

Integrative review on midwives' practices in prenatal care

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Master's thesis

August 2020

Social services, Health and Sports

Degree Program in Advanced Nursing Practice

Author(s) Nessipbekova Galiya	Type of publication Master's thesis	Date August 2020 Language of publication: English
	Number of pages 39	Permission for web publication: x
Title of publication Integrative review on midwives' practices in prenatal care		
Degree programme Degree Programme in Advanced Nursing Practice		
Supervisor(s) Hopia Hanna, Dinara Ospanova		
Assigned by		
Abstract <p>Background: Midwifery care affects all levels of medical care for women. Prenatal midwives not only satisfy the physical, emotional, psychosocial needs of pregnant women, they also establish good relationships with patients and their families by providing safe, compassionate, competent, and ethical care.</p> <p>Aim: To analyze the midwives' independent, dependent, and collaborative roles and methods in prenatal care.</p> <p>Design: An integrative review was conducted. The CINAHL Plus (EBSCO) Full Text was searched between 2012-2020.</p> <p>Methods: Out of 87 original publications, 9 fulfilled the inclusion criteria. The Joanna Briggs Institute critical appraisal tools were applied to assess the quality of articles. Data were analyzed by a thematic analysis method.</p> <p>Results: The analysis revealed four main independent roles and three independent midwifery methods. The identified roles of midwives included: ensuring human rights with warm individual approach; preparing women for childbirth and recognizing pregnancy-related needs/expectations; psychological support; women's advice and motivation. The following independent midwifery methods were identified from the data: health methods; health promotion methods; methods for solving the mental health problems of pregnant women encouraging pregnant women to their choice.</p> <p>Conclusion: A strong emphasis should be put on independent roles and methods of Kazakhstani prenatal midwives, which in turn will contribute to the formation of separate and independent midwifery care. An independent and developed prenatal midwifery is a guarantee of normal birth rates and a decrease in maternal mortality, as well as an opportunity for professional growth for midwives.</p>		
Keywords/tags (subjects) pregnancy, antenatal care, midwifery, midwives intervention, literature review, content analysis		
Miscellaneous (Confidential information)		

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1 Introduction

Globally, the maternal mortality rate remains unacceptably high. According to statistical data for 2017 more than 800 women die every day from complications related to pregnancy or childbirth worldwide. There were 295,000 deaths among women during and after pregnancy and childbirth in 2017. (Maternal mortality: Levels and trends 2000 to 2017 2019). According to WHO (2019a) maternal health improvement is one of the thirteen targets for the Sustainable Development Goal 3 (SDG-3) on health adopted by the international community in 2015.

The high maternal mortality in some parts of the world reflects unequal access to health services, and underlines the gap between the affluent and the poor. Almost all maternal deaths (94%) occur in low- and lower-middle-income countries. (WHO 2019a). As reported by WHO (2019a) most maternal deaths can be avoided, as today the main causes; methods for preventing or treating complications are well known. All women need access to high-quality care provided by qualified health professionals during pregnancy (prenatal care). Global maternal morbidity and mortality rates could significantly reduce by ensuring universal access to safe, affordable and quality maternal care (WHO 2015).

High-quality midwifery services that are coordinated and integrated within communities and within the health system ensure that a continuum of essential care can be provided throughout pregnancy and birth. Well-trained midwives and other professionals with all midwifery skills can cope with women's health needs during pregnancy and childbirth. (State of the World's Midwifery 2011: Delivering Health, Saving Lives 2012). According to Anderson (2016) midwives can provide women with the optimization of physiological, psychological, social and cultural processes during pregnancy; partnership, respecting the individual circumstances and views of each woman; access to working with midwives and other health care providers, if necessary, comprehensive care that meets the individual needs of each woman.

This master thesis aims to analyze the importance of nursing care in prenatal care to highlight the key successes, challenges and barriers that affect quality practice.

2 Midwifery in prenatal unit

2.1 Prenatal care

Human pregnancy last for 40 weeks on average starting from conception and lasting until the birth of the baby. Pregnancy can be roughly divided into prenatal (also known as antenatal) and perinatal periods. According to Cambridge dictionary (n.d), term prenatal refers to the medical care given to pregnant women before the birth of the baby and the term perinatal relates to the period before and soon after the birth itself. According to WHO (WHO recommendations on antenatal care for a positive pregnancy experience 2016) prenatal care can be defined as care that ensures the health for both the mother and the child during the pregnancy, by identifying risk factors, preventing and managing pregnancy-related diseases and promoting health and health education. Thus, it seems that according to WHO prenatal period covers the whole pregnancy. However, WHO also defines perinatal care so, that prenatal and perinatal periods seem to overlap with each other. This definition states perinatal period to start from the 22nd pregnancy week and to last until the seven full days after the birth (Maternal and perinatal health 2020). On the other hand, American Academy of Pediatrics (2012) sees, that perinatal care includes care received before pregnancy also, prolonging perinatal period to last from pre-conception all the way to the postpartum period. Because this thesis is interested in the time period from conception until the onset of labor and not pre-conception or labor and postpartum, it was decided to use the term prenatal, to refer to this time period of interest. In this thesis, by prenatal care the author means only care of the mother and fetus from the time of conception until the onset of labor.

According to WHO recommendations concerning a positive pregnancy experience (WHO recommendations on antenatal care for a positive pregnancy experience 2016), prenatal care is a service provided by qualified healthcare providers to pregnant women and adolescent girls to ensure the best medical practices for mothers and children during pregnancy. The duration of perinatal period is usually defined to last from 22 full weeks (154 days) of pregnancy to seven full days after birth (WHO 2020a).

Pregnancy is a natural physiological process for a woman. During pregnancy, a unique set of physiological and hormonal changes occur in almost every system of a woman's body (Ajiya, Ayyuba, Hamisu, & Daneji, 2016). Therefore, minor physiological changes associated with pregnancy are no restriction for a pregnant woman. Basically, a woman can endure such changes herself without medical or nursing intervention, however, prenatal care is important for the health and well-being of both the pregnant woman and the developing fetus. (International Council of Nurses 2016). Giving birth after a healthy pregnancy is one of the best ways in giving a healthy child. Having early and routine prenatal care increases the chances of a healthy pregnancy. The promotion of a healthy pregnancy may also begin even before pregnancy with a visit to a health care provider. (What is prenatal care and why is it important? 2017). Pregnancy can provide an opportunity to recognize potential threats to women's health and prevent future health problems for women and their children (Maternal, Infant, and Child Health 2020).

