool for Mixed Method Studies to determine their validity (Long et al., 2005a). Two quantitative studies (Boon, 2004; Thadakant & Kritsupalerk, 2009) were critically appraised through the Evaluative Tool for quantitative studies (Long et al., 2005b). One mixed-methods study (Shafiei et al., 2012) used a qualitative and a quantitative approach; however, the most significant issue identified was the lack of discussion surrounding the relationships between the researchers and the participants (see Appendix 2).

Two quantitative studies (Boon, 2004; Thadakant & Kritsupalerk, 2009) were critically appraised through the use of the Evaluative Tool for quantitative studies. However, the findings were found to be not generalisable because they used only a small sample. Nevertheless, the other areas of Boon's study (2004) and Thadakant & Kritsupalerk' study (2009) that were assessed displayed sound rigour (Appendix 3).

The most concerning issues among two of the qualitative studies were the lack of discussion of the relationship between the researchers and the participants (Borrelli et al., 2016; Ith et al., 2013) (see Appendix 4). Meanwhile, there were also weaknesses identified in relation to research bias, in terms of failing to acknowledge their own bias in choosing the research setting (Ith et al., 2013). However, overall the qualitative studies displayed strong rigour according to the CASP tool for qualitative research.

2.1.3 **Thematic analysis process**

The thematic analysis identified the themes that emerged from the data, and assisted with providing an understanding of the perceptions of women towards the role of midwives (Attride-Stirling, 2001). Firstly, reading and re-reading of the articles helped the researcher to become immersed and intimately familiar with the content (Coughlan, 2013). After this, the most common terms were labelled. The relevant midwifery care and the various perceptions of women about midwifery care

associated with each theme were accordingly placed under appropriate themes and sub-themes. These themes were summarised and presented in tabular form (see Appendix 5). The analysis revealed various perceptions of women in relation to the role of midwives in a range of different cultures.

2.2 Findings

The findings of the eleven selected articles provide the three themes from the review that relate to the perceptions of the role of midwives, as follows:

- The scope of midwifery practice
- The image of the midwife and their autonomy as the primary carer
- The expectations of pregnant women toward the role of the midwife

The theme of the scope of midwifery practice is divided into developing and developed countries. Sub-themes in relation to the image of the midwife and their autonomy as the primary carer include reliability in midwifery care, the unclear position of midwives in the workplace, and the invisibility of midwifery care. The theme of the expectations of pregnant women towards the role of the midwife includes sub-themes of expectations in different settings. These themes and sub-themes are summarised in Appendix 5.

2.2.1 The scope of midwifery practice

The midwife is defined as a healthcare professional who has competency in the practice of midwifery according to the International Confederation of Midwives (2017). The scope of practice underpins the role of the midwife in providing care to women across pregnancy, labour, and birth as well as in the postnatal period. However, midwifery practice remains a contentious issue in many countries and there is much debate about whether or not the midwife has sufficient status within their scope of practice. Six of the selected studies in this review noted the scope of midwifery

practice in the context of their countries (Boon, 2004; Dickerson et al., 2014; Homer et al., 2009; Lohmann et al., 2018; Thadakant & Kritsupalerk, 2009, Sharma et al., 2012).

In developing countries, including India, Paraguay, and Thailand, midwifery practice provides midwifery care to women throughout the period of their pregnancy, including antenatal care, labour, birth, and postnatal care; the same as the definition of midwives by the ICM (Dickerson et al., 2014; Thadakant & Kritsupalerk, 2009, Sharma et al., 2012). Nevertheless, one quantitative study by Thadakant and Kritsupalerk (2009) pointed out that the antenatal role of Thai nurses-midwives includes working through documentation rather than through examinations of pregnant women. Two qualitative studies focused on the role of the midwife in intrapartum care (Dickerson et al., 2014; Sharma et al., 2012). A qualitative study in India found that Indian midwives seemed to be invisible in practice in intrapartum care, including in regards to attending normal vaginal delivery, performing episiotomies, and repairing of perineal tears (Sharma et al., 2012). These findings are similar to the findings of Dickerson et al. (2014) whose particular research focus was on the scope of midwifery practice in Paraguay. Dickerson et al. (2014) found that the role of the midwife in Paraguay in attending vaginal delivery and providing antenatal care was less effective than in the past. It was found that physicians conducted the majority of normal vaginal deliveries as well as antenatal care, while midwives acted as an assisting role to the physicians (Dickerson et al. 2014).

In developed countries, three studies supported the notion that midwives offer care based on several models of care, and that the role of the midwife aligns with definition of the midwife by the ICM (Boon, 2004; Homer et al., 2009; Lohmann et al., 2018). Two qualitative studies from Australia noted that midwives provide supportive care, supporting normal vaginal deliveries as well as in all emergency situations (Boon, 2004; Homer et al., 2009). Women perceived that conducting normal vaginal delivery is a part of the essence of the role of the midwife in Australia (Boon, 2004). The provision of midwifery care in Australia includes different models of care such as through public

hospitals, private hospitals, community-based midwifery models of care, and GP-led models. Therefore, midwives have responsibilities in midwifery practice not only in the hospitals, but also within the community (Homer et al., 2009). Similar to midwifery practice in Germany, a qualitative study noted that midwives have the task of providing care for pregnant women throughout their pregnancy period, including conduct vaginal deliveries for low-risk physiology women, while obstetricians are contacted by the midwife in case of pathological development in a pregnancy (Lohmann et al., 2018).

In summary, the review indicates that midwifery practice in all countries aligns with the scope of midwifery practice, offering services during pregnancy, labour, birth, and in the postpartum period. However, the utilised potential of midwifery practice is different in developing and developed countries.

2.2.2 The image of midwifery and autonomy as primary carer

Autonomous professional practice means that midwives have control over their midwifery practice standards and over fulfilling their role/s (ICM, 2017). The barriers to care include issues that can limit the autonomy of midwives and their public image. From women's and midwives' perspectives of midwifery care, 10 studies revealed that there were particular barriers in recognising midwifery as an autonomous profession.

Three of the qualitative studies focused on a perceived lack of trust of those professionals making decisions about birthing by childbearing women (Borrelli et al., 2016; Ith et al., 2013; Plested & Kirkham, 2016). In Cambodia, having a safe birth and staff attitudes were found to have a strong influence on women's decision-making in relation to birthing, even when there were cost barriers (Ith et al., 2013). Ith et al. (2013) used naturalistic inquiry to determine if women's choice to use a private health service was due to negative attitudes towards poor midwifery care. In the United

Kingdom, the number of pregnant women who are choosing not to have a midwife as a primary carer is increasing (Plested & Kirkham, 2016). This situation has been reported to occur due to the maternity system being perceived as being unreliable in relation to birthing, and being driven by fear from previous experiences with the behaviours of midwives (Plested & Kirkham, 2016). However, Borrelli et al. (2016) used grounded theory to highlight that the midwife providing individualised care for one client at a time is dynamically women-centred and promotes a trust relationship with women. This maintains a sense of support for women, especially during labour and birth, resulting in generating positive memories of the birth. What these findings suggests that people might decide on their healthcare providers depending on their individual views and past experiences.

The findings relating to the autonomy of midwives in the workplace were explored in the qualitative studies (Dickerson et al., 2014; Sharma et al., 2012; Lohmann et al., 2018). These perceptions were unclear in relation to the position of the midwife as an independent practitioner in India. In a qualitative study, Sharma et al. (2012) used grounded theory and found that midwives in India were under the control of doctors and had to obey the doctors' orders. Midwives had lower status in the workplace compared to doctors, and were rarely given the opportunity to autonomously practice their midwifery skills (Sharma et al., 2012). Similarly, student midwives only observed the senior midwives, rather than actually practicing, which resulted in them missing out on exposure to autonomous midwifery practice (Sharma et al., 2012). In some hospitals, midwives attended vaginal deliveries at night or when the doctors were unavailable (Sharma et al., 2012). Thus, these situations can be seen to affect the development of midwives' autonomy and the profession in India. In addition, Dickerson et al. (2014) pointed out that midwives in Paraguay seemed to lack autonomy in the large institutions of the health system in which doctors enjoy a prestigious position and high status. Basically, midwives are responsible for carrying out the orders of the doctors. This is a main

contributor to the growth in medicalisation of birth in Paraguay, and increasing the rate of caesarean sections. As a result, women often anticipate having a caesarean section when it is implied by antenatal care providers. In such situations, midwives are challenged and often try to convince the women to have a vaginal delivery, even though they are limited in their role in relation to providing antenatal care for women in developing countries (Dickerson et al., 2014).

A qualitative study in Germany noted that midwives have had the autonomy to provide care for low-risk physiology women throughout their pregnancy for many decades (Lohmann et al., 2018). Midwives have autonomy in their practice, and therefore, more control over midwifery care. There are also caseload midwives who work independently of obstetricians who provide antenatal care in the hospitals, and even provide homebirths. However, doctors remain at the top of the hierarchical structure of the healthcare system in Germany, resulting in the limited autonomy of midwives in relation to decision-making (Lohmann et al., 2018).

Additionally, one qualitative study, two quantitative studies, and one mixed-methods study looked at the invisibility of midwifery care from the point of view of the public, which is associated with the utilisation of midwifery care (Mattern et al., 2017; Thadakant & Kritsupalerk, 2009; Boon, 2004; Homer et al., 2009). Mattern et al. (2017) noted that many people demonstrated a lack of knowledge about the scope of the role of the midwife. They were unaware of the competency of midwives, especially in the antenatal and postnatal units. Furthermore, clients were unable to distinguish a midwife from other healthcare providers (Mattern et al., 2017). Similar to Thadakant and Kritsupalerk' (2009) findings, the study revealed that pregnant Thai women were not able to recognise all of the scope or the tasks of a midwife. The unclear perceptions about the responsibilities of the midwife has an effect on their opportunities to fulfil their role, which is an obstacle to enhancing the profile of midwives more broadly in the healthcare system (Homer et al., 2009). However, Boon's (2004) quantitative study found that a large number of primigravida's were

able to identify that midwives are specialists in pregnancy, childbirth, and the postpartum phase. While this study was descriptive, the researcher suggested that women's perceptions of midwives were not influenced by their ethnicity.

Midwifery is recognised as a health profession in which the practitioners lack autonomy in both developing and developed countries due to unclear perceptions about the position they hold, and individual perceptions about the reliability and invisibility of midwifery care. These have consequently had a negative impact on the ability of midwives to fulfil their roles and have resulted in a lack of autonomy in their careers.

2.2.3 The expectations of women towards the role of the midwife

Women's expectations of the role of the midwife in the healthcare system refers to their concept of care provision. Regarding women's understandings of the role of the midwife, six studies found that there were particular expectations of midwives' roles (Boon, 2004; Homer et al., 2009; Ith et al., 2013; Mattern et al., 2017; Shafiei et al., 2012; Thadakant & Kritsupalerk, 2009). Two qualitative studies explored women's expectations of the role of the midwife in terms of supporting and consulting in the antenatal unit and during postnatal care (Ith et al., 2013; Mattern et al., 2017). Mattern et al. (2017) found that a majority of the pregnant women in their study expected midwives to be respectful and caring. Using focus groups, Mattern et al. (2017) found that a holistic respectful approach was an essential expectation of women in relation to medical care. Similarly, women expected to see services provided in a respectful and caring way (Ith et al., 2013). In particular, women who had limited communication and/or lower levels of education expected midwives to explain their treatment many times in some detail (Mattern et al., 2017).

Two mixed-methods studies presented findings about the expectations of women towards the role of midwives in relation to providing information throughout their pregnancy. Shafiei et al. (2012) highlighted that receiving adequate information about pregnancy from midwives contributed to

improving the provision of care options. Similarly, Homer et al. (2009) found that women needed midwives to give advice based on up-to-date evidence for them and their family throughout the entire pregnancy. It is a widely held view that midwives provide time to ask questions and are required to have empathy for their patients (Shafiei et al., 2012). Likewise, Homer et al. (2009) held the view that confidence in caring meant that midwives should have time to listen to, and support, women throughout their child-bearing period.

Two quantitative studies considered the role of midwives in the labour unit (Boon, 2004; Thadakant & Kritsupalerk, 2009). In an Australian study, it was found that women perceived that midwives were able to conduct normal delivery but could not perform caesarean sections, manipulative procedures, or suturing of the perineum (Boon, 2004). However, a study in Thailand found that the role of nurses-midwives was not recognised by pregnant women, especially in performing an episiotomy (Thadakant & Kritsupalerk, 2009). Both studies specifically sought the attitudes of primigravidas towards the roles of midwives, as these women's knowledge of maternity services would be more limited. In the antenatal unit and in postnatal care, a midwife is recognised as a responsible professional who works in partnership with women to provide advice and information about pregnancy (Boon, 2004).

Women's expectations and attitudes were different in different settings; however, providing advice, support, and information as well as respecting patients were the significant expectations of women towards the midwife (Boon, 2004; Homer et al., 2009; Ith et al., 2013; Mattern et al., 2017; Shafiei et al., 2012; Thadakant & Kritsupalerk, 2009).

2.3 Discussion

This literature review has explored the role of midwives through a range of different viewpoints and in different settings, and has provided some insight into the experiences of women across the different settings of maternal care.

Six studies found that the scope of midwifery practice in developing and developed countries can have an impact on the working experiences of midwives (Boon, 2004; Dickerson et al., 2014; Homer et al., 2009; Lohmann et al., 2018; Sharma, et al., 2012; Thadakant & Kritsupalerk, 2009). These studies have highlighted that the role of the midwife in both developing and developed countries aligns with the scope of midwifery practice outlined by the ICM; however, midwives in developed countries are more likely to fulfill essential roles, such as conducting normal vaginal delivery, rather than those in developing countries. However, there was little discussion about the comparison of the role of the midwife and the obstetrician. Additionally, these articles failed to describe the many misunderstandings and misconceptions the public have in relation to the scope of midwifery practice.

Ten studies found that the image of the midwife and their autonomy as primary carers presented a challenge to the perceived reliability of midwives, the unclear position of midwives, and the invisibility of midwifery care (Borrelli et al., 2016; Boon, 2004; Dickerson et al., 2014; Homer et al., 2009; Ith et al., 2013; Lohmann et al., 2018; Mattern et al., 2017; Plested & Kirkham, 2016; Sharma et al., 2012; Thadakant & Kritsupalerk, 2009). Particularly evident was the focus on safety during birth and labour which affected the decision-making of women, and medical dominance which had a negative impact on the autonomy of the midwifery profession. Nevertheless, the general public are recognised as only one aspect of a perceived reliability and invisibility of care in developed countries. Only two studies were conducted in developing countries – Cambodia and Thailand (Ith

et al., 2013; Thadakant & Kritsupalerk, 2009). However, both could be considered as being out of date, as the healthcare system is always changing.

Pregnant women have several expectations of midwifery care, such as requiring midwives to be educators, consultants, and supporters (Boon, 2004; Homer et al., 2009; Mattern et al., 2017; Shafiei et al., 2012). These understandings were however limited as many of the findings about the perceptions of the role of the midwife were primarily focused only on antenatal and postnatal units. Only two studies provided findings that focused on intrapartum care from women's perspectives (Boon, 2004; Thadakant & Kritsupalerk, 2009). However, Boon's study was quite small being set in only one hospital. Therefore, the results cannot be generalised to the wider population of primigravidas. In relation to the rising number of caesarean sections in Thailand, particularly in the metropolitan areas, the results of Thadakant and Kritsupalerk' study (2009) may not be able to be generalised to women who live in metropolitan areas, due to the small sample size of 60 pregnant women.

It is important to further explore the issues around intrapartum care, as this setting influences how normal vaginal deliveries can be viewed by others and enacted by midwives, especially in developing countries. Therefore, it appears that the studies in this review have failed to sufficiently consider the perceptions that women have about midwives in intrapartum care. Specifically in Thailand, there is very little information about the role of midwives and the selection of intrapartum care provider from the perceptions of women.

2.4 Conclusion

This literature review has focused on exploring the issues that midwives face in relation to how their role is perceived in different countries. The review has provided insight for considering how to explore similar issues about midwifery care in Thailand. The findings suggest that the scope of

midwifery practice has significant issues for midwifery care, especially in developing countries. Similarly, the autonomy of the midwifery profession is under threat due to the lack of reliability of midwifery service, their unclear position in the healthcare system, and their invisibility in maternity care. The literature also focused on the experiences and perceptions of women in various settings, especially in antenatal and postnatal units. However, the experiences of women in the intrapartum unit were not able to be clearly ascertained from this review. Moreover, most of the research studies were conducted in developed countries, and thus, the findings cannot be applied to developing countries such as Thailand, where there are different healthcare systems.

Understanding the role of the midwife from women's perspectives is essential in relation to the information that can be gained for the midwifery profession. The scope of midwifery practice is still not clear in developing countries, and there is a lack of recognition of midwifery as an autonomous profession. However, there is currently only limited research on pregnant women's perceptions of the scope of the midwives' role, particularly in relation to intrapartum care in Thailand. Therefore, further research into this issue in the Thai context is required. In the following chapter, the methodology and methods used to carry out the research will be presented.

Chapter 3 — METHODS

3.1 Introduction

This chapter presents and explains the methodology, or how the research project was undertaken. The chapter begins with a description of the methodology that provided the justification for using a quantitative approach to answer the research question, as well as an explanation of the research design of this study. This will be followed by a discussion of the sample characteristics, the rationale for selecting the sample, the venue of recruitment, the recruitment process, the method used to collect the data, and the ethical considerations of the study. The format of the questionnaire will also be discussed, in addition to providing an overview of the rigour of the study design, and the methods used for the data analysis and interpretation.

