



Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study

By

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ABSTRACT

Background

Early antenatal care attendance can prevent some adverse pregnancy outcomes and promote maternal and fetal health. However, Thai young pregnant women start utilising antenatal care later than older pregnant women. Therefore, gaining more understanding about the reasons for late access to antenatal care among young pregnant women in Thailand may help the health care providers to provide antenatal care appropriately and improve pregnancy outcomes for young mothers and their babies.

World Health Organisation (WHO) statistics show the birth rate has decreased in young pregnant women globally. However, there are various statistics in each country. In Thailand, the adolescent birth rate was 51 per 1,000 adolescents in 2015. In addition, the repeated pregnancy among adolescents in Thailand was still high. Plus, young maternal age has been associated with adverse pregnancy outcomes. For example, preterm labour, pre-eclampsia, and anemia. In addition, pregnancy at a young age may cause socio-economic disadvantages.

Aim and objectives

This study aims to understand the maternity care experiences of young pregnant women aged 18-24 years old who are attending antenatal care in Bangkok, Thailand. The objectives were to 1) explore young pregnant women's maternity care perceptions and experiences, 2) identify barriers and enablers of antenatal care attendance, and 3) identify the antenatal care gaps and unfulfilled needs of pregnant women aged 18-24 attending antenatal care in Bangkok, Thailand.

Methods

The study was conducted using a qualitative exploratory methodology. Semi-structured interviews were used to collect data from 10 participants. Thematic analysis was applied to analyse data.

Results

There were five main emerging themes including: 1) Factors influencing antenatal care attendance; 2) Barriers to attending antenatal care; 3) Perceptions in term of young pregnant women; 4) Experience of young pregnant women during their first antenatal care visit; and 5) Service improvements.

Sub themes of factors influencing antenatal care attendance included: The baby health awareness, health knowledge, resources of influence, perceive supports, and location of the service. Barriers to attending antenatal care were lack of education, unplanned or unwanted pregnancy, financial problems and stigma. Participants perceived being pregnant at a young age variously including positive, negative and mixed positive and negative opinions.

The suggestions for the service improvements are increasing continuity of care, enhancing partners participation, and specific antenatal education classes for young women.

Conclusion

This study demonstrated there are many factors influence antenatal care attendance among Thai young pregnant women in Bangkok. However, it also identified barriers for young pregnant women to start attending antenatal care. Antenatal care service modification and improvement will benefit both clients and families. Empowering young pregnant women by providing health education would help to increase early antenatal care attendance.

Keywords young pregnant women, antenatal care, Thailand

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 27 April 2023

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CHAPTER ONE INTRODUCTION

Introduction

The researcher has experience working as a midwife in Thailand, which is a developing country for two years. Working as a full-time midwife rotated in various departments of obstetrics and gynecology including outpatient, and inpatient units made the researcher see many issues related to young pregnant women and newborns. Growing up in a conservative culture makes the researcher able to understand the stigma of young pregnant women. Moreover, the researcher is a cousin of someone who once was a young pregnant woman. This prior experience of the researcher may create possible bias during data collection and data analysis. This is because the descriptive qualitative study requires the researcher as a tool to collect and analyse the data.

Thailand has a public health care system, called Universal Coverage Insurance, that covers all Thai people. This system provides the essential health services for all stages of life, including maternity care (Pannarunothai, Patmasiriwat, & Srithamrongsawat, 2004). Maternity care in Thailand is underpinned by the medical model. The main healthcare professionals providing antenatal, intrapartum and postnatal care, include doctors, nurses, and midwives. It is a free service for all Thai pregnant women of any age. Despite being freely available, studies have reported that young pregnant women delay attending the first antenatal care visit and are less likely to complete antenatal care attendance as recommended by the World Health Organisation (WHO) (Chotigeat & Sawasdiworn, 2011; Thaithae & Thato, 2011). According to the researcher's experiences, young pregnant women, in particular, have less utilisation rates of maternity care than their older counterparts. To date, factors that influence young women to attend antenatal care have not been clearly identified. Therefore, the researcher decided to explore this issue, with an overall aim to improve access to care and therefore pregnancy health for this specific group of women.

This chapter will explore the issue of poor antenatal care attendance of young pregnant women in Bangkok, Thailand. The aim and objectives of this study will be described. The possible significance of this study will be explained.

Background

Culture expectation around early pregnancy

Pregnancy among young women is complicated in Thailand. Some people perceive young pregnancy as inappropriate in many aspects (Muangchang & Pongsuthirak, 2017; Vuttanont, Greenhalgh, Griffin, & Boynton, 2006). Society's norm is not to accept pregnancy at a young age (Muangchang & Pongsuthirak, 2017). Young pregnancy usually has with negative consequences such as dropping out of school, psychosocial problems, and adverse pregnancy outcomes (Ganchimeg et al., 2014; Malabarey, Balayla, Klam, Shrim, & Abenhaim, 2012).

Some articles explain about contributing factors of young pregnancy in Thailand. Early sexual debut, insufficiency of sex education, and inadequate contraceptive methods were mentioned as the cause of pregnancy in the youth (Bacon, Chiba, & Ponjaert, 2022; Crooks, Bedwell, & Lavender, 2022; Leekuan, Kane, & Sukwong, 2021; Sukhumal, Sungworawongpana, & Laohasiriwong, 2020).

Young people in Thailand start sexual activity early. The World Health Organisation (WHO) statistic showed that Thai youth start having sexual intercourse as young as 13 years old or younger (World Health Organization. Regional Office for South-East, 2015). The area with a high rate of sexual activity among youth is Bangkok, or the central area of Thailand (World Health Organization. Regional Office for South-East, 2015). Early initiation of sexual practice puts young women at a high chance of becoming pregnant (Leekuan, Kane, & Sukwong, 2021; Muangchang & Pongsuthirak, 2017).

Next, insufficient sex education is related to young pregnancy. Young people have learned about reproductive health education since secondary school. However, sex education in Thailand has been reported to have less class participation (Bacon, Chiba, & Ponjaert, 2022; Kumruangrit & Srijundee, 2022). This learning method prevents young people from discussing sex and contraception methods (Kumruangrit & Srijundee, 2022; Vuttanont, Greenhalgh, Griffin, & Boynton, 2006). In addition, it causes misconceptions about using contraceptive (Kumruangrit & Srijundee, 2022). In addition, insufficient sex education leads young people to incorrect sexual practices (Muangchang & Pongsuthirak, 2017). These situations could lead to unintended pregnancy among young women (Kumruangrit & Srijundee, 2022; Sukhumal et al., 2020).

Unavailable of contraception is the key contributor to pregnancy in young women. Lack of supply of contraceptives for youth to access was found in Thailand (Dumrongkiat Mala, 2020). Plus, society and healthcare providers perceive young people in a negative way preventing young people to use contraceptives (Dumrongkiat Mala, 2020). Moreover, some youth cannot afford other contraception methods, for example, emergency pills, and implants (Inthavong et al., 2022). The statistic in Leekuan (2021) shows that 17 per cent of young women in Thailand did not use birth control, which causes the rate of young pregnancy to remain high (Muangchang & Pongsuthirak, 2017). Therefore, a lack of contraceptives may be one of the crucial causes of unplanned pregnancies in young women.

Antenatal care (ANC) is care provided for pregnant women by healthcare professionals to assess the maternal and fetal status during pregnancy (World Health Organization, 2016). The provided care includes physical examination, monitoring of fetal heart sounds, laboratory investigations, history taking, and ultrasonography for screening fetal anomaly. This care aims to identify risk factors of pregnant women and fetal health that can lead to complications or adverse outcomes (Pooltananan & Luengratsameerung, 2019).

Early attendance for antenatal care is vital to be able to detect early, the risk factors that can lead to complications or adverse outcomes (Moller, Petzold, Chou, & Say, 2017). Therefore, late antenatal care, whereby these factors are not detected, or are detected late, can lead to several adverse pregnancy outcomes. For example, Hawkes et al., (2013) systematic review and meta-analysis stated that the timing of first antenatal care visit made a significant difference in preventing an adverse outcome due to syphilis.

The World Health Organisation (WHO) published Guidelines for Antenatal Care (2016) which suggest that antenatal care clinics should include components such as risk identification, prevention, management of pregnancy-related or concurrent diseases, and health education and health promotion. This guideline also recommends pregnant women attend antenatal care for a minimum of eight visits. Two visits in the first trimester, with the first visit at 12 weeks of gestation or earlier. In the second trimester, women should attend two visits and four visits in the third trimester (World Health Organization, 2016).

The Ministry of Public Health of Thailand guidelines for standard quality of antenatal care attendance recommends pregnant women to visit antenatal care clinic for five visits. The first time as soon as possible, and the gestational age (GA) should be less than 12 weeks. The second visit is recommended at gestational age 16 - 20 weeks, third visit between 24 – 28 weeks, fourth visit between 30 – 34 weeks, and fifth visit between 36 – 40 weeks (Pooltananan & Luengratsameerung, 2019). In Thailand, 90.8% of pregnant women attend at least 4 antenatal visits (The World Bank, 2019). However, Soontornprakasit et al. (2016) found that young pregnant women were three times more likely to start presenting at antenatal care later than older pregnant women (Soontornprakasit, Mongkolchati, & Chompikul, 2016).

WHO defines adolescent pregnancy as a pregnant woman aged between 10-19 years old (World Health Organization, 2018a), and youth was defined as age ranging between 15-24 years old. This research focusses on pregnant women aged 18- 24 years old. Therefore, the term that will be used is “young pregnant women” referring to pregnant women within this age range (18-24 years). According to WHO statistics (2018), adolescent birth rates around the world are 44 per 1,000 adolescents aged 15-19 years old. For Southeast Asia these figures are 33 per 1,000 and in Thailand it was 51 per 1,000 adolescents in 2015 (World Health Organization, 2018b). The United Nations Children’s Fund (UNICEF) published a situation analysis of pregnant women aged 13-19 years old in Thailand. This document showed that adolescent birth rates are highest in those aged 15-19 years old. Repeated pregnancies in adolescents were 6.2 per 1,000 adolescents in 2013 (United Nations Children’s Fund, 2015). Several organisations are concerned about women being pregnant at such young ages including UNICEF and the WHO.

UNICEF published their strategy for healthcare from 2016 to 2030 and within this has goals to end preventable maternal, newborn and child deaths. In addition, it aims to promote the health and development of all children. To achieve these goals, UNICEF plans to improve the quality of maternal and newborn care in a community-based setting and focus on providing suitable antenatal care to young pregnant women (United Nation Childeren’s Fund (UNICEF), 2016). The WHO is also concerned about pregnancies occurring at a young age and sees this as a major contributor to maternal and child mortality. Additionally, adolescent pregnancy adds to the vicious cycle of ill-health and poverty around the world (World Health Organization (WHO), 2014).

Therefore, pregnancy in young women remains an important issue that needs to be understood on a global scale and, particularly, within the Thai context, given the high numbers in this population.

Young pregnant women statistically have a high maternal mortality ratio, increased complications during pregnancy, poor pregnancy outcomes and a high level of socio-economic problems in comparison to other pregnant women (World Health Organization (WHO), 2022). The maternal mortality ratio is one of the indicators that is used in the Sustainable Development Goals (SDGs). It indicates the ability of healthcare systems to prevent and address complications during pregnancy and at the time of childbirth (Sustainable Development Solutions Network (SDSN), 2012). It also reflects the risks of maternal death which are related to childbearing (Wilmoth, 2009).

Nove, Matthews, Neal, and Camacho (2014) conducted a systematic review to estimate the maternal mortality ratio in pregnant women aged 15 to 19 in 144 countries. The findings showed that the maternal mortality ratio in pregnant women aged 15 to 19 is slightly higher than pregnant women aged 20 to 24 (260 maternal deaths per 100,000 livebirths vs. 190 maternal deaths per 100,000 livebirths). The second issue associated with young pregnant women is the risk of complications occurring during the pregnancy. Being pregnant at a young age is considered a high-risk situation for both pregnant women and their babies. These complications include preterm births, low birth weight, complications during the intrapartum period and maternal or neonatal death (The World Bank, 2020). Many studies have identified links between young maternal age and adverse pregnancy outcomes. Rexhepi et al., (2019) conducted a study to compare pregnancy outcomes in pregnant women aged 10 to 19 compared to older pregnant women. The findings showed that some pregnancy complications, such as maternal anaemia, preterm births, urinary tract infections and small gestational age babies were higher in young pregnant women than in older pregnant women. Others have concurred with these findings (Liabsuetrakul & Suchonwanich Yolsilp, 2014; Trairisilp et al., 2015). Areemit et al., (2012) conducted a retrospective study investigating outcomes for young pregnant women in Thailand. The results showed that young pregnant women had a rate of preterm delivery which was 1.3 times greater than in women at older reproductive age (Areemit et al., 2012). Liabsuetrakul's study also reported that adolescent pregnancy in Thailand was associated with premature rupture of membranes, pre-eclampsia, and gestational diabetes mellitus.

Another issue that often relates to adolescent pregnancy is the socio-economic problems they might face. These social problems can include, dropping out of school and suffering the stigma that comes from having social and financial problems. A qualitative study in migrant pregnant women aged 15 to 19 in Thailand found that young pregnant women perceive there is a social stigma associated with being pregnant, and usually stop attending school. In addition, a traditional culture and social pressures prevent the parents of these women from supporting their daughters and this can lead the parents to use violence due to the pressure they feel in this situation (Asnong, Fellmeth, Plugge, San Wai, et al., 2018).

Review of the literature to explore the utilisation of antenatal care services in young pregnant women in developing countries, highlighted several influencing factors, such as young pregnant women facing stigma from their family, other antenatal care service users, and the community (Atuyambe et al., 2008; Bwalya, Sitali, Baboo, & Zulu, 2018; Kitiyodom, 2015). There were demographic factors that may influence young pregnant women to visit antenatal care, such as knowledge, attitudes and perceptions (Ochako et al., 2011; Sialubanje et al., 2014; Singh et al., 2014). Negative attitudes and beliefs from influential people can prevent young pregnant women attending antenatal care (Sialubanje et al., 2014). The relationships between pregnant women and health care professionals can be associated with the frequency of antenatal care presentations. For example, a disrespectful attitude from healthcare professionals and other pregnant women discourages young pregnant women from attending antenatal care service. In contrast, a good relationship between young pregnant women and service providers makes young pregnant women feel comfortable when attending antenatal care services (Bwalya et al., 2018).

The knowledge and perceptions of adolescents during their pregnancy and what they understand about the benefits of antenatal care, is one of the factors that can influence the attending for antenatal care (Bwalya et al., 2018; Chikalipo et al., 2018; Sialubanje et al., 2014; Singh et al., 2014). These factors highlight potential influences the healthcare-seeking behaviours of young pregnant women in developing countries. However, there may be unexplored factors associated with the level of utilisation of health care services by young pregnant women in Thailand. Exploring about factors that related to late initiation of antenatal care among young pregnant women may help to understand and provide appropriate care. These unknown factors have prompted this investigation, with the aim of providing a current and comprehensive understanding of the issues influencing accessing antenatal care for pregnant adolescent women in Thailand.

Aims and objectives

The research question is: “What factors influence young pregnant women to attend antenatal care in Bangkok, Thailand?”. Therefore, the researcher set the aim and objectives to answer the research question. The researcher’s overarching aim is to gain insight into the maternity care experiences of young pregnant women aged 18-24 years old who are attending antenatal care late in Bangkok, Thailand. To achieve this aim the researcher will implement these objectives:

1. To explore the maternity care perceptions and experiences of young pregnant women aged 18-24 attending antenatal care in Bangkok, Thailand.
2. To identify barriers and enablers to first antenatal care attendance in accordance with WHO recommendations for pregnant women aged 18-24 in Bangkok, Thailand.
3. To identify the antenatal care gaps and unfulfilled needs of pregnant women aged 18-24 attending antenatal care in Bangkok, Thailand.

Significance of the study

This research project aims to further understand young women’s pregnancy experiences and identify factors associated with the initiation of antenatal care attendance in Thailand. The findings from this project will provide rich information about young pregnant women’s experiences to inform Thailand’s health organisations, healthcare providers and policy makers. The findings will give young pregnant women a voice, making healthcare professionals aware of the circumstances that these women may face during pregnancy. The findings from this research will help inform healthcare providers when making decisions about protocols for antenatal care attendance by young pregnant women. It will help inform practice change for midwives and healthcare staff to facilitate the provision of appropriate antenatal care services for young pregnant women.

Moreover, young pregnant women can experience age-related risk factors during pregnancy. Reducing the number of young pregnant women with adverse perinatal outcomes will benefit individuals and assist local services and the Thai government to reduce associated financial, and other resource, burden. Adverse pregnancy outcomes, such as low birth weight, preterm birth, and abnormality or complications (Chen et al., 2007; Gortzak-Uzan, Hallak, Press, Katz, & Shoham-Vardi, 2001; Sirakov, 2012) create additional resource use, for the woman, and the health systems,

due to babies requiring admission to special care baby units or Newborn Intensive Care Units (NICU) (Fleming et al., 2013; Karai et al., 2019). In accordance with the health care system in Thailand, the government must allocate financial resource to support free Universal medical Coverage Insurances. This health insurance is for everyone of Thai nationality. Therefore, this includes the costs of complex neonatal care. Potentially, these financial burdens may be reduced by encouraging young pregnant women to attend antenatal care early which, in turn, will help reduce adverse pregnancy outcomes.

Overview of chapters in the thesis

This thesis is composed of five chapters. The first chapter provides the background of young pregnant women and the current issues faced in Thailand, and generally what is known about their current activity in utilising maternity services in Thailand, and significance of this study. The second chapter will review the current literature relating to pregnancy at young ages in developing countries. The third chapter will explain the methodology, methods, and processes used in the current study. Chapter four reports the findings from this study and presents them in major-and sub-themes. Chapter five is the discussion, with consideration to the findings from this study and the recent literature that relates to young pregnant women.

CHAPTER TWO LITERATURE REVIEW

Introduction

Chapter one identified the multiple and complex issues associated with being young and pregnant in Thailand, outlining the background societal, cultural and financial issues for young pregnant women in Thailand.

Prior to investigating a research question, a review of the literature is required to provide recent evidence about the topic area, in this case young pregnant women attending antenatal care (ANC) in Thailand, or similar contexts. This chapter will describe and discuss the currently available literature around the research question: "What factors influence the utilisation of ANC among young pregnant women in developing countries?". The search strategies will be explained. Emergent themes will be discussed. The discussion about the findings of this literature review will be demonstrated. Strengths and limitations of this literature will be described.

Search strategy

To investigate the current literature for this research project, three online electronic databases were included. These were PubMed, CINAHL, and Ovid and were selected because they contain articles relevant to health issues. Each database was searched for evidence relating to the research question. Other databases including Web of Science, Scopus, and Google Scholar were not selected because of the limitations of each database. The Web of Science is the database that collect citations, and index of literatures about science, social science, art and humanities, books, and conference proceedings (Birkle, Pendlebury, Schnell, & Adams, 2020). However, it has been critiqued about the limitations to assess some citations (Birkle et al., 2020; Falagas, Pitsouni, Malietzis, & Pappas, 2008; Wilder & Walters, 2021). Scopus accumulates abstracts and citations of many articles in various fields (Elsevier, 2022) but there are some limitations to find free full text (Wilder & Walters, 2021). Google Scholar are free and provide open access to all interested clinicians, researchers, trainees, and public (Falagas et al., 2008). Regarding to citations analysis from Falagas et al. (2008), Google Scholar was founded as an inconsistency and accuracy database. Moreover, Web of Science, Scopus, and Google Scholar have not equally cover the articles about nursing research (De Groote & Raszewski, 2012).

The search terms were created by critique of the literature question, with key terms of: “adolescent pregnancy”, “adolescent mothers”, “young pregnancy”, “young mothers”, “utilisation”, “use”, “access”, “experiences”, “ANC”, “antenatal clinic”, “antenatal care”, “antenatal services”, “prenatal care”, “prenatal services”, “Thailand”, “Southeast Asia”, “Asia”, “developing countries”. The researcher wanted to collect articles that were recent and specific to this particular issue. Inclusion and exclusion criteria were generated from the literature question. The inclusion criteria included, a) primary research, b) involved adolescent pregnancy or young pregnant women aged 18-24 years, c) the area in the research was antenatal care, d) conducted in developing countries, e) articles are published between 2014 to 2019, and f) the articles are published in English.