A health care system that includes prenatal care as a response to the needs of families, especially pregnant women, requires strategies to ensure access to services, early identification of risks, linking with the appropriate level of care, ensuring commitment, continuity and comprehensive care, and promoting the efficient use of resources. (Guidelines for Perinatal Care Seventh Edition 2012).

According to Guidelines for perinatal care by American Academy of Pediatrics (AAP) and American College of Obstetricians and Gynecologists (ACOG) (2012), five aspects can be identified as the main responsibilities of a successful prenatal health system. These are: providing access to comprehensive perinatal medical services and appropriate cultural assistance, covering patient-centered and family-based approach to medical care, provide appropriate cultural and linguistic assistance, inform the public about reproductive health, responsibility for all components of the provision of medical care system. (Guidelines for Perinatal Care Seventh Edition 2012.)

2.2 Prenatal midwifery care

As reported by United Nations Children's Fund (UNICEF) (Antenatal care 2019a) the provision of regular professional prenatal care and the presence of trained medical staff in childbirth has a positive effect on reducing maternal mortality. Certainly, nursing care affects all levels of medical care, but it is in primary health care that nurses provide comprehensive care that improves public life (Ponte Costa, Parente Arruda, Rodrigues Magalhães, Paiva de Abreu, de Azevedo Ponte, & Aires de Freitas, 2016).

Certified nurse-midwives (CNMs) and certified midwives (CM) can provide Midwifery services in USA. CNMs and CMs are responsible for independent primary care, gynecologic and family planning services, preconception, prenatal, childbirth and postpartum care, care of the normal newborn first 28 days, and treatment of male partners for sexually transmitted infections. (Definition of midwifery and scope of practice of certified nurse-midwives and certified midwives 2012.) In accordance with Canadian Association of Perinatal and Women's Health Nurses (CAPWHN) (Perinatal nursing standards in Canada 2018), prenatal midwives in Canada provide reproductive health care services for the whole family. Prenatal midwives not only satisfy the physical, emotional, psychosocial needs of pregnant women, they also establish good relationships with patients and their families by providing safe, compassionate, competent, and ethical care. (Perinatal nursing standards in Canada 2018.) To get positive results during pregnancy and childbirth, prenatal midwives invest a huge impact and action such as health promotion, disease prevention, and individualized well-being education. Usually these services are provided in specialized settings like ambulatory, private clinics, public hospitals, homes, and birth centers. (Women's health and perinatal nursing care quality refined draft measures specifications 2014; Definition of midwifery and scope of practice of certified nurse-midwives and certified midwives 2012).

During coworking with women, prenatal midwives must always consider the principles of justice, protecting human rights and gender equality. In addition, midwives must support and encourage pregnant women to make informed choices and they must maintain confidentiality in accordance with the rights of patients. Any

midwifery actions should be in accordance with their professional responsibilities and standards of practice. (Perinatal nursing standards in Canada 2018.)

2.3 Midwives' role and midwifery methods used in prenatal care

According to WHO (2020a) statistics, globally there were 2.6 million stillbirths in 2015, which means more than 7178 deaths every day. Approximately fifty percent of all stillbirths occur in the prenatal period. Since medical technology in the USA has been advancing over the last 30 years, prenatal care has improved, which has dramatically decreased the rate of late and term stillbirth (MacDorman, Kirmeyer & Wilson 2012). The main causes of stillbirth are intrapartum complications, maternal infection during pregnancy, chronic maternal diseases (such as hypertension and diabetes), fetal growth restriction, bleeding, prolonged and obstructed labor, and congenital abnormalities. (Lawn, Blencowe, Pattinson, Cousens, Kumar, Ibiebele, Gardosi, Day, & Stanton 2011.)

Hospitalization signify complications of pregnancy, childbirth or the postpartum period for different reasons. According to Falavina, Oliveira, Melo, Varela, and Mathias (2018), the most common causes of hospitalization are preterm labor, hypertension, hemorrhage, vomiting, premature placental abruption, influenza, pneumonia, vaginal discharge requiring treatment, abdominal pain, asthma and anemia. (Falavina et al. 2018.) Therefore, British National Institute for health and Care Excellence (NICE) guideline (2019) recommended women with chronic diseases before pregnancy / during pregnancy planning to consult with a midwife and discuss about possible risks, how her health can affect her care, how pregnancy and childbirth can affect her health, how her health and management can affect her baby, available intrapartum care and assess her possibilities/risks. As an example, we can consider a risk assessment for women with heart diseases, which, in addition to the obstetrician and midwife, should be conducted by a cardiologist with experience in treating heart diseases in pregnant women. (NICE guideline 2019.)

After surviving the stillbirths or see how newborn died, women are faced with the fear of repetition. According to Bhattacharya, Prescott, Black, Shetty, Bhattacharya, Prescott, Black, and Shetty (2010), there is a risk of recidivating, but it is not

extremely high. It is possible to become pregnant and have a safe birth again, only obstetric diligence is required. (Bhattacharya et al. 2010.)

The hospitals conduct advanced services for controlling women with complications, birth managing, operative delivery, full supportive care for women (Black, Levin, Walker, Chou, Li Liu, Temmerman, & Liu 2016). Consequently, hospitalization negatively affects pregnant women and her family, because of vulnerability and concern, since pregnancy period is expected to occur naturally and without complications (Piveta, Campaner Ferrari Bernardy, & Malagutti Sodré 2016). On the other hand, Woog (2017) claims, that majority of women feel safe and choose to give birth in a hospital. Moreover, midwives play a key role in women's decision regarding birthplace. (Woog, 2017.) Generally, pregnant women are physically cured while in the hospital, but since they are alone and do not have relatives nearby, the women suffer psychological (fear, anxiety, nervousness, despair, and indignation). Therefore, midwives working in hospitals must understand the psychology of these women in order to influence the effectiveness of the provided care. (Piveta et al. 2016.)

Midwife is key person in the journey of women in labour, from conception to birth and beyond. It is recognized globally that midwives are critical care providers in prenatal care and are the main professionals on birth wards, providing healthcare education and information to pregnant women and their family members. (Gunnervik, Josefsson, Sydsjö, & Sydsjö, 2010.) Furthermore, midwives have the possibility to make a positive change in the lives of women, newborns, families and communities, acting as a mediator between the women and the healthcare institution. Therefore, sometimes midwives are referred to as 'agents of change'. (The dignity survey 2013: women's and midwives' experiences of uk maternity care 2013.)

