

Assessment of Nurses Knowledge of Postpartum Depression

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<p>Abstract</p> <p>Despite growing awareness of the impact of maternal depression on the health and well-being of children, mothers, and health care, providers continue to ignore mental disorders in the perinatal period. Since nurses and midwives are in constant contact with women during pregnancy and during the first year after birth, they need to be able to recognize mental disorders and educate pregnant women and parents about postpartum depression.</p> <p>The aim of this study was to study the knowledge of nurses about postpartum depression in order to develop quality postpartum care among nurses and midwives in Kazakhstan.</p> <p>A quantitative research method was applied. An electronic questionnaire was used to collect data. The participants consisted of 212 respondents. The data were analyzed using descriptive statistics.</p> <p>The results of the study showed that in Kazakhstan, there are gaps in the knowledge of midwives and nurses about the prevalence, assessment, and treatment of depression in the prenatal and postpartum periods, and almost 90% of Kazakhstani respondents did not attend additional training courses on postpartum depression. It is necessary to increase the level of education by motivating self-learning, organizing a new journal club and additional education for current nurse practitioners.</p> <p>To close these gaps in knowledge, a strategy for training midwives and nurses in perinatal mental health and symptom screening needs to be developed. It is also necessary to develop clinical protocols for assessing the mental state of women in the perinatal period. The application of these protocols by practicing midwives in Kazakhstan will bring medical practice for assessing mental health in the perinatal period closer to international standards, making healthcare better and more cost-effective.</p>		
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1 Introduction

Maternal mental health problems are a serious public health problem worldwide. Currently, researchers estimate that up to 18% of women worldwide experience postpartum depression (PPD). Postpartum depression affects the mother's daily work, social relationships, and child development. (Hahn-Holbrook, Cornwell-Hinrichs, & Anaya 2018.)

Despite growing awareness of the effects of maternal depression on the health and well-being of children and mothers, healthcare providers continue to ignore mental disorders in the perinatal period. Since nurses and midwives constantly communicate with women during pregnancy and the first year after birth, they need to be able to recognize mental disorders and educate pregnant women and parents about postpartum depression. (Carroll, Downes, Gill, Monahan, Nagle, Madden, & Higgins 2018.)

Midwives and nurses are ideal not only for educating women about mental health but also for screening for mental disorders in the perinatal period. Evidence suggests that there are barriers to identifying mental disorders and addressing women's mental health problems during the perinatal period. These barriers are related to organizational factors such as high workload, time pressure, and lack of knowledge and skills regarding PPD (Higgins, Downes, Monahan, Gill, Lamb, & Carroll 2018.)

The purpose of this study is to study nurses and midwives' knowledge of PPD and the competencies of midwives and nurses to identify and treat PPD in the Republic of Kazakhstan.

2 Postpartum Depression

2.1 Maternal Mental Health

Epidemiological and clinical studies (Kessler, Berglund, Demler, Jin, Merikangas, & Walters 2005; Hyde & Mezulis 2020) show a gender difference in the prevalence of depression; in women, depression is twice as common as in men. According to the World Health Organization (WHO), depression among women occurs in 5.1% and

among men in 3.6% (Depression and other common mental disorders: Global health estimates 2017). The gender difference in depression is not observed before puberty, and it decreases after menopause (Hyde & Mezulis 2020).

Women's mental health during pregnancy and after childbirth is a major public health problem in the world (Franks, Crozier, & Penhale 2017; Qutteina, Nasrallah, James-Hawkins, Nur, Yount, Hennink, & Rahim 2018; Hahn-Holbrook et al. 2018). In a study conducted in Turkey (Dikmen-Yildiz, Ayers & Phillips 2017), during the perinatal period (during pregnancy and up to 6 weeks after birth), a relatively high prevalence of mental disorders was revealed. Anxiety is most common during pregnancy, and depression is most common 4–6 weeks after birth. (Dikmen-Yildiz et al. 2017.) PPD is one of the most common mental disorders. The burden of PPD and other mental health problems is growing globally. (Hahn-Holbrook et al. 2018.)