3.2 Methodology

The use of a quantitative research approach results in a broad study which uses a large number of subjects to draw a numerical picture of the collected information that can lead to quantifiable and generalisable results (Schneider & Whitehead, 2016). A non-experimental, descriptive, quantitative methodology aims to measure a naturally occurring situation by using structured data in categorical or numerical form (Jirojwong, Johnson, & Welch, 2014). Such a methodology enables the researcher to provide a detailed description of a currently existing situation, or to measure the conditions within the situations that are being studied as they naturally occur (Polit & Beck, 2017). A non-experimental, descriptive, quantitative methodology was thus chosen for this study, with the purpose of engaging a large number of pregnant women to numerically measure their perceptions to explore the following phenomena: the views of pregnant Thai women about the role of the midwife in the intrapartum setting, and their selection of intrapartum care providers. Additionally, quantitative research is geared towards collecting information pertaining to the selected

population, with the aim of exploring the relationships between variables within that population (Kumar, 2014; Polit & Beck, 2017). Such an approach provided this study with the ability to break down various aspects of the responses into categories, and to further explore any variations to explain these aspects of midwifery care in Thailand. As this study aimed to gather generalised information about the current situation in Thailand, the researchers did not use a qualitative approach to examine the in-depth experiences of pregnant women. However, qualitative information was useful for establishing what the respondents thought in their own words, in order to further understand the phenomena, and therefore, a qualitative methodology was used to examine the free-text responses. Overall, this research aims to measure variations and reasons behind the perceptions that affect the decision-making of pregnant Thai women towards the intrapartum care providers.

3.3 Research design

A descriptive survey design was chosen for this study. Schneider and Whitehead (2016) pointed out that a descriptive survey is a sub-type of observational or non-experimental design in quantitative research which aims to provide valuable insights that would not fit with an experimental design. A descriptive survey design can be considered for use when the researcher does not intend to determine the relationship between cause and effect (Manabb, 2018). Creswell (2014) noted that the descriptive survey uses a sample population to provide a numeric description of the attitudes, or opinions, of a population to generalise the findings to a larger target population. A descriptive survey was thus chosen to gather information on pregnant women's opinions, and their characteristics, with the potential to reach a wider proportion of pregnant women in Thailand for an overall description of the issues under investigation. This led the researcher to explore useful insights into pregnant women's perceptions of the role of the midwife as well as the variables

associated with the perceptions of pregnant women in relation to the selection of intrapartum care providers.

3.4 Setting

This study was designed to explore the perceptions of pregnant Thai women via a large-scale survey. An online setting was chosen for the survey as this is the most common form of gathering survey information, and was relatively easy and convenient for the participants to access via a smartphone or tablet (Kumar, 2014). Hence, the participants could choose a time that was convenient to complete the questionnaire, leading to the gathering of a large number of responses (Fink, 2013). An online survey can also reduce bias because the researcher does not directly interview the participants (Schneider & Whitehead, 2016; Valerie & Lois, 2012). Facebook was chosen for the survey as it provides a forum for maternal and parenting Facebook groups, which are the significant characteristics of a target group with access to social media in Thailand (see under the 'Data Collection' section). Facebook recruitment messages were sent to the administrators of the groups informing them about the survey and the ethics approval, requesting them to post the recruitment information to the target group's Facebook group or page. The advertisement included a direct link to the survey.

3.5 Sample

In order to reach a target population, inclusion and exclusion criteria need to be considered (Schneider & Whitehead, 2016). This study outlined the characteristics required for the study sample. As the research was only interested in the views of pregnant women, the eligibility criteria included all pregnant women: the primigravida (first time pregnant) and multiparous (pregnant with a subsequent pregnancy) population of women in Thailand. The respondents needed to be able to access social media to be included in the study due to the online nature of the survey.

Women who were *unable* to both speak and write in the Thai language were excluded because the study relies on written and spoken language ability to answer the questionnaire.

3.6 Sampling strategy

Non-probability sampling is commonly used when an entire population cannot be accessed (Schneider & Whitehead, 2016). A descriptive study requires non-probability convenience sampling through which the sample population are selected because of their accessibility and availability at a given time (Wu Suen, Huang, & Lee, 2014). Meanwhile, the snowball technique is an effective convenience sampling strategy to use when it is difficult to access the target population, especially within a social network (Schneider & Whitehead, 2016). In this study, not all the general population can access the Internet, or go to specific sites on the Internet such as Facebook, so they will not necessarily see the recruitment information. This study, thus, used convenience sampling to approach pregnant women who had access to the Internet according to whoever happened to be available at the time of the data collection. This was followed by a snowball sampling strategy to recruit respondents by using the addition of the statement: "feel free to share" on the recruitment flyer in order to ask people to share the survey with their Facebook friends.

The use of convenience sampling meant that the sample was only drawn from women who could access social media, and therefore results cannot be attributed to the general population. However, the use of Facebook and convenience sampling were more likely to reach the target population than using other resources. The survey came to an end within two months of the first distribution of the survey due to the limitations of unforeseen and unresolvable issues with media promotion via Facebook in the recruitment period. Through the use of convenience sampling, a sample for this study was obtained from pregnant women who had access to the Internet, across both metropolitan and rural areas.

Online surveys such as the one used in this study may have validity and reliability concerns, as there is no way to check that the respondents fit the chosen criteria. In this study, the sample respondents may in fact not be pregnant women, due to only distributing an online survey (Nardi, 2014). However, these Facebook social networking groups, such as antenatal wellbeing, parenting, and birthing and pregnancy sites, are usually set up and operated by childbearing women. Additionally, to screen the target participants, the survey began with a closed-ended question about whether the respondent was pregnant or not to ensure that only pregnant women would complete the survey. Thus, distributing an online survey link on the Facebook was deemed to be an efficient way to reach the target population of Thai pregnant women. Validity and reliability issues were mitigated though this filtering process.

3.7 Questionnaire

The questionnaire was adapted from previous studies on similar topics of women's perceptions of having midwives care for them during the intrapartum period (Boon, 2004; Thadakant & Kritsupalerk, 2009). The questions in the semi-structured questionnaire were designed to 'extract' answers of both quantitative and qualitative perceptions. This study adapted a questionnaire which was specific to intrapartum care, because it enabled the exploration of further issues around intrapartum care involving conducting normal vaginal delivery by midwives, which is the focus of this study. The questionnaires consisted of seventeen questions with two sections incorporating both closed- and open-ended questions. The survey aimed to elicit women's views and perceptions on the role of the midwife. The first section of the questionnaire consisted of demographic questions adapted from the questionnaire used in studies by Boon (2004) and Thadakant and Kritsupalerk (2009). These consisted of six demographic questions (Appendix 11, the questionnaire in Thai language is in Appendix 12) to elicit information related to geographical area of residence, gestational age, pregnancy parity, age, education, and monthly income. The question on

geographical area of residence provided the following options: “Yes” to indicate respondents living in a metropolitan area, and “No” to indicate respondents living in non-metropolitan areas (synonymous with living in a rural area). Pregnancy parity and gestational age were included as a variable which may identify a difference of opinion in accordance with the current trimester/phase of pregnancy due to their different experiences of birthing (Gameiro, Moura-Ramos, and Canavarro, 2009). Boon’s (2004) study suggested that level of education is an important consideration in understanding overall perceptions. The rationale for using an education question was to establish whether the level of education affected the perceptions of the respondents. Moreover, income is another important variable, as Tanglakmakhong (2010) maintained that pregnant Thai women have more of an opportunity to choose the route of birth if they use a private hospital; hence, socio-economic status is likely to influence perceptions about healthcare providers.

The second part of the questionnaire asked about their perceptions of the role of the midwife. Questions eight and nine sought to reveal the participant’s perceptions of birth type, such as natural birth and caesarean section. A Likert scale is a questionnaire item to access people’s opinions based on an intensity scale which makes respondents feel more comfortable in choosing a response, rather than through a yes/no answer (Nardi, 2014). Therefore, a scale was used to ask about their preference between having a natural birth or a caesarean section, through the option of selecting a response on a 1 to 5 rating scale (where 1 = not agree at all, 2 = not agree, 3 = not sure, 4 = agree, and 5 = extremely agree). Following the scale-type questions, open-ended questions were included, through which the respondents could provide their comments on why they chose a particular type of birth. This question was to assist the researcher to gain a better understanding of their responses.

Questions ten to twelve and seventeen were unstructured questions which allowed the participants to explore what they perceived that a midwife does in relation to maternity care and services. Following on, the listed tasks of the midwife in the questionnaire were adapted from Thadakant and

Kritsupalerk' (2009) study. The listed tasks of the midwife presents nine questions based on the current definitions of midwifery practice in Thailand, as defined by the Thailand Nursing and Midwifery Council (TNMC). The respondents were asked about the tasks of the midwife in the intrapartum period by selecting the 'tasks option' for the knowledge of pregnant women on the role of the midwife. The structure of the questionnaire included closed-ended questions which gave the respondents standardised answers to select from, while the open-ended questions sought qualitative information to establish what people thought in their own words (Nardi, 2014). The rationale for using open-ended and closed-ended questions was to allow the researcher to quantify the prescribed tasks performed by the midwife and, at the same time, to gather additional qualitative information by allowing the participants to give answers that were not included in the listed tasks (see Appendix 11: Questions 13a and 13b). The answers were analysed to further determine what the respondents thought about the role of the midwife and the role of the physician in the labour room (see Question 14a). In Thailand, the term 'physician' is used widely in place of the term 'obstetrician'. Following this, a question was asked about the respondents' perceptions of the physicians' tasks during labour and birthing, by selecting from the tasks options which were a copy of the midwives' tasks. This allowed for comparison of how the participants perceived the two different healthcare professional groups in relation to labour and birth. Questions fifteen and sixteen asked about the respondents' confidence in midwives and physicians during labour, by using Likert scales with an option of selecting 1 to 5 on the rating scale (where 1 = not confident at all, 2 = not confident, 3 = neutral, 4 = confident, and 5 = extremely confident), in order to measure confidence when receiving care from two different healthcare professional groups. Similar to question seventeen, Likert scales were used to select an option for considering the importance of having a midwife present in the labour room.

3.8 Rigour

"Rigour refers to the extent to which the researchers worked to enhance the quality of the studies" (Heale, 2015, p. 1). In quantitative research, rigour can be measured through validity and reliability (Polit & Beck, 2017). Face and content validity are measured through a logical evaluation of whether the instrument adequately reflects the content of the concepts such as confidence with healthcare providers relation to intrapartum care (Kumar, 2014). In this study, face and content validity were tested through consultation with a panel of four experts, including two midwifery academics and two experienced quantitative researchers from the College of Nursing and Health Sciences at Flinders University. A minor change in the format of the questionnaire was made. Face and content validity were tested so that the concepts of the study, and the completeness of the questionnaires in relation to the objectives of the research, were covered.

A strategy to test the survey ensured the prospective participants' answers and the format of the questionnaire were logical. This ensures the reliability of the research instrument producing stable and consistent results (Kumar, 2014). This study is a pilot study, being the first to explore the perceptions of pregnant women via an online survey. At the beginning of the distributed survey, the recruited pregnant women who completed the survey were asked to comment on the survey and suggest any problems they encountered. This also asked to evaluate the flow of the survey and the ease of using the computer, tablet, or smartphone to respond to the survey. Many of the respondents gave feedback about a few minor errors in the demographic section of the questionnaire. Changes were made to the questionnaire as a result of the feedback provided by the respondents, which strengthened the readability of the survey. Due to the pilot study, the results of this study, thus, can be used to test for error and misunderstandings, and to establish whether the questionnaires and the setting used effectively address the underlying issues of interest.

3.9 Data collection process

The final version of the questionnaire was developed using the *Qualtrics* tool, which is an online tool to create and distribute questionnaires to participants (Qualtrics, 2019). The Qualtrics survey platform also has a function to provide translation of the text of the survey questions into other languages (Qualtrics, 2019). All items were translated into the Thai language, as the potential respondents were to be pregnant Thai women. The survey was advertised via a Facebook advertisement through a supervisor's consultancy account. A private message with an introductory letter about the survey was sent to the Facebook page administrators requesting that they post the survey weblink along with the introductory letter to their Facebook page (Appendix 7, for the Thai introductory letter in Appendix 8). The survey weblink was also passed onto acquaintances via Facebook who were interested in accessing the survey and the link could also be shared by anybody viewing in on Facebook. The survey directed respondents to open the link to the survey posted on the *Qualtrics* site.

3.10 Ethical issues

Ethics approval was granted through the Social and Behavioural Research Ethics Committee (SBREC) of Flinders University, in line with the National Statement on Ethical Conduct in Human Research guidelines, deeming it to be a 'Low or Negligible Risk' research project (Appendix 9). Due to the research being conducted with Thai participants, ethics approval from the Institutional Review Boards in the Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand was obtained in line with the ethics-based International Guidelines for Human Research Protection (Appendix 10).

All important considerations were applied when undertaking the research to confirm that the respondents were treated fairly and respectfully, including securing informed consent and maintaining anonymity and confidentiality. Even though the online Internet survey could not be guaranteed to be secure, the researchers designed the research tool to limit any information being posted which might have threatened client confidentiality (Baker, 2012). The survey was designed to not request any identifying data from the respondents, and all responses maintained confidentiality by protecting the participants' identities, and remaining anonymous. The front page of the survey provided the requisite introduction and information to enable informed consent from the respondents to participate as volunteers. Beneficence in research was achieved by providing information about the benefits of the study, which is to inform the future provision of maternity care for other women. The collected data were stored using a password-protected electronic file, and will be stored securely at the College of Nursing and Health Sciences, Flinders University for at least five years after publication.

3.11 Data analysis

The data was collected and downloaded from the *Qualtrics* site into IBM SPSS for Windows version 25 (IBM corporation, 2017). Polit (2010) suggested that descriptive statistics facilitate a detailed view of the individuals comprising the sample and helps researchers to better understand the participants. Descriptive statistics were therefore used to summarise and analyse the data collected through the surveys. The demographic questions on the survey were presented as frequencies and percentages by using pie charts to elicit information about the characteristics of the participants.

To explore pregnant women's perceptions about the role of the midwife, frequency counts of the answers were conducted, and percentages and confidence intervals reported. Confidence intervals were reported by using the Wilson method, as recommended by Brown, Cai and Dasgupta (2001),

to increase precision with small sample sizes and to understand the plausible range of the unknown population mean or proportion. Statistical significance, using 0.05 level of significance (95% confidence interval) was selected. The calculated confidence intervals showed that the results were true for this survey sample within the population parameter, and that the results were not simply a matter of chance (Sauro & Lewis, 2016).

In addition, the analysis used inferential statistics to find the meanings and relationships between the variables (Polit, 2010). The type of statistical tests used depends on the study data (Pallant, 2013). A Chi-square test was used for testing relationships between categorical variables (Gray & Kinnear, 2012). The analysis was performed by using Chi-square independent $\chi 2$ (df, n=(sample) = ($\chi 2$ result), p=(result), phi = (result) (95% confident interval). To be statistically significant, a p value needs to be less than 0.05 (Pallant, 2013). A p value of higher than 0.05 is not statistically significant, and could lead to the conclusion that there is no association between variables (Gray & Kinnear, 2012). The phi coefficient was used to determine the effect size to indicate the strength of the association between two variables for "table two by two", while Cramer's V provided the degrees of freedom for "table larger than two by two" (Pallant, 2013, p. 228). The effect size was measured using Cohen's criteria of 0.01 = small, 0.30 = medium, and 0.50 = large (Pallant, 2013). The estimated confidence interval for the Phi effect size was run through Bootstrapping to validate the results (Haukoos & Lewis, 2005).

For the objective of exploring the role of the midwife from the perceptions of the pregnant women, the variables in the study focused on the role of the midwife, especially in relation to conducting normal vaginal delivery, performing placental delivery, and performing suturing in light of the midwives' role not being recognised in Thailand (TNMC, 2019). Cross-tabulations were initially used to present a summary of the independence of the categorical variables, and the adjusted residual

was reported in a cross-tabulation to understand which cells had larger or smaller counts than expected (Pett, 2016). As mentioned in Chapter 1, the majority of births in the metropolitan areas were delivered by obstetricians, while a minority of births were delivered by midwives (NSO, 2016). However, women living in rural areas had more babies delivered by a midwife than women in the metropolitan areas (20.4% and 10.7%, respectively) (NSO, 2016). A chi-square test was thus used to analyse whether the perceptions of the women about the tasks of the midwife, such as conducting normal vaginal delivery, performing placental delivery, and performing suturing were associated with where the respondents live. Additionally, the chi-square analysis was used to investigate the association between the confidence level of having a midwife as the primary carer during labour, and their geographical area of residence in order to respond to the research objective of identifying the perceptions and views of pregnant Thai women in relation to the selection of intrapartum care providers.

The Wilcoxon matched-pairs signed-ranks test is applicable to the comparison of performance levels when the participants are measured under two different conditions and the data does not have a normal distribution (Gray & Kinnear, 2012). This test converts the subject's scores to ranks in order to reveal whether the distribution of the scores under two different condition differed significantly from each other (Pallant, 2013). After this, effect size, which measures the strength of the relationship between two variables on a numeric scale, was calculated by using matched-pairs rank biserial correlation recommended by King and Minimum (Gray & Kinnear, 2012, p. 198). A formula for the correlation of the smaller of the liked-signed ranks (T), the sum of the positive ranks (R+), the sum of the negative ranks (R–), and the sample size (N) (Gray & Kinnear, 2012, p. 198). Using r for the correlation, the formula is: $rr=4\times|TT-((RR++RR-)/2)\ |NN(NN+1)$ (Gray & Kinnear, 2012, p. 198). Using Cohen's (1988) criteria to classify the effect size, a correlation between 0.1 and 0.3 is small,

between 0.3 and 0.5 is medium, and a correlation of 0.5 or greater is large (Gray & Kinnear, 2012, p. 209).

To address the research objective ‘to identify the perceptions and views of Thai pregnant women in relation to the selection of intrapartum care providers’, the Wilcoxon matched-pairs signed-ranks test was used to compare the perceptions of pregnant women in relation to the tasks associated with normal vaginal delivery by midwives and physicians. Through this approach, it can be determined whether there were any differences between the respondents’ knowledge in relation to conducting normal vaginal delivery of the two intrapartum care providers; that is, the midwives and the physicians. Additionally, the Wilcoxon matched-pairs signed-ranks test was performed to compare the means of the confidence scores for have a midwife or a physician attending during labour. The effect size for the test was calculated to quantify the difference in the confidence scores between the two groups. The findings compared the confidence levels which may affect women’s choice of care providers.