NICE (Clinical Guideline Antenatal care for uncomplicated pregnancies 2008) maternity care guidelines mark the need for women to be given personalized information about the risks, benefits, and comparisons of treatment options. Moreover, there is an increasing understanding of the significance of high-quality interactions between women and midwives in improving maternal autonomy and choice during prenatal care (Miller et al, 2016). It is also appropriate that experiences of women about their partnership in decision-making impacts on their

perceptions of the quality of their care (Heatley, Watson, Gallois, & Miller, 2015). As McKellar, Pincombe, and Henderson (2009) argue, timely informational support helps women feel prepared and confident in their conversion to parenthood. Besides, Ledward (2019) placed emphasis on the fact that the midwife should be able to open the discussion through illustrating the possible options, followed by a methodical conversation where options are clearly separated from decision points. The woman's expression concerning a particular view should be explored. This approach creates trust between the midwife and a pregnant woman.

Green (2015) underlined that women identified the influence of midwives as a critical factor regarding their birth position choices. Additionally, an Iranian researchers (Attarha, Keshavarz, Bakhtiari, & Jamilian, 2016) stated that having the full support of a midwife was a weighty factor to ensuring a positive birth experience. If midwives have effective communication skills there will be a lot of advantages for the patients, namely reducing pain, anxiety, and guilt, an increasing peace of mind, and a sense of cooperation from the medical staff.

Seeing innovation and improvement is one of the main parts of midwifery roles. Since midwives have unique ability to identify areas which require improvement, through their relationships with women and their family members. Particular changes need to take place in collaboration and support from the multidisciplinary team; thus, it is crucial that midwives develop their management skills to lead innovation and quality improvement in practice. (Jameson, 2012.)

One of the basic parts of maternal well-being is nutrition. Therefore, dietary education of pregnant women is vitally important and midwives arrange the nutritional consultations during pregnancy. Moreover, midwives significantly contribute for women to have a healthy pregnancy by clear communication, being knowledgeable, monitoring weight gain during pregnancy, and providing support during the prenatal period. (Ho, Flynn, & Pasupathy, 2016; Barger, 2010; Sze Yin, Dixon, Paterson, & Campbell, 2014; Widen & Siega-Riz, 2010; Nicholls, & Webb, 2006.) Generally, during normal pregnancy it is not necessary to obsess over nutrition since this is a natural condition. Nonetheless, there are valuable exceptions which exhibit that midwifery advises about nutrition remains an important part of good prenatal care. (Barger, 2010.)

Another major issue in life saving and improving the health and wellbeing of women and babies globally is breastfeeding. Accordingly, nurses and midwives support mothers to successfully initiate and continue breastfeeding by giving advice about the methods of infant feeding, the process of lactation, problem management, communication, and advanced skills. (Gavine, MacGillivray, Renfrew, Siebelt, Haggi, & McFadden, 2017; Victora, Bahl, Barros, França, Horton, Krasevec, Murch, Sankar, Walker, & Rollins, 2016.)

Enchelmaier (2019) discovered that another innovative and low-cost midwifery approach due to which women familiarize with prenatal care is Yoga. With the help of Yoga midwives' skills and knowledge has a positive effect on reducing maternal anxiety and prepares pregnant women for simple strategies, which help to manage the demands of pregnancy and pain experienced during birth. Wide range of choice and alternatives to usual services provided by midwives may refine women's gratification and their attitude to prenatal care which in return credible.

Substance use disorder is the constant use of a substance that affect to physically, psychologically, or socially health, including tobacco, alcohol, prescription medications, and illicit drugs. In pregnancy, dependence on one or more of these substances formulates a serious health problem for both the mother and the fetus. (Substance Use Disorders in Pregnancy 2018.) According to ACNM (Substance Use Disorders in Pregnancy 2018), Wong et al. (2011) define that the screening of pregnant women for addiction is the main point of prenatal care. All pregnant should be screened occasionally for alcohol, tobacco, marijuana, prescription medications, and illicit drugs during prenatal care. ACNM (Substance Use Disorders in Pregnancy 2018) claim that in this case, the midwives organize teamwork and play an important role in supporting patients and their families with addiction challenges (ibid.).

Amphetamines, and the problems associated with their using is one of the main classes of illegal drugs since the 1990s. The majority of users are childbearing age women. Moreover, the impact of amphetamines on prenatal outcomes depends on the amount used, frequency of exposure, and modifications in drug composition, as well as factors such as exposure to other substances, and other existing medical conditions. Midwives play an important role in this case. Moreover, midwives

responsible for communication with the women about the impact of amphetamine on pregnancy and fetal wellbeing, and the complications that may happen due to using amphetamine. (McDonnellDowling & Kelly, 2015.) Midwives in these conditions collaborate with the multidisciplinary team, thus planing the care which informatively supports women and activates them as participants, and facilitates them to make decisions that help to achive positive results for themself and their babies (Ebert, Bellchambers, Ferguson, & Browne, 2014). Also, the clue of midwifery care is the education of women who still continue to use the amphetamine. The midwife is able to educate women about symptoms of obstetric complications with her drug addiction and explains the need to inform the midwife at the first sign. (McLaurin & Geraghty, 2013.)

Tuberculosis is a distressing and shameful disease. While TB is slowly decreasing in eastern Europe, in Kazakhstan situation is not comforting. Confirmation of this, throughout Kazakhstan, were identified 8,803 new cases of tuberculosis in 2018.(Tuberculosis in pregnancy 2019; Medinform 2018.) The pregnant women are at higher risk to catch tuberculosis for immunological reasons, mainly due to T-cell suppression and reduced interferon-gamma production. (Tuberculosis in pregnancy, 2019.) Tuberculosis can develop in any period of pregnancy and proceeds difficultly because tuberculosis intoxication can have an adverse effect on the development of the fetus and can cause miscarriage. And if pregnancy occurs against the background of existing tuberculosis, then the exacerbation of the disease can occur in the first months of pregnancy. This is manifested in a worsening of a woman's well-being, weakness, coughing, losing weight, and prolonged subfebrile body temperature. (Tuberculosis during pregnancy and after childbirth 2020.)