The exclusion criteria were a) the article was a systematic review or meta-analysis, b) the participants are pregnant women aged more than 24 years old, c) the research explored the intrapartum and/or postpartum periods, d) the setting was in developed countries, e) the results were published prior to 2014, f) the article was published in other languages. The inclusion and exclusion criteria are shown in appendix 1.

Articles meeting these criteria were considered eligible.

A small number of articles (n=9) were identified using these keywords and the criteria described. The search primarily yielded six relevant articles in PubMed and three in CINAHL. A search of Ovid, using these search terms did not find any relevant articles.

To enhance article retrieval, the researcher modified and expanded the key terms to: “adolescent pregnant women”, “young pregnant women”, “attendance”, “experiences”, “seeking”, “health care service”, “maternal care”, “developing country”, “developing countries”.

The years of publication were extended from include article from 2009 onwards (2009-2019). After applying this expanded criteria and processes, thirty-four potentially relevant articles were found. The researcher also hand-searched from references of retrieved articles and searched in ProQuest and Google Scholar to find further articles related to the issue of interest. It is because of the limited number of the articles that was found in the primary search. Therefore, using other database could bring out more possible articles that related to the search question. A total of 124 articles were identified. After screening the title and abstract of articles, duplicate articles and those not related to the topic were excluded. Following further examination of the remaining 16

full-text articles, a further nine were discarded. The remaining seven articles were selected for this literature review. The process of search methods is shown in the PRISMA chart in Appendix 2.

Critical appraisal of the articles

The selected articles consisted of three qualitative studies and four quantitative studies. All the included studies were analysed by using the relevant critical appraisal tools. The qualitative studies were evaluated using the Critical Appraisal Skills Program (CASP) Qualitative checklists to determine the trustworthiness of each study (Critical Appraisal Skills Programme, 2018). The quantitative studies were appraised by Appraisal tool for Cross-Sectional Studies (AXIS) to assess the rigor of the studies (Downes, Brennan, Williams, & Dean, 2016). The critical appraisal tables are shown in Appendices 4 and 5. Qualitative studies had some limitations such as unclear stated about conflict of interest. However, they provide rich information about antenatal care attendance experience of young pregnant women.

Findings

Seven articles in this literature review explored the factors which affect the utilisation of ANC services in young pregnant women in developing countries including Thailand, Democratic Republic of Laos, Kenya, Malawi, Uganda, and Zambia. The quantitative studies investigated the factors associated with the first-time utilisation of antenatal services and revealed influential factors, such as family economic status, educational attainment, and distance from home to healthcare services. The qualitative studies explored various aspects of adolescent pregnancy, such as the demographic factors, environmental factors, attitude and perception of young pregnant women and experiences of adolescent pregnant women towards attending ANC. During analyses of the literature emergent themes were apparent (see Appendix 3). These themes were stigma, demographic factors, attitudes and beliefs, relationships, and knowledge and perceptions. Each theme had sub-themes as shown in table 2 (Appendix 3).

Stigma

The WHO defines stigma as “a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society” (World Health Organization (WHO), 2001). Stigma is a common factor that prevents young pregnant women accessing maternity care (United Nations Children’s Fund, 2015). In three articles, stigma in young pregnant women was identified in different ways. A

qualitative study, conducted in Zambia, showed that adolescent pregnant women felt uncomfortable when utilising ANC with other service users. Adolescent pregnant women faced a lack of respect from adult healthcare users, resulting in triggering stigma amongst adolescent pregnant women (Bwalya et al., 2018). Atuyambe et al. (2008) compared healthcare-seeking behaviours in pregnancy in adolescents and adults, which showed that adolescent pregnant women typically presented for ANC later than their adult counterparts.

Adolescent pregnant women were more likely to be rejected by their family than adult pregnant women and subsequently dropped out of the education system. The researchers also found that pregnant adolescents were stigmatized by the community, and treated significantly differently from adult pregnant women who were revered (Atuyambe et al., 2008). Similarly, Kitiyodom and colleagues reported that being pregnant whilst studying was less acceptable within the family than pregnancies at other ages (Kitiyodom, 2015). The findings from Basaza, Mawerere, and Namusana (2020) demonstrated that young pregnant women face stigmatisation from other clients attending antenatal care services. The study from Laos reported that stigma from the community was apparent in both young married and unmarried pregnant women (Sychareun et al., 2018).

Demographic factors

Demographic factors can influence the attendance of ANC in both positive and negative ways. Three studies mentioned demographic factors including educational level, location of residence, and distance from health care provider were associated with engagement with antenatal services by adolescent pregnant women. A qualitative study investigating the psychosocial and environmental facilitators and barriers that affected maternal care utilisation reported that distance from health care centre can delay pregnant women accessing services (Sialubanje et al., 2014). A quantitative study in Kenya reported similar findings, reporting an association of place of residence, household wealth, and years of schooling with the gestation of first ANC visit in adolescent pregnancy (Ochako et al., 2011). A quantitative study by Singh et al. (2014) conducted in urban India, showed that several factors influenced accessing maternal health care services, including the educational level of the pregnant woman, the economic status of the family and place of residence. Educated adolescent pregnant women tended to access the health care services provided, whereas those with little or no literacy did not (Ochako et al., 2011; Singh et al., 2014). The economic status of the family was positively associated with the utilisation of services (Basaza et al., 2020; Ochako et al., 2011; Singh et al., 2014). Adolescents from wealthy families were more likely to attend ANC visits in accordance with WHO recommendations (Singh et al.,

2014). Region of residence was a significant factor in ANC utilisation (Ochako et al., 2011; Sialubanje et al., 2014; Singh et al., 2014). Women experiencing adolescent pregnancies in the higher socioeconomic areas of Southern and Western parts of urban India were more likely to receive full ANC visits (Singh et al., 2014). This is similar context to Thailand, in that people in urban areas tend to visit health care service more than those in rural areas.

Attitudes and beliefs

Attitudes and beliefs are important factors related to the utilisation of ANC by young pregnant women in developing countries (Basaza et al., 2020; Sialubanje et al., 2014; Sychareun et al., 2018). This was described in a qualitative study by Sialubanje et al. (2014), who reported that negative attitudes towards nurses, midwives and the quality of health care, negatively influenced pregnant women's decision to attend maternal health services (Sialubanje et al., 2014). Opinions of influential family or community members were also negatively associated with health care services utilisation by pregnant women (Sialubanje et al., 2014). On the other hand, Basaza et al. (2020) found that young pregnant women have positive attitudes towards antenatal care service. young pregnant women stated that the services were accessible, and they got support from health care providers easily (Basaza et al., 2020).

Relationships

Relationships between young pregnant women and other people can affect the experiences of ANC utilisation in young pregnant women (Bwalya et al., 2018; Sychareun et al., 2018). Bwalya et al. (2018) conducted a qualitative study to explore the experiences of ANC among adolescent pregnant women in Zambia. Their findings demonstrated that these participants, in common with other patient groups, experienced both positive and negative relationships with health care providers. Some participants experienced a better reception than expected from health care providers, while for others, the opposite occurred. The negative attitudes of both adolescent pregnant women, and health care providers, can discourage utilisation of ANC (Bwalya et al., 2018, Sychareun et al., 2018). The findings from Sychareun et al. (2018) demonstrated that unmarried young pregnant women commonly experienced being scolded by healthcare providers. Another aspect mentioned in this study was the relationships between the pregnant adolescent and other health care users. Some participants experienced friendly relationships with adult pregnant women (Basaza et al., 2020; Bwalya et al., 2018), often exchanging knowledge about self-care during pregnancy. Conversely some participants reported that other health care users built poor

relationships that lacked respect, and this led to negative health care experiences faced by adolescent pregnant women (Bwalya et al., 2018).

Knowledge and perceptions

Champion and Skinner (2008) describe the Health Belief Model (HBM), which identifies the factors associated with health-related actions as perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. The literature also demonstrated that adolescent pregnant women's perceptions about services influenced their utilisation of ANC services (Chikalipo et al., 2018; Sialubanje et al., 2014; Singh et al., 2014). The studies stated that participants' motivation to utilise services improved with knowledge of the benefits of ANC services (Basaza et al., 2020; Chikalipo et al., 2018). Some participants perceived these benefits positively, such as increased knowledge of health status, education around prevention of pregnancy complications, and assurance of access to the health facility for the birth (Basaza et al., 2020; Chikalipo et al., 2018). Similarly, Singh et al.'s study in India (2014) reported that pregnant adolescents exposed to media messages about ANC were more likely to access it, in accordance with WHO recommendations (Singh et al., 2014). Conversely, Sialubanje et al. (2014) investigated psychosocial and environmental factors affecting the use of maternal health services, reporting that ANC was accessed when women knew they were at risk of pregnancy complications and aware of the benefits of ANC. However, their access to services still late (Sialubanje et al., 2014). Sychareun et al. (2018) mentioned that limited knowledge affected the utilisation of antenatal care among young pregnant women.

Informing young pregnant women about maternal care services is another factor that influences access to ANC. Bwalya et al. 2018 found participants reported a lack of care specifically for young pregnant women. This meant young pregnant women felt uncomfortable within the services and therefore delayed engagement with ANC. These findings concur with Chikalipo et al. (2018) where participants were provided with information regarding the specific facilities for young pregnant women in positive ways, which increased the uptake of ANC.

Discussion

Factors influencing young pregnant women's engagement with ANC are multifactorial and, complex, and further compounded by the diversity of settings. Divergent cultures and societal contexts in different geographical regions influenced the reported barriers and facilitators for young pregnant women to access antenatal care.

This literature review describes factors associated with maternal services utilisation by young women. The articles retrieved used various research approaches to investigate the factors. Reading and critically analysing the literature enabled the researcher to identify evidence of the factors that both encourage and inhibit attendance for antenatal care, and consequently partially answer the literature review question.

Overall, five themes were apparent in the literature, these were: 1) stigma, 2) geographical location (notably distance between residence and health centre), 3) attitudes and beliefs of both the adolescent pregnant woman and those in relationships of authority, 4) relationships between adolescent pregnant women and those providing health care services, and 5) the knowledge and perceptions of pregnant adolescents regarding benefits of ANC.

These findings concur, in part, with those reported in a systematic review by Banke-Thomas and colleagues (2017). These authors reported that utilisation of maternity care, among pregnant adolescents, was significantly associated with the educational level of the woman, family status and parity (Banke-Thomas et al., 2017). In addition, they also reported minimal new evidence in the area of adolescent pregnancy pregnant adolescents' healthcare-seeking behaviours.

Interestingly, and outside of the remit of the current review, studies in high and medium resource settings have cited similar associated factors. For example Haddrill, Jones, Mitchell, and Anumba (2014) conducted a qualitative study to explore delayed access to ANC in pregnant women in Yorkshire, United Kingdom. The study reported that delay in accessing ANC was due to personal beliefs, lack of knowledge about the signs of pregnancy, fear of stigmatisation from the community, lack of perceived benefits of ANC, and failures in the management of health care systems.

In the low resource settings, the attendance of antenatal care services among young pregnant women were influence by similar factors. These themes were further confirmed by Chikalipo et al. (2018) and Singh et al. (2014) both of whom stated that the perception of the benefits of utilising ANC services was an influencing factor. The stigmatisation from society reported by Haddrill et al., was also similar to the findings of Atuyambe et al. (2008). However, there are also some differences between the findings of these studies. The participants in Haddrill's project did not perceive any benefits of ANC. Consequently, this delayed access to maternity services by pregnant women. This contrasts to the work of Sialubanje et al. (2014) who found that young pregnant women did consider ANC advantageous but other factors, notably psychosocial and environmental

issues, delayed them accessing ANC. This evidence identifies that delayed engagement with ANC visit was common, irrespective of regional settings.

Asnong, Fellmeth, Plugge, Wai, et al. (2018) studied adolescents' perceptions and experiences of pregnancy in refugee and migrant communities in Thailand. These authors concluded that most participants considered pregnancy during adolescence as a challenging life event, that could have a negative impact on their future. Early pregnancy was associated with: premarital sex, forced marriage, lack of contraception, school dropout, fear of childbirth, financial insecurity, support structures, domestic violence, and stigma on sexual and reproductive health issues. Asnong et al.'s (2018) conclusions concur with the themes in this current literature review that pregnancy at a young age can cause young women to feel stigmatised within their own communities.

Strengths and Limitations

The strength of this literature review is the inclusion of both qualitative and quantitative studies. Therefore, this literature review demonstrated the experience of young pregnant women while they utilized antenatal care in various aspects. The greatest limitation of the qualitative studies was identifying potential conflicts of interest between the researchers and participants. However, these qualitative studies provide valuable evidence for antenatal care attendance among young pregnant women. Most researchers did not explain their role in the research clearly. Similarly in Ochako, Fotso, Ikamari, and Khasakhala (2011) and Singh et al. (2014), reviewed biases were not clearly identified in their qualitative studies. Another minor limitation is that only one quantitative study did declare ethical approval, other quantitative articles did not declare ethical approval. However, all nine articles were deemed rigorous in methods because the sampling technique, data collection, and data analysis are appropriate with each study's research design and aim and were therefore included in this literature review. The findings in this literature review provide insight for midwives and other health care professionals into the healthcare-seeking behaviours of young pregnant women in developing countries.

However, there are some limitations to this review. Firstly, more extensive searching on other databases may find further literature to answer this question. Secondly, the definitions of adolescent/young pregnancy vary in each article. Therefore, there is a lack of homogeneity in the studies in regard to participants' access to ANC. Similarly, there was a lack of consistency in the ANC provided, for example, gestation at booking. Lastly, the differences in culture and context exerted influences on the findings of each study. This literature review also identified a gap in the

knowledge base around understanding the influencing factors for young pregnant women to utilise ANC in developing countries. However, some evidence from the literature may not be applicable to all young pregnant women in the Thai context. Therefore, further research should be conducted to investigate the factors that influence the attendance at ANC in young pregnant women in the Thai context.

Conclusion

This chapter provides a summary of the current evidence regarding determinants that influence whether or not young pregnant women attend ANC in developing countries. The results identify that the factors influencing ANC attendance by young pregnant women are multiple and complex and ANC is perceived both positively and negatively by this patient group. It also identifies heterogeneity in definitions and care provided, and therefore means generalisation of findings are limited.

The specific factors associated with the utilisation of health care services in young pregnant women in Thailand, requires further investigation in order to provide comprehensive understanding of the issues for this patient group. In addition, the findings from this literature review have informed the formulation of the research question and research methodology to answer the research question; What factors influence young pregnant women to utilise ANC in Bangkok, Thailand?

The next chapter will provide the details of the research methodology used to investigate experiences of accessing ANC for young pregnant women in Thailand.

CHAPTER THREE RESEARCH METHODOLOGY

Introduction

Chapter two explored the current evidence of the utilisation of antenatal care in young pregnant women in developing countries, specifically Thailand. This chapter will provide information about the selected research paradigm and methodology for the current project. The methods used in data collection and data analyses and the rationale for these choices will be explained. The rigor of this study will be explained and justified. The limitations of this selected methodology will be explained. This research aims to understand the experiences of young pregnant women in Thailand in accessing ANC. Thus, the qualitative paradigm was selected to investigate this research question.

Research Paradigm

A research paradigm is an essential guide for researchers to conduct research projects. The research paradigm outlines beliefs and instructions in a particular discipline and/or theory for researchers. It influences the way to study a particular topic, the methods to investigate that topic, and how to interpret the results (Kivunja & Kuyini, 2017).

The research question is: “What factors influence young pregnant women to attend antenatal care in Bangkok, Thailand?” The objectives of this study are to:

- 1) Explore the maternity care perceptions and experiences of young pregnant women, aged 18-24 years, attending antenatal care in Bangkok, Thailand.
- 2) Identify barriers and enablers to first antenatal care attendance in accordance with WHO recommendations for pregnant women aged 18-24 years in Bangkok, Thailand.
- 3) Identify the antenatal care gaps and unfulfilled needs of young pregnant women attending antenatal care in Bangkok, Thailand.

Therefore, the researcher aims to understand young pregnant women’s needs and perceptions by using the qualitative paradigm. The qualitative paradigm has specific characteristics that are consistent with these research aims and objectives, which will help the researcher to investigate this topic comprehensively. Firstly, the qualitative paradigm is associated with constructivism. The Constructivist worldview considers reality as multiple and subjective, mentally constructed by the

individual (Polit & Beck, 2012a). The characteristics of the qualitative paradigm include an inductive approach, interactive and reflexive processes, holistic exploration, and flexible methods (Parahoo, 2014a). All these characteristics allow researchers using this paradigm to investigate the participant's experiences and perceptions of the particular issue, deeply. Thomas (2006) stated that the inductive approach in the qualitative paradigm allows the researcher to inquire about the findings from raw data, without restricted methodology. This approach enables researchers to discover ideas by listening to participants or observing their behaviour.

The interaction between the researcher and participant is one of the effective methods in qualitative research. The researchers use this interaction to inquire about the participant's experiences, to get closer to the topic being studied (Parahoo, 2014a). Qualitative research also allows the participants to share their responses as a context. These responses may reveal a context that the researchers may not be aware of (Parahoo, 2014a). Moreover, the response from participants can assist the researcher to understand the interested phenomena holistically. A qualitative paradigm has flexible methods applicable to each step of the research process, such as the sampling technique and data collection. (Parahoo, 2014a). The flexible methods in the qualitative paradigm allows the researchers to create methods that suit the nature of the data.

The qualitative research paradigm is appropriate for this particular research question because the aims and objectives of this project are to explore young pregnant women's experiences. This is contradictory to quantitative paradigm that aims to find the cause and effect of the circumstances by using a scientific approach to measure the results and statistical analyses. The nature of the quantitative paradigm is not matched easily to this research question. The literature review (Chapter 2) revealed there are few research articles that investigate the views and experiences of young pregnant women in developing countries, from a qualitative viewpoint. The researcher aims to obtain rich information that may add new knowledge about the antenatal healthcare experiences for young pregnant women in Thailand to inform local and national healthcare providers and related organisations. These findings may help inform the organisation and health care providers regarding developing and providing antenatal services specifically targeted at young pregnant women.

Methodology approach

The methodology is the discipline that guides the conduct of the research project. An appropriate methodology leads the researchers to a rigorous and credible study. In the qualitative paradigm,

methodological approaches include grounded theory, phenomenological study, ethnography, and descriptive qualitative study. The selected methodology in this study is a descriptive qualitative study (QD) because the nature of its' characteristics help the researcher to find the answer to this research question. Firstly, the QD directly interprets the information participants are sharing (Kim, Sefcik, & Bradway, 2017) and is commonly used in nursing and healthcare research (Chafe, 2017). This design aims to comprehensively summarise the event of interest and uses a combination of methods such as sampling, data collection, data analysis, and re-presentation techniques to interrogate the findings based on the participant's data (Sandelowski, 2000). The descriptive qualitative design is also identified as an important and appropriate method for research questions that focus on discovering the who, what, and where of events or experiences and gaining insights from informants regarding a poorly understood phenomenon (Kim et al., 2017). Thus, this research design is appropriate for this particular research question, which aims to understand healthcare-seeking experiences in young pregnant women in Thailand. Secondly, a QD is less complicated than other types of methodology in the qualitative paradigm (Ayton, 2023b). This approach is suitable for the researcher who has less experience in collecting data in the research field (Ayton, 2023b; Doyle, McCabe, Keogh, Brady, & McCann, 2020). Moreover, the results from QD will provide rich and in depth information regarding the issue of interest (Lambert & Lambert, 2012; Sullivan-Bolyai et al., 2005)

A QD is also useful to conduct within a limited timeframe, due to its flexibility, with no clear boundaries (Kim et al., 2017; Bradshaw, Atkinson, & Doody, 2017). Time limitations are relevant in this study because the work is being undertaken as part of a Master's degree thesis, and thus it need to be complete within a set time. Furthermore, this research is an overseas project conducted in the maternity setting in Thailand. It would be impractical to apply other qualitative approaches, which necessitate the researcher collecting the data in a particular location.