THEMATIC ANALYSIS OF QUALITATIVE DATA

Nardi (2014) suggested that including qualitative questions in a questionnaire allows participants to describe an issue in their own words. In this case, the qualitative information, which was in the form of free-text open-ended responses, was analysed. The free-text comments included the respondents’ preferences for a natural birth or a caesarean section, and the role of the midwife and the physician. A thematic analysis of the qualitative data was undertaken to assist with further understanding of the perceptions of the respondents about the role of the midwife (Attride-Stirling, 2001). The data was categorised into themes using the analysis process recommended by Attride-Stirling (2001). The first step is reading and re-reading of the data to achieve an understanding of the context and to immerse the researcher in the data to become intimately familiar with its

content. Then each comment was read word for word to summarising individual statements to capture the essence of each statement. Secondly, common summary statements were then labelled and analysed, and then the themes, including those related to the free-text comments, were sorted into categories. After this, all the comments were reviewed again with these categories in mind, leading to the categories being refined into a smaller set of categories, derived inductively from the raw data. Ward (2007) suggested that quantification of qualitative data can be used for the purpose of describing the data to tell its story in a meaningful way. Finally, the qualitative data thus were coded as new variables quantifying how many participants perceived the information related to each category, and these new variables were presented in the descriptive results to support the quantitative findings.

The thematic analysis produced rich data which assisted to provide further detail to the quantitative findings, revealing attitudes towards both natural births and caesarean sections, and perceptions about the different professional healthcare providers.

3.12 Conclusion

In summary, this project used a quantitative design comprising an online survey, using an adapted questionnaire, which was implemented through Facebook advertising to groups related to pregnancy, birth, and parenting in Thailand. The study was approved by the SBREC at Flinders University and the ethics committee at Mahidol University in Thailand. The respondents' identity was not required or able to be tracked and therefore guaranteed their anonymity. The quantitative and qualitative data were organised and analysed using SPSS. The following chapter will discuss the findings of the data analysis.

Chapter 4 — FINDINGS

4.1 Introduction

In this chapter, the demographic data will be reported initially, followed by the results relating to each research objective. Originally, this study intended to investigate the relationship between perceptions of women and their demographic information. However, to do this requires further statistical analysis which was not possible due to time limitations for undertaking the study. However, the researcher chose one of interest: geographical area of residence which was later analysed to further explore its relationship with perceptions of women about the role of the midwife. Statistical methods used for the data included frequency, percentages and confidence intervals. A Chi-square (χ^2) statistical test was used to measure the relationship between the perceptions of the respondents about the tasks of the midwife, which included conducting normal vaginal delivery, performing placenta delivery, performing suturing, and their geographical area of residence. The confidence levels relating to the midwife as the primary carer during labour, and the respondents' geographical areas of residence are reported using a Chi-square (χ^2) statistical test. The results of the detailed thematic analysis of the qualitative data will also be shown. Finally, the Wilcoxon matched-pairs test results, in relation to the confidence scores for the intrapartum care providers, and comparing the perceptions of the respondents in relation to normal vaginal delivery by a midwife or a physician, will be presented.

4.2 Response rate of the survey

The respondents were initially invited to complete the online survey via the Qualtrics online survey targeting pregnant women living in the metropolitan and rural areas of Thailand (Qualtrics, 2019). A total of 398 women responded to the online survey. Unfortunately, there may have been either problems with the Internet connection and/or the software, which prevented the survey from being collected after the first page on a large number of responses. As a result of this technical difficulty,

the total number of respondents who completed all the questions in the survey was 149. Thus, a sample of 149 surveys were analysed to address the research objectives. The research objectives that guided the analysis were:

1. To explore the perceptions of pregnant Thai women about the role of the midwife during labour and birth.
2. To identify the perceptions and views of pregnant Thai women in relation to the selection of intrapartum care providers.

4.3 Demographic Summary

This section commenced by highlighting the recruitment results from the demographic data, providing a profile of the final number of respondents who participated in the survey. The first six items in the questionnaire generated demographic data consisting of geographical area of residence, gestational age, pregnancy parity, age group, education level, and monthly income.

4.3.1 Geographical area of residence

63% (n=94) of the respondents lived in the metropolitan area, while 55 (37%) lived in the rural areas of Thailand.

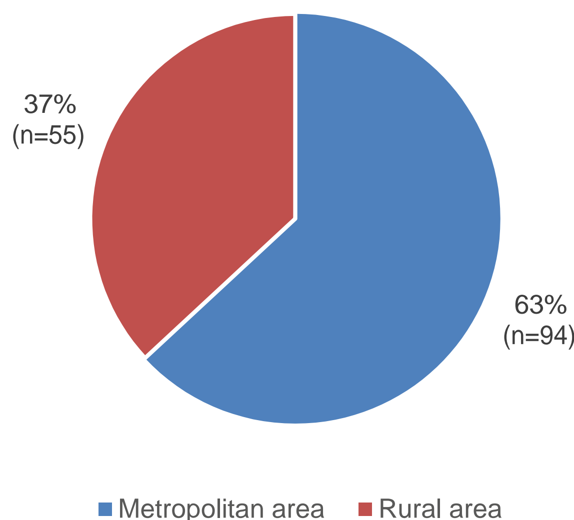

Figure 1: Geographical Area of Residence

4.3.2 Gestational age

There were 75 participants (50%) who were between 13-28 weeks gestation recruited for this study, 24 participants (16%) at less than 13 weeks, and 49 participants (33%) between 29-40 weeks gestation age. Only one participant was over 40 weeks gestational age.

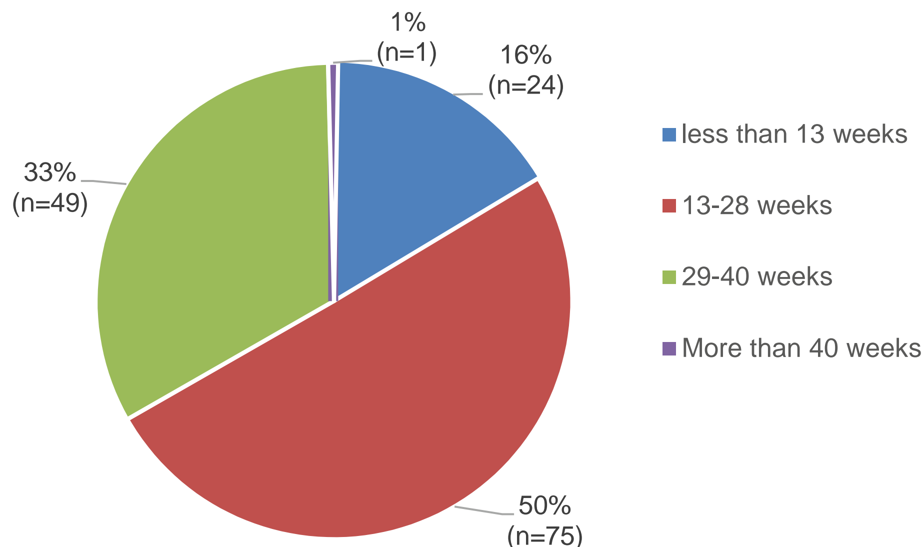

Figure 2: Gestational age

4.3.3 Pregnancy Parity

Over half of all respondents, 60% (n=89) were primigravida women, while 29% (n=43) reported having one birth before their current pregnancy (multigravida). There were 15 participants (10%) who had two children before this pregnancy. Only two participants had three other children.

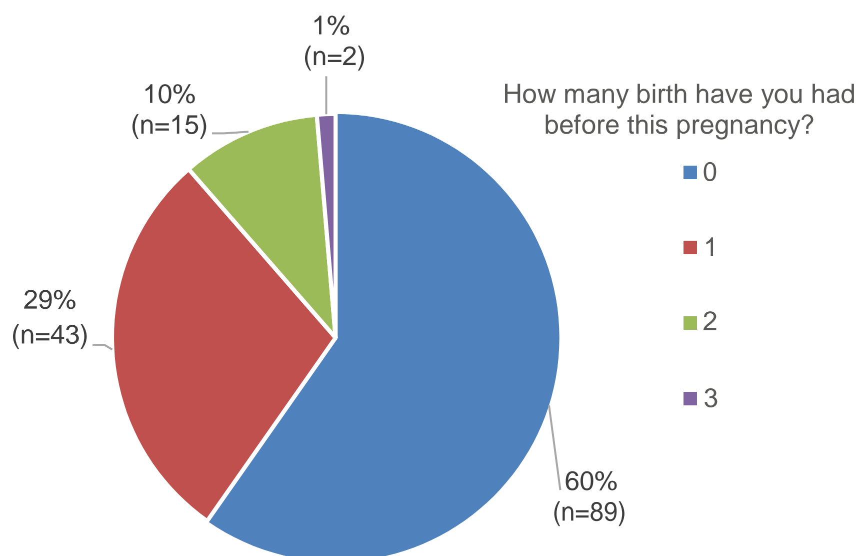

Figure 3: Pregnancy Parity

4.3.4 **Age group**

A majority of the participants, 53% (n=79) were in the age range between 21-30 years, while 45% (n=67) were in the group aged between 31-40 years. There were only three participants (2%) who were in the 18-20 year age group.

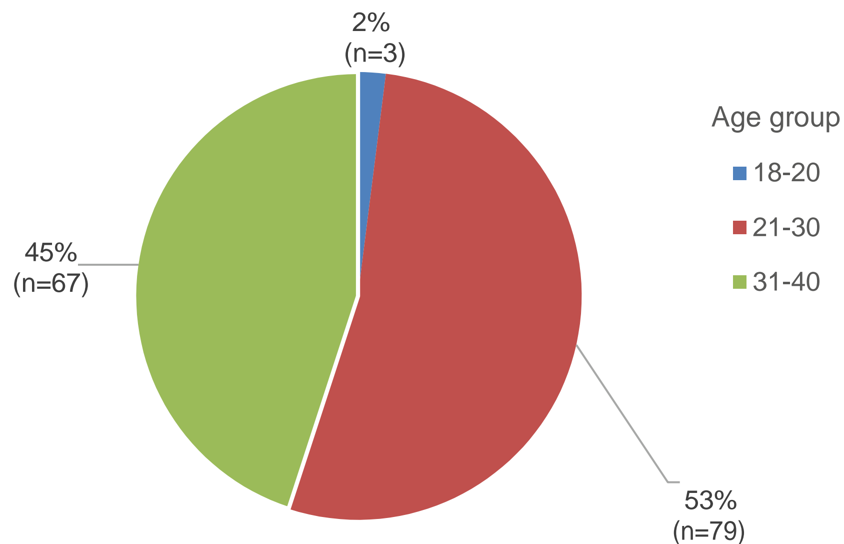

Figure 4: Age group

4.3.5 **Education level**

The respondents were fairly evenly divided in their education levels. 61% of the participants (n=91) held a Bachelor's degree as their highest qualification, 19% (n=28) had completed a Diploma, 14% (n=21) had a Master's degree, and 4% (n=6) of the participants did not reveal their education level. Only 1% (n=2) of the respondents had completed secondary school and one had completed a Doctoral degree.

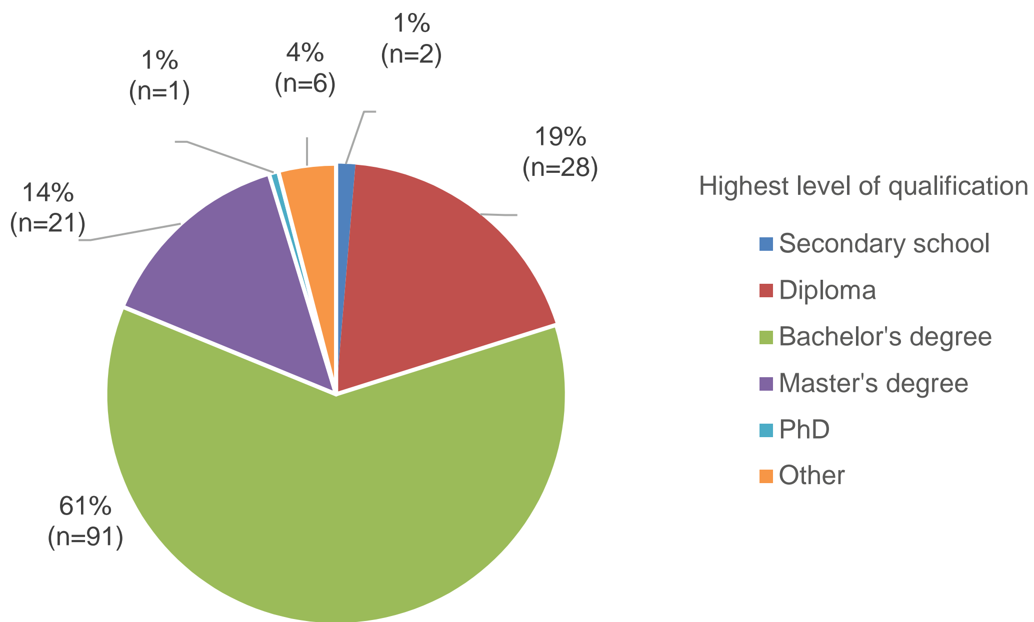

Figure 5: Education level

4.3.6 **Monthly income**

The 149 participants had a diverse range of monthly incomes, representing four different monthly income levels: 56 respondents earned less than 18,000 baht (38%), 44 had a monthly income between 18,000-24,000 baht (29%), 28 earned more than 35,001 baht (19%), and 21 respondents earned between 24,001-35,000 baht (14%).

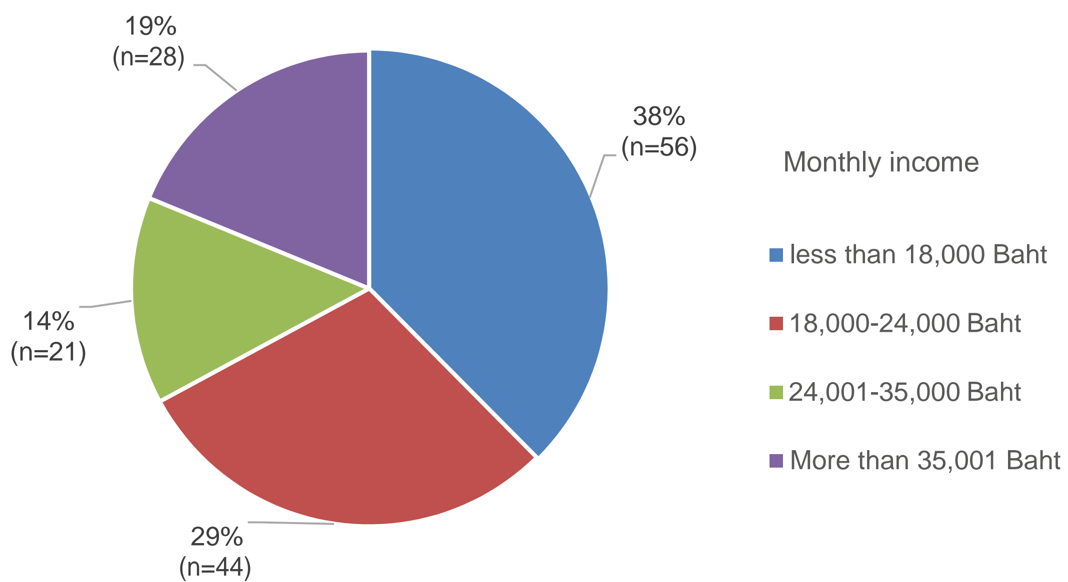

Figure 6: Monthly income

4.4 Results for research objective 1

To explore the perceptions of pregnant Thai women about the role of the midwife during labour and birth.

Descriptive statistics reported frequencies counts of the responses, the respective percentages and its confidence interval accordingly. Following this, the Chi-square results presented the perceptions of the respondents in relation to the tasks of the midwife, including conducting normal vaginal delivery, performing placenta delivery, and performing suturing in relation to the respondents' geographical area of residence.

4.4.1 Descriptive results

4.4.1.1 *Preferring natural birth*

Of the 149 respondents surveyed, half of the responses were in the 'extremely agree' category of preferring a natural birth, at 49%, n=73[1], with 43 respondents 'agreeing' with the statement (29%)[2]. 16% of the responses were 'not sure' about whether they preferred a natural birth (n=24)[3]. A very small number of responses were in the 'not agree' (4%) and the 'not agree at all' (2%) categories in relation to preferring a natural birth.

Table 1 Prefer a natural birth

Would you prefer a natural birth?	N	Percentage	95% confidence interval
Not agree at all	3	2%	(0.6, 5.3)
Not agree	6	4%	(1.7, 8.1)
Not sure	24	16%	(10.9, 22.6)
Agree	43	29%	(22.0, 36.5)
Extremely agree	73	49%	(41.1, 57.0)
Total	149	100%	

[1] 95%CI = 41.1%, 57%
[2] 95%CI = 22%, 36.5%
[3] 95%CI = 10.9%, 22.6%

4.4.1.2 ***Preferring to have a caesarean section***

As shown in Table 2, the findings from the perceptions of the respondents' preference for a caesarean section show that one-third 'agreed' with this statement, at 34%, n=50[4]. This was similar to the percentage of respondents who were 'not sure' about whether they preferred a caesarean section (33%, n=49)[5]. Of the responses, 22% of the respondents chose the 'not agree' category (n=33)[6].

Table 2: Prefer caesarean section

Would you prefer a caesarean section?	N	Percentage	95% confidence interval
Not agree at all	8	5%	(2.6, 9.9)
Not agree	33	22%	(16.1, 29.3)
Not sure	49	33%	(25.7, 40.7)
Agree	50	34%	(26.3, 41.4)
Extremely agree	9	6%	(3.0, 10.7)
Total	149	100	

4.4.1.3 ***Can you explain or describe the role of the midwife?***

For the question regarding the respondents' explanations of the role of the midwife, they were more likely to answer, "not sure" (n=65)[7] rather than those choose "yes" (n=49)[8] (44% versus 33%). 23% of the responses could not describe the role of the midwife (n=35)[9].

Table 3: Describe the role of the midwife

Can you explain or describe the role of the midwife?	N	Percentage	95% confidence interval
Yes	49	33%	(26, 41)
No	35	23%	(17, 31)
Not sure	65	44%	(36, 52)
Total	149	100%	

[4] 95%CI = 26.3%, 41.4%
[5] 95%CI = 25.7%, 40.7%
[6] 95%CI = 16.1%, 29.3%
[7] 95%CI = 36%, 52%
[8] 95%CI = 26%, 41%
[9] 95%CI = 17%, 31%

4.4.1.4 ***During your pregnancies (or current pregnancy), did you have contact with a midwife?***

In total, 41% of the respondents (n=61)[10] had been in contact with a midwife, while 48% had not been in contact with a midwife during their pregnancy (n=71)[11].