Namely, in such cases, midwifery consolation and support which they offer to women in prenatal care are significantly valuable. Moreover, midwives also play an important role in detecting tuberculosis in prenatal care screenings, since they are first and frequent communicating specialists with reproductive-age women in health care. (Tuberculosis in pregnancy, 2019.) Bothamley (2006) underlined, that midwives also collaborate with medical staff who is specialize in tuberculosis for ensuring the diagnosis and effective treatment of tuberculosis during pregnancy. Additionally, the midwife provides special isolation procedures that enable avoiding banishment of

the pregnant woman, as well as ability to support pregnant women with tuberculosis in taking medicine regularly.

Overall, the midwives deal with many respects of support in prenatal care. Midwives who work in a hospital obstetric department, consultant unit, a birth center, or midwife-led unit are called Hospital midwives. Another type of midwives who often work in teams and provide a degree of continuity of care is Community and they are available for a home birth in UK. (NCT 1st 1000 days new parent support n.d.).

Generally, a prenatal care midwife should focus on all women and their families to having a positive and safe experience of pregnancy, giving birth, and early parenting (Midwifery 2020 Programme 2010). Thus the prenatal care means for women the source of reliable information, trust, and opportunity to a strong work with professionals. The midwives in their turns come to know their clients very well, which is inestimable in co-working and developing care prospects with multi-disciplinary colleagues. (Pregnancy and Complex Social Factors A Model for Service Provision for Pregnant Women with Complex Social Factors 2010.) Theoretically, the prenatal period is an advantageous time for a woman to realize efficient preventive and health-promoting procedures. Moreover, procedures provided during the prenatal period can hypothetically decrease the possible negative health impact in pregnancy-induced by chronic disease. (Haakstad, Voldner, & Bø 2013; de Wolff et al. 2019.) In conclusion, midwives will continue to take care of pregnant women despite everything (Midwifery 2020 Programme 2010).

According to Order of the Health Care Ministry of the Republic of Kazakhstan No. 173 dated April 16, 2018, about on the approval of the Standard for the organization of obstetric and gynecological care in the Republic of Kazakhstan, monitoring of pregnant women, prenatal screening, all prenatal training of pregnant women including preparation for childbirth, partner labor; informing pregnant women about alert signs, breastfeeding is carried out by a gynecologist (N173). Unfortunately, in Kazakhstan, the role of midwives in prenatal care is practically reduced only to the assistance of a doctor.

3 Purpose and Aim

The purpose of this integrative review is to review the factors associated with the practices of a midwife taking care of women in the prenatal phase.

The aim of this review is to collect the findings of research studies and other relevant sources (2012 - 2020) of midwives' independent, dependent and collaborative roles and methods in the prenatal care. The results will be valuable to Kazakh prenatal midwives and educators since today there are no research studies in Kazakhstan regarding this topic. In addition, Kazakh midwives and educators will be able to reflect and compare their own job descriptions to international ones.

Research Question are:

1. What is the role of an independent midwife in prenatal care?
2. What are the independent methods of midwifery in prenatal care?
3. What kind of recommendations can be provided to Kazakh midwives who are working in prenatal care based on the results of this review?

4 Methodology

4.1 Literature review

In the era of the explosion of scientific information in healthcare, it is difficult for medical practitioners to keep up with the updates. Since the growth of scientific literature and publications, individual health care providers do not have the time or capacity to constantly read recent studies. Therefore, there was a need for a systematic review, which considers all the conclusions on a specific topic and includes them as much as possible in research, as well as in experimental and contextual data. (Holly, Salmond, & Saimbert 2017, 13.)

A review is the summarizing of a field of study, which is directed to the identification of particular research questions (Rowley & Slack 2004). It is a thorough overview of previous research concerning a specific issue. The reviewed literature can mention theories and previous research that could be helpful for a researcher in choosing

suitable topic and methodology. (Denney & Tewksbury 2012.) A perfect review explain you already known information as a storytelling (Jesson & Lacey 2006).

The three basic types of reviews presented by Green, Johnson, and Adams (2006) are Narrative review, Qualitative Systematic review and Qualitative Meta-analysis. On the other hand, Jesson and Lacey (2006) and Ferrari (2015) define two types of literature reviews: non-systematic or traditional or narrative review and systematic review. In addition, Broome (2000) is of the opinion that four variations of literature reviews exist: abbreviated synopses of the literature, methodological or theoretical reviews, critical analyses, integrative reviews and meta-analyses.

4.2 Integrative review

According to Whittemore and Knafel (2005, 546), Broome (1993) defines Integrative review as a specific review method which covers prior empirical or theoretical literature to supply detailed understanding of a specific phenomenon. Generally, integrative review is comparable to the systematic review, but there are few clear distinctions (Broome 2000). According to Russell (2005), Cooper (1998) states that a good integrative review should accurately explain the state of current research literature, as it undergoes a clear systematic analysis and summary. In addition, a well-made integrative review can be used to assess scientific data, identify gaps in research areas, support theory development, determine the need for future research, connect related fields of work, identify the main problems in this area, and study which research methods are used for successful work and relevant to apply in practice. (Russell 2005; Whittemore & Knafel 2005.)

The reason why the integrative review was chosen is that according to Hopia, Latvala, and Liimatainen (2016) Evans (2007) states that the integrative review gives the possibility of a variety of sample frames, including both empirical and theoretical publications. In addition, the unique difference of the integrative review is allowing the combining of different methodologies. In an integrative review, the reviewer may use various data sources. This results in a deeper study of the topic of interest. Thus, this combination important in the science-based practice of nursing. (Whittemore & Knafel 2005.) The main objective of the reviewer in an integrative review is to find out

what is known in this field, the level of quality of known data, what should be known, and what can be used in practice after this study (Russell 2005).

In this integrative review Whitemore and Knaf's methodological approach was used, which is based on Cooper's (1989) theoretical framework. The methodological approach consist of five steps: (1) problem identification, where the research question and purpose are directly determined; (2) literature search, which consists of a comprehensive strategy; (3) assessment of data, which aims at reliability, methodological quality, value of information and representativeness of primary sources; (4) data analysis, during which data reduction, display, comparison and conclusions occurs; and (5) presentation that synthesises results in a model for completely illustrating the integration process, lists the review limitations and describes the influence for practice, policy and research. Additionally, this structure is suitable for all verification methods, and any integrative verification will be based on this source (Whitemore & Knaf 2005.) Consequently, this framework will be converted to problem solving particular to the integrative review method (Whitemore 2005).