After careful consideration, other methodological approaches were excluded, these included grounded theory, ethnography, and phenomenology. All these methodologies were considered inappropriate to address the current research question for several reasons:

- 1) Grounded theory aims to develop the theory for a particular issue (Parahoo, 2014b). It is inconsistent with the researcher's purpose, which is exploring the young pregnant women's experiences to identify factors influencing access to antenatal care. Furthermore,

this approach involves complicated data collection processes. Grounded theory approaches incur data collection from multiple sources (Parahoo, 2014b).

Moreover, the researcher must interpret the data from this evidence.

- 2) Ethnography was also excluded because this methodology has the main purpose to understand the behaviour of a particular group of people within the context of their own culture (Whitehead, Dilworth, & Higgins, 2016). This approach aligns with the research objectives that aim to understand the healthcare-seeking behaviour of young pregnant women. However, the nature of the methods in this methodology is not appropriate due to the time and location constraints of the researcher. Ethnography researchers must immerse themselves within the culture to collect the data from the participants in the real field. This may require a prolonged time spent in the research field.
- 3) Phenomenology study was excluded because of many reasons. Firstly, the nature of phenomenology aims to understand a phenomenon from an individual's perspective. It is also related to in-depth information regarding attitudes, beliefs, and emotions (Ayton, 2023a) which are sensitive issues in young pregnant women. Moreover, it requires more data collection methods to cover all of the essences of the particular phenomenon. Therefore, this could prolong the timeframe to conduct the research.

The researcher therefore proposes, the QD is appropriate to address the research question and the limitations of undertaking the project.

One limitation of using a QD is that it only describes the experiences of participants by interpreting their story. The findings from this study may therefore present a participant's view that is not as comprehensive as other qualitative approaches. The findings are reliant on the interpretation of the participants' experiences, through their story, by the researcher and supervisors. Therefore, the views of young pregnant women in Thailand may not be fully represented.

Methods

The researcher conducted a QD study to explore the experiences of young pregnant women and discover influencing factors for first-time antenatal attendance. According to a systematic review by Kim et al. (2017), there are several data collecting methods in a QD, these include: focus group interviews, individual interviews and semi-structured, and structured interviews. The method used

in the current study was semi-structured interviews via phone call with each participant. This method was selected because of the overseas research and limitations around access, but also because this was deemed acceptable and appropriate for the target population.

The participants were approached when attending the antenatal care clinic at Ramathibodi Hospital by the clinical midwives who worked there. Thematic analysis was used to analyse the data. The justifications of all methods are described below.

Ethical considerations

This study was reviewed and gained ethics approval from the Social and Behavioural Research Ethics Committee (SBREC) of Flinders University (Project Number 8435). This overseas research collected data in Ramathibodi Hospital Thailand, therefore, ethics approval was also sought, and granted, from the Institutional Review Boards of the Faculty of Medicine Ramathibodi Hospital, Mahidol University (Project Number 1754).

Ethical issues addressed during the conduct of this research project were:

- 1) The participants were treated equitably and respectfully. The participants were fully informed of the study, both verbally and in writing, and what was required of them, only those willing and able to provide written informed consent were included. As with all research, participants had the right to withdraw at any time without giving a reason, this means they have right to stop the interview any time that they felt uncomfortable. In addition, free mental health counselling contact was provided to all participants in order to support participants who experienced any emotional discomfort.
- 2) The potential benefits and disadvantages of participating in this project were explained verbally and in writing through a study specific information sheet and potential participants had the opportunity to ask questions and have them answered to their satisfaction, before deciding to participate in this research.
- 3) Participation was voluntary and the participant's decision whether or not to take part did not influence the care they or they baby received in any way. Similarly, participants were free to withdraw at any time without giving a reason and her care or that of her baby would not be affected by her decision.

4) Information about the methods to protect participant confidentiality and participant's rights were stated in the consent form. Pseudonyms were used during transcriptions and translation process, and the presentation of findings. No participant would be identifiable from the data or any report emanating from this study.

5) During each interview privacy was provided and maintained. The interviews were undertaken in private places. A private room in the clinic area was booked, through the antenatal services at the hospital, for those participants wishing to undertake the interview at the hospital. Participants could also choose to undertake the interview in a private place of their choosing, such as their private dwelling. Participants were assured that privacy was maintained and adhered too from the researcher's perspective at Flinders University.

6) The participants were advised in the information sheet that during the transcribing process, the researcher used headphones to further maintain privacy. Ongoing verbal consent was confirmed at the beginning of, and throughout the interview sessions.

7) Information collected from participants including consent forms, audio files and transcripts were stored in the secure Flinders University Cloud Storage, which limits access by using password protection only available to the researcher and supervisors. The data will be stored for at least five years after the researcher has completed this study, in accordance with national and local data governance rules. At the end of this time all the stored data will be destroyed in accordance with Flinders University policies.

Research setting and Recruitment

Setting

This study was undertaken in the antenatal clinic at Ramathibodi Hospital, Bangkok, Thailand. The population in Bangkok is estimated as 10.35 million (Central Intelligence Agency, 2019).

Ramathibodi hospital is a tertiary public hospital that provides more than 5,000 outpatient visits per day and has more than 1,300 beds for in-patients (Faculty of Medicine Ramathibodi Hospital, 2018). The antenatal clinic is within the Obstetrics and Gynecology outpatient department. The clinic provides antenatal care for all-risk pregnant women, including complications of pregnancy, postpartum follow up, reproductive clinic, and family counselling. Around 90 women attend the antenatal clinic per week. Ten per cent of all service users are young pregnant women (18-24 yrs). This clinic was chosen due to its location in a well-populated inner-city area of Thailand, with a

diverse patient mix, in order to maximise the information gained about the experiences of young pregnant women in Thailand.

Participants

As the estimated that there are approximately 90 consults per week, of which 9 women attending will be within the age range of interest. We therefore aimed to approach all potential participants in the age range. The researcher relied on antenatal clinic midwives to approach potential participants and provide a flyer about this research (Appendix 7). The flyers included the eligibility criteria for potential participants. This had the added advantage of ensuring young pregnant women did not feel coerced into participation, as can be the case if the researcher makes the initial approach (My Research Essentials, 2021). According to Schneider and Whitehead (2016), there are no overall formal criteria to determine the sample size in a qualitative study. According to Polit and Beck, descriptive qualitative researches usually involves a small group of participants (Polit & Beck, 2012b). Guest, et al., (2006) experimented to find an adequate sample size for the interview that can reach information power. The findings show that data saturation is generally achieved after interviews with 12 participants (Guest et al., 2006). Therefore, the researcher aimed to recruit at least 12 participants, but will continue beyond this if there are new emergent themes from the interviews. It is therefore anticipated that up to 15-20 young pregnant women will be interviewed within this study. The purposive sampling technique was selected to recruit participants because the proportion of young pregnant women in the setting area is small. Purposive sampling is to select potential participants who will most benefit the study (Polit & Beck, 2012b), ensuring they bring a diverse and broad range of views. Only participants meeting the inclusion criteria were included, these were: 1) primigravida, pregnant women, 2) aged 18-24 years old, 3) speak and understand the Thai language fluently. Potential participants who were under 18 years old or over 24 years old were excluded from the study. To raise awareness about this study flyers were placed on notice boards in the antenatal clinic areas. The clinic midwife/staff approached potentially eligible women and provided information about the study. Potential participants who, after reading the flyers were interested in participation were asked to contact the researcher via email. The researcher then provided more information about the project, including information sheet (Appendix 8) and consent form (Appendix 9) and answered any questions the potential participant had. Once the women had agreed to participate by returning the signed consent form via email to the researcher, a convenient date and time was arranged for the interview.

Data collection

Semi-structured interviews were used to collect data from participants. The semi-structured interview is the method that allows the researcher to hear the participant's experiences by using an interview schedule of broad questions around the issue and ask probing questions (Parahoo, 2014c). The semi-structured interview has several benefits. It enables the exploration of the perceptions and opinions of participants regarding sensitive issues (Barriball & While, 1994). It also allows the interviewer to prepare and practice before the interview with participants (Robert Wood Johnson Foundation, 2008).

The data collection commenced following permission from the head nurse to recruit participants at the antenatal clinic. The researcher practiced interview techniques with her supervisors to evaluate her skills and find the gap of questions that should be addressed before conducting interviews with real participants. After finishing practicing interviews, the researcher rewrote the interview schedule to include probing questions.

The researcher used the interview script with open-ended questions and probing questions to guide the interview sessions. Ten (10) interviews via telephone were conducted with Thai young pregnant women who attended antenatal care at Ramathibodi Hospital between 14th September 2020 and 9th February 2021. All interviews were undertaken in Thai. The interview duration ranged between 20-30 minutes dependent on each participant discussion. Participants were asked open-ended questions about their experiences of using the antenatal care clinic, including their attitudes and beliefs during their engagement with antenatal care. After each interview session finished, the researcher reflected about what she did well and what could be improved for the next interview with the supervisors.

Each interview session was recorded by the audio record program in the researcher's telephone. The interviews were conducted by telephone call which requires the researcher to transcribe audio to text (Kazmer & Xie, 2008). The audio records allow the researcher to focus on the content that participants said during the interview time. Audio files were stored on the researcher's laptop that required a password to access, and on the University online secure drive that only the researcher and her supervisors could access.

The principal researcher transcribed all the recorded interviews. Audio files were transcribed verbatim in Thai language. The transcribing process aimed to find the essential contents in the interview session what each participant said. During transcription of the interview sessions, new

questions relating to specific issues emerged. The new emerging questions were covered in the next interviews. The researcher ensured that transcripts were correct by listening to the audio records to compare with the transcripts.

The translation process was undertaken by the principal researcher. All the transcripts were translated from Thai language to English, word by word. The translated transcripts were reviewed by a fellow Thai Master student at Flinders University to compare to the original Thai language version. This ensured the accuracy of the translation process from Thai to English.

Data analysis

Qualitative content analysis was used in this study. Qualitative content analysis is commonly used in a QD, and aims to identify themes and patterns of narrative data (Polit & Beck, 2012c). The researcher immersed herself in the translated transcripts and manually coded all data line-by-line, guided by supervisors. After coding the data, the researcher grouped them into broad categories, such as barriers and motivations to access antenatal care, perceptions of young pregnant women. The translated information was uploaded to the analytic software program: NVivo (version 12) for qualitative research. The transcripts were then sorted using NVivo along with memos which were documented to identify interesting aspects and emerging impressions to create themes (Nowell, Norris, White & Moules, 2017). Themes were checked and validated by the supervisors.

Limitations of study design

The QD provides the appropriate methods to explore experiences of young pregnant women towards attending antenatal care in Bangkok Thailand, there are a few limitations of this study designs.

Whilst the researcher has chosen the most appropriate methodology and attempted to interview a diverse range of young women, ultimately there may still be limitations regarding the generalisability of any findings in this small study.

The process of recruitment relied on clinical midwives. Midwives at antenatal care service in Ramathibodi Hospital had a high workload, compounded by a global pandemic. In reality there was only one midwife who volunteered to provide information about the project and recruit participants for the researcher. This method of recruitment may cause miscommunication between the recruiter and potential participants. Additionally, potential participants were

required to contact the researcher if they are willing to volunteer, which is likely to cause attrition. Therefore, it took longer than anticipated to finish the recruitment process.

The nature of a QD study involves listening to participants voices and developing interpretation from that evidence. The factors that related to the attendance of antenatal care in young pregnant women may represent only the participants' perspective. Other factors that may affect attendance may not be revealed by participants.

The interview sessions were conducted by phone call. The telephone interview has been identified as an effective method to collect data in qualitative approach (Novick, 2008). However, this method can cause disadvantages in the interpretation of the collected data. This is because the telephone interview cannot capture visual cues, such as facial expressions, gestures and body language (Novick, 2008; Opdenakker, 2006). According to Novick (2008) the absence of visual cues in telephone interviews can cause data loss or data distortion that could affect data quality. However, the telephone interview still provides some non-vocalised evidence including voice tone, which could help to provide emotional expression of participants (Opdenakker, 2006).

There are possible errors that could happened during the translation process. The researcher had to translate all transcripts from the interview sessions. The researcher is not a professional translator, therefore, some words that were translated may not completely represent the meaning that the participant said. However, the researcher managed this issue by adding an external person to review all the translated transcripts. According to Squires (2009) literature review about cross-language translation in qualitative research, the writer suggested the translation was validated by using a bilingual person, not involved with the data collection or initial translation. In the current study, the external person was a Thai student at Flinders University. She checked the accuracy of translation by reviewing the translated transcripts compared to the original Thai transcripts.

The researcher's previous clinical and theoretical experience may have influenced the interpretation of the findings. The researcher had been working as a clinical midwife at Ramathibodi Hospital, for two years, but had less experience in the research field. The researcher met the supervisors regularly to consult about how to interpret and analyse data effectively and reduce potential for bias.

Rigour

This particular research design is in the qualitative paradigm. According to Lincoln and Guba's framework, the rigour in a qualitative study is identified in various terms, such as credibility, dependability, confirmability, transferability, and authenticity (Guba & Lincoln, 1994; Polit & Beck, 2012d). The criteria used to enhance the rigor of this research project and ensure the trustworthiness will be explained below.

Credibility and Dependability

Credibility is confidence in the truth of the data and interpretation of the data for the particular participants and context (Polit & Beck, 2012d). Dependability is the reliability of the data over time and conditions. Credibility cannot be achieved without dependability (Polit & Beck, 2012d). To ensure the data and the findings are credible, it was important to gain trust from the participants by providing privacy for the interview and inform them that the experiences they shared would be kept confidential. Another strategy to ensure that the findings will draw from the participant's experiences, is reflexivity. The researcher reflects about the possible conflicts that would impact the data collection, analysis, and interpretation. The researcher thus provided information about her own personal life, background, values, and professional social identity to the participants, in order to mitigate these biases. For the comprehensiveness and accuracy of the data collection, the researcher used the audio recorder to record the interview rather than taking notes. The confirmability will be achieved by using the external reviewer (Thai Master's student at Flinders University) to check the accuracy of the transcription and translation. To enhance the credibility of the findings, the researcher consulted and updated the interpretation of the data with the supervisors who are the expert in qualitative research.

Transferability

Transferability is the potential for the extrapolation of the findings to other groups or settings (Polit & Beck, 2012d). To facilitate the transferability of the findings, the researcher describes the characteristics of the setting and participants completely. The definition of young pregnant women in this study is clearly explained and described in detail. Young pregnant women in this study are pregnant women aged 18-24 years old. The antenatal care service that is the selected setting is located in a tertiary hospital in the capital city of Thailand.

Conclusion

This chapter provides a comprehensive discussion about the study's methodology and methods. The ethics, and other, approvals were obtained before the data collection process commenced. The confidentiality and anonymity of participants were maintained, abiding by the ethical processes outlined. QD methodology was used to investigate young pregnant women's experiences during attendance at antenatal care. Semi-structured interviews via phone call were used to collect the data from participants. The limitations of the study design were presented. The strategies to achieve rigorous qualitative methods were discussed. The next chapter will present and discuss the findings of this study.

CHAPTER FOUR FINDINGS

Introduction

This chapter will present the findings from semi-structured interviews from ten Thai young pregnant women. The questions explored the factors that related to first time antenatal care visit and young pregnant women's experiences of utilising antenatal care services at Ramathibodi Hospital. The general characteristics of participants will be described. The main themes and sub-themes that emerged from these interviews will be explained and summarised.

Details about the interview session

The semi-structured interviews were conducted on the phone from Adelaide, Australia with participants in Thailand. Ten young pregnant women were interviewed using a semi-structured interview guide. The interviews were conducted in Thai language. Information about the project was explained to participants and written informed consent was acquired from participants prior to the interview. Verbal ongoing consent was gained before starting the interview sessions. The duration of the interviews ranged from 20-30 minutes.

Characteristics of participants.

Participants were aged between 18-24 years old. The average age of participants was 20.6 years old. Half of the participants finished vocational education and training; an upper secondary education, a part of Thailand education pathway for people who interested in practicing labour skills rather than study in the university (OECD, 2021). Vocational education is higher than high school level (Asian Educational Review Team, 2023). This course aim to develop skills to serve the labour force outside the university education (Rachel Michael, 2018). Four participants were currently high school students. One participant had graduated with a bachelor's degree. Most of the participants were employed. Thirty percent are students. Half the participants reported their first antenatal care later than 12 weeks of pregnancy. The information about participants is shown in the table below.

Table 1 Participants information

CASE NUMBER	AGE	HIGHEST EDUCATION LEVEL	OCCUPATIONS	GESTATIONAL AGE AT FIRST ANTENATAL CARE VISIT
1	21	High school	State enterprise employees	11 weeks
2	20	High Vocational Certificate	State enterprise employees	More than 12 weeks
3	18	High school	Student	2 months
4	22	High Vocational Certificate	Employee	10 weeks
5	22	Secondary school	Seamstress	14 weeks
6	19	High Vocational Certificate	Student	14 weeks and 6 days
7	24	Bachelor's degree.	Public servant	8 weeks
8	18	High Vocational Certificate	Student	9 weeks
9	19	High Vocational Certificate	Business owner	12 weeks
10	23	Secondary school	Gardener	20 weeks

Presentation of the findings

Five main themes emerged during the data analysis process including: factors influencing antenatal care attendance, barriers to attending antenatal care, perceptions of young pregnant women, experiences of using antenatal services, and service improvement. The emergent themes and sub-themes are shown in the appendix 10.

Factors influencing antenatal care attendance

Young pregnant women in this study shared common sub-themes regarding the factors which influence them to go for their first antenatal care visit. These were: concern about the baby's health; knowledge; influencer sources of information; perceived support; and service location.

Baby health awareness

Baby health awareness motivated young pregnant women to attend antenatal care. All participants revealed that concern about their baby's well-being made them decide to attend antenatal care.

For example, participant number 1, an officer worker with busy work schedule, explained her reason for attending antenatal care at 11 weeks' gestation.

"I knew that I have a baby when my gestational age was about 10 weeks, so I decided to attend antenatal care. I think if I visit antenatal care prior to that time, it might be good for myself. I would know that I am pregnant and aware of the hard working that may affect my baby's health."

[1]

Participant number 4, a 22-year-old woman working at a convenience store, shared her experiences of attending antenatal care for the first time. Her opinions reflected that she attended antenatal care because of her baby.

"It is because I am worried about my baby. Ahhh, I wanted to have a treatment just in case there is something happen to my baby or my baby has an abnormality. Then, I can make the right decision at the right time." [4]

She also shared her opinion about the importance of early attendance for antenatal care. She thought that it may give benefits for both maternal health and baby health.

"If the woman knows she is pregnant, she should go to the hospital to get treatment and immediately attend antenatal care. It is because it is good for women's health and baby health."
[4]

Participant number 9 also supported the notion that concern regarding the baby's health is a reason for young pregnant women to attend antenatal services. She suggested that other young pregnant women may think like her that the well-being of their baby is important for themselves and their baby.

"I want my baby to be safe. I wanted my baby to be cared for by doctors rather than doing nothing. If I am not attended antenatal care, I afraid that my baby will get some diseases." [9]

"I think it is because they are worried about their baby just like me. I am concerned about my baby health. I want my baby to be treated by healthcare providers. Let's say if we are early antenatal visit. It is even better for pregnant women and their baby." [9]

The remarks of participant number 5 show an association between concern about the baby's health and the decision to attend antenatal service. She perceived long distance as a difficulty to attending antenatal care, but she decided to go because she cares about her baby's health.

"Yes, it (the antenatal service) is far away even I take the expressway. But for my baby, I must go."
[5]

Participant number 5 also discusses the reasons that may cause young pregnant women to decide to attend antenatal service.

"She may worry that her pregnancy is normal or not. It has the quote that the mother is less important than the baby in the womb." [5]

Health knowledge

Study participants mentioned the association between knowledge and the decision to attend antenatal service in many aspects. The related knowledge was knowing about the benefits of antenatal care, pregnancy status, and possible complications during pregnancy. Knowing about the benefits of antenatal care was mentioned by seven of the ten participants in this study. The participants' responses reflected that one of the reasons that made them decide to visit antenatal care was their background knowledge about antenatal care benefits. For instance, participant

number 3 mentioned that the care provided at the antenatal service may help her to look after herself during pregnancy.