Table 4: Describe your contact with a midwife

During your pregnancies (or current pregnancy), did you have contact with a midwife?	N	Percentage	95% confidence interval
Yes	61	41%	(33, 49)
No	71	48%	(40, 56)
Not sure	17	11%	(7, 17)
Total	149	100%	

4.4.1.5 ***Are you aware of the role of the midwife?***

The respondents were more likely to be aware of the role of the midwife than not (39% versus 25%). However, 36% of respondents were 'not sure' in terms of their awareness of the role of the midwife (n=54)[12].

Table 5: Describe awareness of the role of the midwife

Are you aware of the role of the midwife?	N	Percentage	95% confidence interval
Yes	58	39%	(31, 47)
No	37	25%	(18, 32)
Not sure	54	36%	(29, 44)
Total	149	100%	

4.4.1.6 ***Midwife Tasks***

It was noted that a majority of respondents believed that the responsibilities of the midwife during labour and birth were performing vaginal examination (n=87, 58%)[13], diagnosing true labour pain

[10] 95%CI = 33%, 49%
[11] 95%CI = 40%, 56%
[12] 95%CI = 29%, 44%
[13] 95%CI = 50%, 66%

(n=99, 66%)[14], and encouraging pushing (n=126, 85%)[15]. Less than half of the responses identified assessing the progress of the labour (n=71, 48%)[16] and preventing blood loss (n=72, 48%)[17] as the role of the midwife. Surprisingly, the number of respondents who recognised that the midwife was trained to conduct normal vaginal delivery in labour (who responded "Yes"), made up only one-third of the responses, at 33%, n=49[18]. Similarly, only one-third of the respondents believed that the midwife was able to perform placenta delivery (n=49, 33%)[19] and perineal suturing (n=43, 29%)[20]. For cord cutting procedures, few participants believed that the midwife was trained to perform this task, at only 39% (n=58)[21].

Table 6: Describe the midwife's tasks

Midwife Tasks		N	Percentage	95% confidence interval
Performing vaginal examination	Yes	87	58%	(50, 66)
	No	24	16%	(11, 23)
	Not sure	38	26%	(19, 33)
	Total	149	100%	
Assessing labour progress	Yes	71	48%	(40, 56)
	No	37	25%	(18, 32)
	Not sure	41	28%	(21, 35)
	Total	149	100%	
Diagnosing true labour pain	Yes	99	66%	(59, 74)
	No	22	15%	(10, 21)
	Not sure	28	19%	(13, 26)
	Total	149	100%	
Encouraging pushing	Yes	126	85%	(78, 90)
	No	4	3%	(1, 6)
	Not sure	19	13%	(8, 19)
	Total	149	100%	
Conducting normal vaginal delivery	Yes	49	33%	(26, 41)
	No	61	41%	(33, 49)
	Not sure	39	26%	(20, 34)

[14] 95%CI = 59%, 74%
[15] 95%CI = 78%, 90%
[16] 95%CI = 40%, 56%
[17] 95%CI = 40%, 56%
[18] 95%CI = 26%, 41%
[19] 95%CI = 26%, 41%
[20] 95%CI = 22%, 36%
[21] 95%CI = 31%, 47%

	Total	149	100%	
Performing placenta delivery	Yes	49	33%	(26, 41)
	No	54	36%	(29, 44)
	Not sure	46	31%	(24, 39)
	Total	149	100%	
Preventing blood loss	Yes	72	48%	(40, 56)
	No	38	26%	(19, 33)
	Not sure	39	26%	(20, 34)
	Total	149	100%	
Perineal suturing	Yes	43	29%	(22, 36)
	No	66	44%	(36, 52)
	Not sure	40	27%	(20, 34)
	Total	149	100%	
Cord cutting	Yes	58	39%	(31, 47)
	No	56	38%	(30, 46)
	Not sure	35	23%	(17, 31)
	Total	149	100%	

As reported in Table 6 (see the red text), only one-third or less of the respondents perceived that the midwife was able to conduct normal vaginal delivery, perform placenta delivery and perineal suturing. In the following section, these results are considered in relation to living in either a metropolitan or a rural area.

The number of respondents living in a metropolitan area who believed that a midwife does not conduct normal vaginal delivery was higher than respondents living in a rural area (43.6% and 36.4%, respectively) (see Table 7). A chi-square test for independence indicated that there was no statistically significant association between perceptions about the midwife's tasks in relation to conducting normal vaginal delivery and living in a metropolitan area, $\chi2$ (2, n=149) =1.193, p = 0.551, Cramer's V = 0.089 (0.022, 0.267)[22].

[22] Bootstrapped 95%CI

Table 7: Cross-tabulation – Conducting normal vaginal delivery and women' living areas

			Living in metropolitan area		
			Yes	No	Total
Conducting normal vaginal delivery	No	Count	41	20	61
		% within living in metropolitan area	43.6%	36.4%	40.9%
		Adjusted Residual	.9	-.9	
	Not sure	Count	22	17	39
		% within living in metropolitan area	23.4%	30.9%	26.2%
		Adjusted Residual	-1.0	1.0	
	Yes	Count	31	18	49
		% within living in metropolitan area	33.0%	32.7%	32.9%
		Adjusted Residual	.0	.0	
Total		Count	94	55	149
		% within living in metropolitan area	100.0%	100.0%	100.0%

As Table 8 indicates, there was no difference between the metropolitan respondents who recognise performing placenta delivery as a midwife's task and the rural respondents (33% and 32.7%, respectively). A chi-square test for independence indicated no statistically significant association between perceptions of the midwives' tasks regarding performing placenta delivery and living in a metropolitan area, $\chi 2$ (2, n=149) =0.001, $p = 0.999$, Cramer's V = 0.003 (0.017, 0.221)[23].

Table 8: Cross-tabulation – Performing placenta delivery and women' living areas

			Living in metropolitan area		
			Yes	No	Total
Performing placenta delivery	No	Count	34	20	54
		% within living in metropolitan area	36.2%	36.4%	36.2%
		Adjusted Residual	.0	.0	
	Not sure	Count	29	17	46
		% within living in metropolitan area	30.9%	30.9%	30.9%
		Adjusted Residual	.0	.0	
	Yes	Count	31	18	49
		% within living in metropolitan area	33.0%	32.7%	32.9%
		Adjusted Residual	.0	.0	
Total		Count	94	55	149
		% within living in metropolitan area	100.0%	100.0%	100.0%

23 Bootstrapped 95%CI

Importantly, a statistically significant relationship was found between the perceptions of the respondents in relation to perineal suturing as the role of the midwife and geographical area of residence. While 40% of the respondents who lived in a rural area perceived perineal suturing as the role of the midwife, only 22.3% who lived in a metropolitan area were able to identify this task (see Table 9). A chi-square test for independence indicated a statistically significant association between perceptions of the midwife's task regarding perineal suturing and living in a metropolitan area, $\chi 2$ (2, n=149) =6.389, $p = 0.041$, Cramer's V = 0.207 (0.078, 0.387)[24], which is considered a small effect size.

Table 9: Cross-tabulation – Perineal suturing and women' living areas

			Living in metropolitan area		Total
			Yes	No	
Perineal suturing	No	Count	48	18	66
		% within living in metropolitan area	51.1%	32.7%	44.3%
		Adjusted Residual	2.2	-2.2	
	Not sure	Count	25	15	40
		% within living in metropolitan area	26.6%	27.3%	26.8%
		Adjusted Residual	-.1	.1	
	Yes	Count	21	22	43
		% within living in metropolitan area	22.3%	40.0%	28.9%
		Adjusted Residual	-2.3	2.3	
Total		Count	94	55	149
		% within living in metropolitan area	100.0%	100.0%	100.0%

4.4.1.7 *Physicians' Tasks*

The results from Table 10 below show that more than 80% of the respondents believed that physicians were qualified to conduct normal vaginal delivery (88%, n=131)[25], assess the progress of labour (82%, n=122)[26], perform placenta delivery (83%, n=123)[27], perform perineal suturing (86%,

[24] Bootstrapped 95%CI
[25] 95%CI = 82%, 92%
[26] 95%CI = 75%, 87%
[27] 95%CI = 76%, 88%

n=128)[28], prevent blood loss (85%, n=127)[29], and perform cord cutting (80%, n=119)[30]. More than 70% also believed that physicians can diagnose true labour pain (n=105) and can perform a vaginal examination (n=112). Only half of the respondents believed that a physician was able to encourage pushing during labour (n=68, 46%)[31].

Table 10: describe the physician's tasks

Physicians' Tasks		N	Percentage	95% confidence interval
Performing vaginal examination	Yes	112	75%	(68, 82)
	No	21	14%	(9, 20)
	Not sure	16	11%	(7, 16)
	Total	149	100%	
Assessing labour progress	Yes	122	82%	(75, 87)
	No	13	9%	(5, 14)
	Not sure	14	9%	(5, 15)
	Total	149	100%	
Diagnosing true labour pain	Yes	105	70%	(63, 77)
	No	21	14%	(9, 20)
	Not sure	23	15%	(10, 22)
	Total	149	100%	
Encouraging pushing	Yes	68	46%	(38, 54)
	No	47	32%	(24, 39)
	Not sure	34	23%	(17, 30)
	Total	149	100%	
Conducting normal vaginal delivery	Yes	131	88%	(82, 92)
	No	6	4%	(2, 8)
	Not sure	12	8%	(4, 13)
	Total	149	100%	
Performing placenta delivery	Yes	123	83%	(76, 88)
	No	11	7%	(4, 12)
	Not sure	15	10%	(6, 16)
	Total	149	100%	
Preventing blood loss	Yes	127	85%	(79, 90)
	No	5	3%	(1, 7)
	Not sure	17	11%	(7, 17)
	Total	149	100%	
Perineal suturing	Yes	128	86%	(80, 91)
	No	9	6%	(3, 11)
	Not sure	12	8%	(4, 13)

[28] 95%CI = 80%, 91%
[29] 95%CI = 79%, 90%
[30] 95%CI = 73%, 86%
[31] 95% CI = 38%, 54%

	Total	149	100%	
Cord cutting	Yes	119	80%	(73, 86)
	No	10	7%	(4, 12)
	Not sure	20	13%	(9, 20)
	Total	149	100%	

4.4.1.8 *How important do you think it is to have a midwife present in the labour room?*

The responses regarding the importance of having a midwife present during labour reported that most respondents perceived it as ‘extremely important’ or ‘important’ to have a midwife present (36%[32] and 53%[33], respectively). Nine per cent (n=14) felt ‘neutral’ about having a midwife in the labour room, and only one per cent of respondents perceived that it was ‘not important’.

Table 11: Importance of having a midwife present in the labour room

How important do you think it is to have a midwife present in the labour room?	N	Percentage	95% confidence interval
Not important at all	1	1%	(0, 3)
Not important	1	1%	(0, 3)
Neutral	14	9%	(5, 15)
Important	79	53%	(45, 61)
Extremely important	54	36%	(29, 44)
Total	149	100%	

4.4.2 Qualitative data: analysis of the free-text (open-ended) comments

The analysis of the free-text qualitative questions is presented in this section of the chapter. The free-text comments on the preferred type of birth and the role of the midwife were analysed and grouped into categories. These categories are discussed below.

[32] 95%CI = 29%, 44%
[33] 95%CI = 45%, 61%

4.4.2.1 *Comments on the question "Would you prefer a natural birth?"*

Thirty-three per cent of respondents (n=49)[34] believed that "easier recovery and shorter labour" were the main reasons why they preferred a natural birth. The respondents also believed that a natural birth is a natural process (n=29, 19%)[35], helps to initiate breastfeeding more easily, and promotes strong immunity for the baby (n=18, 12%)[36]. These respondents demonstrated perspectives similar to a recent study (Kovavisarach & Sukontaman, 2017), which showed that pregnant Thai women preferred natural birth due to wanting a natural process and faster recovery. A small number of respondents stated that it was cheaper than a caesarean section (n=4, 3%)[37], and having had a previous caesarean section (n=6, 4%)[38] as their reasons for preferring a natural birth. On the other hand, a number of respondents revealed that they have a fear of the pain of a natural birth as well as a fear of waiting too long (n=17, 11%)[39], as why they did not prefer a natural birth.

Table 12: Comments on the question "would you prefer a natural birth?"

Comments on "would you prefer a natural birth?"		N = 149	Percentage	95% confidence interval
Advantages of a natural birth	Easier recovery and shorter labour	49	33%	(26, 41)
	Natural process	29	19%	(13, 26)
	Initiates breastfeeding more easily and promotes strong immune system for the baby	18	12%	(8, 18)
	Cheaper	4	3%	(1, 6)
Disadvantages of a natural birth	Fear of the pain of a natural birth and of waiting too long	17	11%	(7, 17)
	Previous caesarean section	6	4%	(2, 8)
	No comment	27	18%	(13, 25)

[34] 95% CI = 26%,41%
[35] 95% CI = 13%,26%
[36] 95% CI = 8%, 18%
[37] 95% CI = 1%, 6%
[38] 95% CI = 2%, 8%
[39] 95% CI = 7%, 17%

4.4.2.2 *Comments on the question "would you prefer to have a caesarean section?"*

The categories reflect the disadvantages of having a caesarean section from the respondents' perspectives (see Table 13). The highest number of responses were in relation to caesarean sections being involved with high-risk pregnancies (n=42, 28%)[40], and staying in the hospital longer (n=32, 21%)[41]. Fourteen responses reported a fear of the pain of a natural birth leading to a preference for caesarean section (9%)[42]. This finding contrasts to the results of a previous study (Kovavisarach & Sukontaman, 2017), which showed that the majority of pregnant Thai women preferred a caesarean section due to the fear of the pain of a natural birth. Perceptions of a caesarean being a faster and more predictable process (n=15, 10%)[43], leaving a surgical scar (n=5, 3%), caesareans being expensive (n=5, 3%), and 'depending on the doctor's decision' (n=5, 3%) were in the minority in the responses.

Table 13: Comments on the question "would you prefer to have a caesarean section?"

Comments on "would you prefer to have a caesarean section?"	N = 149	Percentage	95% confidence interval
Caesarean section is for high-risk pregnancies	42	28%	(21, 36)
Stay in the hospital longer	32	21%	(15, 29)
Fear of pain of natural birth	14	9%	(5, 15)
Faster and more predictable process	15	10%	(6,16)
Leaving a surgical scar	5	3%	(1, 7)
Expensive	5	3%	(1, 7)
Depending on the doctor's decision	5	3%	(1, 7)
No comment	31	21%	(15, 28)

[40] 95% CI = 21%,36%
[41] 95% CI = 15%,29%
[42] 95% CI = 5%, 15%
[43] 95% CI = 6%, 16%

4.4.2.3 *Comments on the question "What do you think about the role of midwives in the labour room?"*

The responses to this question were aligned with the midwifery scope of practice, according to the International Confederation of Midwives (2017) and the Thailand Nursing and Midwifery Council (2019) (see Table 14). More than one-third of the respondents perceived that the midwife is responsible for giving support and providing care during labour (n=54)[44]. Less than one-fifth of the respondents perceived being an assistant to the physician as being the main role of the midwife in labour room (n=25)[45]. Examples of some of the responses on this issue included: "Physician conduct delivery in all cases while midwife is a physician assistant", and "Midwife helps physician and pregnant women during labour". In contrast to the role of the midwife in relation to performing a normal vaginal delivery, only 3% of the respondents perceived that this is the role of the midwife (n=4). A minority of respondents explained the role of the midwife as assessing pregnant women in the labour room (n=6, 4%)[46]. Importantly, 11% of the respondents commented negatively about the midwife instead of commenting on the role of the midwife. Examples of responses in this regard included "midwives always they shout to me", "the midwife should pay more attention to patient", and "the midwife communicates with me improper ways".

Table 14: What do you think about the role of the midwife in the labour room?

Comments on "What do you think about the role of the midwife in the labour room?"	N = 149	Percentage	95% confidence interval
Support and provide care for pregnant women	54	36%	(29, 44)
Act as a physician's assistant	25	17%	(11, 23)
Assessing pregnant women	6	4%	(2, 8)
Conducting normal vaginal delivery	4	3%	(1, 6)
Negative views about midwives	16	11%	(7, 16)
No comment	44	30%	(23, 37)

[44] 95%CI = 29%, 44%
[45] 95%CI = 11%, 23%
[46] 95%CI = 2%, 8%

Therefore, the scope of midwifery practice encompassing support, assessment, and conducting normal vaginal delivery was recognised but not by all women.

4.4.3 Summary Research objective 1

In summary, the quantitative analysis showed that most of the respondents reported preferring to have a natural birth, while less than two-fifths preferred a caesarean section. The respondents also reported on the importance of having a midwife present in the labour room. However, a majority were “not sure” or “cannot explain” the role of the midwife and believed that midwives were not qualified to conduct normal vaginal delivery and procedures such as placenta delivery and perineal suturing. Statistically significant relationships were found between the respondents’ perceptions of perineal suturing as the midwife’s role and where they lived. The majority of the respondents, however, believed that physicians were qualified to conduct normal deliveries and other midwifery-related tasks.

The content analysis produced rich data, which helped to provide further detail about the quantitative findings, revealing the reasons for the respondents’ attitudes towards preferring a natural birth or a caesarean section. The comments on the role of the midwife revealed that the respondents mainly perceived that the midwife was responsible for supporting and providing care during labour, whereas some perceived the midwife to be the physician’s assistant. There were also some comments focused on negative views about midwives instead of on the role of the midwife.

4.5 Results for research objective 2

To identify the perceptions and views of pregnant Thai women in relation to their selection of intrapartum care providers.

In order to achieve this objective, the respondents were asked about their perceptions and views of intrapartum care providers (physicians and midwives) in relation to conducting normal vaginal delivery and their levels of confidence with each. These comments are explored below.

4.5.1 Descriptive results

4.5.1.1 *The perceptions and views of pregnant women on different intrapartum care providers conducting normal vaginal delivery*

Physicians and midwives are intrapartum care providers who have been trained to be proficient in conducting normal vaginal delivery (WHO, 2004). As reported in Tables 6 and 10, the tasks of the midwives and the physicians in the intrapartum setting were viewed quite differently. Table 15 below, reports on the frequency and percentage of the respondents' knowledge about the task of conducting normal vaginal delivery by a midwife and by a physician. Only 33% of respondents perceived that the midwife is trained to conduct normal vaginal delivery, while more than 80% believed that a physician is qualified for this task.