Perinatal depression is a depressive episode that occurs during pregnancy (antenatal depression) or in the first 12 months after childbirth (postpartum depression) (Screening for Perinatal Depression 2018). Researchers have found that suicide is one of the leading causes of maternal mortality in many countries (Oates 2003; Chen, & Lau 2008; Khalifeh, Hunt, Appleby, & Howard 2016). In an American study, maternal suicide mortality was higher than mortality caused by preeclampsia (Palladino, Singh, Campbell, Flynn, & Gold 2011). If we consider the perinatal period as a whole, then depression in the postpartum period occurs in 16.3% of cases (in the early postpartum period in 10.9% of cases, in the late postpartum period in 5.4% of cases). In pregnant women, it accounts for 8.5% of cases and chronic depression in 14.6% of cases. (Wikman, Axfors, Illinois, Cox, Fransson, & Skalkidou 2019.) According to the study by Silverman, Reichenberg, Savitz, Cnattingius, Lichtenstein, Hultman, and Sandin (2017), 33% of all cases of PPD are diagnosed during the first month after delivery, 50% during the first 3 months after delivery and 68% during the first 6 months after delivery.

Women in the postpartum period can be vulnerable to a range of mental disorders, such as postpartum blues, depression and psychosis. According to Chrzan-Detkos and Walczak-Kozłowska (2020), Henshaw (2003) reported that postpartum blues (“baby blues” or “maternal blues”), the lability of mood after childbirth, which is considered a “transitory” emotional experience for women in the early postpartum period, is

common. It is estimated that between 50%–75% of mothers experience transient symptoms of depressed mood (Rai, Pathak & Sharma 2015). Baby blues is sometimes accompanied by a strong mood, irritability, and frequent crying in the first 10 days after delivery. These symptoms can be associated with hormonal and physiological changes in the postpartum period and usually disappear without intervention, with the exception of social and family support. Postpartum psychosis is a rare and serious complication that usually occurs within 2 weeks after birth. Postpartum psychosis is accompanied by mood instability, delirium, hallucinations and impaired thinking, thoughts of suicide or killing the newborn. Therefore, postpartum psychosis requires immediate intervention by a psychiatrist. PPD is halfway between "postpartum blues" and postpartum psychosis. (Rai et al. 2015.)

2.2 Prevalence of Postpartum Depression

According to various researchers (Alves, Fonseca, Canavarro, & Pereira 2019; Lillie, Hembling, Owusu, et al. 2020; Xiong & Deng 2020), the prevalence of PPD is 10–23%. According to Hahn-Holbrook and colleagues (2018), the global prevalence of PPD is 17.7%. The prevalence of PPD varies widely between countries over a wide range from 3 to 38%. The countries with the highest PPDs were Chile (38%), South Africa (37%), Hong Kong (30%), and Turkey (28%). The countries with the lowest rates include Singapore (3%), Nepal (7%), the Netherlands (8%) and Switzerland (11%). (Hahn-Holbrook et al. 2018.) Another study by Shorey, Chee, Ng, Chan, Tam, and Chong (2018) noted that the highest prevalence of PPD was in the Middle East (26%), followed by Australia (21%), South America (19%), Asia (16%), North America (16%), Africa (11%), and then Europe (8%). (Shorey et al. 2018.) In a systematic review and meta-analysis by Hahn-Holbrook and colleagues (2018), various medical, methodological, political, economic, and sociodemographic variables were investigated as potential predictors of cross-national differences in PPD. The vast majority (73.87%) of cross-national differences in the prevalence of PPD are due to economic and medical differences between countries (Hahn-Holbrook et al. 2018). The GINI Index, which is a statistical indicator of a nation's wealth inequality degree, explained 41% of the cross-national variation in PPD prevalence. Nations with higher GINI index had higher levels of PPD. (Hahn-Holbrook et al. 2018.)

Per capita gross domestic product (GDP) was inversely related to the prevalence of PPD. GDP is an indicator of the scale and success of the economy of a state. Nations with lower GDPs had higher PPDs. When modeling GDP and the GINI index together, the GINI index remained statistically significant, but the GDP did not. (Fisher, Mello, Patel, Rahman, Tran, Holton, & Holmes, 2012.)