4.3 Search methods and data

This study was conducted by assessing papers published between the 2012 and 2020. The reviewer used the CINAHL (Cumulative Index to Nursing and Allied Health) academic database. The database was selected since it is the largest nursing research database for nursing and allied health peer-reviewed journals and publications in the world (CINAHL databases, 2019). Therefore, no other databases were used for this review. The initial search terms entered were 'antenatal care or prenatal care or antepartum care', 'nurses role or role of the nurse or nurse or intervention or health promotion, 'midwife or midwives or midwifery' in papers published in English. Search models chosen were Boolean/Phrase applying equivalent subjects. The search results were limited to Full text and abstract available. The initial search yielded 87 hits. Cooper (2010) strongly recommends team-work to conduct the literature review, mostly since coding studies benefit from being executed by at least two researchers independently to guarantee the quality of the study. However, this work was done by one author, but some specific issues that arose during the review were resolved in

the discussion between the supervisor and the author. In the next phase, the author excluded publications not suitable for the selected topic. The exclusion was conducted by reading the title and the abstract of the reviews. Overall, 59 articles were excluded, and 28 were retained for the next phase. Next, papers were excluded ($n = 16$) by reviewing the full text. Twelve publications were retained for more comprehensive evaluation. After applying the final exclusion criteria, nine articles were retained for the final sample of this integrative literature review. An overview of the initial search results is presented in Figure 1.

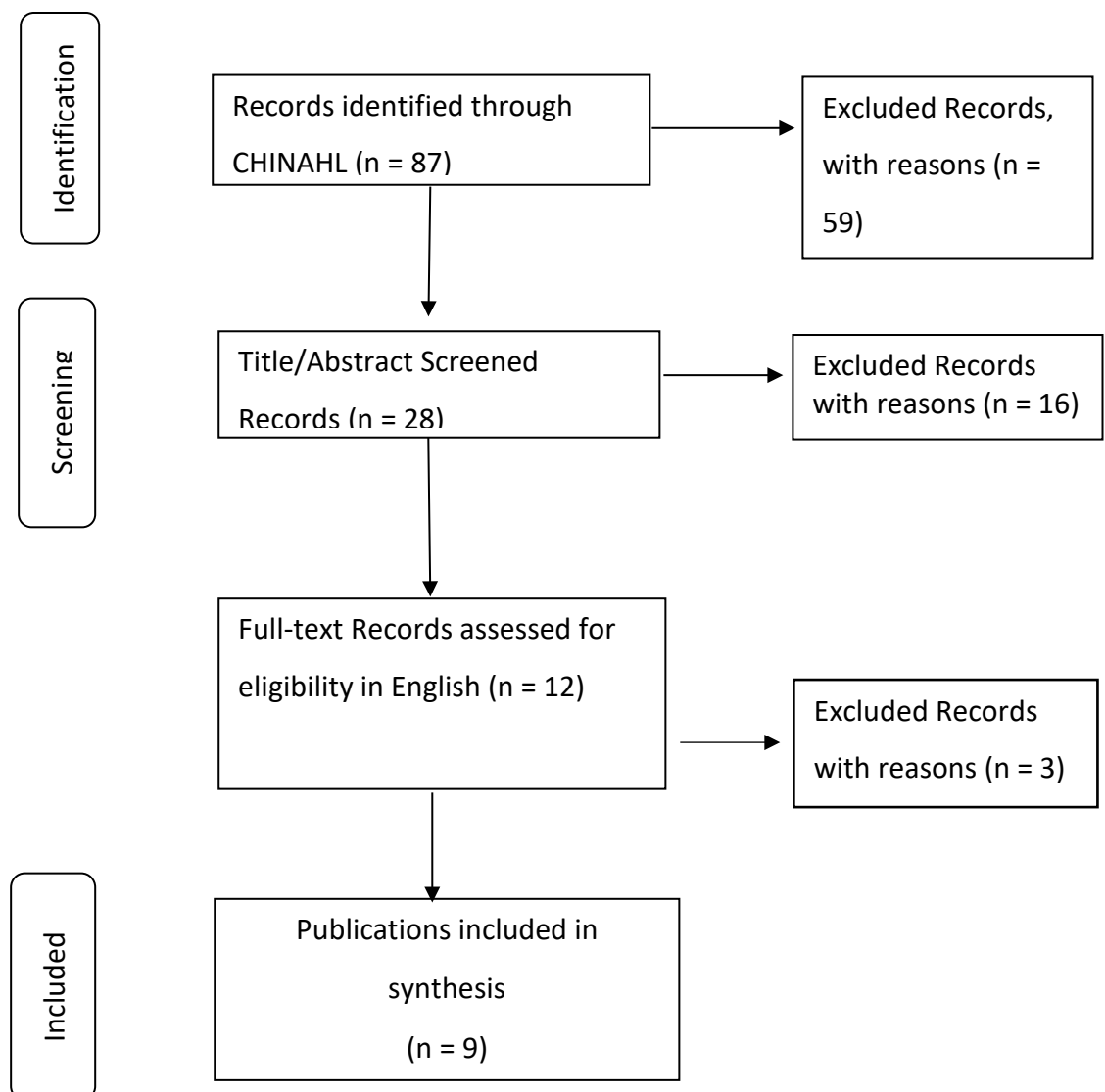


Figure 1. Assessment of records

4.4 Quality appraisal of the included papers

The data analysis process was initiated when the final 12 papers for inclusion were determined and had been verified by the reviewer. The identified studies that were included in the review at this point were grouped into one of the following categories: qualitative (interpretive and critical) studies, and text/opinion documents. These identified publications were assessed for their trustworthiness, relevance, and results using an appropriate checklist provided by the Joanna Briggs Institute (2017). A cut-off score of the reviewed publications was decided to be 50% of the assessment criteria. (See Appendix 2). Some specific issues, which arose during the review, were resolved in the discussion between the supervisor and the author of the thesis. Out of the 12 publications, 3 were excluded and the final number of publications included in the review was 9.