Table 15: Conducting normal vaginal delivery by a midwife and by a physician

Conducting normal vaginal delivery task		N	Percentage
Conducting normal vaginal delivery by a midwife	No	61	41%
	Not sure	39	26%
	Yes	49	33%
	Total	149	100%
Conducting normal vaginal delivery by a physician	No	6	4%
	Not sure	12	8%
	Yes	131	88%
	Total	149	100%

Table 16 presents a cross-tabulation of the percentages across all combinations of responses regarding conducting normal vaginal delivery by a midwife and a physician. 87.8% of the respondents identified this role for both the midwife and the physician. However, while 93.4% of

respondents reported that conducting normal vaginal delivery was not the role of the midwife, they identified that it was the role of the physician. Similarly, 79.5% of respondents reported that they were "not sure" about this role for the midwife, but they recognised this as the role of the physician. These significant findings were derived from the Wilcoxon matched-pairs rank tests.

Table 16: Cross-tabulation – conducting normal vaginal delivery by the midwife and by the physician

		Conducting normal vaginal delivery by the midwife					
		No		Not sure		Yes	
		N	N %	N	N %	N	N %
Conducting normal vaginal delivery by the physician	No	3	4.9%	1	2.6%	2	4.1%
	Not sure	1	1.6%	7	17.9%	4	8.2%
	Yes	57	93.4%	31	79.5%	43	87.8%

A Wilcoxon matched-pairs signed-ranks test showed that the difference between the mean response score for conducting normal vaginal delivery by a midwife (Mean = 0.92; Range = 2, Min, max=0,2) and by a physician (Mean = 1.84; Range = 2, Min, max=0,2) was significant beyond the 0.001 level: exact $p < 0.001$ (two-tailed). The sums of the ranks were 229 and 4,427 for the negative and positive ranks, respectively; therefore, $W = 229$, $Z = -7.959$, $p < 0.001$. The matched-pairs rank biserial correlation was 0.38 (0.23, 0.51) [47] , which is a 'medium' effect. A statistically highly significant difference was found in the respondents' knowledge on conducting normal vaginal delivery as not being part of the midwife's role, and largely the role of the physician ($p < 0.001$), with a medium effect size.

4.5.1.2 *How confident do you feel with a physician during labour?*

Table 17 identified the participants' responses to the question on feeling confident with a physician during labour. Most participants responded as feeling 'confident' (49%, n=73) [48] or 'extremely

[47] 95%CI
[48] 95%CI = 41%, 57%

confident' (34%, n=51)[49]. Only 16% of the respondents felt 'neutral' about a physician being in attendance (n=24)[50]. Only one respondent felt 'not confident' with a physician (less than 1%).

Table 17: Confidence with a physician during labour

How confident do you feel with a physician during labour?	N	Percentage	95% confidence interval
Not confident at all	1	1%	(0, 3)
Not confident	0	0%	-
Neutral	24	16%	(11, 23)
Confident	73	49%	(41, 57)
Extremely confident	51	34%	(27, 42)
Total	149	100%	-

4.5.1.3 *How confident do you feel about a midwife as the primary carer during labour?*

Overall, 66 respondents (44%)[51] felt 'confident' with the midwife as the primary carer during labour; however, feeling 'extremely confident' had only 14 responses (9%)[52]. A total of 52 respondents (35%)[53] were 'neutral' about having a midwife, while 16 (11 %)[54] felt 'not confident' about having a midwife as the primary carer during labour.

Table 18: Confidence with midwife as the primary carer during labour

How confident do you feel about having a midwife as the primary carer during labour?	N	Percentage	95% confidence interval
Not confident at all	1	1%	(0, 3)
Not confident	16	11%	(7, 16)
Neutral	52	35%	(28, 43)
Confident	66	44%	(36, 52)
Extremely confident	14	9%	(5, 15)
Total	149	100%	

[49] 95%CI = 27%, 42%
[50] 95%CI = 11%, 23%
[51] 95%CI = 36%, 52%
[52] 95%CI = 5%, 15%
[53] 95%CI = 28%, 43%
[54] 95%CI = 7%, 16%

Table 19 shows that there was a slight difference between confidence with a midwife between metropolitan and rural respondents (41% and 45%, respectively). Following this, a cross-tabulation reported the confidence levels with having a midwife, which collapsed the confidence levels into three categories, cross-tabulated to where they live (Table 20).

A Chi-square test for independence indicated that there was no significant association between geographical area of residence and confidence score on the midwife, $\chi2$ (2, n=149) = 0.476, p = 0.788, Cramer's V =0.057 (0.021, 0.242)[55].

Differences in respondents from the metropolitan and the rural areas were not statistically significant in relation to feeling confident with a midwife as the primary carer during labour.

Table 19: Confidence levels of a midwife as the primary carer in labour between women living in metropolitan and rural areas

How confident do you feel about a midwife being the primary carer during labour?	Living in metropolitan area		Living in rural area		Total	
	N	%	N	%	N	%
Not confident at all	1	1%	0	0%	1	1%
Not confident	11	12%	5	9%	16	11%
Neutral	32	34%	20	36%	52	35%
Confident	41	44%	25	45%	66	44%
Extremely confident	9	10%	5	9%	14	9%
Total	94	100%	55	100%	149	100%

[55] Bootstrapped 95%CI

Table 20: Cross-tabulation – Confidence levels with a midwife as the primary carer in labour and women' living areas

			Living in metropolitan area		Total
			Yes	No	
Confidence with having a midwife	Not confident	Count	12	5	17
		% within living in metropolitan area	12.8%	9.1%	11.4%
		Adjusted Residual	.7	-.7	
	Neutral	Count	32	20	52
		% within living in metropolitan area	34.0%	36.4%	34.9%
		Adjusted Residual	-.3	.3	
	Confident	Count	50	30	80
		% within living in metropolitan area	53.2%	54.5%	53.7%
		Adjusted Residual	-.2	.2	
Total		Count	94	55	149
		% within living in metropolitan area	100.0%	100.0%	100.0%

4.5.1.4 ***The perceptions and views of respondents on the level of confidence between different intrapartum care providers***

Table 21 presents a cross-tabulation of the percentages across all combinations of responses regarding confidence levels between the midwife and the physician in the labour room. As can be seen, the green line shows the same opinion about the confidence levels between the physician and the midwife. Above the green line, the responses indicated respondents who were likely to feel more confident with midwifery care compared to physician care. The table also shows that 0.7% of respondents felt 'neutral' about a midwife, but also felt 'not confident at all' with a physician. Accordingly, 1.3% of the respondents felt confident about having a midwife, while they felt neutral about a physician.

However, the percentage in red text (Table 21) demonstrates that these respondents felt confident with a physician at higher confidence levels than with a midwife. Of these, 15.4% of the respondents felt 'neutral' about a midwife and felt 'confident' about a physician. In 5.4% of the responses, women were 'not confident' with a midwife; however, they felt 'extremely confident' with a

physician. Thus, these results can be determined as significant through using the Wilcoxon matched-pairs rank test.

Table 21: Difference in confidence levels between a midwife and a physician being in the labour room

		Confidence with a midwife									
		Not confident at all		Not confident		Neutral		Confident		Extremely confident	
		N	N %	N	N %	N	N %	N	N %	N	N %
Confidence with a physician	Not confident at all	0	**0.0%**	0	0.0%	1	0.7%	0	0.0%	0	0.0%
	Not confident	0	**0.0%**	0	**0.0%**	0	0.0%	0	0.0%	0	0.0%
	Neutral	0	**0.0%**	4	**2.7%**	18	**12.1%**	2	1.3%	0	0.0%
	Confident	0	**0.0%**	4	**2.7%**	23	**15.4%**	46	**30.9%**	0	0.0%
	Extremely confident	1	**0.7%**	8	**5.4%**	10	**6.7%**	18	**12.1%**	14	**9.4%**

Wilcoxon matched-pairs rank tests were performed to test for differences in the mean confidence levels of choice of different intrapartum care providers. The test showed that the difference between the mean response score on the confidence level with midwifery care as the primary carer during labour (Mean = 3.51; Range = 4, Min, max = 1, 5), and with a physician during labour (Mean = 4.16; Range = 4, Min, max = 1, 5), was significant beyond the 0.001 level: exact $p < 0.001$ (two-tailed). The sums of the ranks were 103 and 2,453 for the negative and positive ranks, respectively; therefore, $W = 103$, $Z = -6.995$, $p < 0.001$. The matched-pairs rank biserial correlation was 0.21 (0.05, 0.36)[56], which is a 'small' effect.

The average of the confidence levels with having a physician present during labour were statistically significantly higher than the confidence levels with having a midwife as the primary carer during labour ($p < 0.001$).

[56] 95%CI

4.5.2 Qualitative data: analysis of free-text comments

The free-text comments on the final question asking respondents about role differences were analysed and grouped into categories. These categories were quantified into a table (see Table 22) and are discussed below.

4.5.2.1 *Comments on the question "Can you please describe the differences in roles between the midwife and the physician in the labour room?"*

The results show the perceptions of the respondents aligned with the medical model, in which the physician is viewed as the dominant healthcare provider and is the specialist trained in diagnosis and treatment (Davis-Floyd, Barclay, Daviss, & Tritten, 2009). Respondents (n = 53, 36%)[57] believed that "physicians conduct normal vaginal deliveries while a midwife is a physician's assistant". The others (n= 16, 11%)[58] believed "physicians conduct normal vaginal deliveries while midwives support and assess labour progress" and "the physician is mainly responsible for making decisions" (n = 13, 9%)[59]. Only 6 respondents believed that the midwife was the primary carer during labour with responsibility for conducting normal vaginal delivery (4%)[60].

Table 22: Difference in roles between the midwife and the physician in the labour room

Comments on "Can you please describe for me the differences in roles between the midwife and the physician in the labour room?"	N = 149	%	95% confidence interval
Physicians conduct normal vaginal delivery while a midwife is a physician's assistant	53	36%	(28, 43)
Physicians are mainly responsible for making decisions	13	9%	(5, 14)
Midwives support and assess labour progress while physicians conduct normal vaginal delivery	16	11%	(7, 16)
Physicians conduct delivery in high-risk pregnancies	8	5%	(3, 10)
Midwives conduct normal vaginal delivery	6	4%	(2, 8)
Physicians perform surgery while midwives support pregnant women during labour	3	2%	(1, 5)
No comment	50	34%	(26, 41)

[57] 95%CI = 28%, 43%
[58] 95%CI = 7%, 16%
[59] 95%CI = 5%, 14%
[60] 95%CI = 2%, 8%

4.5.3 **Summary of Research objective 2**

The respondents identified their perceptions regarding the selection of intrapartum care providers. A statistically highly significant difference was found in the respondents' knowledge about conducting normal vaginal delivery by the midwife and the physician ($p < 0.001$). The majority of the free-text comments demonstrated that the respondents believed that "physicians conduct normal vaginal deliveries while a midwife is a physician's assistant". The results showed that the majority of women felt 'confident' or 'extremely confident' with a physician during labour, while half of them felt 'confident' with a midwife being the primary carer during labour. However, there were no statistically significant differences in feeling 'confident' with a midwife as the primary carer during labour and the respondents' geographical areas of residence. A Wilcoxon matched-pairs signed-ranks test reported a statistically significant difference between confidence levels in midwives and physicians as the primary carer during labour. This result suggests that the perceptions of the respondents regarding the different healthcare professionals (the midwife and the physician) might influence their choice of primary carer for labour and birth.

Chapter 5 will provide a discussion of the findings, the implications of the findings, and the recommendations arising from the study. A summary and discussion of the results, and the conclusions based on the results, will be explored. The limitations of the study, the implications for practice, recommendations for further research, and an overall summary will also be provided.

CHAPTER 5 — DISCUSSION AND CONCLUSION

5.1 Introduction

This final chapter aims to interpret and describe the findings from Chapter 4. The main purposes of this study are to explore the perceptions of women about the role of the midwife and to investigate the perceptions and views of pregnant Thai women in relation to their selection of intrapartum care providers. The discussion will mainly focus on the pregnant women' perceptions of midwives, their knowledge and understanding of the role of the midwife, and the perceptions of women in choosing intrapartum care providers. Throughout this discussion, the results of the study will be discussed within the context of the existing literature. The limitations of the study will also be presented. Finally, the implications of the findings for midwifery practice will be considered, as will avenues for future research related to this topic.

The participants in this study were pregnant women living in both metropolitan and rural areas of Thailand. Three-fifths were primiparous women, while the others were multiparous. Most were in their second or third trimester of their pregnancy. The majority were aged 21-40 years and had a bachelor's degree as their highest qualification. This demographic data was different from that of an earlier study also conducted in Thailand, where most of the participants were aged between 15 and 25 years, with most only completing primary school as their highest qualification (Thadakant & Kritsupalerk, 2009). The perceptions and knowledge of women in relation to their understanding of midwifery practice are influenced by their education level (Thadakant & Kritsupalerk, 2009); thus, women with a bachelor's degree are highly educated, and therefore, may have more knowledge about birth choices and providers of pregnancy care. The monthly income of the participants in this study was reported as either less than 18,000 baht or between 18,000-24,000 baht, which covers all classification of monthly income except for the higher income group in Thailand (NSO, 2019). As

higher income status can influence the selection of type of birth in a private hospital, as well as perceptions of healthcare providers in Thai society (Tanglakmakhog, 2010), the majority of the participants in this study, may have been less likely to make choices about type of births and/or healthcare providers.

The survey responses demonstrated that most of the participants preferred a natural birth, while less than two-fifths preferred a caesarean section. However, most indicated that they were "not sure" about, or could not explain the role of the midwife, and believed that midwives are not qualified to conduct normal vaginal delivery and associated procedures such as placenta delivery and perineal suturing. Statistically significant relationships were found between the participants' perceptions of perineal suturing as the midwife's role and where they resided. The comments on the role of the midwife revealed a perception that midwives were responsible for supporting and providing care during labour and operated merely as the physician's assistant. Some of the comments about midwives were rather negative as they were of a personal nature rather than focusing on the role of the midwife. Nevertheless, the participants emphasised the importance of having a midwife present in the labour room.

In contrast, the participants believed that a physician is qualified to conduct normal vaginal delivery and many other midwifery tasks in intrapartum care. A statistically significant difference was found in the participants' knowledge on conducting normal vaginal delivery as not being part of the role of the midwife and being largely the role of the physician. Most of the open-ended comments demonstrated the participants' view that the "physician conducts normal vaginal delivery while the midwife is the physician's assistant". Statistically significant findings also indicated that the participants were likely to be more confident with a physician during labour than under midwifery care.

5.2 Pregnant women' perceptions of midwives

The findings highlighted that there are potentially many pregnant women in Thailand who are less likely to be aware of, or who are "not sure" about or cannot explain, the role of the midwife. This is concerning, but importantly, if women are not in contact with a midwife during their pregnancy (48%), as found in this study, they are less likely to experience a normal vaginal delivery , more likely to experience induction of labour, and are likely to miss out on the encouragement of a midwife to breastfeed after their pregnancy (Carolan-Olah et al., 2015). These findings, however, are similar to another study conducted in Thailand which showed that even though the scope of midwifery practice covered main care for normal pregnancy as defined by WHO, midwives are not able to work within their full scope of practice, and advocate for women (Wisanskoonwong, 2012). This is due to the unclear role of the midwife as the primary carer in public health services and a dominant feature of Thai midwifery services which are centred on organisational imperatives (Thadakant & Kritsupalerk, 2009; Wisanskoonwong, 2012). Another study by Mattern et al. (2017) emphasised that the unclear role of the midwife has a negative impact on their public image. The study revealed that many people in Germany were unaware of the competency of midwives, especially in antenatal and postnatal units, due to a lack of knowledge of the scope of midwifery practice (Mattern et al., 2017).

In contrast, in countries where midwifery practice is well known in the public arena, there was a clearer image of what midwifery is within the wider community, and women recognised the midwife as the primary carer. In the United Kingdom, a study found that most women were likely to receive most of their care from a midwife (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales, 2010). Women who were well-known to the midwife, and those who received midwifery-led care, preferred a midwife to deliver their baby, with most resulting in a normal vaginal delivery

(Cooper & Lavender, 2013; Hollowell, Malouf, & Buchanan, 2016). Interestingly, midwives in the United Kingdom have professional independence from physicians (Li, Lu, & Hou, 2018). Similarly, in Australia, an essential part of maternity service provision includes care delivered by midwives (Fenwick, Butt, Dhaliwal, Hauck, & Schmied, 2010). Boon's study (2004) found that only a minority of women in Australia requested a doctor to be present at delivery for normal births.

The influence of the midwife's role in the media, such as on television programmes, and in books and magazines, appears to have been persuasive because these appearances contain interpretations of normal pregnancy and imagery seen in relation to labour and birth, thus helping to shape expectations of experiencing a normal vaginal delivery, and placing emphasis on the role of the midwife (Cooper & Lavender, 2013), thus influencing how women interpret the role of the midwife and encouraging women to use midwifery services (Cooper & Lavender, 2013). Midwifery practice in Australia has recently been expanded to midwife-led care and continuity of care models (Carolan-Olah et al., 2015), with midwives able to work in several settings, including hospitals, in the community, and in the home (for home births) (Li et al., 2018). Midwifery continuity of care models, which continue to be strongly recommended by the WHO, increase occupational autonomy for midwives, as this allows them to be more in control of their practice, and provides women-centred care by maintaining a relationship that supports women throughout their pregnancy (WHO, 2016). Such models of care have been shown to lead to higher satisfaction among women, including positive maternal and neonatal health outcomes and less use of obstetric interventions compared to women receiving other models of care (Sandall, Soltani, Gates, Shennan, & Devane, 2016). These findings suggest that the awareness of women of the potential roles of the midwife could be better promoted with strategies to enhance their role among pregnant Thai women. This will ensure that the scope of midwifery practice can be fully recognised.

5.3 The pregnant women' knowledge and understanding of the role of the midwife

The International Confederation of Midwives (2017) defined "the midwife as a health professional who works alongside pregnant women to give the necessary support, care and advice throughout the pregnancy, to conduct normal vaginal delivery in low-risk women, and to provide care for new-born babies and infants" (ICM, 2017, p. 1). The findings from this study may indicate that many pregnant Thai women cannot identify the role of the midwife in relation to their role in labour and birth.