In countries with a higher percentage of young women who worked more than 40 hours a week, there was a higher prevalence of PPD. Together, economic predictors (GINI, per capita GDP, and women working more than 40 hours a week) accounted for 73.1% of the national variations in PPD prevalence. The only unique economic predictor in this multidimensional model was the GINI index. (Hahn-Holbrook et al. 2018.)

According to Hahn-Holbrook and colleagues (2018), higher prevalence of PPD has been reported in countries with a higher risk of maternal or infant mortality. There were also statistical trends indicating that a higher prevalence of PPD in the country was associated with higher rates of total fertility and a higher percentage of children born with low birth weight. National Caesarean section rates did not predict the prevalence of PPD. Together these health factors predicted a 26.03% variance in PPD prevalence. Maternal mortality was the only unique predictor in multivariate models when all health variables were included. Thus, in countries with higher rates of income inequality, maternal mortality, infant mortality, and women of childbearing age working more than 40 hours a week, there are also higher PPD rates. A higher prevalence of PPD is associated with higher overall fertility rates and a higher percentage of low birth weight babies. It was also found that the delivery method does not affect the prevalence of PPD.(Hahn-Holbrook et al. 2018.)

2.3 Etiology and Risk Factors

The etiology of PPD is unknown, but there are many studies and publications (Dlamini, Mahanya, Dlamini, & Shongwe 2019; Chen, Cross, Plummer, Lam, & Tang 2019; Topatan & Demirci 2019; Gerli, Fraternali, Lucarini, et al. 2019; van de Loo, Vlenterie, Nikkels et al. 2018; Strapasson, Ferreira, & Ramos 2018) on the risk factors (predictors) of depressive symptoms that occur during pregnancy and the

postpartum period. To accurately predict a future perinatal mental disorder, you need to know what factors are associated with the development of a future disease. Therefore, it is important to identify risk factors that increase the likelihood of developing PPD. It is important to recognize that there is currently no single predictor of PPD. (Beck 2001.)

Both biological (sex hormones, stress hormones, thyroid hormones) and psychosocial factors (Šebela, Hanka, & Mohr 2018) take part in the development of PPD. According to Šebela and colleagues (2018), a history of mental illness, low levels of social support and domestic violence during pregnancy or after childbirth are major risk factors for PPD.

According to Beck (2001), there are 13 confirmed PPD predictors: prenatal depression, self-esteem, and stress on childcare, prenatal anxiety, life stress, history of depression, low social support, maternal blues, low marriage satisfaction and difficult temperament of the child, marital status, socioeconomic status, and unplanned/unwanted pregnancy. Of these, 10 predictors have a moderate prognostic relationship with PPD: prenatal depression, self-esteem, stress on childcare, prenatal anxiety, life stress, history of depression, low social support, maternal blues, low marriage satisfaction, and difficult child temperament. (Beck 2001.) The most powerful predictors of PPD are prenatal depression, self-esteem, childcare stress, and prenatal anxiety. Three predictors (marital status, socioeconomic status, and unplanned/unwanted pregnancies) have little predictive association with PPD. Three risk factors (maternal blues, stress on childcare, and infant temperament) are characteristic only for the postpartum period, while the remaining 10 predictors are also characteristic of pregnancy. These 13 significant predictors of PPD can be used by doctors as markers that indicate that a woman may be at risk of developing this disorder. (Beck 2001.)

The risk of developing PPD is more than 20 times higher for women with a history of depression compared to women without it. For women with a history of depression, the risk of developing PPD is significantly greater at the age of 30 and over. For people with a history of depression, diabetes increases the risk of developing PPD by 1.5 times. (Silverman et al. 2017.)

In Sweden, a study was conducted of the genetic and environmental effects on perinatal depression, as well as a genetic match between perinatal depression and non-perinatal depression. It was found that in twins, the heritability of perinatal depression was estimated at 54%. Thus, the heredity of perinatal depression is ~ 50% (54% in the design of twins and 44% in the design of sibling), and the heredity of non-perinatal depression is 32%. (Viktorin, Meltzer-Brody, Kuja-Halkola, Sullivan, Landen, Lichtenstein, & Magnusson 2016.) The authors (Viktorin et al. 2016) suggested that perinatal depression is a subset of depression that may be a priority for genome discovery efforts.