Table 1. Types of publications

Publication type	Number of publications (n =9)
Empirical qualitative study	3
Discussion/contemporary issues article	6

4.5 Data analysis

In this thesis the data analysis method used was the thematic analysis illustrated by Braun and Clarke (2006). Firstly, 9 articles were read carefully. Subsequently, the results or main content of each article that answered these research questions were divided in three tables highlighted in separate colours. Then, they were joined into one single table. The types of the included publications were identified and the results are shown in Table 1. Secondly, codes were created and grouped into subthemes which were related. As a result, themes were created from subthemes that consist of various pieces of data. The main idea of generating themes was that it captured something significant about the data according to the research questions and aim. The themes constituted a meaning in the data set. Lastly, the key themes were clarified in relation to aim and general purpose of the review. To increase the verification of the analysis, partially peer debriefing was applied in the coding process. In practice, the author regularly discussed her personal understanding and

perception of analysing data aspects with the supervisor. This helped to examine how the reviewer's contemplation and ideas evolved during the analysis process. (Braun & Clark 2006; Nowell, Norris, White & Moules 2017.)

All in all, 149 codes were generated according to the study's initial ideas. 13 themes from 42 subthemes were identified, and the articles were organised into relevant groups. Searching for themes was intended to involve sorting codes into valid subthemes, then into potential themes, by considering how codes could be integrated into a comprehensive theme. Sorting into themes and subthemes was done until the patterns were meaningful in relation to the study aim (Table 2).

Table 2. Coding process sample

Codes	Subthemes	Themes
<ul style="list-style-type: none"> - Planning educational conferences - health-promoting - health-promoting practitioners - Heath promotion 	Health promoting	Educate the women
<ul style="list-style-type: none"> - Advice - Advicer - advice regarding the benefits of exercise to mother - advice regarding the benefits of exercise to mother and baby - giving smoking cessation advice 	Advicing	
<ul style="list-style-type: none"> - show the pros of being healthy - Counselling method 	Convincing	
<ul style="list-style-type: none"> - Regularly trainings - Training methods - offering simple presentation scans 	Trainings	
<ul style="list-style-type: none"> - self-education and health-seeking behaviour 	Motivation	

- promoting ANC services	Promotion	
- open-minded thinking - Provide information on delivery - group work	Provide information	

4.6 Research Ethics

Ethical approval was not sought as the study is built on a review of other publications.

5 Results

A third (3) of the selected publications were empirical qualitative studies, and two-thirds (6) were discussion/contemporary issues articles. More than half (5) of the publications originated from the United Kingdom, 1 article from United States, 1 from Canada, 1 from Australia, and 1 from East Africa (Kenya).

Three key themes for midwifery as an independent role with independent methods were identified. The included publications are separately listed at the end of this article.

In addition, 13 themes, which formed in the analysis, were identified: family health, educating women, mental health, different types of clinical interventions, management, development work, effectiveness of prenatal care, nursing development, availability of prenatal services, positive results of prenatal care, giving the right to choose, midwives responsibilities, and problems in prenatal care. They will be presented below.

5.1 What is the role of an independent midwife in prenatal care?

Firstly, the results emphasize the role of midwives in ensuring human rights to their patients. If midwives would act benevolently and humanely every day, then medical staff will be able to decide a fantastically difficult part of their work. (Miller & McLoughlin, 2014.) Some authors suggest that a warm, empathetic individual approach during face-to-face meetings with women is one of the important roles of midwives, which they can perform completely independently (Swann & Davies, 2012; November, 2016; Bergen, Hudani, Asfaw, Mamo, Kiros, Kurji & Labonté, 2019; Walker & Sabrosa, 2014).

Other equally important independent roles in midwifery areas is preparing women for delivery and recognizing pregnancy-related health needs/expectations of women. In this case, midwives also take care of women who have specific health needs and support each of them individually. Furthermore, midwives are important in ensuring that the pregnancy and childbirth is safe for the woman (Bergen et al. 2019; Crabbe & Hemingway, 2014; Walker & Sabrosa, 2014; Swann & Davies, 2012.)

A number of researchers noticed important roles in midwifery, which are preparing women to delivery, serving during delivery, and recognizing pregnancy-related health needs/expectations of those women. In this case, midwives also take care of women who have specific health needs and individually support each of them. (Bergen et al. 2019; Crabbe & Hemingway, 2014; Walker & Sabrosa, 2014.) Support means that this concept is extensive for midwives and includes several important components: mental support, supporting in a healthy lifestyle, smoking cessation support, supporting family members, breastfeeding support, giving advice, and motivating women. Pregnant women, women in process of planning pregnancy, women after having abortions, and women after childbirth are mentally vulnerable. Therefore, they need professional support. (Crabbe & Hemingway, 2014; Swann & Davies, 2012.)

McCauley & Lowe (2019) underlined screening, diagnosis, and disease prevention as another role that, midwives are able to do independently. Furthermore, Walker & Sabrosa (2019) added providing information about cesarean section to this list.

According to Bergen et al. (2019) and Crabbe and Hemingway (2014), midwives collaborate with medical colleagues throughout prenatal care. For example, during the first stage of health promotion and delivery midwives work with community-based Health Extension Workers (HEWs), and during that process, midwives lead and supervise HEWs.

According to Crabbe and Hemingway (2014), confidential relationship between midwives and patients is a clue factor namely in case of identifying domestic abuse. In terms of implementation science, Swann and Davies (2012) placed emphasis on ensuring a calm and comfortable birth environment facilitating a safe delivery.

According to Hendricks (2016), the last and major nursing role in prenatal care is being in trend. Midwives should apply current technology to create avenues, which bring midwifery closer to women.

In conclusion, the role of an independent midwife is ensuring pregnant women's rights; individual approach with a warm relationship; preparing women to delivery, and recognize pregnancy-related health needs/expectations of pregnant women; responsible for safe pregnancy and childbirth; serving during delivery; ensure individual support of women who have specific health needs including mental support, supporting in a healthy lifestyle, smoking cessation support, supporting family members, breastfeeding support, advice and motivate pregnant women; screening, diagnosis, and disease prevention of those pregnant women; co-working with colleagues throughout prenatal care; guarantee to those women a confidential relationship; and being in trend by always updating own knowledge.

5.2 What are the independent methods of midwifery in prenatal care?

Nursing science researchers (Bergen et al. 2019; Crabbe & Hemingway, 2014; Swann & Davies, 2012; McCauley & Lowe, 2019; Walker & Sabrosa, 2014) are of the opinion that one of the main independent nursing methods is responsibility to women's health education, which includes a variety of components such as health promotion, advising, convincing, trainings, and motivation. Explaining the health promotion method, authors describe educational conferences, group works, and individual consultations for pregnant women, where open-minded midwives ensure the pros of

being healthy; sufficient information about delivery, and acquainting with regular trainings and providing simple presentations.