“Visiting antenatal care helps me know how to take care of myself during pregnancy. The doctors and midwives will give me some suggestion about what I should do or shouldn’t do during that time” [3]

Participant number 7 gave her opinion about the benefits of early visit antenatal service which related to her decision to attend antenatal care.

“I think it is okay if we know that we are pregnant, then go to visit antenatal care service. Early visit antenatal care makes pregnant women know about genetic disease such as thalassemia earlier. It makes pregnant women got an early health screening. It also makes pregnant women know about how to take care of themselves and their baby. There is something that pregnant women may not know or should be concerned such as vitamin for pregnant women. Doctors and midwives will give all of this information to pregnant women. In my opinion, if we delay the first time attending antenatal care, some problems will be too late to solve. On the other hand, if we attend antenatal care earlier, we will know how to manage and fix the problems.” [7]

Participant number 9 also explained the importance of antenatal care for young pregnant women.

“I think it is important. It is necessary because the doctor said that it can help pregnant women to nourish their baby. It can prevent some diseases that may happen to my baby. When we attend antenatal care early, our baby health’s will be checked by listening to the baby heart sound—something like that.” [9]

Knowing they were pregnant was one of the influencing factors that was shared by participants during the interview sessions. For example, participants 3, 6 and 8 all explained that they attended antenatal care because they knew about their pregnancy status.

“I knew that I was pregnant then I went to attend my first antenatal care” [3]

“I visited antenatal service when I knew that I am pregnant” [6]

“I knew that I was pregnant, so I went to visit antenatal care.” [8]

Participant number 4 suggested that young pregnant women should attend antenatal services early, as soon as they know they are pregnant. Emphasising that knowing about pregnancy status motivates young women to visit antenatal services early.

“If the woman knows she is pregnant, she should go to the hospital to get treatment and immediately attend antenatal care. It is because it is good for women’s health and baby health.” [4]

A comment from participant number 5 clearly stated the relationship between knowing about pregnancy and the timing of antenatal care attendance. This respondent mentioned that she waited until she was sure she was pregnant before deciding to visit antenatal care.

“At first, I did the urine pregnancy test, but the result was negative. Then I did the urine test again, it showed that I am pregnant. So, I decided to attend antenatal care.” [5]

Background knowledge about possible complications during pregnancy is an important motivator that drives young pregnant women to attend antenatal services. Many participants discussed the benefits of antenatal care in regards to finding complications during pregnancy.

“I was worried that my baby will have any problems or not. I wanted my baby to be healthy and strong.”... “I think it is okay if we know that we are pregnant, then go to visit antenatal care service. Early visit antenatal care makes pregnant women know about genetic disease such as thalassemia earlier.”... “On the other hand, if we attend antenatal care earlier, we will know how to manage and fix the problems.” [7]

“I was afraid of some disease and anomalies.” Participant case number 5 said. She also stated about screening complications as a benefit of visiting antenatal care. *“I think because it makes women know the well-being of the baby and the pregnancy status that it is normal or not.”*

Resources of Influence

Some participants mentioned that they visited the antenatal service in response to suggestions from influential sources. These included: doctors, family members, and the internet.

For example, participant number 5 pointed out that the doctor’s suggestion influenced her decision to attend antenatal care.

"It is....ummm, because the doctor recommends me, and I was afraid of some disease and anomalies." [5]

Another influential source was family members. Two participants mentioned that family members had expressed a desire for them to attend antenatal care. Participant number 3 stated that her uncle's suggestion motivated her to attend antenatal services.

" My uncle suggested me to go to attend antenatal care because his wife was pregnant before." [3]

Participant number 6 explained that she decided to visit antenatal care because of her husband's wishes.

"My husband wanted to check my health thoroughly, and Ramathibodi Hospital can check it better than other hospitals" [6]

Another example of influence source expressed by these participants was the internet. One participant shared that it was this source of information that influenced her timing to attend antenatal services. Participant number 2 who attended her first antenatal care visit at more than three months gestation stated about it was information from the internet that prompted her to attend. She explained her reason was because of information on the internet which suggested she visit antenatal care at two months of pregnancy.

"I visited antenatal care when my gestational age was about after three months of pregnancy.I waited until I was sure. I read some information on Google. It said that I should go to see the doctor when my gestational age is about two months" [2]

Perceived support

Support services from the government was mentioned as one of the influencing factors which related to first time antenatal care visit. One of the participants described her perception of health insurance in Thailand, which covers the expense of antenatal services. It made her suggest to other young pregnant women that they should attend antenatal care.

"I think if they can afford the antenatal care services, they should start attending antenatal care. This is because pregnant women can use the Universal Coverage Insurance to pay for antenatal care expenses. I believe that attending antenatal care is good for both young pregnant women and their baby." [6]

Location of the service

One participant mentioned convenience to access the antenatal services. She said that it is easy to travel to the antenatal service. In addition, the additional out of pocket expenses, for example screening for chromosomal abnormalities, of the antenatal care are affordable so, she decided to attend the antenatal care at two months of pregnancy.

“This is because it’s convenient for the next time that I will visit antenatal clinic. At first, I am thinking about attending antenatal care at another hospital, but I think it may take more time to go there. So, I choose this hospital.” She further explained why it is convenience for her. *“It is convenient because it is not far and not expensive”* [5]

Barriers to attending antenatal care

Participants discussed several factors that may delay the attendance of antenatal care in young pregnant women in Bangkok, Thailand. Factors inhibiting attendance were described by participants as: lack of education; unplanned or unwanted pregnancy; stigmatization from society; financial problems; and busy work schedule.

Lack of education

Lack of education was one of the barriers for young pregnant women to attend antenatal care, and was mentioned by participants in both direct and indirect ways.

The first issue discussed was lack of knowledge about pregnancy signs. For example, participant number 2, 20 years old and attended her first antenatal care visit at more than three months gestation. She stated that knowledge can affect the timing of first antenatal visit. She said that she needed to make sure that she was pregnant before deciding to visit antenatal services.

“I waited until I was sure about my pregnancy” [2]

“I think some women know about pregnancy status late because they don’t have knowledge, or they are not searching for information about pregnancy” [2]

The opinion from participant number 3 concurred that lack of education was related to delay in timing of first antenatal care visit.

“Some women don’t know that they are pregnant, so they will visit antenatal care when their pregnancy getting larger something like that.” [3]

Participant case number 10 revealed that the reason she did not attend antenatal care services until she was five months pregnant was knowing about her pregnancy status late. This participant stated that young pregnant women attend antenatal care late, because they do not realise they are pregnant.

"I knew that I was pregnant late. I went to antenatal care when my gestational age was 5 months." [10]

"Maybe it (late antenatal care attendance)" is because she doesn't want to have a baby. Or she is unsure about her pregnancy. She may think that it not necessary to attend antenatal care." [10]

Unplanned or unwanted pregnancy

The lack of intention to have a baby was one of the barriers for young pregnant women to access antenatal care. Several participants suggested that unplanned pregnancy was a reason for delaying seeking antenatal care. Several participants, including participant number 1, explained that other young pregnant women may delay the first time antenatal care visit because of unplanned pregnancy.

"Maybe the pregnancy is unplanned for the women that may affect her mind so, she decided not to attend antenatal care and rely on herself." [1]

The hesitation to attend antenatal care among young pregnant women was discussed by participant number 7. She explained that some young pregnant women are not expecting to be pregnant. This situation affects their decision to attend antenatal care.

"Some pregnant women may hesitate that they are ready to be a mother or not. So, they still can't decide whether to go for antenatal care or not. Or they should keep their baby or not." [7]

Financial problems

More than half of participants identified financial difficulty as a barrier for young pregnant women to attend antenatal care. Participants 1 and 8 both mentioned that expenses associated with attending antenatal care may not be affordable for young pregnant women.

"Maybe she has no money to afford antenatal care" [1]

"It is about family problems and financial problems that young pregnant women are not ready for." [8]

Participant number 6 also mentioned that young pregnant women may delay their first antenatal care visit because of financial problems.

“It (late antenatal care attendance) may be because of financial problems or family status that we cannot force them to visit antenatal care.” [6]

Stigma

Stigma from society was mentioned as another reason for delaying first antenatal care visit by participant number 9. This participant revealed her feelings and expectations before visiting antenatal care. She mentioned that she was afraid of being blamed by healthcare professionals because she was young and pregnant.

“I thought that I will be blamed because I am too young to be pregnant”..... “I was afraid that healthcare providers will see that I am no good”. [9]

In addition, the participant mentioned that she had to follow the social rule of marrying her boyfriend. Therefore, she attended antenatal care at three months of pregnancy.

“I did not attend antenatal care immediately after I knew that I was pregnant. It is because I have to marry my boyfriend first. After finished my wedding, I went to attend antenatal care. At that time, my pregnancy was more than 2 months.” [9]

Perceptions of young pregnant women

Young pregnant women in this study discussed their perceptions about pregnancy at a young age variably. Both positive and negative perceptions were found during the analysis process.

Positive attitudes and perceptions

Several participants expressed the positive attitudes toward being pregnant at young ages.

Some participants thought that being pregnant when young was a normal life situation.

Participant number 1 shared her opinion that young pregnancy was normal in her society.

“I think sometimes it is not too early to be pregnant at this age. In my village, it is normal that woman aged 17-18 years old are pregnant”. [1]

Participant number 3 supported the positive attitude of being pregnant at a young age. She revealed that being a young mother was normal for her.

"I don't have any specific thoughts about this topic (being pregnant at young age). I think at this age I am ready to have a child. So, I think there is no problem for me. It is normal for being pregnant at age 17-18 years old. No matter it is planned or unplanned pregnancy." [3]

Participant number 10 mentioned that 18-24 years old was a suitable time to be pregnant. She stated that it depended on each young pregnant woman's situation.

"It is not too early or too late to have a child at this age. It is a suitable time to have a baby if you are ready. I mean that if you have both a job and money to take care of yourselves and your baby." [10]

Some participants mentioned that it was not a problem to have baby when young if they were prepared to have a child. The young pregnant women's individual situations were presented in many interview sessions. The ability to take care of both themselves, whilst pregnant, and the baby, was mentioned by four of the ten participants. Participant number 2, who is aged 20 years, outlined this in her interview.

"I think there is no problem for the women well prepared and expected to have a child." [2]

Participant number 7 revealed her positive perception about the preparedness of young pregnant women.

"Women who are well-prepared to have a baby like my friends can look after themselves and their baby." [7]

Participant number 9 explained her situation and her confidence to take care of her baby.

Her interview showed that she has positive attitudes towards being pregnant at a young age because she thought that she had enough support.

"After talking to myself, I realized that it doesn't matter what age we get pregnant. The capability to take care of the baby is more important than age. Personally, I believe that I can handle my pregnancy, and I have the ability to take care of my baby. I have my own business, so it is easy for me to raise my child without difficulties." [9]

There is a positive view from participant number 4, who states she perceives pregnancy at a young age as an opportunity for her to learn from raising her child.

“Personally, I think having a baby at this age is not bad, because my baby and I will grow up together. I will understand my baby well.” [4]

Being pregnant at a young age was perceived as a change agent. One pregnant woman thought that being a young mother will make her more responsible in life.

“Some pregnant women I know are not ready to have a baby, but they can also take care of themselves well. Besides, they seem like they have more responsibility.” [7]

Negative attitudes and perceptions

Negative perceptions, such as being blamed by society, and lack of knowledge about how to look after themselves were presented by several participants. During the interview sessions, participants revealed their negative perceptions towards being pregnant at a young age, social stigma was mentioned in many interviews.

Participant number 9, who attended the antenatal service at three months of pregnancy, explained her anticipation about visiting antenatal care. She revealed that she felt afraid that she would be blamed by healthcare providers for being pregnant at young age. Her comments reflected that young pregnant women are still looked down upon in current Thai society.

“When I knew that I was pregnant, I started to be worried that other people will look at me in a bad way.” [9]

“I was afraid... I am afraid that doctors will blame me for being pregnant. ... I thought that I will be blamed because I am too young to be pregnant. I was afraid that healthcare providers will see that I am no good.” [9]

The opinions from participant number 2 supported the idea that there is a stigma associated with being pregnant at a young age within Thai society.

“However, for the unplanned pregnancy it might be burdens for pregnant women.”.... “Actually, I think we shouldn’t be pregnant at this age because we are not responsible enough to take care for a baby” [2]

Participant number 6 stated directly during her interview that being a young pregnant woman as a stigma.

“It (being pregnant at a young age) may be a mistake for today’s young people.” [6]

While participant number 4 shared her experiences of stigma of being pregnant at a young age, indirectly. The participant mentioned about not being judged from healthcare providers. This infers that being pregnant at a young age is usually seen as undesirable by people in this society.

“They (healthcare providers) did not make me feel bad. They did not judge me for being pregnant at a young age.” [4]

Participant number 1 shared the opinion that it is not appropriate to have a baby when young. *“I think it is quite too early to be pregnant at this age”.* [1]

Young pregnant women were perceived as not educated to take care of themselves and their baby. One participant shared her suggestion about adding a specific education class for young pregnant women. She was concerned about the lack of knowledge among young pregnant women.

“It is because some young pregnant women are too young or under 18 years old. They may not look after themselves and their baby correctly. Some of their behaviours may not be good for the baby.” [6]

“Normally, young people do not look after themselves well. They do not check up on their health. Maybe their body is not ready to have a baby so, they should go to visit antenatal services.” [6]

“We should advise about a changing process during pregnancy such as hormonal changes, the higher risks than normal women. These topics should be educated to young pregnant women because some young pregnant women may have emotional intensification or want to do abortion something like that.” [6]

Mixed positive and negative opinions

One participant discussed pregnancy whilst young in both positive and negative ways. She stated that people in society have different opinions about being pregnant at a young age.

“Some people think it is too early to have a baby at my age. Some people believe that it is good to be pregnant at this age.” [5]

Experiences of young pregnant women during their first antenatal care visit

Several of the young pregnant women in this study shared their positive experiences of their first time visit to antenatal services. Supportive healthcare providers were the most mentioned aspect

for the majority of participants. For instance, case 4 who is 22 years old explained that the staff at the antenatal service did not blame her for being pregnant and young.

“They are lovely. Their explanations were clear and easy to understand. They did not make me feel bad. They did not judge me for being pregnant at a young age, something like that.” [4]

Another example of supportive healthcare providers was mentioned by case 5, a 22 year old diagnosed with anaemia. She stated that she was calm and relaxed during her first antenatal appointment. This example shows the support from healthcare providers including emotional support.

“It is so good. Everything that the staff have done for me is good. I have nothing to complain about. When I first arrive at the clinic, they give me suggestions.”...“I was so stressed and nervous at first when I visit Bang Mod Hospital. When I go to visit antenatal care at Ramathibodi Hospital, I feel calm and relaxed. The staff at Ramathibodi Hospital told me not to worry about this situation. It has treatment to manage what I am worried about.” [5]

Negative experiences were also found in this study. Participant number 10 mentioned that the antenatal service was good for her, but she still perceived the barrier about the unclear processes, which prohibited her from getting the care that she wanted.

“The antenatal service was good.... but there is an unclear process. I need to find out which parts of the hospital I should go to by asking the information service.” [10]

“They provided pretty good care...but my healthcare insurance is Universal Coverage Insurance. It is not 100 per cent good. For example, when I told the doctor that I had leukorrhea, I did not get any medicine”. [10]

Service improvements

Some participants suggested that the antenatal services should improve in some areas in order to make it more appropriate for younger pregnant Thai women. The features that should be added included, increasing continuity of care, enhancing partner participation and adding specific education classes for young pregnant women.

Increasing continuity of care

Case 7 felt that continuity of care in the antenatal services should be improved. This participant suggested that using one healthcare professional to provide all care from the antepartum to intrapartum would benefit young pregnant women.

“In some hospitals, only one doctor has the responsibility to take care of pregnant women from the first time to labour time. Personally, I think this is better than changing doctors every antenatal care visit. It is because it has more continuity, the doctor knows everything about the pregnant history.” [7]

Enhancing partner participation

One participant recommends improving the service by allowing husbands to see the doctors with the young pregnant women. Within current antenatal services, pregnant women see the doctor alone at every antenatal care visit. Participant number 7 stated that partner engagement is important for emotional support for young pregnant women.

“In my opinion, a partner has the right to see the doctor together with pregnant women. I want to have my partner with me when I see the doctor. He is a father. He wants to know how to take care of our baby. He also wants to know about our baby’s development. If he can see the doctor with me, my partner will see how our baby grow up when the doctor ultrasound my tummy. I want my partner to see the doctors because I feel more comfortable when he is with me. Besides, he can help me listen to the doctor’s suggestions about taking care of our baby.” [7]

Specific education class

Participant number 10 suggested that a specific education class for labour preparation is needed for young pregnant women.

“The part that should be improved is the precise explanation for the flow of the antenatal service. Also, I think the antenatal service should teach about how to prepare ourselves for labour time and the process of antenatal care in each visit.” [10]

This chapter presented the findings from the interview sessions with ten Thai young pregnant women. The findings presented revealed factors relating to antenatal care attendance of young pregnant women aged 18-24 years old. The main themes which emerged from the data analysis process are barriers and facilitators to accessing antenatal care, perceptions and experiences of young pregnant women accessing antenatal care, and service improvement. The next chapter will

discuss these findings in relation to previous evidence within the literature, applicable to the midwifery context.

CHAPTER FIVE DISCUSSION OF THE FINDINGS

Introduction

This chapter will present a discussion of the findings and their relationship to the current literature base. The findings will be discussed with recent literature related to midwifery practice context. Limitations of the study and their impacts on the findings will be explained. In addition, the recommendations for midwifery practice and further studies will be described.

Summary of the results

As reported in chapter four, emergent themes from the data analyses were: factors influencing antenatal care attendance, barriers to attending antenatal care, perceptions of young pregnant women in Thailand, experiences during utilising antenatal care, and service improvements. The sub-themes regarding factors that motivated young pregnant women to attend antenatal care in accordance with the WHO's recommendations were: health knowledge; baby health awareness; influential sources; perceived support; and location of the services.

The second main theme was barriers to attend antenatal care. Sub-themes included: lack of education; unplanned or unwanted pregnancy; financial problems; and stigma. Perceptions of young pregnant women regarding antenatal care was the third main theme that emerged during the data analysis process. Sub-themes under this main theme are: positive attitudes and perceptions; negative attitudes and perceptions; and mixed of positive and negative opinions. The fourth main theme was experiences of young pregnant women of using the antenatal services. Participants explained their experiences in several aspects. The experiences of participants were categorized into 2 sub-themes which were, positive experiences and negative experiences. The last main theme was service improvements. Participants suggested improving the antenatal services by increasing continuity of care, husband participation, and specific education class would improve attendance by this group of women.

Discussion of the results

This section will compare the findings from this project and the findings from the literature review in chapter two and current articles in midwifery practice.

Factors influence antenatal care attendance

Health knowledge

The findings from this study show that participant's health knowledge is associated with attendance at antenatal services. Knowledge associated with early and continued attendance includes the benefits of antenatal services, pregnancy signs and symptoms, and pregnancy complications.

The results showed that all participants in this study are educated. They graduated from high school level at least. Similarly, previous studies in the literature have reported that educational level is a key factor associated with attendance at antenatal care among young pregnant women (Chikalipo et al.,2018; Raru, Ayana, Zakaria, & Merga, 2022). Chikalipo et al (2018) in their qualitative study demonstrated that young pregnant women with low educational attainment tend to initiate antenatal care later than other young pregnant women (Chikalipo et al.,2018).

Additionally, the knowledge about antenatal care benefits affects pregnant women's decision to attend antenatal care. The participants in this study stated that they attended antenatal care because they believed that antenatal care helped them to look after themselves during pregnancy. Sialubanje et al. (2014), and Singh et al. (2014) studies also mentioned that knowing about the benefits of antenatal care drives young pregnant women to attend antenatal care services. Also, antenatal care will help prevent them from having severe pregnancy complications. Latunji and Akinyemi (2018), concur, their study illustrated that health care-seeking behaviours are related to individuals' basic education. Even though the sources of knowledge about the benefits of antenatal care were not directly mentioned by the participants in this study. There is evidence that young people tend to search for information about what they want to know via the internet (Tortermvasan, 2022). Similarly, the participant in this present study mentioned that she was searching for information about the timing to start attending antenatal care.