Certain adverse life events increase the risk of PPD. The following adverse life events can lead to PPD: intimate partner violence, divorce, financial difficulties, death of a loved one, natural disasters and mass conflicts. Thus, the occurrence of PPD is the result of an inherent genetic risk and environmental factors (previous psychiatric history, adverse life events, declining socioeconomic status and negative obstetric results). (Guintivano, Manuck, & Meltzer-Brody 2018.)

2.4 Screening for Perinatal Depression

Active screening and subsequent treatment are the main methods for preventing PPD (Šebela, Hanka, & Mohr 2018). Early diagnosis of PPD is one of the most difficult problems, as this condition is usually not recorded and is often not detected by midwives and nurses who work with women in the antenatal and postpartum periods (Hanna, Jarman, Savage, & Layton 2004). A variety of PPD screening tools can be found in current clinical guidelines and protocols (Screening for Perinatal Depression 2015). The American College of Obstetrics and Gynecologists (ACOG) recommends that obstetric providers examine patients at least once in the perinatal period for symptoms of depression and anxiety using a standardized tool (Screening for Perinatal Depression 2015). ACOG recommends seven PPD screening tests that have been tested and approved for use during pregnancy and the puerperium: Edinburgh Postpartum Depression Scale (EPDS), Postpartum Depression Screening Scale (PDSS), Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI), Beck Depression Inventory-II (BDI-2), Center for Epidemiological Research for Evaluation of Depression (CES-D), and Zung Self-rating Depression Scale (Zung SDS).

Currently, one of the most widely used scales for detecting PPD is the Edinburgh Postpartum Depression Scale (EPDS). (Screening for Perinatal Depression 2015.)

EPDS has been used in many populations and in many languages around the world (Alves et al. 2019; Alvarado-Esquivel, Sifuentes-Alvarez, & Salas-Martinez 2016; Gelaye, Rondon, Araya, & Williams 2016; Norhayati, Hazlina, Asrenee, & Wan Emilin 2015). According to Milgrom and Gemmill (2014), Hewitt and colleagues (2009), report that EPDS is a 10-point questionnaire that asks questions about the symptoms of an emotional disorder over the previous seven days and takes less than five minutes to complete. Elements are rated on a three-point scale with a maximum score of 30. Points of 10 or more indicate a risk of depression. In addition, paragraph 10 is an indicator of suicide and indicates a positive screen if an affirmative answer is given. (Milgrom & Gemmill 2014.) EPDS includes anxiety symptoms that are characteristic of prenatal mood disorders but excludes constitutional symptoms of depression, such as changes in the types of sleep that can be common during pregnancy and the postpartum period. (Screening for Perinatal Depression 2015.) According to Chrzan-Detkos & Walczak-Kozłowska (2020), Cox and colleagues (2016) report that short, self-rated scales that require little time and minimal burdens for medical staff can be used in primary care to screen women with perinatal depression.

3 Knowledge of Nurses and Midwives about PPD

3.1 The Role of Midwives and Nurses in Diagnosing

Emotional disorders during pregnancy and the postpartum period are important public health issues. Unrecognized and untreated perinatal depression can have negative consequences for the mother, newborn, and family members. Women with perinatal depression, risk factors for perinatal mood disorders, or suicidal thoughts require careful monitoring. Therefore, it is important to understand mental health screening and the desire to provide support to women at risk of developing or having mental health problems in the perinatal period. (Screening for perinatal depression 2015.)

Midwives and nurses can play an important role in diagnosing perinatal depression and in supporting maternal postpartum mental health (Borglin, Hentzel, & Bohman 2015; Hauck, Kelly, Dragovic, Butt, Whittaker, & Badcock 2015). In 2002, the American College of Midwives published that certified midwives and certified midwives should “integrate prevention, universal screening, treatment and/or referral for depression”. Therefore, nurses and midwives should examine women in the postpartum period for symptoms of depression. (Screening for Perinatal Depression 2018.) The National Institute for Health and Care Excellence (NICE) recommends that healthcare providers (including midwives, healthcare providers, and general practitioners) make first contact with a woman during pregnancy and the postpartum period for a serious or past mental illness, and also collect a family history of perinatal mental illness (Antenatal and Postnatal Mental Health 2014).