In addition, Swann & Davies (2012) emphasize midwives advising obese women in prenatal care as another method in minimizing weight gain during the pregnancy. Midwives show the benefits of exercise during pregnancy to both mother and baby, and explain the importance of 30 minutes of moderate intensity exercise five times a week.

According to Swann and Davies (2012), Walker and Sabrosa (2014), and Crabbe and Hemingway (2014), a further independent nursing method in prenatal care is problem-solving techniques in the mental health for pregnant women. One of them is helping them give birth by making informed choices. Second is encouraging pregnant women in their choice. As an example, midwives counsel women whose babies are thought to be breech after 33 weeks. Furthermore, authors marked midwifery partnership working, where midwives support women to capacitate good health and wellbeing, helping women to widen their social networks, help to manage finances, or through health promotion in partnership with health, social, and voluntary agencies. Breastfeeding is also a great method in reducing postnatal depression incidence on condition that the breastfeeding experience is positive (Musyimi, Mutiso, Nyamai, Ebuenyi & Ndeti 2019; Crabbe & Hemingway, 2014).

Walker and Subrosa (2014) describe a method that is more specific in prenatal care- External cephalic version (ECV). In this procedure, the baby is turned to a head-down position in the uterus, which is appropriate to offer to primigravidas from 36 weeks and multigravidas from 37 weeks. Providing the ECV is an obstetrician's or specially trained midwife's responsibility. More importance should also be attached to the appraisal of fetal presentation by abdominal palpation as a fundamental skill in prenatal care, where the midwife gently feels the position of the baby through the mother's abdomen by hands, in order to assess uteri location of the baby (Walker & Sabrosa, 2014).

On the way to improving the effectiveness of prenatal care, midwives take advantage of their knowledge and skills that effect mortality, impact on incidence, reduce the risks of obesity, provide positive outcomes and act to reduce the risks (Crabbe &

Hemingway, 2014; Swann & Davies, 2012; Walker & Sabrosa, 2014). Bergen et al. (2019) underlined that availability of prenatal services 24/7 on call (in case ambulance service is not available, pregnant women can call the midwife) is important in nursing interventions. Researchers (Swann & Davies, 2012; Walker & Sabrosa, 2014) highlighted that giving the right to choose is also significant. In case of obese women, midwives need to provide a choice for women with the continual aim of improving health as well as to ensure all women have satisfactory information to make informed choices during pregnancy and childbirth. Moreover, an abdominal palpation begins with offering a choice about whether the woman would like her abdomen palpated and for what reasons.

November (2016) discovered that midwives recognize time pressure. As a result of the perceived time pressure there was not enough time to discuss concerning issues. Nurses running late for appointments, time constraints, and the lack of continuity of care are also problems that need to be solved.

6 Strengths and weaknesses

The strengths and weaknesses (validity and reliability/trustworthiness) of qualitative research shows to the reader that the research design accurately identifies and describes the phenomenon under discussion. The main points of qualitative research are consistency and integrity, so this is what the reader bases their judgment on quality. (Farrelly, 2013.)

Strengths of this research was the Joanna Briggs Institute (JBI) Critical Appraisal checklist was used systematically in this review. Also the scope of this review was quite narrow, which helped to find relevant sources for the review.

Limitation of the study include that data was assessed by one reviewer for methodological validity, while the integrative review should be conducted by at least two researchers according to Whitemore and Knafel (2005). However, a number of challenging issues concerning inclusion and exclusion criteria were discussed with the advisor to reach common understanding. A factor weakening the transferability of the results is that only the CINAHL database was used for this thesis, which may prevent to find richer data. Nevertheless, the strength is that manual searching of

different sources could be carried out to find out all relevant publications concerning the research questions. In this research, thematic analysis was applied consistently, and according to Braun and Clarke (2006), this type of analysis provides a strong, systematic structure for coding data, which is used to identify patterns across set related to the research question.

7 Discussion

In this integrative review, the author explored the nursing role in prenatal care globally. To accomplish this, the author identified 9 publications extracted from the CINAHL database that met the inclusion criteria, performed a quality appraisal following the JBI guidelines, and analyzed the data focusing on nursing role topics. Overall, two key themes were identified. Here, the author highlights a few points of view about the results. This research is a first step towards a more profound understanding of independent - Kazakhstani midwives' role in prenatal care. Also, this is the first time this approach is proposed for use in a master thesis in Kazakhstan.

Prior studies have noted the importance and responsibilities of certified midwives (CM) - in prenatal care in North America. Namely, midwives ensure to the physical, emotional, psychosocial needs of pregnant women; provides safe, competent, and ethical care (Definition of midwifery and scope of practice of certified nurse-midwives and certified midwives 2012; Perinatal nursing standards in Canada 2018.) Moreover, as mentioned in the literature review, prenatal midwives realize a significant impact on outcomes for women. (Women's health and perinatal nursing care quality refined draft measures specifications 2014.)

Previous data have noted the importance of human rights in professional codes of ethics for midwives. The adoption of these codes implies the concept of midwives that the injustice in the health of a pregnant woman is directly related to the violation of the right to health. Thanks to careful, delicate and special interventions, midwives can be a vital source for improving fertility rates. (McRae & Kaufman 2017.) Moreover, in evaluating previous literature inconsistent results were observed on medical care where the authors underline emotional support as the main point and

ensuring minimal medical care in preparing pregnant women to childbirth (Ojelade et al. 2017). In this work, both acts (fully medical care and emotional need) are the midwives' independent responsibilities, and both of them are equally important (Swann & Davies, 2012; November, 2016; Bergen, Hudani, Asfaw, Mamo, Kiros, Kurji & Labonté, 2019; Walker & Sabrosa, 2014).

In reviewing the literature, no data was found of prenatal midwives' time pressure during their routine work. However, in this research, time pressure is mentioned as a component of midwives' methods, which affects women due to the insufficient time to discuss issues. (November, 2016.) Moreover, no information was found in the literature on the question of the overall role of the midwife in prenatal care since the topic is extensive.

Very little was found in the literature on the question of the relationship between midwives' role in prenatal care and maternal mortality. David and Allan (2018) searched that midwives had a positive effect in addressing maternal mortality and the rights of childbearing women. While, Lawton, Filoche, Geller, Garrett, and Stanley (2015) highlighted that no association between nurse-midwives' experience and prenatal mortality was found. In this study, researchers (Crabbe & Hemingway, 2014; Swann & Davies, 2012; Walker & Sabrosa, 2014) mentioned that well experienced midwives, who always updated their knowledge, positively affect mortality, impact incidence, reduce the risks of obesity, provide positive outcomes, and act to reduce the risks.