Knowing about pregnancy signs and symptoms was mentioned by several participants in this study. It was the main reason for the timing of attending antenatal care. These findings were not reported in the studies included in the literature review. In their study, undertaken outside the time lines for included literature, Daniels, Noe, and Mayberry (2006) demonstrated an association between knowledge of pregnancy signs and the timing of attending antenatal care. It revealed that pregnant women who knew about pregnancy signs tended to visit antenatal care services earlier than others. Knowing about pregnancy status may lead to the decision to start attending

antenatal care, because women know they will become a mother and are aware of their health and their baby's health. These links to the next sub-theme which is the awareness of baby health conditions.

Regarding to the Health Belief Model, the individual's perceptions of the severity of disease affect health behaviour performance (Etheridge, Sinyard, & Brindle, 2023). Knowledge about possible pregnancy complications was related to seeking health care behaviours among pregnant women (Mwilike et al., 2018; Solomon, Amanta, Chirkose, & Badi, 2015). Mwilike et al. (2018) reported that perceived severity of pregnancy complications drives pregnant women to seek antenatal care. Solomon et al. (2015) explained that pregnant women with knowledge about pregnancy complications tended to seek antenatal care services in order to solve problems. Mwilike et al, (2018) and Solomon et al., (2015) report similar findings. Young pregnant women in the current study mentioned the reasons they decided to start antenatal care visit was because they wanted to prevent pregnancy complications.

Baby health's awareness

The finding from this study demonstrates that awareness of baby's health is linked to the decision to attend antenatal care. More than half of participants explained the reason they started attending antenatal care was concern about their baby's health. Regarding participants experiences, young pregnant women saw antenatal care as an opportunity to check their baby's health conditions. Previous studies have indicated the number of antenatal care visits can be reduced. However, pregnant women, especially young pregnant women, prefer to attend antenatal care more than government's suggestion because they want to ensure their baby is healthy (Mathole, Lindmark, Majoko, & Ahlberg, 2004). This theme could link to the knowledge about antenatal care benefit and possible complications during pregnancy. When pregnant women knew the benefits of antenatal care, they will value it as a solution to prevent complications during pregnancy. Therefore, pregnant women choose to attend antenatal care more.

Apart from baby health, the participants were concerned about the health of their baby after birth. Antenatal care should provide education about taking care of a newborn, as outlined by Ademuyiwa et al. (2021). The study stated that pregnant women have awareness of not only their health, but also baby's health at postpartum period (Ademuyiwa et al., 2021).

Influential sources

The results from this study indicate how sources, such as the internet, partner, and people around young pregnant women influence their decision to start attending antenatal care. Some participants were advised to attend antenatal care by their families and/or friends. This confirms that this patient group are strongly influenced by the opinions of other people. For example, one participant mentioned that relatives who had experienced having baby told her to attend antenatal care. Another said that her partner told her to go to antenatal care. Therefore, family and partners play an important role in this situation. These findings concur with those of Upadhyay and colleagues (2014) (Upadhyay, Liabsuetrakul, Shrestha, & Pradhan, 2014). Upadhyay et al. (2014) research revealed that the decision to attend antenatal care among young pregnant women was influenced by the husband. This finding was found in this present research, one of the participants mentioned that she decided to attend antenatal care and change the hospital because her husband wanted to make sure that her pregnancy was safe.

In contrast, influential family's perspectives have also been negatively associated with the utilisation of antenatal care among young pregnant women (Sialubanje et al., 2014) especially in cultures that usually live with the extended family (Ganle et al., 2015; Zhang, Xue, Wang, Zhang, & Liang, 2016). Pregnant women, living in multigenerational, extended families, are less likely to visit antenatal care compared to those living in nuclear families (Zhang et al., 2016).

Social media also influences young pregnant women to start attending antenatal care. One participant stated that searching information from the internet about antenatal care empowered her to access antenatal care visit. This result concurs with the findings from Chikalipo et. al (2018). The impact of social media on lifestyle choices and health related decisions is broad and well documented in the literature (Kanchan & Gaidhane, 2023). Several studies have concluded that exposure to mass media may persuade and stimulate pregnant women to attend antenatal care (Acharya, Khanal, Singh, Adhikari, & Gautam, 2015; Chikalipo et al., 2018; Simkhada, Teijlingen, Porter, & Simkhada, 2008). In developing countries, systematic reviews have shown that social media affects the utilisation of antenatal care (Achaya et al., 2015; Simkhada et al., 2008) and significantly impacts antenatal care promotion (Acharya et al., 2015).

Perceived support

The results from this study demonstrated that the young pregnant women's perceptions of support from family and government influence their decisions to attend antenatal care. One

participant mentioned that government support may help Thai young pregnant women receive appropriate antenatal care. She perceived the Thai government's financial commitment to the health system, through Universal Coverage Insurance ensuring all maternity care is freely available to all women is beneficial, and promotes the importance of antenatal care for young pregnant women.

Aboagye et al. (2022) expressed similar results, reporting that pregnant women with health insurance, tend to start antenatal care earlier than other pregnant women (Aboagye et al., 2022).

In addition, Ochako et al. (2011) and Singh et al. (2014) also reported that women with financial support from their family attended antenatal care early. Conversely, women with poor financial support visited antenatal care later than the WHO recommendations suggest.

The results from a qualitative study in Tanzania demonstrated that lack of support from family and husband was associated with delayed access to antenatal care (Gross, Alba, Glass, Schellenberg, & Obrist, 2012). This study also highlighted the negative impact of lack of social and financial support (Gross et al., 2012). Social support, especially from husband and families, affected the woman's decision to attend antenatal care. According to Nisingizwe, Tuyisenge, Hategeka, and Karim (2020), pregnant women who perceive financial burden on paying for treatment tend to have less appropriate antenatal care visit.

Location of the services

The distance from place of residence to the antenatal service provider, was mentioned by one participant in this study. She stated that even though the service is located far from her residence, requiring complex travel arrangements, she decided to attend antenatal care. Kyei, Campbell, and Gabrysch (2012) reported that distance from antenatal services was not significantly associated with gestation at commencement of antenatal care attendance. This may be due to accessibility of transportation. In this present study, most of participants lived in urban Bangkok, the capital city of Thailand. Therefore, the transportation systems in Bangkok may be better than those experienced in other studies which recruited participants from more rural, or less densely populated areas. Indeed, in their study, Tadesse (2020) reported that lack of transportation was associated with increased risk of non-attendance for antenatal care. Studies by Ochako et al. (2011), Sialubanje et al. (2014) and Singh et al. (2014) all reported that long distances from the antenatal services was a significant barrier that prevented young pregnant women from attending antenatal care. Other studies in developing countries also mentioned that location of antenatal

care services was a significant obstacle for pregnant women to start attending antenatal care (Mubyazi et al., 2010; Rajendra, Andy, & Colin, 2013; Steinbrook et al., 2021). Mubyazi et al. (2010) explained that traveling long distances to antenatal care services prohibited pregnant women from seeking antenatal care because it was time consuming, expensive and disrupted their daily routines.

Barriers to attend antenatal care

In addition to the barriers outlined above including family influences, financial constraints and distances to services, several others were identified by participants during the interview sessions. These included, lack of health education regarding signs and symptoms of pregnancy, unplanned or unwanted pregnancy, financial hardship, and perceived or experienced stigma.

Lack of education

In this present study, the lack of education was identified as a barrier for young pregnant to attend antenatal care. There are several issues around pregnancy that were misunderstood by the young pregnant women who participated. For instance, several participants reported they delayed antenatal care attendance because they did not realise they were pregnant.

Even though, most of participants had finished secondary school education, some presented at antenatal care services later than 12 weeks gestation. This indicated that despite a level of education many of the young women in this study were unaware of pregnancy signs and symptoms, which led them to refer for antenatal care at the end of the first, or in the second trimester. This raises questions about how reproductive health and childbirth are taught in Thailand. This issue was highlighted in Kumruangrit and Srijundee (2022) study, these authors reported reproductive health education in Thailand is didactic, one way communication, with no participatory component which leads to the students being unable to apply the information to real life practices. The curriculum needs updating to include early education about pregnancy signs and symptoms. The findings from another study purported that health literacy is associated with health care seeking behaviors. Health literacy is important to empower pregnant women to hear, understand and assimilate information about themselves and their infants health during pregnancy and beyond (Meldgaard et al., 2022). Ochako et al. (2011) and Singh et al. (2014) studies demonstrated that educational attainment was one of the demographic factors related to late antenatal care attendance in young pregnant women. However, there is some possibility that

the late antenatal care attendance among young pregnant women is related to the denial from social, and stigma that may make them decided to prolong the attendance of antenatal care.

Unplanned or unwanted pregnancy

Young pregnant women in this study stated that an unplanned or unwanted pregnancy may lead to deferring attendance for antenatal care. One participant suggested that unintended pregnancy was likely to affect the mental health of the woman, which could lead to non-attendance or delayed attendance for antenatal care. Another participant stated that being pregnant at a young age may affect their decision to continue with the pregnancy, as sometimes they are not ready to have baby. A period of uncertainty regarding continuation or termination of the pregnancy may lead to delay in seeking antenatal care. These findings are novel, having not previously been reported as a barrier to accessing antenatal care in developing countries. This might be due to societal norms, cultural acceptability, and local, regional or national laws in developing countries. For instance, in Thailand, prior to February 2021, it was illegal to terminate an unplanned pregnancy (Chinthakanan, Rochat, Morakote, & Chaovitseree, 2014; Library of Congress, 2021). Strict laws around termination of pregnancy may be reflected in a paucity of data in the literature about unplanned pregnancies and antenatal care utilization prior to 2021. Recently, there have been several reports about the effect of unplanned or unwanted pregnancies in several countries. One reported that pregnant women with unplanned pregnancy tend to visit antenatal care services later than those with a planned pregnancy (Ochako & Gichuhi, 2016). A subsequent study by Abame and colleagues (2019), concurred, reporting that those with an unplanned pregnancy are poor attenders for antenatal care (Abame et al., 2019). A qualitative study in Kenya explored the negative effects of unplanned pregnancy, which included being ostracized by the community which led pregnant women to seek abortion, rather than continue pregnancy (Jayaweera, Ngui, Hall, & Gerds, 2018).

Financial insecurities

The findings from this study reflect the opinions of participants that financial constraints may delay or prevent other young pregnant women from attending antenatal care. These findings are similar to those of Ochako et al. (2011) and Singh et al. (2014). Both reported poverty as a barrier for young pregnant women to start utilising antenatal care services.

Although the Universal Coverage Insurance covers all antenatal care for Thai citizens (Seo, 2017), there are the out of pocket expenses that pregnant women must pay. This includes, ultrasound,

and extra tests, for example screening for chromosomal abnormalities. Statistics show that these out of pocket expenses for Thai pregnant women make up 33% of all health expenditure (Mongkolchat, 2018). Extra charges have been identified as a barrier to attending antenatal care in many studies (Danilovich & Yessaliyeva, 2014; Ouédraogo et al., 2021; Wilunda et al., 2017).

The results from Basaza et al., (2020) revealed that financial difficulty in a family is an obstacle for pregnant women to start attending antenatal care in accordance with WHO recommendations. Young pregnant women are normally financially reliant on their family, such as husband, parents, and in-law (Shibre & Mekonnen, 2019; Wilunda et al., 2017). Therefore, it has been reported that young pregnant women have to wait until their family can afford their antenatal care (Basaza et al., 2020)

Stigma Social stigma about being young pregnant women in Thai culture

The findings from this study indicate that being pregnant at a young age in Thailand still incurs stigmatization from society. Young pregnant women themselves are aware of this and several raised this as an issue. In addition, they also anticipated a negative attitude towards them from healthcare providers at antenatal care service. Therefore, social stigma associated with being pregnant at a young age was a significant barrier that caused delay in accessing antenatal care for the young pregnant women in this study.

Stigma has been identified as problematic previously in the literature. Bwalya and colleagues reported that young pregnant women experienced disrespect from older pregnant women while accessing antenatal care services. Atuyambe et.al (2008) found that being pregnant at a young age often caused rejection from the family, and caused young women to leave education, with inherent negative impacts on future life opportunities. It This is because pregnancy at young age is poorly accepted in some cultural and societal contexts. Furthermore, Basaza et al., (2020) demonstrated that young pregnant women felt being stigmatised during antenatal care appointments. Sychareun et al., (2018) reported that young pregnant women experienced uncomfortable relationships with healthcare providers. This was particularly apparent when the young women were unmarried, and they reported being blamed for being pregnant by healthcare providers (Sychareun et al., 2018). Kitiyodom's study in Thailand showed the same results (Kitiyodom, 2015).

Therefore, the results of the current study are understandable as they concur with these earlier findings, especially given the study was undertaken in a similar location. Thailand is a developing

country with the social norm that women should marry before pregnancy. Maternity services are established to meet the needs of older, married women. The longstanding attitude that young women are not prepared for motherhood remains prevalent.

Perceptions of young pregnant women

Positive attitudes and perceptions

Positive attitudes were expressed by the respondents in this present study. Several participants reflected on their own positive attitude towards being pregnant at a young age. Some young pregnant women stated that pregnancy at a young age was normal, in their opinion and social context. Although early parenthood might be challenging at times, they felt positive about being a mother at this age. These positive attitudes were not reported in other studies identified in the literature review. Most of the findings in previous articles stated that young pregnant women perceived pregnancy negatively. These differences may be due to cultural contexts and beliefs, which have changed over the time, despite restricting the literature used to the past decade, this may be indicative of the speed of social change. As a result, young women in Thailand may feel more confident that they can look after themselves and their offspring than previous generations.

Experiences of young pregnant women during the first-time antenatal care visit

This study reports that the majority of participants experienced positive interactions during antenatal care visits. They stated that healthcare professionals that made them feel comfortable and respected, whilst using the service. These findings conflict with the results from a previous study. Bwalya et al., (2018) who reported negative experiences of young pregnant women utilising antenatal care, where they felt they were blamed for being pregnant at a young age, differentiated from other pregnant women, and treated disrespectfully by healthcare providers. This difference may be attributable to the location, with attitudes and expectations in Zambia being different from those within the Thai context.

Limitations

This research aimed to understand young pregnant women's experiences and perceptions of attending the antenatal care clinic in Bangkok, Thailand. The findings present the young pregnant women's voices directly. However, there are some limitations of this research.

Firstly, the age range of included participants did not cover all young people. Participants in this study were young pregnant women aged 18- 24 years old. According to WHO, being pregnant at a

young age is called adolescent or teenage pregnancy. Adolescent pregnancy is defined as pregnant women aged 10 to 19 (World Health Organization, 2022). Firstly, the researcher aimed to investigate the experience of teenage pregnancy. Due to the limited schedule and ethical considerations, the researcher decided to recruit participants aged 18-24 years old. These participants are still in the aged range of teenage pregnancy. Moreover, these participants are young people aged 15 to 24 years old, as WHO and UNESCO define (Assembly, 1989; World Health Organization, 2023). Therefore, there may be some groups of young pregnant women that would reflect the experience of accessing antenatal care differently.

The findings from this qualitative study present several aspects of young pregnant women in the Thai context. However, the present study is small and therefore the findings may not be generalisable for other young pregnant women in Bangkok, Thailand.

The interviews were conducted in the Thai language. After transcribing each interview, the transcripts were translated into the English language. This could be disadvantageous in terms of the data collection method, in terms of translation error, that could affect the interpretation of the findings. The researcher aimed to ameliorate the impact of this by employing the skills of a fellow Thai student with competent English to check and correct, as needed, the translated transcripts.

Thai young pregnant women are normally quiet and shy. These characteristics make it difficult to explore deeply the sensitive issues of interest. In addition, the duration of each interview was relatively short, and interviews were undertaken via the telephone, which made non-verbal cues difficult to assess. Therefore, this situation could have affected the quality of information. This impact of this was mitigated by the researcher being Thai with extensive experience of working with the population of interest.

Some factors that affect the decision of young pregnant women to attend antenatal care are not collected in this study including sex education and financial status. First, sexual health education could affect the knowledge of young pregnant women. In Thailand, sex education is taught as part of high school education (Center of Health Policy Studies, 2016). Therefore, most young people in Thailand are educated about sex education focusing on pregnancy prevention, contraception, and safe sex (Kay, Jones, & Jantaraweragul, 2010). These topics are not covered in the knowledge about the benefits of antenatal care services. The financial status of participants is not collected in

this study because antenatal care is provided as a free service for Thai women (National Health Security Office, 2022).

Other issues which compounded this study included the impact of the COVID-19 pandemic. It is highly likely that this global event impacted the choices and experiences of the target population regarding antenatal care, but this was not investigated in this study.

Recommendations for future research or intervention

Recommendations for midwifery practice

1. Integrating the needs of young pregnant women and their partners in the current antenatal care services. The findings from this present study demonstrated factors which related to antenatal care attendance of Thai young pregnant women. The needs of young pregnant women were suggested by the women themselves, and included education, empathetic and supportive care from non-judgemental staff, in continuity models where partners are permitted to attend. Therefore, using these findings to create, modify or improve antenatal services to better meet the needs of this vulnerable population will benefit young pregnant women, their partners and families and healthcare services. The improved services should consist of several feature such as social, emotional, and financial support.
2. Young people in Thailand need to be educated as to the benefits of timely antenatal care. Given the expressed influence of family members, educating men as well as women in this regard is important. Early antenatal care is associated with important positive pregnancy outcomes, including decreased Maternal Mortality Rate and prevention of some complications for mother and fetus. Early attendance is important for both pregnant women and healthcare providers. The present study found health knowledge was an influencing factor for early antenatal care visit. Therefore, providing knowledge for young women that inspires early and regular attendance may help midwives to prevent possible adverse pregnancy outcomes in young pregnant women. Promoting health education about the importance of early attendance at antenatal care via online sources, such as the internet and social media would help midwives reach a wide range of young women. This could create an effective communication way to convey with young people comprehensively.

3. Increased healthcare professionals awareness of the needs of young pregnant women. The understanding and perceptions of healthcare workers affects the quality of care that patients receive (Hall et al., 2015; Islam et al.,2015). The literature clearly identifies the link between of healthcare providers knowledge and their associated behaviours. Greater understanding of young pregnant women's needs may cause positive attitudes about young pregnant women in healthcare professional. This leads to the decrease of implicit bias between healthcare professionals and young pregnant women. As a result, the quality of care which young pregnant women will received in the future will be improved.
4. Specific guidelines for antenatal care in young pregnant women should be developed in collaboration with stakeholders, including young pregnant women and their families. The direct voice from young pregnant women and their families may reflect the specific needs for the services, leading to friendly antenatal care services for young women. In addition, young pregnancy is a sensitive situation that requires collaboration from many healthcare professionals including midwives, obstetricians, doctors, and social workers to look after young pregnant women in holistic care. Therefore, listening to the stakeholders who work in the services may help to understand the pitfalls in different aspects. The stakeholders' opinions are beneficial for improving the antenatal care services for young pregnant women. Not only create suitable guidelines for young pregnant women, but the collaborations between healthcare professionals would create the guidelines that are practical for healthcare providers. These should have a multidisciplinary focus, enhancing collaboration between midwives and other health and social care providers.
5. Promote further research in this area to improve pregnancy outcomes for women who embark on pregnancy at a young age and their babies.

Recommendations for further research

1. The study was conducted among young pregnant women aged 18-24 years old. According to WHO definition, young people are the people whose age 13-24 years old. Expanding potential participants to the include those within the WHO definition age range would better enable researchers to understand young women's behaviours and experiences.
2. Using other qualitative methodologies to further explore the depth and breadth of young pregnant women's experiences of antenatal services in other provinces of Thailand.

Qualitative methods, such as phenomenology may allow researchers to find other reasons behind the late antenatal care attendance in young pregnant women.

3. The perspective of healthcare professionals should be explored. The study of both pregnant women and healthcare providers is required because it may provide influence factors and barriers to attend antenatal care comprehensively.
4. Conducting quantitative studies would help researchers to understand young pregnant women within the context of the overall antenatal population. In addition, findings from quantitative research might be more generaliseable than this present study.