Studies around the world (Jones, Creedy, & Gamble 2011; Gölbaşı 2014; Carroll et al. 2018) have been conducted to examine the knowledge of midwives/nurses, as well as their practical knowledge, competencies and practices regarding perinatal mental health. Many studies (Higgins et al. 2018; Bayrampour, Hapsari, & Pavlovic 2018) show that midwives/nurses face many challenges in resolving perinatal mental health problems. Midwives and primary care and hospital care nurses face organizational and practical barriers that affect their ability to integrate psychological care and emotional support into their practice. Organizational factors represent the greatest barriers to discussing mental health issues with women: heavy workloads leading to a lack of time (76.7%), short time allocated for each woman (75.1%) and lack of standard operating procedures to protect the mental health of women (64.8%), irregular visits to women in order to build trust and mutual understanding when discussing mental health issues (50.8%), lack of confidentiality (49.3%), and inaccessibility of perinatal mental health services (49.3%). (Higgins et al. 2018.) Over 50% of respondents indicated practical barriers: lack of knowledge to discuss mental health problems with women (52.9%), lack of skills, in particular, skills to respond to mental health problems (47.7%); and women's fears of insulting and suffering. Many nurses and midwives do not have access to educational programs for perinatal psychiatric care. (Higgins et al. 2018.) Thus, there are barriers for nurses and midwives dealing with mental health issues with women, many of which are related

to organizational factors, including workload, lack of time and lack of clear paths, and others with a lack of knowledge and skills regarding perinatal mental health. At the organizational level, more guidance and training should be provided to ensure that midwives and nurses have clear pathways to assist in decision-making, and that they have the necessary skills, knowledge, and cultural competence to deal with women with perinatal depression with confidence.

3.2 Awareness of Midwives and Nurses about PPD

The problem of the lack of key knowledge about the assessment and treatment of PPD among nurses and midwives has been addressed by many researchers (Jones et al. 2011; Noonan, Jomeen, Galvin, & Doody 2018). Nurses and midwives lack knowledge on various aspects of PPD, such as definition, prevalence, symptoms, risk factors, screening tools, and treatment. (Elshatarat, Yacoub, Saleh, et al. 2018.)

Jones and colleagues (2011) studied the knowledge level of 815 members of the Australian College of Midwives. They found that many midwives failed to identify risk factors (70.6%), the prevalence of antenatal depression (49.6%); incorrectly detected frequency (44.4%), onset (71%), and treatment options (32%) are associated with postpartum depression. (Jones et al. 2011.)

A study was conducted in Ireland (Noonan et al. 2018) on the awareness and confidence of midwives in identifying and resolving perinatal mental health problems. It was found that 71.1% of midwives have a high level of knowledge about depression and anxiety during pregnancy, and 72% are confident in identifying and resolving perinatal mental health problems in women experiencing depression and anxiety. However, the authors indicate that 43.9% of midwives reported less confidence in caring for women. Only 17.8% of midwives felt ready to support women, while 15.3% said they had access to sufficient information. (Noonan et al. 2018.)

Another group of researchers in the Republic of Ireland (Carroll et al. 2018) also assessed the knowledge of midwives about perinatal mental health. They found that midwives report relatively good knowledge of perinatal depression, perinatal anxiety, and risk factors for perinatal mental health problems. About a third of

midwives never received education in perinatal mental health. Many of those educated have trained as midwives/nurses and approximately 20% have attended continuing education courses. Those who received some perinatal mental health education had statistically significant higher skills and confidence and had higher self-esteem of knowledge in all subjects than those who did not have perinatal mental health education. (Carroll et al. 2018.)