This study also found that regardless of where they lived (metro or rural), there was no difference in how pregnant women identified with the midwife's role, particularly in relation to conducting normal vaginal delivery and placental delivery. However, it was found that women living in rural or metropolitan areas perceived perineal suturing as part of the midwife's role. Perhaps this was due to women living in rural areas having had more experiences of births being conducted by a midwife than did women in the metropolitan areas (20.4% and 10.7%, respectively) (NSO, 2016).

Most of the participants were unable to indicate normal vaginal delivery, placenta delivery, and perineal suturing as part of the role of the midwife. Even though these findings contrast to those of an Australian study which found that most women perceived that midwives were able to conduct normal vaginal delivery (Boon, 2004), they were similar to the findings of several other studies (Dickerson et al., 2014; Sharma et al., 2012; Thadakant & Kritsupalerk, 2009). The findings of this study are consistent with those of an earlier study conducted in Thailand, which found that only around half of pregnant women believed that conducting normal vaginal delivery and performing placenta delivery were the role of the midwife (Thadakant & Kritsupalerk, 2009). Importantly, the current study indicates that pregnant Thai women still do not understand the role of the midwife in intrapartum care over a decade later. In India and Paraguay (Dickerson et al., 2014; Sharma et al.,

2012) as well, the role of the midwife in intrapartum care did not appear to be understood, but midwives did not have a full scope of practice either. Conducting normal vaginal delivery and perineal suturing were the most invisible roles of the midwife, that is, these roles although they are a part of midwifery practice, are not performed in intrapartum care in India (Sharma et al., 2012). This is similar to the situation in Paraguay, where having a midwife conducting normal vaginal delivery is now occurring less often as this role has largely been replaced by physicians (Dickerson et al., 2014).

While the participants in this study were less likely to indicate normal vaginal delivery as the role of the midwife, the results showed that more than half of them recognised the role of the midwife in encouraging pushing, diagnosing true labour pain, and performing vaginal examination instead. They also indicated that supporting and providing care were the obvious roles of the midwife in the labour room. These findings suggest that the role of the midwife in Thailand is identified with giving support and assessing health, rather than performing procedures such as normal vaginal delivery. Similarly, in Germany, it was revealed that due to women's poor perceptions of the role of the midwife, they had limited knowledge of the potential benefits of the midwife's expert support (Mattern et al., 2017). Comparably, the role of the midwife in Paraguay was viewed as only providing psychological support (Dickerson et al., 2014). This could be explained by a lack of public awareness of midwifery practice in relation to the role of performing normal vaginal delivery and limited models of care available. The lack of recognition of this task as part of the role of the midwife by the public results in difficulties in convincing women to have a normal vaginal delivery performed by a midwife (Dickerson et al., 2014). Recent data from Thailand revealed that most births (82.1%) were delivered by obstetricians, with midwives conducting normal vaginal delivery in only 16.1% of cases (NSO, 2016). The Thai Nursing and Midwifery Council (TNMC) (2019) indicated that midwives are capable of conducting normal vaginal delivery in low-risk pregnancies. It is therefore important to

clarify the current status of midwifery practice in Thailand to ensure that pregnant women have accurate knowledge and understanding of the role of the midwife in intrapartum care. This may in turn result in providing awareness to midwives and midwifery organisations to advocate for their role as defined by WHO and fulfill scope of midwifery practice in Thailand.

5.4 Perceptions in relation to the selection of intrapartum care providers

The findings in this study indicate that less than half of the participants identified the encouragement of pushing as the physician’s role during labour; however, most of them indicated this task as part of the role of the midwife. Perhaps, the physician was less likely to actually see this as part of their role than the midwife. One study supported the view of physicians, that midwives play an important role in support and encouragement during labour to assist normal vaginal delivery (Dickerson et al., 2014). However, conducting normal vaginal delivery was recognised as the physician’s role by a very large majority of the pregnant women (88%). In contrast to their sound knowledge and understanding of the role of the midwife, few of the respondents (33%) recognised that conducting normal vaginal delivery was part of this role. While there was no evidence this situation could be attributed to the traditional and cultural norms of midwifery, which remain linked to the midwife’s subordinate position in practice where they are identified merely as the physician’s assistant. In Paraguay, the work of midwives in some hospitals involves preparing women for labour and birth, whereas the obstetricians’ role is to attend vaginal deliveries, as opposed to being present during labour (Dickerson et al., 2014). Sharma et al. (2012) suggested that midwifery practice in India has a loosely defined scope of practice, and that obstetricians or hospital management are unaware that a normal vaginal delivery is within the scope of practice of the midwife (Sharma et al., 2012). These findings are similar to the current study, reporting that pregnant Thai women were likely to recognise the physician as the main intrapartum care provider who is responsible for conducting normal vaginal delivery and being the decision-maker, while the midwife was perceived as the

physician's assistant during labour. Potentially, this may be explained by the current prestigious position of medical professionals thus reducing midwives' autonomy in their scope of practice, during labour and birth (Prosen & Krajnc, 2019). The impact of midwives being less autonomous in their practice in hospitals is that women may interpret this type of midwifery care to be 'the norm'. Therefore, the perspectives of pregnant women regarding the midwife's role as a subordinate one, may be influenced particularly in relation to the midwife not having a major role in conducting normal vaginal delivery (Cooper & Lavender, 2013).

The current study's findings on the type of birth (natural birth or caesarean section), are consistent with those of a study conducted in Thailand, where a majority of the participants reported preferring a natural birth due to its advantages, including easier recovery and it being a natural process (Kovavisarach & Suknotaman, 2017). The findings of the current study show that less than two-fifths of the participants preferred a caesarean section due to the high-risk nature of the procedure and staying in hospital longer than for a natural birth. However, the rate of caesarean section in Thailand has been increasing for over a decade (NSO, 2016). The type of care provider was identified as a factor that influenced women's decision-making in relation to type of birth (Phoodaanau, 2012). Due to obstetrician-led care, where physicians are the main care providers, Voon et al. (2017) noted that from a biomedical perspective, labour and birth are considered high-risk concepts; therefore, obstetric interventions are routinely performed to ensure patient safety. High levels of demand prompt shorter stays in public hospitals, so medical interventions such as caesareans are commonly used to control labour and birth (Anderson & Stone, 2013). The power of the medical model within the hospital system can thus sometimes negatively influence the role of the midwife in facilitating normal vaginal delivery (Carolan-Olah et al., 2015; Clesse et al., 2018). This has been seen as the opposite of a midwifery caseload model which has resulted in increasing rates of normal vaginal

delivery, as this model places emphasis on normality, continuity of care by a known and trusted midwife, and autonomous practice (Carolan-Olah et al., 2015).

The perceived reliability of professionals can be associated with decision-making by women about type of birth (Ith et al., 2013; Plested & Kirkham, 2016). The current study found that most of the pregnant women perceived the importance of having the midwife present in the labour room. In addition, whether they lived in a metropolitan or rural area, having more confidence in the midwife being present was not statistically significant. However, this study has revealed that the pregnant women appeared to be more confident with a physician during labour than a midwife. Perhaps, this can be explained by public's poor understanding regarding the midwife as the primary carer during labour in Thailand. As an example, in Abu Dhabi, a number of pregnant women lacked an understanding of the role of the midwife, which was attributed to feeling safer when receiving care from a physician (Edwards et al., 2014). Additionally, several studies focusing on previous birth experiences explored these influences on the use of care, which are relevant to this study, in which many of the participants seemed to have negative views of midwives (Ith et al., 2013; Plested & Kirkham, 2016). One study found that having negative attitudes towards midwifery care by women lead them to choose a private health service, even if it was more expensive (Ith et al., 2013). Similarly, Plested and Kirkham (2016) found that pregnant women did not choose a midwife as the primary carer for birthing due to their previous experiences. If choice of healthcare provider is a direct result of previous experiences, then this must be taken into account by midwives in Thailand. Encountering these negative experiences, in addition to the poor image of the midwife as the primary carer during labour, jeopardised the perceptions of women of the midwife’s competency in intrapartum care. Therefore, enhancing the quality of midwifery services in Thailand might be needed to restore women’s confidence and the public image of the midwife in intrapartum care.

5.5 Limitations

This study was conducted online, collected data from participants from a developing country, i.e. Thailand, and may be limited to pregnant women who were able to access the survey. Firstly, online surveys are relatively easy and convenient for participants to access via their smartphone or tablet (Kumar, 2014). However, online surveys have a limited population that may not reflect the general population, as women who do not have access to the Internet could not participate in the survey (Nardi, 2014; Valerie & Lois, 2012). Unfortunately, due to unforeseen and unresolvable issues with media promotion delivery via the Facebook channel in the time period for recruitment, and some Internet connections to the software that enabled the collection of only the first page of the survey, the numbers were slightly lower than intended. Reliability can also be an issue for a descriptive online survey, when the participants are not truthful, might be unreliable, or refuse to provide answers to questions. Second, the convenience sample was made up of pregnant women who were able to access the Internet at a specific period in time. In other words, the local population of pregnant women did not have equal opportunity to be selected. As such, the data is not generalisable to all populations of pregnant women.

In addition, originally, the researcher intended to investigate the relationship between perceptions of women and all of their demographic information. However, the researcher only had time to explore one of the demographic detail, where they lived, therefore this was a limitation of the study. It is suggested that future researchers could therefore further investigate these multivariate factors, such as attitudes towards type of birth, parity, gestational age, and monthly income that may also have an influence the perceptions of women about the role of the midwife.

Finally, other limitations include the possible misinterpretation of some of the items in the survey instrument. Without a residual “not sure” category as an option for the participants, those who were ambivalent towards an item would be forced to give a misleading response or would omit the

item completely (Tenopir et al., 2015). However, the wide range of choices in the response scale may lead to a lack of clarity in interpretation of the results. The dichotomous questions, which offered respondents only two choices, i.e. “yes/no”, were likely to be useful for gathering factual information about aspects of choosing the tasks of the midwife and the physician in the labour room (Polit & Beck, 2017). Moreover, the instruments were not piloted prior to being delivered to the participants. Future research on this topic will benefit from conducting a small pilot study to ensure that the items are clear enough to the participants, assess the accuracy of the instrument and clear enough to elicit the information that the item was intended to elicit.

5.6 Recommendations for future research

This study has aimed to determine what pregnant women know and perceive about the role of the midwife in Thailand. The study has found that there was a lack of knowledge, and some misunderstanding among the participants about the role of the midwife in intrapartum care. Important questions still remain to be answered, such as how the participants perceived the role of the midwife in Thailand and how this influences midwifery practice. There is still a need to identify the factors, such as friends, relatives, and the media, that have an impact on women’s perceptions of the role of the midwife. These factors could be explored further to understand how to promote the role of the midwife in Thai society.

There still remains a gap in exploring whether there are relationships between multivariate factors (such as parity, gestation age, education level, monthly income) and perceptions of women about the role of the midwife. For example, pregnancy parity and gestational age may assist to identify the difference in opinion in accordance with women’ experiences of birthing (Gameiro et al., 2009). Level of education (Boon, 2004) and monthly income (Tanglakmakhong, 2010) also may relate to their perceptions regarding choice of healthcare providers. Future research, thus, could investigate these multivariate factors that may influence the perceptions of women about the role of the midwife.

Finally, any similar future studies should, where possible, include only "yes/no" responses for the participants to report their knowledge of the role of the midwife. In addition, a pilot study should be conducted with the developers of the questionnaire to enhance understanding of the responses and to improve the efficacy of the study design.

5.7 Conclusion

The main aim of this study has been to explore the perceptions of pregnant Thai women about the role of the midwife. A descriptive survey was used to collect pregnant Thai women's responses through an online survey, using an adapted tool to enhance reliability, and posted on Facebook maternity groups and pages. Convenience and snowball sampling methods were used to maximise participation rates.

The findings revealed that most participants were ambivalent about the role of the midwife, and were less likely to be aware of the role of the midwife, or were not in contact with a midwife during their pregnancy. Only one-third of women could identify the midwife's role with all of the tasks in their scope of practice, such as being qualified to perform normal vaginal delivery and other procedures such as placenta delivery and perineal suturing. These results are similar to those of other studies investigating the perceptions of women on the role of the midwife conducted in Thailand, India, and Paraguay, where there was a lack of understanding regarding conducting normal vaginal delivery as the midwife's task in intrapartum care.

The perception of the role of the midwife during labour included offering support, encouraging pushing, and assessing health in the labour room, rather than performing procedures such as normal vaginal delivery. Thailand is not the only country where there is limited knowledge of the potential benefits of the midwife where they are only considered to be providing supportive care. One suggestion is that a lack of public awareness about what midwifery practice actually entails may

influence the public perception of a midwife’s competency in conducting normal vaginal delivery.

In contrast, the participants in this study were very positive about the role of the physician. They believed that a physician is qualified to do many midwifery tasks during labour and birth. Importantly, the participants’ knowledge of conducting normal vaginal delivery demonstrated a significant difference between the midwife and the physician. This study reported that pregnant Thai women were likely to recognise the physician as the main intrapartum care provider, while midwives were likened to the role of a ‘physician’s assistant’ during labour. These findings were attributed to the cultural norms of midwifery, which remain linked to the midwife’s subordinate position in practice, resulting in the perception that the midwife is merely the physician’s assistant. These findings were consistent with other studies. The way in which midwives were less autonomous in their practice leads to women questioning the role of the midwife, particularly in conducting normal vaginal delivery. Even though the survey findings showed that the majority of the participants preferred a natural birth, rather than a caesarean section, the evidence supported the idea that the care provider can influence women’s type of birth, but that the power of the medical model sometimes negatively influences the role of the midwife during labour in facilitating normal vaginal delivery.

Moreover, this study reported that even though the majority of the participants perceived the importance of having a midwife present in the labour room, they were likely to be more confident with a physician during labour than a midwife. Encountering previous negative experiences and the poor image of the midwife as the primary carer during labour may jeopardise perceptions of a midwife’s competency in intrapartum care.

Understanding the role of the midwife from the perspective of pregnant women in this study informs current midwifery practice in relation to the current lack of visibility of the midwife in Thailand. The findings may increase awareness to midwifery organisations who support the

development of midwifery policy, so they can improve public awareness of the potential role of the midwife. It is deemed vital that policy-makers assist in enhancing the role of the midwife by restoring confidence in their role, especially in intrapartum care. The researcher intends to use the study results as a stepping stone for further research; to further encourage the performance of normal vaginal delivery by midwives, and informing policy changes which can help to reduce the unnecessary and increasing caesarean rate in Thailand. This study recommends further exploration of the factors that might have an impact on women's perceptions of the midwife. Further research could investigate midwives' opinions regarding factors which impact on their capacity to fulfil the full scope of midwifery practice. These may generate important insights to further understand midwifery practice in Thailand and strategies on how best to promotes midwives' role in Thai society.

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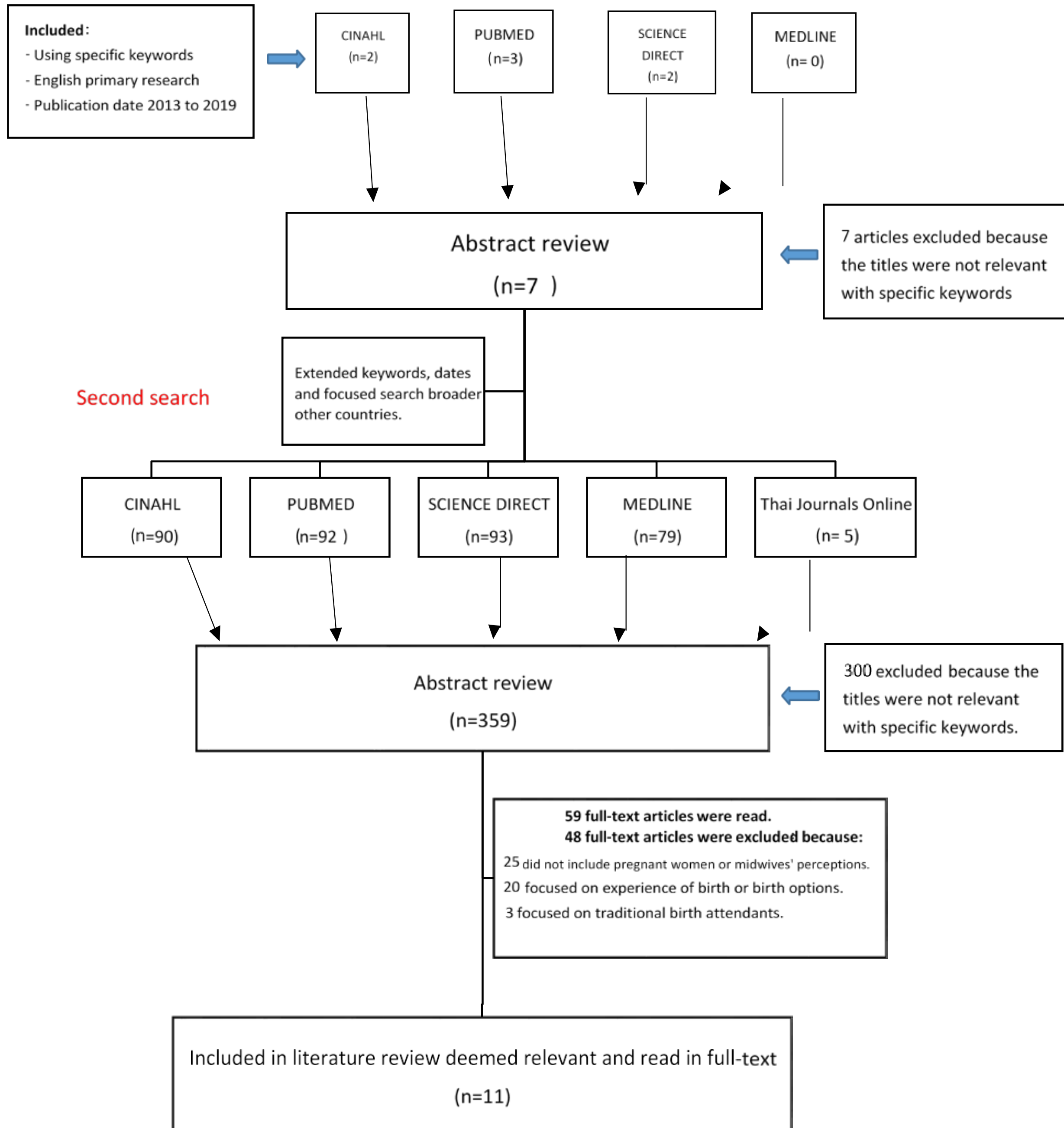
APPENDICES