This particular research aims to explore young pregnant women's experiences while attending the antenatal care service in Bangkok, Thailand to find the factors that are related to the decision to start visiting the antenatal care. This project revealed that various factors are the motivation for young pregnant women to start attending antenatal care including health knowledge; baby health awareness; influential sources; perceived support; and the location of the services. The barriers to attending antenatal care for young pregnant women are lack of education; unplanned or unwanted pregnancy; financial problems; and stigma. Being pregnant at a young age is perceived as various aspects such as positive attitudes and perceptions; negative attitudes and perceptions; and mixed of positive and negative opinions. In addition, this project revealed young pregnant women had both positive and negative experiences while visiting the antenatal care service. The main improvements that were mentioned by the participants were increasing continuity of care, husband participation, and specific education classes would improve attendance by this group of women. However, this study also had limitations in the methodology and generalization of the findings. There is still a gap of knowledge about the attendance of antenatal care among young pregnant women that should be explored in order to understand and provide appropriate care for young pregnant women.

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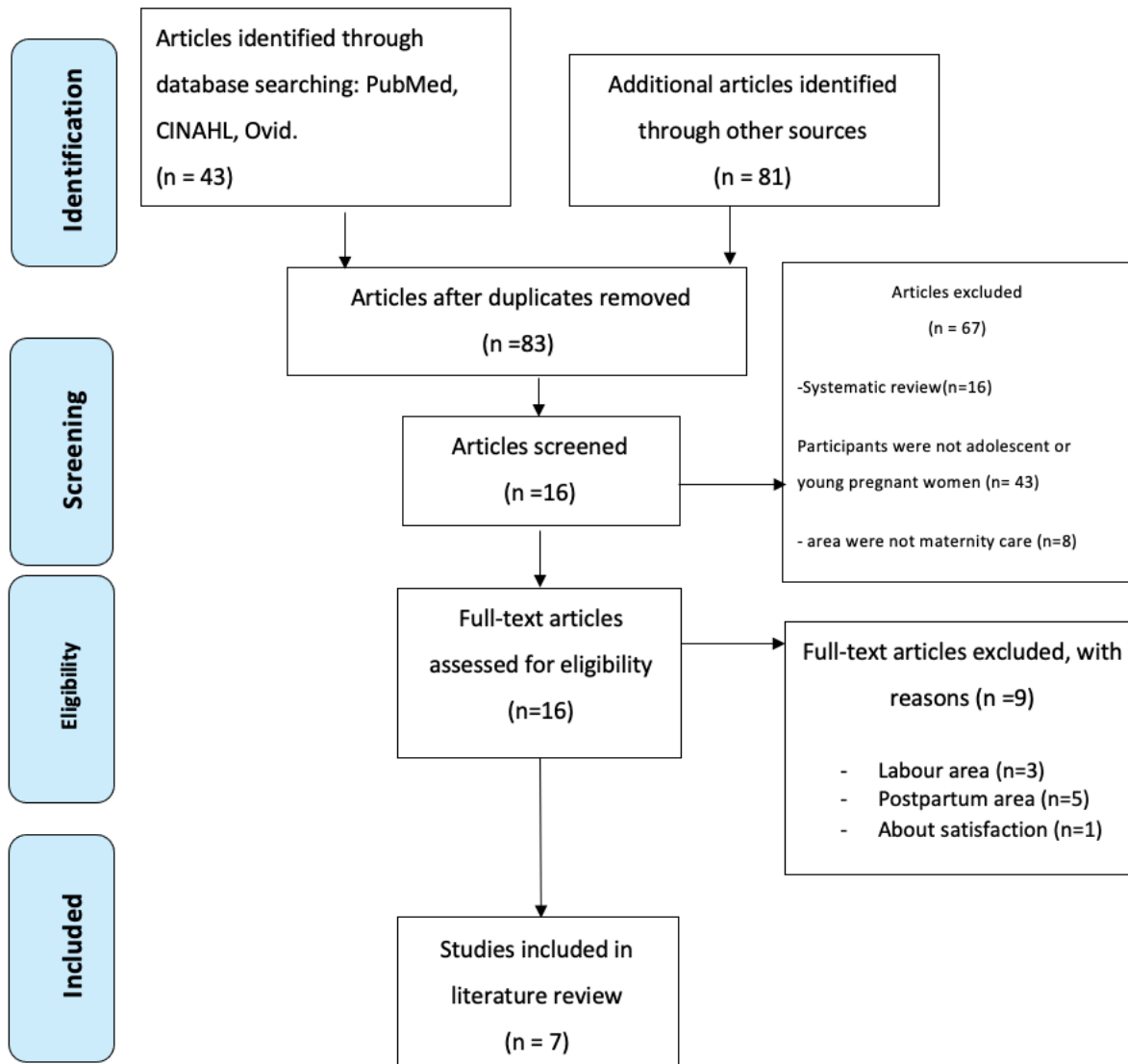
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APPENDICES

Appendix 1: Inclusion and exclusion criteria table

Inclusion criteria	Exclusion criteria
Primary research articles	The systematic review, meta-analysis
Content about adolescent pregnancy or young pregnancy	Content about adult pregnant women
Content about utilisation ANC	Content about other maternity care; delivery, postpartum
Setting in the article is in low resource setting.	The research was conducted in developed countries
Published in 2014-2019	Publish more than five years
Published in the English language	Published in other languages

Appendix 2: PRISMA chart showing the process of identifying included articles for literature review



Appendix 3: Tabulated themes discovered from the literature

Themes	Sub-themes	Article number	References
Stigma	Stigmatise from community	1,8	Atuyambe et al., 2008; Sychareun et al., 2018
	Stigmatise from other service users	2,9	Basaza, Mawerere, & Namusana, 2020; Bwalya, Sitali, Baboo, & Zulu, 2018
	Stigmatise from family	4	Kitiyodom, 2015
	Quit the school	1,4	Atuyambe et al., 2008; Kitiyodom, 2015
Demographic factors	Region of residence	5,6,7	Ochako, Fotso, Ikamari, & Khasakhala, 2011; Sialubanje, Massar, Hamer, & Ruiters, 2014; Singh, Kumar, & Pranjali, 2014
	Economic status of family	5,7,9	Basaza, Mawerere, & Namusana, 2020; Ochako, Fotso, Ikamari, & Khasakhala, 2011; Singh, Kumar, & Pranjali, 2014
	Education level of pregnant women	5,7	Ochako, Fotso, Ikamari, & Khasakhala, 2011; Singh, Kumar, & Pranjali, 2014
Attitudes and belief	Negative attitudes of pregnant women on nurses	6,8	Sialubanje, Massar, Hamer, & Ruiters, 2014; Sychareun et al., 2018

Themes	Sub-themes	Article number	References
	Negative attitudes on the quality of health services	6	Sialubanje, Massar, Hamer, & Ruiters, 2014
	Belief of influence person	6,8,9	Basaza, Mawerere, & Namusana, 2020; Sialubanje, Massar, Hamer, & Ruiters, 2014; Sychareun et al., 2018
	Positive attitudes	9	Basaza, Mawerere, & Namusana, 2020
Relationships	Relationships between health care providers and pregnant women	2,8	Bwalya, Sitali, Baboo, & Zulu, 2018; Sychareun et al., 2018
	Relationships among health care service users	2,9	Basaza, Mawerere, & Namusana, 2020; Bwalya, Sitali, Baboo, & Zulu, 2018
Knowledge and perceptions	Benefits of ANC	3,6,7,8,9	Basaza, Mawerere, & Namusana, 2020; Chikalipo, Mipando, Ngalande, Muheriwa, & Kafulafula, 2018; Sialubanje, Massar, Hamer, & Ruiters, 2014; Singh, Kumar, & Pranjali, 2014; Sychareun et al., 2018

Themes	Sub-themes	Article number	References
	Facilities of health care services	2,3,9	Basaza, Mawerere, & Namusana, 2020; Bwalya, Sitali, Baboo, & Zulu, 2018; Chikalipo, Mipando, Ngalande, Muheriwa, & Kafulafula, 2018

Appendix 4 Critical appraisal of Qualitative Studies Included for Review

Author and Date	Q1 Was there a clear statement of the aim of the research?	Q2 Is a qualitative methodology appropriate?	Q3 Was the research design appropriate to address the aims of the research?	Q4 Was the recruitment strategy appropriate to the aims of the research?	Q5 Were the data collected in the way that addressed the research issue?	Q6 Has the relationship between the researcher and participants been adequately considered?	Q7 Have ethical issues been taken into consideration?	Q8 Was the data analysis sufficiently rigorous?	Q9 Is there a clear statement of findings?	Q10 How valuable is the research?
Bwalya, Sitali, Baboo, & Zulu, 2018	Y	Y	Y	Y	?	?	Y	?	Y	Y
Chikalipo, Mipando, Ngalande, Muheriwa, & Kafulafula, 2018	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sialubanje, Massar, Hamer, & Ruiters, 2014	Y	Y	?	Y	Y	Y	Y	Y	Y	Y

Appendix 5 Critical appraisal of Quantitative Studies Included for Review

Author and Date	Q1 – were the aims/objectives of the study clear?	Q2 – Was the study design appropriate for the stated aims?	Q3 -Were sample statistically appropriate for study and represented the population?	Q4 – Were outcome variables measured appropriate to the aim of the study and using correct instruments?	Q5 –Were the methods justified?	Q6-Were the researcher use appropriate statistical analysis?	Q7 - Were the results internally consistent?	Q8 - Were the results presented for all analyse described in the methods?	Q9- Were the biases of the study be identified?	Q10 - Were the authors' discussions and conclusions justified by the result?
Atuyambe et al., 2008	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Kitiyodom, 2015	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ochako, Fotso, Ikamari, & Khasakhala, 2011	Y	Y	?	Y	Y	Y	Y	Y	N	Y

Singh, Kumar, & Pranjali, 2014	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
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Appendix 6 Summary table of articles that include in the literature review

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
1	Atuyambe L. et al., 2008 /Uganda	To compare health care seeking behaviors and motherhood between adolescent pregnancy and adult pregnant women in Wasiko district, Uganda.	Cross-sectional quantitative study using interviews and structured questionnaires.	Setting: communities in Wakiso district, Uganda. Sample: 442 adolescent pregnant women and 320 adult pregnant women who give birth less than one year	The findings from this study show that adolescent pregnancy faces many challenges more than the adult group. The challenges, including; quite the school, attend ANC late, domestic violence, and stigmatize from their communities. Compared to early motherhood, adolescent	Strength: The sample is represented the interested population. Limitation: The data were not up to date.	<u>Theme: Stigma</u> - Sub-theme: stigmatisation from the community, quit the school

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
				in the Wakiso district.	pregnancy seeking immunization for baby less than adult pregnancy.		
2	Bwalya B. C. et al., 2018/ Zambia	- To describe adolescent pregnant women experiences with health care providers in ANC - To describe experiences of adolescent pregnancy	A qualitative phenomenological study/ in-depth interview to collect data and Thematic analysis to analyse the data.	Setting: Kanyama and Matero Referral Clinics in Lusaka district, the capital city of Zambia. Sample: 12 pregnant women age 15-	Adolescent pregnant women experience ANC in both positive and negative ways. <u>-experiences with health care providers</u> The finding showed that most participants have friendly	Strengths: describe experiences of adolescent pregnancy in several issues. Limitations: The sample did not represent the population of	<u>Theme: Stigma</u> -Sub-theme: stigmatise from other service users <u>Theme: Relationships</u> -Sub-theme: relationships between health care providers and pregnant women, relationships among

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		<p>with adult pregnant women toward utilisation ANC</p> <p>- To describe experiences of adolescent pregnant women with the information provided in ANC</p>		<p>19 years old who attend ANC more than two times.</p>	<p>relationships with service providers. Some participants experience impolite communication with nurses/midwives. Some participants felt discriminated from health care providers.</p> <p><u>-experiences with service users</u></p> <p>Some participants mention positive</p>	<p>adolescent pregnancy age 12-14 years old.</p>	<p>health care service users</p> <p><u>Theme: Knowledge and perceptions</u></p> <p>-Sub-theme: facilities of health care services</p>

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					relationships with other service users. For instance, adult pregnancy advised participants about how to take care of themselves during pregnancy. However, few adolescent pregnancies state that adult pregnancies were unfriendly and make the participant felt uncomfortable,		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>ashamed to attend ANC services by triggering stigmatization.</p> <p>- <u>experiences of</u> <u>provided</u> <u>information from</u> ANC</p> <p>Overall, participants state know the positive learning outcomes of education provided at ANC services. Some participants said</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>that they learn how to take care of themselves during pregnancy. It also has challenges for adolescent pregnant women on the operating time in ANC services, including; waiting time. Adolescent pregnancies prefer the operation time of services from 8.00-9.00 in the morning. The long</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>period of waiting for one of the challenges that participants were facing.</p> <p>-health facility challenges.</p> <p>Participants state that there are no separate services for adolescent pregnancy. It makes adolescent pregnant women felt uncomfortable to discuss in the</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					class and to access ANC.		
3	Chikalipo M.C. et al.,2018/ Malawi	To explore perceptions of adolescent pregnancy about received ANC.	A qualitative exploratory study using semi-structured interview	Setting: semi-structure clinic under the authority of Blantyre City Health services in Southern region of Malawi. Sample: 15 adolescent pregnant women who	Two major themes from this study are caring and motivation for the first time attending ANC. All participants had a positive perception of the specific services for adolescent pregnancy. <u>Caring</u>	Strength: The findings present the perception of adolescent pregnant women in holistically view. Limitation: Using a structured interview as methods to	<u>Theme: Knowledge and perceptions</u> - Sub-theme: benefits of ANC, facilities of health care services

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
				use the offering services of adolescent ANC.	<p>The caring consists of reception, information, and communication.</p> <ul style="list-style-type: none"> - Some participants perceive the receptions from the health care providers are high standard than expectation. - The common education that provides for adolescent 	collect the data may limit the experiences and perspective of participants.	

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>pregnancy is personal hygiene, exercise, stress management, preparation for delivery, benefits of knowing one's HIV status, and future maternal plan. Most of the participants perceive the given information from ANC is useful especially plan to return to school. While some participants state</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>that there is little information about delivery. Most of participants state that communication about the findings from physical examination was not adequate.</p> <p><u>Motivations to start attending ANC</u></p> <p>The motivations to start attending ANC are want to</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					know about HIV status, knowing the benefits of ANC, wanting proper delivery management.		
4	Kitityodom S. 2015/ Thailand	To compare the decision of adolescent pregnant women toward ANC attendance and postpartum adaptation between	Retrospective quantitative = study: analysis of data from hospital records using descriptive statistics and odd ratios.	Setting: adolescent postpartum clinic at Maharat Nakhorn Ratchasima hospital, Thailand.	Factors that common in student adolescent pregnancy are unplanned pregnancy, non-acceptance from family, and poor quality of ANC. Other factors	Strength: The findings provide evidence about the adolescent decision in different occupation.	<u>Theme: Stigma</u> - Sub-theme: stigmatise from family, quit the school

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		students and other occupations.		Sample: 777 adolescent pregnant women who utilisation adolescent postpartum clinic between January 2012 to December 2013.	include, on ANC attendance, The decision to taking care of baby, contraceptive decision, and contraceptive methods were no differences between students group and another occupational group. The student group decides to return to school more	Limitation: the study is retrospective; use hospital records may have some errors and lack of some information. The proportion of other occupations group in the sample is lesser than the student	

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					than another occupation group.	adolescent pregnancy.	
5	Ochako R. et al., 2011/ Kenya	- To determine the relationship between the timing of first ANC visit and types of delivery assistance - To establish the determinants of timing of first ANC visit	A quantitative study using data from Kenya Demographic and Health survey 2003 apply descriptive statistic, and multivariate ordered regression model	Setting: Kenya Sample: 1,675 young women age 15-24 years old who give birth in three years preceding the survey period.	- Factors that influence young pregnancy to visit ANC and type of delivery assistance are the place of residence, economic status, education level, ethnicity, parity, marital status, and ages of the last child.	Strengths: The findings were generalised to adolescent pregnant women in rural area, Kenya. Limitations: no ethical approval for this study.	<u>Theme: Demographic factors</u> - Sub-theme: region of residence, economic status of the family, education level of pregnant women

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		and type delivery assistance			- The utilisation of professional assistant delivery was associated with early ANC attendance.		
6	Sialubanje C. et al., 2014 /Zambia	To explore psychosocial and environmental factors which affect utilisation of maternal care in Kalomo, Zambia	Qualitative study: using focus group discussions and in-depth interviews	Setting: Kalomo district, Zambia Sample: - Focus group discussion participants are pregnant	<u>Perspective on maternal health problems.</u> Many participants concern about physical complications during pregnancy, but the utilisation of maternal health	Strengths: These findings present the perspectives of many authority that involve with adolescent pregnancy issue.	<u>Theme: Demographic factors</u> - Sub-theme: region of residence <u>Theme: Attitudes and beliefs</u> - Sub-theme: negative attitudes of pregnant women on nurses,

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
				<p>women age 15-45 years old who delivery the child one year before the study was conducted.</p> <p>- in-depth interview participants are a mix of traditional leaders, civic leaders, pregnant women and partners,</p>	<p>service was low. Most participants mentioned complications during pregnancy associate with poor maternal seeking behavior and poor ANC attendance. Participants also mention about source of knowledge during pregnancy. Older participants mention that nurses are primary</p>	<p>Limitations: The findings were not a generalization.</p>	<p>negative attitudes on the quality of health services, beliefs of influence person</p> <p><u>Theme: Knowledge and perceptions</u></p> <p>- Sub-theme: benefits of ANC</p>

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
				nurse-midwives from each health care centre, traditional birth attendants, neighbourhood health committee members, and community health workers totally 35 persons.	resources while younger participants state that parents and friends are the primary sources of information. <u>Healthcare-seeking behaviour and utilisation of maternal health care services.</u> - ANC services		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>Most of the participants use ANC provided by nurses and traditional birth attendants. The first presentation at ANC of most participants was late than recommendations because of normative beliefs and long distance from health centre.</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>- Delivery services.</p> <p>The findings indicate that participants who live in an urban area trend to use delivery services in health care centre while participants in rural areas</p> <p>-Postnatal services</p> <p>Most of the participants were not utilisation postnatal care because of the</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>expense and shouted.</p> <p><u>Personal and environmental factors that affect utilisation of maternal health care services.</u></p> <p>The findings show that negative attitudes toward nurses and the quality of health care influence pregnant women to decide maternal</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					health services utilisation negatively. Advice from influential members of family or community influenced negatively on health care services utilisation of pregnant women.		
7	Singh A. et al., 2014 /India	To identify factors that affect maternal services	Quantitative study/ using data from the District Level Household Survey (2007-08) Chi-square	Setting: maternal care include ANC, delivery care, and postnatal	<u>ANC services utilisation.</u> ANC utilisation was significantly	Strength: The analysis use appropriated statistic to find the	<u>Theme: Demographic factors</u> - Sub-theme: region of residence,

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		utilisation in adolescent pregnant women in an urban area, India	test and binary logistic regression	care in urban India Sample: 3,315 married adolescent pregnant women age 13-19 years old who give birth during the last three years that survey was collected.	associated with pregnant women's education, husband education, a residence located, religion, economic status of the family, parity, caste and knowing ANC promoted. <u>Delivery services utilisation.</u> Participant's education, complete ANC,	relationship between variables. Limitation: the researchers did not provide how to calculate an appropriate sample size.	economic status of the family, education level of pregnant women <u>Theme: Knowledge and perception</u> - Sub-theme: benefits of ANC

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>parity, household wealth, the region of residence and religion were significantly associated with delivery services utilisation.</p> <p><u>Postnatal care utilisation.</u></p> <p>Complete ANC, safe delivery, maternal education, economic status of a family, and</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					religion are associated with postnatal care utilisation in married adolescent pregnant women.		
8	Sychareun et al. (2018) /Laos	to explore factors contributing to teenage pregnancy in rural Lao. to understand the specific challenges	Qualitative study used in-depth interviews and focus group discussions	Setting: two rural areas in Laos and 4 districts in Boke, which has high rate of adolescent pregnancy and high rate of poverty and	<u>Early sexual debut among adolescents.</u> Normal situations in the setting are pre-marital sexual behaviours, marry at young age, and early pregnancy.	Strengths: Provide evidence about healthcare services utilisation among adolescent women in	<u>Theme:</u> <u>Stigma</u> stigmatise from community <u>Knowledge and perception</u>

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		adolescent mothers face in accessing maternal health services		high ethnic diversity Sample: adolescent pregnant women age 12-19 years old, unmarried adolescent age 12-19 years old, husbands of adolescent pregnant women, mother in-law of adolescent couple,	being pregnant at young age is acceptable in this rural society Some ethnic group has their traditional practice believe that pre-married sex and polygamia are acceptable and being a part of grow up process. Some participants express their perspective that	several aspects including married adolescents, unmarried adolescent. Moreover, the aspects from various key informants such as village leaders, healthcare providers, and mother in-law are presented. Therefore, the	Sub-themes benefit of ANC <u>Attitudes and belief</u> - Belief of influence person - Negative attitudes of pregnant women on nurses <u>Relationship</u> - Relationship between healthcare providers and pregnant women

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
				community leaders, and healthcare providers	early marriage is a part of running economic in their society. Early marriage makes adolescent become adult to contribute new labor work in their area. Plus, adolescents have no choice to choose. Early pregnancy in some participants view are disadvantages for	findings are presented in holistically aspects Limitations: The purposive sampling technique may cause selective bias which may affect the results that the researcher wanted it to be.	