A study in Western Australia in 2013 (Hauck et al. 2015) that examined midwives' knowledge and attitudes toward mental health problems in women at birth showed that only 37.6% of midwives felt well prepared to support women while 50.2% reported a lack of access to information. The study examined the alleged needs of midwives for mental health training. It was found that the demand for education was high about personality disorders (77.8%), the effect of childbirth on mental disorders (74.2%), and skills to combat stress and aggression (57.8%). (Hauck et al. 2015.)

A study by (Chrzan-Detkos& Walczak-Kozłowska 2019) studied the knowledge and skills of Polish midwives on the early detection of antenatal and postpartum depression. The vast majority of midwives (80%) reported that they were not adequately prepared for screening and caring for women with antenatal depression and/or PPD.

The educational priorities of midwives are currently aimed at expanding knowledge on all aspects of perinatal mental health concerning number of mental health problems that women may face. Relevant topics include, for instance, risk factors and cultural and legal issues related to mental health. Communication and documentation skills were identified as urgently needed to help obstetric skills and comfort begin discussions and complete evaluations with women and their partners. Health professionals point to the need for training in a variety of ways, including online training, local school days, and workshops that include real-life scenarios, role-playing games, and the contribution of mental health experts. (Carroll et al. 2018.) Thus, given the high prevalence of postpartum depression, the lack of key knowledge about the assessment and treatment of PPD among nurses and midwives in many countries of the world, the identified barriers to diagnosing postpartum depression, the need arose to assess the knowledge of midwives and nurses in the Republic of Kazakhstan.

3.3 Maternal Health in the Republic of Kazakhstan

Protecting the health of mothers and children is one of the most important and difficult tasks facing the healthcare system of the Republic of Kazakhstan. Kazakhstan is striving to become one of the 30 most developed countries in the world by 2020. (State program of health care development of the Republic of Kazakhstan "Densaulyk" for 2016–2019, 2015.) The first head of state, N. Nazarbayev, defined the health of mother and child as the main priority for the present and future development of the country. In the strategic documents and messages to the people of Kazakhstan, the first President pointed out the need to reduce maternal and infant mortality and increase the life expectancy of the population. (State program of health care development of the Republic of Kazakhstan "Densaulyk" for 2016–2019, 2015.)

The Republic of Kazakhstan switched to international criteria for live births and stillbirths recommended by the World Health Organization (WHO) since January 1, 2008. International technologies based on evidence-based medicine have been introduced into the obstetrics and childhood system (The order of the Prime Minister of the Republic of Kazakhstan No. 38-R 2006). In 2008, the country adopted WHO's Safe motherhood strategy.

In Kazakhstan, priority is given to the development of primary health care, and the role of nurses, social workers, and psychologists is increased. To ensure uniform approaches to perinatal care, clinical diagnosis and treatment protocols were approved in accordance with international standards. Medical workers were also trained, and work and training programs at higher medical universities were changed. To ensure effective access to medical care, the institute of a patronage nurse has been introduced. (On the main measures to reduce maternal and infant mortality in Kazakhstan, 2014.)

Currently, Kazakhstan provides patronage for both newborn children and the postpartum period, during which a specially trained nurse assesses possible risks and threats to the health of the mother and child. Psychologist Abdreeva gave an interview about postpartum depression (What you need to know about postpartum depression Sputnik 2017), and she believes that when a woman with a child returns

home from the hospital, a visiting nurse should visit their family during the first three days of their stay at home. At the same time, the nurse can assess the psychological situation in the house, possible social problems in the family, and also identify the initial signs of postpartum depression in the postpartum period. In the early diagnosis of alarming symptoms of postpartum depression, nurses report to a medical organization, and psychologists diagnose the woman. Thus, the nurse's task is to early identify signs of postpartum depression in women. (What you need to know about postpartum depression 2017.)

All the actions of the patronage nurse correspond to the standard operating procedures "The actions of the patronage nurse in the state of postpartum depression in women" (Republican Center for Health Development 2018). The standard is presented in Appendix 1.