Appendix 1 – PRISMA diagram: The perceptions of Thai women towards midwives



Appendix 2 – Evaluation of Mixed-Methods Studies Included for Review

Author and Date	Study evaluative overview	Study and context (setting, sample and outcome measurement)	Ethics	Group comparability	Qualitative data collection and analysis	Policy and practice implications	Other comments
Homer et al. (2009)	Y	Y	Y	Y	Y	Y	Y
Shafiei, T., Small, R. & McLachlan, H. (2012)	Y	Y	Y	Y	Y	N	Y

As adapted from Evaluation Tool for Mixed-Method Studies (Long et al., 2005a)

Appendix 3 – Evaluation of Quantitative Studies Included for Review

Author and Date	Q1 - clearly focused question	Q2 - right type of study	Q3 - sample statistically appropriate for study	Q4 - reasonable to combine study instruments	Q5 - variables accounted for in design of study	Q6 - results are meaningful	Q7 - precise results	Q8 - results can be generalised	Q9 - all important outcomes considered	Q10 - implications for practice on basis of results
Boon (2004)	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Thadakant, S. & Kritsupalerk, Wan-nagm (2009)	Y	Y	Y	Y	Y	Y	Y	N	Y	Y

As adapted from Evaluation Tool for Quantitative Studies (Long et al., 2005b)

Appendix 4 – Evaluation of Qualitative Studies Included for Review

Author and Date	Q1 - Clear research aims	Q2 - Qualitative approach appropriate	Q3 - Research design appropriate	Q4 - Recruitment strategy appropriate	Q5 - Data collection methods appropriate	Q6 - Researcher bias recognised	Q7 - Ethical issues considered	Q8 - Data analysis rigorous	Q9 - Findings clearly stated	Q10 - Research is valuable
Ith, P., Dawson, A. & Homer, C. S. E. (2013)	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y
Mattern, E., Lohmann, S. & Ayerle, G. M. (2017)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Borrelli, S. E., Spiby, H. & Walsh, D. (2016)	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y
Plested & Kirkham (2016)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sharma, B., Johansson, E., Prakasamma, M., Mavalankar, D. & Christensson, K. (2012)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dickerson, A. E., Foster, J. W. & Andes, K. L. (2014)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lohmann, S., Mattern, E. & Ayerle, G. M. (2018)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

As adapted from the CASP qualitative appraisal tool (Critical Appraisal Skills Program, 2018)

Appendix 5 – Themes Table

Themes	Sub-themes	Description	Papers number
The scope of midwifery practice	Developing countries	These studies focus on the role of the midwife which is facilitated and inhibited.	3,10,11
	Developed countries	The provision of midwifery care occurred in different models of care, and midwives seemed to be in visible roles in many settings.	1,4,6
The image of midwifery and autonomy as primary carer	The reliability of midwifery care	Studies focused on how the reliability of care plays an important role in women's decision-making in birth care.	2,5,8
	Unclear position of midwives	Focusing on the role of the midwife as being under the control of obstetricians, resulting in a lack of autonomy in their profession.	3,6,10
	The invisibility of midwifery care	Focusing on studies which explain the autonomy of the midwife regarding the invisibility of care according to the public.	1,4,7,11
The expectations of women towards the midwife	The expectations of pregnant women regarding the role of the midwife in the antenatal unit and in postnatal care	Studies focused on the expectations and attitudes of pregnant women about the role of the midwife in the antenatal unit and in postnatal care.	1,4,5,7,9
	The expectations of pregnant women regarding the role of the midwife in intrapartum care	Studies focused on the expectations and attitudes of pregnant women about the role of the midwife in intrapartum care.	1,11

Appendix 6 – Summary table

No.	Authors/Title/Year	Study aims /purpose	Study design /methodology	Setting and sample	Main findings	Strengths and limitations
1	Boon (2004) Australia Primigravidas' perceptions of the role of the midwife	To explore primigravidas' perceptions of the role of the midwife	A quantitative descriptive study by survey approach	130 primigravidas aged 17 years and over in an antenatal clinic	The participants identified that midwives were not performing procedures such as caesarean sections, using forceps, and performing suturing in labour. Ethnicity did not relate to the perceptions of primigravidas. Older age groups were more likely to recognise the role of the midwife rather than younger age groups.	Strengths: Accurate in assessing the quality of research outcomes. Limitations: - Small sampling, so cannot be generalised beyond primigravidas - There were no comparisons between the perceptions and views of the multigravidas - Out of date
2	Borrelli, Spiby & Walsh (2016) United Kingdom The kaleidoscopic midwife: A conceptual metaphor illustrating first-time mothers' perspectives of a good midwife during childbirth. A grounded theory study	To explain first-time childbearing women's perceptions about a good midwife	Qualitative Straussian grounded theory methodology	14 women in total; 5 women planning to give birth at Obstetric Unit (OU), 7 at a Freestanding Midwifery Unit (FMU), and 2 at home	The findings defined a good midwife using the model of the kaleidoscopic midwife which is that a midwife provides each woman's individual needs. The four key pillars consist of promoting, supporting, helping go to flow, and guiding. A positive relationship between pregnant women and midwives at first sight is fundamental to increase women's satisfaction during childbirth.	Strengths: Accurate in assessing the quality of research outcomes due to grounded theory Limitations: - A small sample - There was an imbalance between participants in different settings
3	Dickerson, Foster & Andes (2014). Paraguay A profile of midwifery in Paraguay	To describe midwifery practice in Paraguay	Qualitative interviews	22 midwives, 9 student midwives, 9 obstetricians, and 5 leaders of professional health organisations in Paraguay	Midwifery practice has changed due to current policy and the healthcare system in Paraguay. Midwives seemed to lack autonomy in large institution of the health system in which doctor has a prestigious position. These have limited access to midwifery-provided antenatal care. Women are likely to receive less childbirth education resulting in a barrier to vaginal delivery.	Strengths: Different perceptions of healthcare providers Limitations: Small number of participants
4	Homer et al. (2009) Australia The role of the midwife in Australia: views of women and midwives	To research the role of midwives in Australia from the perspectives of	A multi-methods approach with qualitative data from surveys with women and telephone	28 surveys with women and interviews with 32 midwives in each state in Australia	Women's view about the capacity of midwives consisted of health checking, providing information about pregnancy, and answering questions. The provision of reassurance as having time to listen and support them. The barriers to practicing the full role of the midwife are a lack of opportunity to practice the full role, the	Strengths: The study provides the first step in exploring the role of midwives in Australia. It was a large project which was a part of a national research project Limitations: - There was no balance between the proportion of midwives

		women and midwives	interviews with midwives. Interview analysis used the methodology of critical incident technique (CIT)		invisibility of midwifery, and a lack of a clear image of midwifery in the community.	- The respondents were not representative of all women giving birth in Australia
5	Ith, Dawson & Homer, (2013). Cambodia Women's perspectives of maternity care in Cambodia	To explore women's perceptions of private and public skilled birth attendants during childbirth in Cambodia	A qualitative research included in-depth interviews and naturalistic inquiry. A thematic approach applied to analyse the data by using Nvivo software	30 women who have given birth at health facilities	The choice of health facility based on safety, staff attitudes, cost, and supportive care throughout period of pregnancy. Even though private healthcare is expensive, the participants preferred private care because of safety. Women expected to see services provided in a respectful way.	Strengths: The study compared perceptions of women in both public and private maternity care Limitations: Most participants had low levels of education which might have biased the results
6	Lohmann, Mattern & Ayerle (2018). Germany Midwives' perceptions of women's preferences related to midwifery care in Germany: A focus group study	To explore how midwives perceive patient preferences in relation to midwifery care in Germany	Qualitative study using a hermeneutic-interpretive approach and focus group interviews	20 midwives divided into 4 focus groups	The midwifery care offered ranged from services during pregnancy, labour, birth, and in the postpartum period. Midwives fostered autonomy and control in care. However, doctors remain at the top of the hierarchical structure of the healthcare system.	Strengths: Clear purpose and background, clear interpretation of findings Limitations: Data were separately collected and analysed
7	Mattern, Lohmann & Ayerle (2017) Germany Experiences and wishes of women regarding systemic aspects of midwifery care in Germany	To explore the experiences of women and mothers on needs and expectations of midwifery care	A qualitative explorative research using Gadamer's hermeneutic approach	50 participants divided into 10 focus groups	The issue of midwifery care in Germany comprised of a lack of consistent consulting, the unclear image of midwifery care, and availability of access to midwives and midwifery care in the healthcare system. Effective collaboration decreased the stress levels of patients.	Strengths: Focusing on systemic issues that relate to addressing the problems in the healthcare system Limitations: Most participants had low levels of education which might have biased the results
8	Plested & Kirkham (2016) United Kingdom	To examine the lived experiences of women who	A phenomenologi cal approach based on the philosophical	10 women who had given birth without a midwife. Used	Women's experiences of maternal services focus on risk discourse and fear. Maternity system being perceived as being unreliable in relation to birthing and being driven by fear from previous experiences with the behaviours of	Strengths: Clear purpose and background, clear interpretation of findings

	Risk and fear in the lived experiences of birth without a midwife	give birth without a midwife	writing of Husserl, Merleau-Ponty, and Gadamer. In-depth interviews with participants using a hermeneutic analysis	social media to recruit participants in the UK	midwives, resulted in decision-making from those perspectives of the service.	Limitations: The findings recognised as not being generalisable
9	Shafiei, Small & McLachlan (2012). Australia Women's views and experiences of maternity care: A study of immigrant Afghan women in Melbourne, Australia	To explore Afghan women's perceptions and experiences of maternity care	A mixed-methods study using phone interviews and in-depth face-to-face interviews	40 Afghan women in four Melbourne hospitals	The experiences of Afghan women toward maternity care was positive. The interactions with caregivers, attitudes, supportive behaviours from staff resulted in patient satisfaction.	Strengths: Clear purpose and background, clear interpretation of findings Limitations: Small number of participants; not generalisable
10	Sharma, Johansson, Prakasamma, Mavalankar & Christensson (2013). India Midwifery scope of practice among staff nurses: A grounded theory study in Gujarat, India	To explore and describe the scope of midwifery practice of staff nurses in the maternity section of public health facilities	A grounded theory approach used to develop a model to explore midwifery practice	28 healthcare providers from public facilities in Gujarat, India	The issue of midwifery care in India is unclear in the scope of midwifery practice because self-identification as a nurse rather than as a midwife. Midwives also had lower status in the workplace compared to doctors, and were rarely given the opportunity to autonomously practice their midwifery skills.	Strengths: In-depth interviews supported by unstructured observations as well as largely different perceptions of healthcare providers Limitations: Data from only one province could be viewed as limiting the transferability of the findings of the current study
11	Thadakant & Kritsupalerk, Wan-nagm (2009). Thailand Thai Women's Beliefs on the Roles of Nurse-Midwives Working with Pregnant Women in Antenatal, Intranatal, and Postnatal Units.	To explore women's beliefs about the roles of nurse-midwives in different maternal service settings in Thailand	Descriptive study	300 pregnant women	Pregnant Thai women cannot define all aspects of the role of the midwife, and women from different settings have different perceptions of the role of the midwife.	Strengths: Perceptions of women from rural and urban areas of Thailand Limitations: Out of date

Appendix 7 – Letter of introduction

Dr. Lyn Gum
College of Nursing and Health Sciences
Flinders University

GPO Box 2100
Adelaide SA 5001
T: 61 8 8201 3324
lyn.gum@flinders.edu.au
CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear Sir/Madam

This letter is to introduce Sudjit Liblub who is a master's student in College of Nursing and Health Sciences at Flinders University. She is undertaking research leading to the production of a thesis and journal publication on the subject of Thai pregnant women's perceptions to the role of the midwife during labour and birth in metropolitan, Thailand. She would like to invite you to assist with this project by posting the promotional photo and link to the survey on your Facebook group or page.

We would appreciate the promotional photo and link being posted to your group or page so that respondents can click on the link which will direct them to the survey. The survey will take no more than 10 minutes to complete. An information sheet precedes the survey including a yes or no request to consent to completing the survey.

Be assured that any information provided will be treated in the strictest confidence and none of the respondents or your Facebook group or page will be individually identifiable in the publications. Respondents and your Facebook group or page are, of course, entirely free to discontinue participation at any time.

Please find the link to the survey which we would appreciate you posting on your Facebook group or page.

http:// https://qualtrics.flinders.edu.au/jfe/form/SV_1ZkAKEmk1fRox1z

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on 61 8 8201 3324 or e-mail lyn.gum@flinders.edu.au

Thank you for your attention and assistance.

Yours sincerely

Dr. Lyn Gum

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

Appendix 8 – Thai Letter of introduction

Dr Lyn Gum
College of Nursing and Health Sciences
GPO Box 2100
Adelaide SA 5001
T: 61 8 8201 3324
Libl0001@flinders.edu.au
CRICOS Provider No. 00114A

หนังสือขอความร่วมมือตอบแบบสำรวจ

เรียน ผู้ดูแลเว็บไซต์

ข้าพเจ้า ดร. Lyn Gum ขอรับรองว่า น.ส.สุดจิต ลิบลับ เป็นนักศึกษาระดับปริญญาโท หลักสูตรพยาบาลศาสตร์และการผดุงครรภ์มหาบัณฑิต ของมหาวิทยาลัย Flinders ประเทศออสเตรเลีย นักศึกษาผู้นี้กำลังทำ วิทยานิพนธ์ หลักสูตรนานาชาติ (ภาษาอังกฤษ) ในหัวข้อเรื่อง การรับรู้ของสตรีตั้งครรภ์ที่มีต่อบทบาท หน้าที่ของพยาบาลผดุงครรภ์ในระยะคลอด นักศึกษามีความประสงค์จะเก็บข้อมูล โดยเผยแพร่ลิงค์แบบสอบถามและรูปภาพประกอบบนหน้าเพจ Facebook ภายใต้การดูแลของผู้ดูแลเว็บไซต์ โดยมีกลุ่มเป้าหมายคือ สตรีตั้งครรภ์
ในการศึกษานี้ผู้วิจัยจะเก็บรวบรวมข้อมูลโดยการ เผยแพร่แบบสอบถามบนเพจ Facebook ซึ่งใช้เวลาไม่เกิน 10 นาทีในการตอบแบบสอบถาม โดยมีเอกสารแจงข้อมูลแก่ผู้เข้าร่วมวิจัย ซึ่งได้แสดง รายละเอียดของโครงการวิจัย รวมทั้งการ ยืนยันความสมัครใจใน การทำแบบสอบถาม ข้อมูลที่ได้รับผู้วิจัยจะใช้เพื่อการศึกษาวิจัยเท่านั้น โดยจะประมวลผลเป็นภาพรวม ซึ่งไม่สามารถระบุถึงตัวบุคคลได้ และข้อมูลเก็บเป็นความลับไม่มีการนำไปเผยแพร่ ผู้ตอบแบบสอบถามและผู้ดูแลเว็บไซต์มีอิสระที่จะยุติการเข้าร่วมโครงการวิจัยได้ตลอดเวลา

เพื่อให้การทำวิทยานิพนธ์ของ นักศึกษาดำเนินไปด้วยความเรียบร้อย จึงใคร่ขอความอนุเคราะห์ให้ท่านเผยแพร่ ลิงค์แบบสอบถามในเพจ Facebook ของท่าน ตามลิงค์นี้ https://qualtrics.flinders.edu.au/jfe/form/SV_1ZkAKEmk1fRox1z

ถ้าท่านมีปัญหาข้องใจหรือรู้สึกกังวลใจกับการเข้าร่วมโครงการวิจัยนี้ ท่านสามารถติดต่อข้าพเจ้า (อาจารย์ที่ปรึกษาโครงการวิจัย) โทรศัพท์ T: 61 8 8201 3324 หรือ E-mail lyn.gum@flinders.edu.au

ข้าพเจ้าจึงใคร่ขอความกรุณาจากท่าน โปรดอนุเคราะห์ให้นักศึกษาได้เก็บข้อมูล เพื่อประกอบการทำวิทยานิพนธ์ ตามที่เห็นสมควรด้วย จะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

Dr. Lyn Gum

โครงการวิจัยนี้รับรองโดยคณะกรรมการจริยธรรมการวิจัยในคนโดย Flinders University Social and Behavioural Research Ethics Committee in South Australia (Project number 8262). *ถ้าท่านมีปัญหาข้องใจหรือรู้สึกกังวลใจกับการเข้าร่วมโครงการวิจัยนี้ ท่านสามารถติดต่อสำนักงานวิจัย โทรศัพท์* +61 8 8201 3116 *หรือ* email human.researchethics@flinders.edu.au

Appendix 9 – Ethics approval

Dear Sudjit,

The Deputy Chair of the Social and Behavioural Research Ethics Committee (SBREC) at Flinders University considered your response to conditional approval out of session and your project has now been granted final ethics approval. Your ethics approval notice can be found below.

APPROVAL NOTICE

Project No.:	**8262**
Project Title:	A survey on knowledge and perceptions of Thai pregnant women about the role of the midwife in metropolitan Thailand
Principal Researcher:	Miss Sudjit Liblub
Email:	libl0001@flinders.edu.au

Approval Date:	6 March 2019	Ethics Approval Expiry Date:	**31 December 2020**

The above proposed project has been **approved** on the basis of the information contained in the application, its attachments and the information subsequently provided.