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnant women themselves or their offspring. Several risks are express from participants including maternal and newborn mortality, premature birth, postpartum hemorrhage, and unsafe abortion practice.</p> <p>Participants mentioned that</p>	<p>The interested areas are various from sexual reproductive health services, prenatal care, and maternal care. So, the findings are not represented about maternal health service completely.</p>	

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>early pregnancy and early marriage could link to socioeconomic problem in the future.</p> <p><u>Unintended pregnancy among adolescents</u></p> <p>This issue was concerned by several participants. Some participants stated that being unmarried</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnant women is a difficult situation in their villages. Their community require marriage before giving birth. Some participants who are female adolescent reported that they don't know about healthcare services provided.</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p><u>Barriers to access healthcare services in both demand side and supply side</u></p> <p>Regarding to the finding, it demonstrated that there are low access maternal services among adolescent women.</p> <p><u>Socio-cultural norms</u></p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>Most of participants who are adolescents reported that social norm is a barrier that inhibit them to access health care service. Even if it is allowed to have pre married sexual intercourse, but the discussion about sex is prohibits. In addition, social norm influences them to not visit</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>healthcare services because of the concern about being ask sensitive questions and being check by male doctors. In this culture, husbands are importance to support adolescent pregnant women to access healthcare services. Their roles are to accompany</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnancy by driving them to the services, translator, providing protection. Some relatives are not supportive to adolescent pregnancy especially, mother in-law. These factors contribute the incomplete visit the healthcare services in married</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnant women.</p> <p><u>Healthcare providers attitudes</u></p> <p>Participants mentioned that the healthcare providers at the services are unfriendly for them to visit. The participants explained about being scolded from healthcare providers that</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>often happened for unmarried adolescent pregnancy. The healthcare providers in this study accept that they don't know how to deal with adolescent pregnant women. They stated about the frustration on dealing with adolescent pregnancy. The lack of specific training for</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnancy is mentioned by several healthcare providers. Hence, healthcare providers in this study are willing to do the particular training for dealing with adolescent pregnant women. The lack of skill among healthcare providers and shortage of equipment are concern by</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent and key informants as the inhibit factors to access care at the services.</p> <p><u>Lack of confidentiality and privacy</u></p> <p>Unmarried adolescents explained about the anxiety about being find that they visit sexual reproductive health services.</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>they prefer to go to pharmacy rather than access the healthcare services. female adolescent who are not married explained that the contraceptive methods are rely on their partner.</p> <p><u>Cost and availability of service</u></p> <p>Participants and key informants</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>were generally agree that the cost of medicines, transportations are the barriers which prevent adolescent women to visit healthcare services. The available of healthcare services also mentioned as a inhibit factor for accessing healthcare services.</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p><u>Decision-making power</u></p> <p>For the unmarried adolescent women, the power of decision is rarely on their partner. Contrast with married adolescent women, the decision makers are both adolescent woman and their partner decided together to access the</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>healthcare services.</p> <p>Experiences of partners and their in-law are the part of decision process. The partners and elders in the community are mentioned as an importance person to take the decision about continuing pregnancy and delivery place in unmarried</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnant women.</p> <p><u>Lack of knowledge and practical experience</u></p> <p>Both male and female adolescent demonstrated knowledge about contraception, sexual reproductive health, and maternal health service. However, the findings also</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>illustrated that there are still unsure knowledge about the provided care at the health service. and the adolescent were too shy to ask some questions at the health care service. These situations together create the limit understanding about potential benefit of accessing</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>healthcare services.</p> <p>The utilization of perinatal care was absent among married adolescent pregnant women in the study. Some participants mentioned that there is no need of perinatal care visiting if there are no problems happen during pregnancy. these</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					results illustrated the little understanding about the need of perinatal care attendance.		
9	Basaza, Mawerere, and Namusana (2020/Uganda)	To explore adolescent pregnant women's experience when seeking services such as antenatal	Phenomenological designs used in-dept interview with prob questions	Setting: five healthcare facilities in one district in East Uganda which has high rate	Majority of the participants are married women, Catholic, finished primary levels from Uganda education, unemployed, and	Strengths - Individual interviews with probing questions and filed notes can collect the	Theme : <u>Stigma</u> Stigmatise from other service users <u>demographic factors</u>

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
		care and delivery at health facilities		of adolescent pregnancy Sample: 27 adolescent pregnant women age 14-19 years old who were pregnant or given birth at the healthcare facilities.	first-time pregnancy. Main finding themes from this study are personal experiences, interpersonal experiences, and health facility related experiences. Each theme and sub-themes are presented below. <u>Personal experiences</u>	data from participants both body language and verbal language. - The findings represent about several factors including individual factors, interpersonal factors, and challenges related to	Sub-theme economic status of family <u>Knowledge and perception</u> sub-theme benefit of ANC sub-theme facilities of healthcare services <u>Attitudes and belief</u> Sub-theme belief of influence person Sub- theme positive attitudes

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>Personal experiences has three sub-themes including timing and decision to go for antenatal care, importance of antenatal care, and motivation to come for antenatal care.</p> <p><u>Timing and decision to go for antenatal care</u></p> <p>Many participants stated attending</p>	<p>antenatal care and delivery care</p> <p>Limitations</p> <p>- Recall bias due to the criteria to include participants in this study that is given birth one year before the study is conducted.</p>	<p><u>Relationship</u></p> <p>Sub-theme relationships among health care service users</p>

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					antenatal care late than the expectation which is five months of pregnancy. Only few participants start utilise antenatal care before gestational age five months. Some participants mentioned that being dump by husband or family cause the delayed visit of antenatal care. Financial issue is one of the	- Purposive sampling technique may cause the selective bias and generalise of the findings of this study.	

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>factors that been mentioned by participants that it contribute the difficulty to attend antenatal care earlier. The belief of pregnant women was mentioned by only one participant. The participant stated that she come to visit antenata care late because she</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>wanted her baby to fully develop.</p> <p><u>Importance of antenatal care</u></p> <p>The importance of visiting antenatal care was recognized by several participants. Most participants mentioned that antenatal care was necessary for pregnant women and their babies. it</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>is beneficial for pregnant women to find out about their baby status in the uterus, medications supply.</p> <p><u>Motivation to come for antenatal care</u></p> <p>Many motivations for adolescent pregnant women to attend antenatal care were found in this</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>study. most of participants demonstrated that the motivations for start attend antenatal care is about checking the baby health. Some participants mentioned about feeling unwell and needed professional health are the motivations for start visiting antenatal care. only one</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>participant stated that she is the one that decided to visit antenatal care by herself.</p> <p><u>Interpersonal experiences</u></p> <p><u>Support from spouses, family and friends</u></p> <p>Provide support from family and husband are mentioned from many participants. The support</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>including money, accompany to the facility and advice. Adolescent pregnant women receive support from family and husbands during antenatal care visit. They also extended support to other adolescent pregnant women who visit the same antenatal care by giving advice to them. However,</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>some participants experience lack of support from their family or their husband during visiting antenatal care.</p> <p><u>Decision making power</u></p> <p>The findings show that most of participants did not have the power to make a decision about first time</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					antenatal care visit. The main decision makers were husbands and leader of the family. Some participants mentioned that relatives such as parents and grandparents also play a role as a decision makers for them. It is rarely for the participants to make the decision about start		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>attending antenatal care by themselves.</p> <p><u>Health facility related experiences</u></p> <p>This main theme consists of comfort of using a health facility, treatment given, health worker attitude, education offered, availability and accessibility of</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>utilities, challenges faced, and health facility compared to services by a traditional birth attendant (TBA).</p> <p><u>Comfort of using a health facility</u></p> <p>Adolescent pregnant women experienced attending antenatal care at a health care service as a comfortable</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>place for them to visit and get the anticipated treatments. Some participants stated that they anticipated that they will comfort after their interactions with healthcare providers.</p> <p><u>Treatment given</u></p> <p>Many participants were given some kind of treatments</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>including medicines and vaccination. Some participants think that treatments given are importance therefore, they trend to continuing utilise the antenatal care services. Some participants explained about the limit knowledge about the importance of given treatment at</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>antenatal care but still decide to continue visit antenatal care. some participants reported about the lack of given medicine at the time they visited antenatal care.</p> <p><u>Health worker attitude</u></p> <p>All participants reported about the good take care from healthcare</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>providers at the services.</p> <p>participants perceive that healthcare providers are kind and patient.</p> <p><u>Education offered</u></p> <p>Participants stated about the importance of education that they received at the antenatal care services. Some participants felt</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>that they need more education at the antenatal care services. However, there were some participants who did not receive any education class during their antenatal care visit.</p> <p><u>Availability and accessibility of the utilities</u></p> <p>The supply at antenatal care</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>services were perceived by participants in both positive and negative ways. Some participants mentioned that the provided supply at the service were adequate for them. However, there are some report from participants that the utilities at the services were not enough for</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>adolescent pregnant women.</p> <p><u>Challenges faced</u></p> <p>Participants mentioned that the antenatal care services are accessible for them, but there are lot of clients for healthcare providers to take care. This situation caused the less time for adolescent</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>pregnant women to consult their healthcare providers. Some participants felt being stigma during the first time visit the antenatal care services but it solved after attending antenatal care.</p> <p><u>Health facility compared to services by TBA</u></p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>Most of participants mentioned that healthcare services were more easily to get help. Therefore, they preferred to visit healthcare services rather than using TBA. TBA were recognized by participants as the services for only taking medicines not the place to get birth. Only one</p>		

Article number	Author(s) surnames and year/country Title	Study aims/purpose	Study design/methodology	Setting and sample	Main findings	Strengths and limitations	Relevance to research
					<p>participant felt more privacy during visit healthcare services.</p>		

Appendix 7 Ethical approval from Social and Behavioural Research Ethics Committee (SBREC)

8543 ETHICS approval notice (4 March 2020)

Human Research Ethics <human.researchethics@flinders.edu.au>

Wed 4/03/2020 12:17 PM

To: Patcharaporn Jongmuenwai <jong0027@flinders.edu.au>; Kristen Graham <kristen.graham@flinders.edu.au>; Helena Anolak <helena.anolak@flinders.edu.au>

Dear Patcharaporn,

Your conditional approval response for project 8543 was reviewed by the Deputy Chair of the Social and Behavioural Research Ethics Committee (SBREC) and was **approved**. The ethics approval notice can be found below.

APPROVAL NOTICE

Project No.:

8543

Project Title:

Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study

Principal Researcher:

Miss Patcharaporn Jongmuenwai

Email:

jong0027@flinders.edu.au

Approval Date:

4 March 2020

Ethics Approval Expiry
Date:

15 December 2022

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

Additional comments:

Please ensure that copies of the correspondence granting permission to conduct the research from [Antenatal Clinic, Ramathibodi Hospital \(when available\)](#) are submitted to the [Sub-Committee on receipt](#). Please ensure that the SBREC project number is included in the subject line of any permission emails forwarded to the Committee. Please note that data collection should not commence until the researcher has received the relevant



Research project: What factors influence young pregnant women to access antenatal care?



This study is a part of a master degree project which has ethical approval from Flinders University and Ramathibodi Hospital.

The research aim is to understand the antenatal healthcare seeking behaviors of young women in Bangkok, Thailand

This project will be beneficial for young pregnant women in the future. It is because the findings from this project will provide evidence to midwife and healthcare providers to manage friendly antenatal care for young pregnancy in the future.

Potential participants

- Pregnant age 18-24 years old
- First visit at antenatal care
- Can read and speak Thai

What participants will ask to do :

- Telephone interview section: the interview will take about 45-60 minutes.
- You will be asked about your experiences during using antenatal care service.

If you are interested to be the participant of this project please contact the researchers.

Contact detail:

Patcharaporn Jongmuenwai.

Principal researcher.

Email: jong0027@flinders.edu.au

Tel: +61 4 35881537

Dr. Lyn Gum.

Supervisor.

Email: lyn.gum@flinders.edu.au

Tel: +61 8 82013324



Appendix 9 Letter of Introduction



Kristen Graham
Lecturer in Nursing and Midwifery
College of Nursing and Health Science
Flinders University

GPO box 2100
Adelaide SA 5001
Australia

Tel: +61 8 8201 3918
CRICOS Provider No. 00114A
GPO
CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear Madam,

I hold the position of Lecturer in the Discipline of Nursing and Midwifery in the College of Nursing and Health Science at Flinders University.

This letter is to introduce Patcharaporn Jongmuenwai who is a Master of Midwifery (Coursework & Research) student at Flinders University. She is undertaking a research study leading to the production of a thesis or other publications on the subject of factors that influence young women's antenatal care attendance in Bangkok Thailand.

She would like to invite young women aged 18-24 who are pregnant for the first time and attended their first antenatal visit in the second trimester, within in the last six months to participate in the study. This will require 45-60 minutes of your time on one occasion.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.

Since Patcharaporn intends to make an audio recording of the interview, she will seek your consent to record the interview, and to use the recording or transcription in preparing the report and publication, on condition that your name or identity is not revealed.

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 9318 or e-mail kristen.graham@flinders.edu.au

Thank you for your attention and assistance.

Yours sincerely

Kristen Graham.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee in South Australia (Project number 8543). For queries regarding the ethics approval of this project please contact the Executive Officer of the Committee via telephone on +61 8 8201 3116 or email human.researchethics@flinders.edu.au

Appendix 10 Information Sheet (English version)



Patcharaporn Jongmuenwai
College of Nursing and Health Science

GPO Box 2100
Adelaide SA 5001
Tel: +61 8 82012605

Jong0027@flinders.edu.au

CRICOS Provider No. 00114A

INFORMATION SHEET (for 'Young pregnant women')

Title: 'Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study.'

Researcher

Patcharaporn Jongmuenwai
College of Nursing and Health Science
Flinders University
Email: jong0027@flinders.edu.au

Supervisors

Ms Kristen Graham
College of Nursing and Health Science
Flinders University
Tel: +61 8 82019318

Ms Helena Anolak
College of Nursing and Health Science
Flinders University
Tel: +61 8 82013438

Description of the study

This study is a qualitative descriptive study on the factors that influence the attendance of antenatal care in young mothers in Bangkok, Thailand. The study is being conducted by Patcharaporn Jongmuenwai for her Masters' Degree in the College of Nursing and Health Sciences at Flinders University, South Australia.

Purpose of the study

This project aims to find out the factors that influence the attendance of antenatal care in young pregnant women aged between 18 and 24 years. This study aims to understand young pregnant women experiences during utilise antenatal care service to provide the friendly antenatal care services to young pregnancy in the future.

What will I be asked to do?

You are invited to attend a skype or telephone interview with Patcharaporn who will ask you some questions about your experiences and views of using antenatal services. The questions will ask about your first time utilise antenatal care services experiences, your opinion on the important of antenatal care attendance, and your suggestion for necessary care in antenatal care services. Your participation is entirely voluntary. The interview will take about 45-60 minutes. The interview will be audio recorded using a digital voice recorder to help the researcher with reviewing the results. The audio file will be transcribed and stored as a computer file on a secure Flinders University server accessed only by the researchers. Participation is voluntarily, and you are free to cease from taking part at any time you wish to during the interview.

What benefit will I gain from being involved in this study?

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The sharing of your experiences will not directly benefit you. However, the findings from this project will provide evidence for the provision of young woman friendly antenatal care services in Thailand in the future.

Will I be identifiable by being involved in this study?

Any identifying information will be removed from any data collected, and your comments will not be linked directly to you. All information and results obtained in this study will be stored in a secure way, with access restricted to relevant researchers.

Are there any risks or discomforts if I am involved?

Apart from donating your time, there are no anticipated serious risks or burdens, as this study aims to explore your antenatal care experience. Some questions during the interview however may cause discomfort or make you feel emotional. You do not have to answer the questions which make you feel uncomfortable. You may answer 'no comment' or refuse to answer any questions. The interviewer will stop the interview if you request it at any time. You are free to withdraw from the interview at any time without effect or consequences. If you experience any emotional discomfort please contact the Department of Mental Health Thailand call centre no1323 for support/counseling that may be accessed free of charge by all participants. If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the researcher.

How do I agree to participate?

Participation in this study is voluntary. A consent form accompanies this information sheet. If you agree to participate please read and sign the form and email back to me at jong0027@flinders.edu.au. Please keep the hard copy of the consent form, and a copy of this information sheet for your own records.

How will I receive feedback?

On project completion, outcomes of the project will be given to all participants via email if you indicate you would like this to occur during your interview, and provide your email address.

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

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee in South Australia (Project number 8543). For queries regarding the ethics approval of this project please contact the Executive Officer of the Committee via telephone on +61 8 8201 3116 or email human.researchethics@flinders.edu.au

Appendix 11 Consent form (English version)



**CONSENT FORM FOR PARTICIPATION IN RESEARCH
(by interview)**

'Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study'

I
being over the age of 18 years, hereby consent to participate as requested in the focus group for the research project with the title listed above.

1. I have read the information provided.
2. Details of procedures and any risks have been explained to my satisfaction.
3. I agree to audio recording of my information and participation.
4. I am aware that I should retain a copy of the Information Sheet and Consent Form for future reference.
5. I understand that:
 - I may not directly benefit from taking part in this research.
 - Participation is entirely voluntary and I am free to withdraw from the project at any time; and am free to decline to answer particular questions.
 - While the information gained in this study will be published as explained, my participation and my individual information will remain confidential.
 - Whether I participate or not, or withdraw after participating, will have no effect on any treatment or service that is being provided to me.
 - I may ask that the audio recording be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.
6. I understand that only the researchers on this project and an approved transcriber will have access to my research data and raw results; unless I explicitly provide consent for it to be shared with other parties. If the need to seek your consent to share your research data with other parties does arise, I will be contacted by the researchers via email.
7. I have had the opportunity to discuss taking part in this research with a family member or friend.

Participant's signature.....Date.....



I certify that I have explained the study to the volunteer and consider that she/he understands what is involved and freely consents to participation.

Researcher's name.....

Researcher's signature.....**Date**.....

NB: Two signed copies should be obtained (one for researcher; one for participant). The copy retained by the researcher may then be used for participant review and approval of interview transcripts (point 8) where relevant.

Review / Approval of Interview Transcriptions

8. I, the participant whose signature appears below, have read a transcript of my interview participation and agree to its use by the researcher as explained.

Participant's signature.....**Date**.....

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee in South Australia (Project 8543). For queries regarding the ethics approval of this project please contact the Executive Officer of the Committee via telephone on +61 8 8201 3116 or email human.researchethics@flinders.edu.au

Appendix 12 Ethical approval from Ramathibodi Hospital



Human Research Ethics Committee, 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. MURA2020/1543

Title of Project (English)	Factors Influencing Antenatal Care Attendance by Pregnant Women Aged 18-24 in Bangkok, Thailand: an Exploratory Qualitative Study
Type of Review	Expedited
Principal Investigator	Patcharaporn Jongmuenwai
Official Address	Department of Ramathibodi School of Nursing Faculty of Medicine Ramathibodi Hospital Mahidol University
Co-investigator (s)	1. Lyn Gum 2. Helena Anolak 3. Annette Briley 4. Pimwadee Laosamathikul
Approval includes	1. Submission Form Protocol Version 2 Date 09/09/2020 2. Patient Information Sheet Version 2 Date 09/09/2020 3. Informed Consent Form Version 1 Date 29/06/2020 4. Questionnaire Version 2 Date 09/09/2020 5. Poster Version 2 Date 09/09/2020 6. 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 September 14, 2020

Date of Expiration September 13, 2021

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 13 Letter of introduction to request permission



17th October 2020

Ms Bhatarachit Tunkoon
Head Nurse
Obstetrics and Gynecology Outpatient Unit
Ramathibodi Hospital
270 Rama 6 Road,
Thung Phaya Thai Sub-district, Ratchathewi District,
Bangkok Metropolis, Thailand

Dear Ms Bhatarachit Tunkoon

This letter is to introduce Patcharaporn Jongmuenwai who is a Master of Midwifery (Coursework & Research) student at Flinders University. She is undertaking a qualitative research study leading to the production of a thesis or other publications on the subject of factors that influence young women's antenatal care attendance in Bangkok Thailand.