Kazakhstan is one of the countries in which the development of nursing practice and nursing education is currently rapidly developing. Kazakhstan seeks to comply with European directives in the training of patient care specialists (from technical education to Ph.D.) (Resolution of the government of the Republic of Kazakhstan No. 752 2014). Kazakhstan has already trained highly qualified nurses with an enhanced practical base. The pilot project of a new model of nursing service was launched in 2014 together with experts from the universities of applied sciences JAMK and LAMK as well as the United Nations Children's Fund (UNICEF), which helps in the preparation of patronage nurses. (Act, nurse: why is Kazakhstan reforming nursing care? 2018).

International experience shows that it is nurses who can provide tremendous psychological support to women during pregnancy and after childbirth (Higgins et al. 2018; Carroll et al. 2018; Noonan et al. 2018). Many questions about perinatal psychological care in the Republic of Kazakhstan remain open. It is worth noting that identifying barriers to the introduction of perinatal psychological care for women can improve our understanding of the problem of perinatal psychological care in Kazakhstan as a whole to expand our capabilities in developing targeted educational programs and standard operating programs aimed at improving perinatal psychological assistance and support.

Therefore, it is necessary to conduct an in-depth study of the knowledge of midwives about postpartum depression in the Republic of Kazakhstan. All this served as the basis for this study.

4 Purpose, Objectives, and Research Questions

The purpose of the research is to examine the knowledge of nurses and midwives about postpartum depression to develop quality postpartum care among nurses and midwives in Kazakhstan.

Research objectives:

- Examine the knowledge of nurses and midwives about the prevalence, assessment, and treatment of postpartum depression.
- Develop recommendations for the development of quality mental health care in the perinatal period.

Research question:

- What is the level of nursing knowledge about postpartum depression?

5 Methodology

5.1 Research Method

A quantitative research method is descriptive research that is the collection and analysis of primary information. This research method is aimed at obtaining accurate statistical data. The main advantage of quantitative methods is the coverage of a large number of respondents. (Queirós, Faria & Almeida 2017.) The questionnaire was chosen as the main research tool. With the help of questionnaires, information can be collected in a short time and can be anonymous as well as an inexpensive and effective way of obtaining large amounts of information from a large sample of people (Jones and Rattray 2015, 413–414). In this study, an electronic questionnaire was used; this reduces the time and cost required for data processing associated with printing and distributing paper questionnaires. The questionnaire chosen was

used in the study of Jones and colleagues (2011) *Australian midwives' knowledge of antenatal and postpartum depression: a national survey*.

Permission to use the questionnaire was granted by Dr. Cindy Jones, Assistant Professor, Department of Behavioral Sciences, and MD Academic Coordinator, Department of Health and Medicine, Bond University, Australia. Permission was granted by email on October 3, 2019.

5.2 Data Collection and Analysis

The study involved 212 practicing midwives and nurses from the public Association "Aktobe Association of nurses", working in maternity departments of a multispecialty hospital and polyclinics. The survey collected demographic data from respondents that included gender, work experience, college graduation, and advanced training in PPA.

The Webropol tool (version 3.0) was used for conducting surveys and collecting data. This allows to get information quickly, with minimal costs associated with printing and distributing paper questionnaires necessary for data processing. Webropol users can ensure that other users do not have access to data without authorization. The deadline for submitting the questionnaire was three weeks, but responses were collected within two weeks.

The data was automatically exported from Webropol to Excel 2007 for further processing. Descriptive statistics were created to describe the data, including frequency distributions, average values, and standard deviations. The collected and processed data is presented in tables to improve readability and clarity.

Before conducting the survey, participants received written information about the purpose, objectives, and methods of research. The study participants accepted a written informed voluntary consent to conduct the survey (Appendix 3).

5.3 Questionnaire

The original questionnaire consisted of 20 items with several answers. Of the 20 items, four items were deleted (questions 6, 7, 8, 9) because they related to prenatal

depression. Since prenatal depression is rare, these four items have been replaced with demographic data collection questions.

The questionnaire included questions about the respondents' demographic data, gender, year of college graduation, and educational preparation for screening and care for women with PD. It also consisted of 16 multiple-choice items that measured the respondents' knowledge of the onset, frequency, comorbidities, symptoms, associated risk factors, assessment, and treatment strategies for postpartum depression (Appendix 2).