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

1. Participant Documentation

Please note that it is the responsibility of researchers and supervisors, in the case of student projects, to ensure that:

- all participant documents are checked for spelling, grammatical, numbering and formatting errors. The Committee does not accept any responsibility for the above mentioned errors.
- the Flinders University logo is included on all participant documentation (e.g., letters of Introduction, information Sheets, consent forms, debriefing information and questionnaires – with the exception of purchased research tools) and the current Flinders University letterhead is included in the header of all letters of introduction. The Flinders University international logo/letterhead should be used and documentation should contain international dialling codes for all telephone and fax numbers listed for all research to be conducted overseas.
- the SBREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethics approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

2. Annual Progress / Final Reports

In order to comply with the monitoring requirements of the *National Statement on Ethical Conduct in Human Research (2007-Updated 2018)* an annual progress report must be submitted each year on the 6th March (approval anniversary date) for the duration of the ethics approval using the report template available from the Managing Your Ethics Approval SBREC web page. *Please retain this notice for reference when completing annual progress or final reports.*

If the project is completed *before* ethics approval has expired please ensure a final report is submitted immediately. If ethics approval for your project expires please submit either (1) a final report; or (2) an extension of time request and an annual report.

Student Projects

The SBREC recommends that current ethics approval is maintained until a student's thesis has been submitted, reviewed and approved. This is to protect the student in the event that reviewers recommend some changes that may include the collection of additional participant data.

Your first report is due on 6th March 2020 or on completion of the project, whichever is the earliest.

3. Modifications to Project

Modifications to the project must not proceed until approval has been obtained from the Ethics Committee. Such proposed changes / modifications include:

- change of project title;
- change to research team (e.g., additions, removals, principal researcher or supervisor change);
- changes to research objectives;
- changes to research protocol;
- changes to participant recruitment methods;
- changes / additions to source(s) of participants;
- changes of procedures used to seek informed consent;
- changes to reimbursements provided to participants;
- changes / additions to information and/or documentation to be provided to potential participants;
- changes to research tools (e.g., questionnaire, interview questions, focus group questions);
- extensions of time.

To notify the Committee of any proposed modifications to the project please complete and submit the *Modification Request Form* which is available from the Managing Your Ethics Approval SBREC web page. Download the form from the website every time a new modification request is submitted to ensure that the most recent form is used. Please note that extension of time requests should be submitted prior to the Ethics Approval Expiry Date listed on this notice.

Change of Contact Details

Please ensure that you notify the Committee if either your mailing or email address changes to ensure that correspondence relating to this project can be sent to you. A modification request is not required to change your contact details.

4. Adverse Events and/or Complaints

Researchers should advise the Executive Officer of the Ethics Committee on 08 8201-3116 or human.researchethics@flinders.edu.au immediately if:

- any complaints regarding the research are received;
- a serious or unexpected adverse event occurs that effects participants;
- an unforeseen event occurs that may affect the ethical acceptability of the project.

Kind regards
Rae

Ms Andrea Mather (formerly Fiegert) **and Ms Rae Tyler**
Ethics Officers and Executive Officers, Social and Behavioural Research Ethics Committee

Ms Andrea Mather | Monday - Friday	T: +61 8201-3116 | E: human.researchethics@flinders.edu.au
Ms Rae Tyler | Monday, Wednesday and Friday mornings	T: +61 8201-7938 | E: human.researchethics@flinders.edu.au
A/Prof David Hunter | SBREC Chairperson	T: +61 7221-8477 | E: david.hunter@flinders.edu.au
Dr Deb Agnew | SBREC Deputy Chairperson	T: +61 8201-3456 E: deb.agnew@flinders.edu.au
SBREC Website	Social and Behavioural Research Ethics Committee (SBREC)

Research Development and Support | Union Building Basement
Flinders University
Sturt Road, Bedford Park | South Australia | 5042
GPO Box 2100 | Adelaide SA 5001

CRICOS Registered Provider: The Flinders University of South Australia | CRICOS Provider Number 00114A
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Appendix 10 –Thai Ethics Approval

Office of The Committee for Research, Faculty of Medicine Ramathibodi Hospital Mahidol University
270 Rama 6 Rd. Phayatai Ratchathewi Bangkok 10400 Tel.(660)2012175, 2011544, 2010388
Website:https://med.mahidol.ac.th/research/ethics
E-mail:raec.mahidol@gmail.com

COA. No. MURA2019/339

Title of Project (English)	A Surveyon Knowledge and Perceptions of Thai Pregnant Women About the Role of the Midwifein Metropolitan, Thailand
Title of Project (Thai)	ความรู้และการรับรู้ของสตรีตั้งครรภ์ผู้อาศัยอยู่ในกรุงเทพมหานครและบริเวณใกล้เคียงที่มีต่อบทบาทพยาบาลผดุงครรภ์ในระยะคลอด
Type of Review	Expedited
Principal Investigator	Sudjit Liblub
Education Institute	Department of Ramathibodi School of Nursing Faculty of Medicine Ramathibodi Hospital Mahidol University
Co-investigator(s)	1. Lyn Gum, Ph.D. 2. Maryam Bazargan, Ph.D.
Approval includes	1. Submission Form Protocol Version 2 Date 22/04/2019 2. Patient Information Sheet Version 2 Date 22/04/2019 3. Questionnaire Version 2 Date 22/04/2019 4. Certificate in Ethics Training

Institutional Review Boards in Mahidol University are in full compliance with International Guidelines for Human Research Protection such as Declaration of Helsinki, The Belmont Report, CIOMS Guidelines and the International Conference on Harmonization in Good Clinical Practice (ICH-GCP)

Date of Approval	April 30, 2019
Date of Expiration	April 29, 2020

Signature of Chair ....

(Asst. Prof. Chusak Okascharoen, M.D., Ph.D.)

This certificate is subject to the following conditions:
1) Approval is granted only for the project with details described in submitted proposal
2) Submission of modification to the approved project is needed before implementation
3) A yearly progress report is required for renewing of approval
4) Written notification is required when the project is complete or terminated

Appendix 11– Information sheet and questionnaire

Sudjit Liblub
College of Nursing and Health Sciences
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Libl0001@flinders.edu.au
CRICOS Provider No. 00114A

INFORMATION SHEET
(for Thai pregnant women)

The role of the midwife during labour and birth in perceptions of Thai pregnant women

Investigator
Sudjit Liblub
Master of Midwifery student
Flinders University
T: 61 8 8201 3324

Supervisors
Dr. Lyn Gum
Dr Maryam Bazargan
College of Nursing and Health Sciences
Flinders University
T: 61 8 8201 3324

Description of the study:

This study is called "A survey on knowledge and perception of Thai pregnant women about the role of the midwif in metropolitan, Thailand". This project will explore the perception of Thai pregnant women who live in metropolita area of Thailand about the role of the midwife during labour and birth.

Purpose of the study:

The purpose of this study is to gather information to help us understand the perception and knowledge of pregna women regarding the role of the midwife during labour and birth. The study will also gather information abo women's attitudes toward type of giving birth. This information will bring awareness to pregnant women, healt professional especially midwives.

Who can participate in study?

Pregnant women who live in metropolitan area of Thailand who meet the following criteria: pregnant women, b over the age of 18 and be able to read Thai language as the survey will be written in Thai.

What will I be asked to do?

You are asked to complete the following survey, which should take no more than 10 minutes to complete. Ther are questions based on your demographics and your perception and knowledge of the role of the midwife durin labour and birth.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email ***HUMAN.RESEARCHETHICS@FLINDERS.EDU.AU***

Sudjit Liblub

College of Nursing and Health Sciences

GPO Box 2100
Adelaide SA 5001

Tel: (08) 8201 3911
Libl0001@flinders.edu.au

CRICOS Provider No. 00114A

Will I be identifiable by being involved in this study?

You are assured of anonymity as no identifying information will be collected. However, you need to be aware that your anonymous answers may be used in a later project following appropriate ethical approvals, comparing your responses with women in other regions of Thailand and/or other countries. The collected data will be stored at Flinders University and will be deleted after five years. The information will be published in journal articles and conference papers, but as the survey is anonymous, you cannot be identified.

Are there any risks or discomforts if I am involved?

The researcher anticipates few risks from your involvement in this study, however, given the nature of the project, some participants could experience emotional discomfort. For all respondents, the research will prompt active thought about the choices you make as a pregnant woman in regard to options during labour and birth and may trigger reflections from a previous birth experience. The questions in this study are very factual and only draw on perceptions about tasks and attitudes in the labour room rather than being in relation to feelings or emotion. Therefore, there it is an expectation that these types of questions will not invoke any distressing emotions. However, if you experience any emotional discomfort or distress as a result of the research please speak with your local doctor or someone you trust. We have provided you with details below for the Department of Mental Health should you wish to speak with a health professional".
Tel: 1323, 1667 or 02 713 6793
Website: www.dmh.go.th
Email: counseling_sty@hotmail.com

How do I agree to participate?
By clicking NEXT to commence the survey you are consenting to participate.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to complete the survey.

There are 17 questions in this survey

*This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 'INSERT PROJECT No. here following approval'). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email **HUMAN.RESEARCHETHICS@FLINDERS.EDU.AU***

A survey on knowledge and perceptions of Thai pregnant women about the role of the midwife in Thailand

Q1 Are you pregnant?

- ◯ Yes
- ◯ No

Q2 Are you living in metropolitan area?

- ◯ Yes
- ◯ No

Q3 How many weeks pregnant are you currently?

- ◯ less than 13 weeks
- ◯ 13-28 weeks
- ◯ 29-40 weeks
- ◯ more than 40 weeks

Q4 How many births have you had before this pregnancy?

- ◯ 0
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ More than 4

Q5 What is your age group?

- ◯ Under 20
- ◯ 21-30
- ◯ 31-40
- ◯ 41-50

Q6 What is the highest level of qualification you have completed?

- ◯ Secondary school
- ◯ Diploma
- ◯ Bachelor's degree
- ◯ Master's degree
- ◯ PhD
- ◯ Others

Q7 Monthly income

- ◯ less than 18,000 baht
- ◯ 18,000-24,000 baht
- ◯ 24,001-35,000 baht
- ◯ more than 35,001 baht

Page Break

Q8 Natural birth means a vaginal birth, especially without medical intervention such as the use of pain-relieving medication.

Would you prefer natural birth?

	Not agree at all	Not agree	Not sure	Agree	Extremely agree
choose	○	○	○	○	○

Comments (Please specify)

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Q9 A cesarean section is a surgical procedure in which incisions are made through a woman's abdomen and uterus to deliver her baby

Would you prefer to have a cesarean section?

	Not agree at all	Not agree	Not sure	Agree	Extremely agree
Choose	○	○	○	○	○

Comments (Please specify)

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Q10 Can you explain or describe the role of the midwife?

- ○ Yes
- ○ No
- ○ Not sure

Q11 During your pregnancies (or current pregnancy), did you have contact with a midwife?

- ○ Yes
- ○ No
- ○ Maybe

Q12 Are you aware of the role of the midwife?

- ○ Yes
- ○ No
- ○ Maybe

Q13a What do you think about the role of midwives in labour room?

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Q13b Do you think the midwives attends to the following tasks (during labour and birthing)?

	Yes	No	Not sure
Performing vaginal examination	○	○	○
Assessing labour progress	○	○	○
Diagnosing true labor pain	○	○	○
Encouraging pushing	○	○	○
Conducting normal vaginal delivery	○	○	○
Performing placenta delivery	○	○	○
Preventing blood loss	○	○	○
Perineal suturing	○	○	○
Cord cutting	○	○	○

Q14a Can you please describe for me the differences in roles between the midwife and the physician in the labour room?

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Q14b Do you think the physicians attended to the following tasks during labour and birthing?

	Yes	No	Not sure
Performing vaginal examination	○	○	○
Assessing labour progress	○	○	○
Diagnosing true labor pain	○	○	○
Encouraging pushing	○	○	○
Conducting normal vaginal delivery	○	○	○
Performing placenta delivery	○	○	○
Preventing blood loss	○	○	○
Perineal suturing	○	○	○
Cord cutting	○	○	○

Q15 How confident do you feel with physician during labour?

	Not confident at all	Not confident	Neutral	Confident	Extremely confident
choose	○	○	○	○	○

Q16 How confident do you feel about midwifery care as the primary carer during labour?

	Not confident at all	Not confident	Neutral	Confident	Extremely confident
choose	○	○	○	○	○

Q17 How important do you think it is to have a midwife present in labour room?

	Not important at all	Not important	Neutral	Important	Extremely important
choose	○	○	○	○	○

Thank you for your participant in this important study.
Submit your survey

Appendix 12– Thai questionnaire

แบบสอบถามการวิจัย เรื่อง ความรู้และการรับรู้ของสตรีตั้งครรภ์ที่มีต่อบทบาทหน้าที่ของพยาบาลผดุงครรภ์ในระยะคลอด

1. คุณตั้งครรภ์หรือไม่?

- ◯ ใช่
- ◯ ไม่

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2. คุณอาศัยอยู่ในเขตกรุงเทพมหานครหรือไม่?

- ◯ ใช่
- ◯ ไม่ใช่

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3. คุณมีอายุครรภ์เท่าใด?

- ◯ น้อยกว่า 13 สัปดาห์
- ◯ ระหว่าง 13-28 สัปดาห์
- ◯ ระหว่าง 29-40 สัปดาห์
- ◯ มากกว่า 40 สัปดาห์

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4. จำนวนบุตรทั้งหมด ก่อนครรภ์ปัจจุบัน?

- ◯ 0
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ มากกว่า 4

Page 1 of 7

5. คุณมีอายุอยู่ในช่วงใด?

- ◯ น้อยกว่า 20
- ◯ 21-30
- ◯ 31-40
- ◯ 41-50

6. ระดับการศึกษาขั้นสูงสุด?

- ◯ ประถมศึกษา
- ◯ มัธยมศึกษา
- ◯ ปริญญาตรี
- ◯ ปริญญาโท
- ◯ ปริญญาเอก
- ◯ อื่นๆ

7. รายได้เฉลี่ยต่อเดือน

- ◯ น้อยกว่า 18,000 บาท
- ◯ 18,000-24,000 บาท
- ◯ 24,001-35,000 บาท
- ◯ มากกว่า 35,001 บาท

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8. การคลอดทางช่องคลอด คือการคลอดผ่านทางช่องคลอด ซึ่งอาจจะมีการใช้ยาช่วยบรรเทาอาการเจ็บปวดขณะคลอดหรือใช้เครื่องมือทางการแพทย์เพื่อให้ความช่วยเหลือ

คุณชอบการคลอดทางช่องคลอดหรือไม่?

	ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	ไม่แน่ใจ	เห็นด้วย	เห็นด้วยเป็นอย่างยิ่ง
เลือก	○	○	○	○	○

เหตุผล (โปรดระบุ)

9. การผ่าตัดคลอดเป็นการคลอดโดยการผ่าตัดทางหน้าท้องเพื่อนำทารกออกทางจากมดลูกของแม่

คุณชอบการผ่าคลอดหรือไม่?

	ไม่เห็นด้วยอย่างยิ่ง	ไม่เห็นด้วย	ไม่แน่ใจ	เห็นด้วย	เห็นด้วยเป็นอย่างยิ่ง
เลือก	○	○	○	○	○

เหตุผล (โปรดระบุ)

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10. คุณสามารถบอกบทบาทหน้าที่ของพยาบาลผดุงครรภ์ได้หรือไม่?

◯ ได้

◯ ไม่ได้

◯ ไม่แน่ใจ

11. ระหว่างที่คุณตั้งครรภ์ คุณได้ติดต่อกับพยาบาลผดุงครรภ์หรือไม่?

◯ ใช่

◯ ไม่ใช่

◯ ไม่แน่ใจ

12. คุณรับรู้ถึงหน้าที่และบทบาทของพยาบาลผดุงครรภ์หรือไม่?

◯ ใช่

◯ ไม่ใช่

◯ ไม่แน่ใจ

13a. คุณมีความคิดเห็นอย่างไรเกี่ยวกับบทบาทผดุงครรภ์ในห้องคลอด?

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13b. คุณคิดว่าหน้าที่ใดดังต่อไปนี้ เป็นบทบาทของพยาบาลผดุงครรภ์ในห้องคลอด?

	ใช่	ไม่ใช่	ไม่แน่ใจ
ตรวจประเมินทางช่องคลอด	○	○	○
ประเมินระยะการคลอด	○	○	○
ประเมินการเจ็บครรภ์จริง	○	○	○
ส่งเสริมการเบ่งคลอด	○	○	○
ทำคลอดทางช่องคลอด	○	○	○
ทำคลอดรก	○	○	○
ป้องกันการตกเลือด	○	○	○
ซ่อมแซมแผลฝีเย็บ	○	○	○
ตัดสายสะดือทารก	○	○	○

14a. คุณคิดว่าบทบาทหน้าที่ของพยาบาลผดุงครรภ์และแพทย์สูติศาสตร์ในห้องคลอด ต่างกันอย่างไร?

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14b. คุณคิดว่าหน้าที่ใดดังต่อไปนี้ เป็นบทบาทของแพทย์สูติศาสตร์ในห้องคลอด?

	ใช่	ไม่ใช่	ไม่แน่ใจ
ตรวจประเมินทางช่องคลอด	○	○	○
ประเมินระยะการคลอด	○	○	○
ประเมินการเจ็บครรภ์จริง	○	○	○
ส่งเสริมการเบ่งคลอด	○	○	○
ทำคลอดทางช่องคลอด	○	○	○
ทำคลอดรก	○	○	○
ป้องกันการตกเลือด	○	○	○
ซ่อมแซมแผลฝีเย็บ	○	○	○
ตัดสายสะดือทารก	○	○	○

15. ท่านรู้สึกมั่นใจกับสูติแพทย์ในขณะทำคลอดระดับใด?

	ไม่มั่นใจเป็นอย่างยิ่ง	ไม่มั่นใจ	เฉยๆ	มั่นใจ	มั่นใจเป็นอย่างยิ่ง
เลือก	○	○	○	○	○

16. ท่านรู้สึกมั่นใจกับพยาบาลผดุงครรภ์ในขณะทำคลอดระดับใด?

	ไม่มั่นใจเป็นอย่างยิ่ง	ไม่มั่นใจ	เฉยๆ	มั่นใจ	มั่นใจเป็นอย่างยิ่ง
เลือก	○	○	○	○	○

17. ท่านคิดว่าการมีพยาบาลผดุงครรภ์ในห้องคลอดสำคัญระดับใด?

	ไม่สำคัญเป็นอย่างยิ่ง	ไม่สำคัญ	เฉยๆ	สำคัญ	สำคัญเป็นอย่างยิ่ง
เลือก	○	○	○	○	○

ขอขอบคุณท่านที่สละเวลาตอบแบบสอบถาม
ส่งข้อมูล