8 Recommendations and conclusion

Although the evidence in this literature review was based on a small sample, the findings suggest that more research needs to be performed concerning midwives' role in prenatal care. More specifically nursing-midwifery research should be conducted in Kazakhstan, so that midwives and nurses understand that their service is different and separated from medical care. Accordingly, the midwives should largely be involved in qualitative research since quality research is new and useful for Kazakh nurses and improve the development of nursing care in Kazakhstan. Therefore, it is necessary to conduct more qualitative research since the government

has legally begun the process of independence of nurses from medical doctors, and the nurses themselves are not ready for this yet.

Overall, findings from several researchers of the included reviews claim that specialized midwives are influential public health practitioners who can make long-term, positive involvement in the lives of women and their families; promote health and wellbeing; and help meet women's increased needs for counselling and support. Today, there are small number of studies on midwifery or consumer focused research available. Further midwifery research is required to establish which aspects of care are effective at prenatal and intrapartum care, which can improve normal birth rates, and reduce maternal mortality. (Crabben & Hemingway, 2014; Miller & McLoughlin, 2014; November, 2016; Swann & Davies, 2012; Walker & Sabrosa, 2014.)

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Appendix 1. Publications included in the integrative review

- Bergen, N., Hudani, A., Asfaw, S., Mamo, A., Kiros, G., Kurji, J., Morankar, S., Abebe, L., Kulkarni, M. A., & Labonté, R. (2019). Promoting and delivering antenatal care in rural Jimma Zone, Ethiopia: a qualitative analysis of midwives' perceptions. *BMC Health Services Research*, *19*(1), N.PAG.
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- Crabbe, K., & Hemingway, A. (2014). Public health and wellbeing: A matter for the midwife? *British Journal of Midwifery*, *22*(9), 634–640.
- Hendricks, J. (2016). App challenged: Are midwives prepared? *Australian Nursing & Midwifery Journal*, *23*(7), 32.
- McCauley, H., & Lowe, K. (2019). Strengthening Midwifery Internationally. *Midwifery Matters*, *160*, 12–14.
- Miller, K., & McLoughlin, M. (2014). Comparison Between an Independent Midwifery Program and a District Hospital in Rural Tanzania: Observations Regarding the Treatment of Female Patients. *Health Care for Women International*, *35*(7–9), 808–817. <https://doi-org.ezproxy.jamk.fi:2443/10.1080/07399332.2014.924519>
- Musyimi, C. W., Mutiso, V. N., Nyamai, D. N., Ebuenyi, I. D., & Ndetei, D. M. (2019). Integration of Traditional Birth Attendants into Mental Healthcare: A Multistakeholder Qualitative Study Exploration. *BioMed Research International*, 1–7.
<https://doi-org.ezproxy.jamk.fi:2443/10.1155/2019/8195267>
- November, L. (2016). Are we getting the message across? Women's perceptions of public health messages in pregnancy. *British Journal of Midwifery*, *24*(6), 396–402.
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- Swann, L., & Davies, S. (2012). The role of the midwife in improving normal birth rates in obese women. *British Journal of Midwifery*, *20*(1), 7–12.
- Walker, S., & Sabrosa, R. (2014). Assessment of fetal presentation: Exploring a woman-centred approach. *British Journal of Midwifery*, *22*(4), 240–244.

Appendix 2. Included articles in the review

	Authors	Critical Appraisal Checklist	Items for assess	Cut-off ranges	Score	Included or excluded publications
1. Promoting and delivering antenatal care in rural Jimma Zone, Ethiopia: a qualitative analysis of midwives' perceptions.	Bergen, N., Hudani, A., Asfaw, S., Mamo, A., Kiros, G., Kurji, J., ... Labonté, R. (2019).	JBI Critical Appraisal Checklist for Qualitative Research	1 - 10	5	7	Incl
2. Public health and wellbeing: A matter for the midwife?	Crabbe, K., & Hemingway, A. (2014).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	5	Incl
3. App challenged: Are midwives prepared?	Hendricks, J. (2016).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	4	Incl
4. The role of the midwife in improving normal birth rates in obese women.	Swann, L., & Davies, S. (2012).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	5	Incl
5. Strengthening Midwifery Internationally	McCauley, H., & Lowe, K. (2019).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	5	Incl
6. Comparison Between an Independent Midwifery Program and a District Hospital in Rural Tanzania: Observations Regarding the Treatment of Female Patients	Miller, K., & McLoughlin, M. (2014).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	4	Incl

7. Are we getting the message across? Women's perceptions of public health messages in pregnancy.	November, L. (2016).	JBI Critical Appraisal Checklist for Qualitative Research	1 - 10	5	8	Incl
8. Assessment of fetal presentation: Exploring a woman-centred approach	Walker, S., & Sabrosa, R. (2014).	JBI Critical Appraisal Checklist for text and Opinion Papers	1-6	3	3	Incl
9. Integration of Traditional Birth Attendants into Mental Healthcare: A Multistakeholder Qualitative Study Exploration.	Musyimi, C. W., Mutiso, V. N., Nyamai, D. N., Ebuenyi, I. D., & Ndetei, D. M. (2019).	JBI Critical Appraisal Checklist for Qualitative Research	1 - 10	5	7	Incl
10. Managing women in pregnancy after bariatric surgery: the midwife as the co-ordinator of care.	Abraham, J., Neha, S., & Power, A. (2019).	JBI Critical Appraisal Checklist for Qualitative Research	1 - 10	5	4	Exl
11. Beyond the hospital door: a retrospective, cohort study of associations between birthing in the public or private sector and women's postpartum care.	Brodribb, W., Zadoroznyj, M., Nestic, M., Kruske, S., & Miller, Y. D. (2015).	JBI Critical Appraisal Checklist for cohort studies	1-11	6	4	Excl

12. The role of health extension workers in improving utilization of maternal health services in rural areas in Ethiopia: a cross sectional study	Medhanyie, A., Spigt, M., Kifle, Y., Schaay, N., Sanders, D., Blanco, R., Geertjan, D., & Berhane, Y. (2012).	JBI Critical Appraisal Checklist for cross sectional studies	1-8	4	3	Excl
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