We would like to request your permission for Patcharaporn to recruit young women from your unit (Obstetrics and Gynecology Outpatient Unit) into this study. The women would be patients of the hospital, who are aged 18-34, pregnant for the first time and attended their first antenatal visit in the second trimester, within the previous 6 months before interview.

Patcharaporn will request that a poster be displayed in your unit, and that midwives and nurses would let women know of the research project. To maintain confidentiality, women who are interested in being involved in the study will contact Patcharaporn directly to arrange an interview by phone or skype. Please be assured that any information provided by women will be treated in the strictest confidence and none of the participants or the hospital will be identifiable in the resulting thesis, report or other publications.

This research study will have ethics approval before recruitment begins from the Flinders University Social Behaviour Research Ethics Committee (Project no. 8543) and the Ramathibodi Hospital ethics committee. Patcharaporn's research study is fully supervised and supported by me and another Lecturer in Nursing and Midwifery, Helena Anolak and while she is on leave, Midwifery Professor Annette Briley.

If you are willing to provide your permission for this study, can you please provide a letter of permission, written in English and on Ramathibodi Hospital letter head, which includes the following information:

- Your position as the Head Nurse of the Obstetrics and Gynecology Outpatient Unit
- That you provide permission for Patcharaporn Jongmuenwai to recruit participants through the unit for her study to fulfil the research project requirements of the Master of Midwifery (Coursework and Research) at Flinders University, titled:

"Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study."

- That you provide permission for the unit's midwifery and nursing staff to provide women with information about the research study and Patcharaporn's contact details should they be interested in participating.

Dr. Lyn Gum

Lecturer in Nursing and Midwifery
College of Nursing and Health Sciences
GPO Box 2100
Adelaide SA 5001
Telephone: +61 8 82013324
E-mail: lyn.gum@flinders.edu.au
www.flinders.edu.au



You may send it directly to Patcharaporn : jong0027@flinders.edu.au or myself. If you would like any further clarification or have any queries regarding this request, please telephone me on +61 8 8201 3324 or email me at lyn.gum@flinders.edu.au

Thank you for your kind attention and assistance.

Kind regards

Dr. Lyn Gum
Midwifery Lecturer
College of Nursing and Health Sciences
Flinders University, Australia

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**Appendix 14 Letter of permission from head nurse of the Obstetrics and Gynecology,
Ramathibodi Hospital**



270 RAMA VI Road
Faculty of Medicine Ramathibodi Hospital
Mahidol University ,Thailand

December 15,2020

Dear Patcharaporn Jongmuenwai,

I am willing to give permission for you to recruit participants through the unit for her study to fulfil the research project requirements of the Master of Midwifery (Coursework and Research) at Flinders University, titled:

“Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study.”

I also provide permission for the unit’s midwifery and nursing staff to provide women with information about the research study and Patcharaporn’s contact details should they be interested in participating.

Yours faithfully,

B.TUNKOON

Bhatarachit Tunkoon

Head Nurse of the Obstetrics and Gynecology
Faculty of Medicine Ramathibodi Hospital.



การศึกษาแบบการสำรวจเชิงคุณภาพ เรื่องปัจจัย ที่มีผลต่อการฝากครรภ์ของสตรีมีครรภ์อายุ ระหว่าง18-24 ปี ในจังหวัดกรุงเทพมหานคร

งานวิจัยนี้เป็นส่วนหนึ่งของการศึกษาระดับปริญญาโท ที่ผ่านการอนุมัติจรรยาบรรณการวิจัยในมนุษย์
จากทั้ง มหาวิทยาลัย Flinders และ โรงพยาบาลรามาธิบดี

จุดประสงค์ของงานวิจัยนี้ เพื่อเข้าใจพฤติกรรมฝากครรภ์ในหญิงตั้งครรภ์อายุน้อยในจังหวัด
กรุงเทพมหานคร ประเทศไทย เพื่อนำข้อสรุปที่ได้ไปพัฒนาคุณภาพการบริการฝากครรภ์ที่เหมาะสม
สำหรับสตรีอายุน้อยในอนาคต

คุณสมบัติผู้เข้าร่วมวิจัย

- หญิงตั้งครรภ์อายุ 18-24ปี
- มาฝากครรภ์เป็นครั้งแรก
- อ่านและการเขียนภาษาไทยได้

สิ่งที่ผู้เข้าร่วมวิจัยจะได้รับเมื่อเข้าร่วมวิจัยคือ

- สัมภาษณ์ทางโทรศัพท์ หรือ ทางอินเทอร์เน็ต ใช้
เวลาประมาณ 30 ถึง 45 นาที
- ประเด็นที่ผู้เข้าร่วมวิจัยจะถูกสอบถามได้แก่
ประสบการณ์การใช้บริการฝากครรภ์

หากคุณสนใจเข้าร่วมการวิจัย กรุณาติดต่อผู้วิจัย
ตามรายละเอียดในโปสเตอร์ประชาสัมพันธ์



ข้อมูลการติดต่อ:

นางสาว พัชรกรณ งามหมื่นไวย. ผู้วิจัย.

อีเมล: jong0027@flinders.edu.au

โทรศัพท์: +61 4 35881537

Dr Lyn Gum
อาจารย์ที่ปรึกษาโครงการวิจัย.

อีเมล: lyn.gum@flinders.edu.au

โทรศัพท์: +61 8 82013324

Appendix 16 Information sheet (Thai version)



COA. NO. MURA2020/1543

วันที่รับรอง 14 กันยายน 2563

เอกสารชี้แจงข้อมูล/คำแนะนำแก่ผู้เข้าร่วมการวิจัย (Patient/Participant Information Sheet)

ชื่อโครงการ การศึกษาแบบการสำรวจเชิงท่านภาพ เรื่อง ปัจจัยที่มีอิทธิพลต่อการฝากครรภ์ของสตรีมีครรภ์ อายุระหว่าง 18-24 ปี ในกรุงเทพมหานคร (Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study)

ชื่อผู้วิจัย นางสาวพัชรภรณ์ จงหมื่นไวย

สถานที่วิจัย หน่วยตรวจผู้ป่วยนอกสูติกรรมโรงพยาบาลรามาริบัติ

บุคคลและวิธีการติดต่อเมื่อมีเหตุฉุกเฉินหรือความผิดปกติที่เกี่ยวข้องกับการวิจัย

พัชรภรณ์ จงหมื่นไวย

คณะกรรมการพยาบาลและวิทยาศาสตร์สุขภาพ

มหาวิทยาลัย Flinders

อีเมล: jong0027@flinders.edu.au

โทรศัพท์: +61435881537

อาจารย์ที่ปรึกษา

Dr Lyn Gum

Professor Annette Briley

คณะกรรมการพยาบาลและวิทยาศาสตร์สุขภาพ

คณะกรรมการพยาบาลและวิทยาศาสตร์สุขภาพ

มหาวิทยาลัย Flinders

มหาวิทยาลัย Flinders

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Ms Helena Anolak

คณะกรรมการพยาบาลและวิทยาศาสตร์สุขภาพ

มหาวิทยาลัย Flinders

โทรศัพท์: +61 8 82013438

ผู้ร่วมวิจัย

คุณ พิมพวีดี เหล่าสมาธิกุล

พยาบาลสังกัด โรงพยาบาลรามาริบัติ

อีเมล: pimwadee.lao@mahidol.ac.th

โทรศัพท์: 086 9775643

ผู้สนับสนุนการวิจัย Flinders University, Australia

ความเป็นมาของโครงการ จากการศึกษาทั้งในประเทศไทยและต่างประเทศ พบว่าสตรีตั้งครรภ์ที่มีอายุน้อยมักมีความเกี่ยวข้องกับภาวะแทรกซ้อนต่างๆขณะตั้งครรภ์ เช่น ภาวะโลหิตจาง การคลอดก่อนกำหนด ทารกน้ำหนักน้อยกว่าเกณฑ์ นอกจากนี้ยังมีการศึกษาเกี่ยวกับระยะเวลาการมาฝากครรภ์ครั้งแรกในสตรีตั้งครรภ์แต่ละช่วงอายุ บ่งชี้ว่าสตรีตั้งครรภ์ที่มีอายุน้อยมักจะมาฝากครรภ์ช้ากว่ากำหนด ซึ่งอาจจะส่งผลต่อสุขภาพของสตรีตั้งครรภ์และทารกในครรภ์ได้ ผู้วิจัยจึงเล็งเห็นความสำคัญของการรณรงค์ที่มีผลต่อการมาใช้บริการการฝากครรภ์ในสตรีตั้งครรภ์ที่มีอายุน้อยจากประสบการณ์โดยตรงของสตรีตั้งครรภ์ เพื่อที่จะนำข้อมูลที่ได้มาพัฒนาและปรับปรุงระบบการบริการการฝากครรภ์ให้เหมาะสมกับสตรีตั้งครรภ์ที่มีอายุน้อย

วัตถุประสงค์ เพื่อทำความเข้าใจถึงประสบการณ์ของสตรีตั้งครรภ์ที่มีอายุระหว่าง 18-24 ปี ในการใช้บริการฝากครรภ์ เพื่อค้นหาปัจจัยที่มีอิทธิพลต่อการมาฝากครรภ์ของสตรีมีครรภ์เพื่อใช้เป็นข้อมูลในการพัฒนาบริการฝากครรภ์ให้เหมาะสมกับสตรีตั้งครรภ์ในอนาคค

รายละเอียดที่ปฏิบัติต่อผู้เข้าร่วมการวิจัย ท่านจะได้รับเชิญให้เข้าร่วมการสัมภาษณ์ทาง Skype หรือทางโทรศัพท์กับผู้วิจัย โดยผู้วิจัยสัมภาษณ์เกี่ยวกับประสบการณ์และมุมมองการใช้บริการฝากครรภ์ของท่าน คำถามจะประกอบด้วยคำถามที่เกี่ยวกับประสบการณ์การใช้บริการฝากครรภ์ครั้งแรกความคิดเห็นของท่านเกี่ยวกับความสำคัญของการเข้าร่วมการฝากครรภ์และข้อเสนอแนะของท่านที่เกี่ยวกับการดูแลที่จำเป็นสำหรับสตรีตั้งครรภ์อายุน้อยในการรับบริการฝากครรภ์ การเข้าร่วมของท่านจะเป็นไปโดยความสมัครใจทั้งสิ้น โดยที่การสัมภาษณ์จะใช้เวลาประมาณ 30-45 นาที และจะถูกบันทึกเสียงโดยการใช้เครื่องบันทึกเสียงดิจิทัลเพื่อช่วยให้นักวิจัยตรวจสอบผลการสัมภาษณ์ได้ในภายหลัง ไฟล์ข้อมูลของการบันทึกเสียงจะถูกถอดความและจัดเก็บในระบบที่มีการรักษาความปลอดภัยของมหาวิทยาลัย Flinders และเข้าถึงได้โดยนักวิจัยเท่านั้น การเข้าร่วมโครงการเป็นไปโดยสมัครใจ และท่านสามารถถอนตัวจากการเข้าร่วมโครงการได้ตลอดเวลา ระหว่างการสัมภาษณ์ โดยจะไม่มีผลต่อการได้รับบริการทางการแพทย์ใดๆทั้งสิ้น

ประโยชน์ที่จะเกิดแก่ผู้เข้าร่วมการวิจัย การแบ่งปันประสบการณ์ของท่านอาจจะเป็นประโยชน์โดยตรงกับท่าน อย่างไรก็ตาม ผลการวิจัยจากโครงการนี้จะป็นข้อมูลสนับสนุนในการจัดหาบริการฝากครรภ์ที่เป็นมิตรแก่หญิงตั้งครรภ์อายุน้อยในประเทศไทยในอนาคต

ผลข้างเคียงที่จะเกิดแก่ผู้เข้าร่วมการวิจัย การเข้าร่วมโครงการวิจัยครั้งนี้ไม่มีความเสี่ยงต่ำ อาจจะไม่สะดวกสบายจากการวิจัยที่อาจเกิดขึ้นกับผู้เข้าร่วมวิจัยได้ คำถามจากการสัมภาษณ์อาจจะทำให้ผู้เข้าร่วมวิจัยเกิดความเครียด หรือไม่สบายใจที่จะตอบคำถามบางข้อ ท่านสามารถเลือกที่จะไม่แสดงความคิดเห็นเกี่ยวกับคำถามข้อนั้นๆได้โดยอิสระ ท่านสามารถหยุดหรือถอนตัวจากการสัมภาษณ์ตามที่ท่านต้องการ โดยการถอนตัวจากการสัมภาษณ์จะไม่มีการกระทบใดๆต่อการรับบริการทางการแพทย์ อีกประการหนึ่ง คำถามบางข้ออาจจะทำให้ท่านนึกถึงเหตุการณ์ที่อาจจะกระทบกระเทือนจิตใจของท่าน หากท่านรู้สึกไม่สบายใจ หรือต้องการคำปรึกษา ท่านสามารถติดต่อ สายด่วนสุขภาพจิต ศูนย์บริการสุขภาพแห่งชาติ โทร1323 เพื่อรับคำปรึกษาได้โดยไม่มีค่าใช้จ่าย หากท่านมีข้อกังวลใด ๆ เกี่ยวกับความเสี่ยงหรือความรู้สึกไม่สบายใจ ท่านสามารถแจ้งกับผู้วิจัยได้ทันที

การเก็บข้อมูลเป็นความลับ ข้อมูลต่างๆของท่านจะถูกเก็บไว้เป็นความลับ ไม่มีการเปิดเผยชื่อของท่าน การนำเสนอข้อมูลจะเป็นในภาพรวมทั้งนี้ การเก็บข้อมูลไฟล์เสียงที่บันทึก และคำถอดเสียงจะถูกจำแนกโดยใช้นามแฝงและรหัสตัวเลข แทนผู้เข้าร่วมวิจัยแต่ละท่าน โดยไฟล์ข้อมูลดังกล่าวจะถูกเก็บไว้ที่หน่วยจัดเก็บข้อมูลออนไลน์ของทางมหาวิทยาลัย Flinders ที่มีระบบรักษาความปลอดภัย การเข้าถึงข้อมูลจะจำกัดเฉพาะคณะผู้วิจัยเท่านั้น ไฟล์เสียงบันทึกและคำถอดเสียงจะถูกทำลายภายหลังเสร็จสิ้นการวิจัยเป็นเวลา 5 ปี

งานวิจัยนี้ได้รับการอนุมัติจากคณะกรรมการการวิจัยทางสังคมและพฤติกรรมของมหาวิทยาลัย Flinders ในประเทศออสเตรเลีย (หมายเลข โครงการ 8543). หากท่านมีข้อซักถามเกี่ยวกับการอนุมัติทางจริยธรรมของโครงการนี้ โปรดติดต่อคณะกรรมการทางโทรศัพท์ที่หมายเลข+61 8 8201 3116 หรืออีเมล human.researchethics@flinders.edu.au

ถ้าท่านมีปัญหาข้อสงสัยหรือรู้สึกกังวลใจกับการเข้าร่วมใน โครงการวิจัยนี้ ท่านสามารถติดต่อกับประธานกรรมการจริยธรรมการวิจัยในคน สำนักงานวิจัยคณะฯ อาคารวิจัยและสวัสดิการ คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี โทรศัพท์ 02-2011544

รับรองโดยคณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี

Appendix 17 Consent form (Thai version)



Flinders UNIVERSITY

COA. NO. MURA2020/1543

วันที่รับรอง 14 กันยายน 2563

หนังสือยินยอมโดยได้รับการบอกกล่าวและเต็มใจ

(Informed Consent Form)

ชื่อโครงการ การศึกษาแบบการสำรวจเชิงคุณภาพ เรื่อง ปัจจัยที่มีอิทธิพลต่อการฝากครรภ์ของสตรีมีครรภ์ อายุระหว่าง 18-24 ปี ในกรุงเทพมหานคร (Factors influencing antenatal care attendance by pregnant women aged 18-24 in Bangkok, Thailand: An exploratory qualitative study)

ชื่อผู้วิจัย นางสาว พัชรภรณ์ จงหมื่นไวย

*ชื่อผู้เข้าร่วมการวิจัย

อายุ เลขที่เวชระเบียน

คำยินยอมของผู้เข้าร่วมการวิจัย

ข้าพเจ้านาย/นาง/นางสาว ได้ทราบรายละเอียดของโครงการวิจัย ตลอดจนประโยชน์ และข้อเสียที่จะเกิดขึ้นต่อข้าพเจ้าจากผู้วิจัยแล้วอย่างชัดเจน ไม่มีสิ่งใดบีบบังคับหรือชักจูงใจให้ข้าพเจ้าเข้าร่วมโครงการนี้โดยไม่มีผลกระทบบทต่อการรักษาที่ข้าพเจ้าพึงได้รับ นอกจากนี้ผู้วิจัยจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับและเปิดเผยได้เฉพาะในรูปแบบที่เป็นสรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวข้าพเจ้าต่อหน่วยงานต่างๆที่เกี่ยวข้อง กระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ลงชื่อ.....(ผู้เข้าร่วมการวิจัย)

.....(พยาน)

.....(พยาน)

วันที่

คำอธิบายของแพทย์หรือผู้วิจัย

ข้าพเจ้าได้อธิบายรายละเอียดของโครงการ ตลอดจนประโยชน์ของการวิจัย รวมทั้งข้อเสียที่อาจเกิดขึ้นแก่ผู้เข้าร่วมการวิจัยทราบแล้วอย่างชัดเจน โดยไม่มีสิ่งใดบีบบังคับหรือชักจูงใจ

ลงชื่อ.....(แพทย์หรือผู้วิจัย)

วันที่.....

หมายเหตุ: กรณีผู้เข้าร่วมการวิจัยไม่สามารถอ่านหนังสือได้ ให้ผู้วิจัยอ่านข้อความในหนังสือยินยอมฯ นี้ให้แก่ผู้เข้าร่วมการวิจัย ฟังจนเข้าใจดีแล้ว และให้ผู้เข้าร่วมการวิจัยลงนามหรือพิมพ์ลายนิ้วหัวแม่มือรับทราบในการให้ความยินยอมดังกล่าวข้างต้นไว้ด้วย

* ผู้เข้าร่วมการวิจัย หมายถึง ผู้ยินยอมตนให้ทำวิจัย

งานวิจัยนี้ได้รับการอนุมัติจากคณะกรรมการการวิจัยทางสังคมและพฤติกรรมของมหาวิทยาลัย Flinders ในประเทศออสเตรเลีย (หมายเลขโครงการ 8543). หากท่านมีข้อซักถามเกี่ยวกับการอนุมัติทางจริยธรรมของโครงการนี้ โปรดติดต่อคณะกรรมการทางโทรศัพท์ที่หมายเลข+61 8 8201 3116 หรืออีเมลล์ human.researchethics@flinders.edu.au

Appendix 18 Themes and Sub-themes

Themes	Sub-themes
Factors influencing antenatal care attendance	Baby health awareness
	Health knowledge
	Resources of influence
	Perceived support
	Location of service
Barriers to attending antenatal care	Lack of education
	Unplanned or unwanted pregnancy
	Financial problems
	Stigma
Perceptions of young pregnant women	Positive attitudes and perceptions
	Negative attitudes and perceptions
	Mixed positive and negative opinions
Experience of young pregnant women during their first antenatal care visit	
Service improvements	Increasing continuity of care
	Enhancing partner participation
	Specific education class