In the knowledge test part, the respondents received one correct answer out of four options. For each correct answer, a score of one was assigned, and the total score was 20. The original question was translated into Russian and then into Kazakh with the help of English-speaking and Kazakh-speaking colleagues, after which the translation was sent to a professional translator to confirm and verify the correctness of the translation.

5.4 Ethics

Ethical issues require attention in the planning and conduct of research. In research, it is important to respect participants, respond to the needs of vulnerable individuals and groups, and gain consent and maintain confidentiality. Research should include likely benefits to participants, minimizing the risk of harm to participants, and accepting individual responsibility (Johnson & Long 2017, 31.)

Ethical approval for the study was granted by the Local Ethics Commission of Kazakh Medical University of Continuing Education. Study information for participants was indicated by the voluntary anonymous nature of participation. The study did not record any personal details of the participants and was used for educational purposes only. The survey data was stored in the researcher's password-protected database in a closed office, inaccessible to the public. Access to the data is available only to the author of the study and its leader.

5.5 Reliability and Validity

In quantitative research, determining the reliability and validity of the study plays an important role. Improving reliability and credibility is essential in reusing validated questionnaires. Demonstrating the reliability and validity of the questionnaire is a difficult process, but it is nevertheless necessary to use questionnaires with proven reliability and validity. (Jones & Rattray 2015, 413–415.)

In order to objectively measure the reliability of the instrument, Cronbach's alpha was used, which is the most widely used indicator of reliability since it is easier to use compared to other estimates. Cronbach's alpha is a measure of the internal consistency of a test or scale, that is, it reflects how closely the details are related to each other as a group. It has a value from 0 to 1. A high alpha does not always mean a high degree of internal consistency. Alpha values can also depend on the length of the test. (Tavakol & Dennick 2011.)

In this study, Cronbach Alpha shows adequate internal consistency for the new 20-item survey ($r = 0.52$). This indicates the ideal difficulty level. In a study by Dr. Cindy Jones and colleagues (2011), the reliability score was 0.69.

6 Results

A total of 253 completed electronic surveys were received: 171 in Russian, 81 in Kazakh, and one in English. It was decided to exclude 31 surveys (15%) from the study, as they were not completely filled. Thus, 212 surveys were included in the analysis: 144 in Russian, 67 in Kazakh, and one in English (see Table 1).

Table 1. The number of surveys used for analysis

Survey language	% (n)
Russian	67.9% (144)
Kazakh	31.6% (67)
English	0.5(1)
Total	100% (212)

6.1 Demographic Characteristics of Participants

The demographic characteristics of the participants in this study are presented in Table 2. Analysis of the time after graduation from college revealed that 40.1% (n= 85) of the respondents reported that they graduated from college within 5 years ago, 15.6% (n=33) within 6–10 years ago, 13.2% (n=28) within 11–15 years ago, and 31.1% (n=66) more than 16 years ago. Thus, 44.3% (n=94) of respondents reported that they graduated from college more than 10 years ago. At the time of the study, 45.8% (n=97) of the respondents reported that they have experience of up to 5 years, 18.4% (n=39) have experience of 6–10 years, 15.1% (n=32) 11–19 years, and 20.8% (n=44) more than 20 years. Thus, 35.9% (n=76) of the participants had more than 10 years of work experience. Only 10.4% (n=22) of the respondents reported having had post-natal depression advanced training.

Table2. Demographic characteristics of participants

Demographic characteristics	Answers (percentage and n)
Sex (n=212)	
Man	2.4% (5)
Woman	97.6%(207)
Time after college (n=212)	
0–5years	40.1% (85)
6–10years	15.6% (33)
11–15 years	13.2% (28)
from16 years and up	31.1% (66)
Work experience (n=212)	
0–5 years	45.8% (97)
6–10 years	18.4% (39)
11–19 years	15.1% (32)
from 20 years and up	20.8% (44)
Advanced training in postpartum depression (n=212)	
Yes	10.4% (22)
No	89.6% (190)

Thus, when studying the demographic characteristics of the respondents, it was revealed that almost every second respondent graduated from college more than 10 years ago, every third participant had more than 10 years of work experience, and only every tenth respondent said that he had advanced training in postpartum depression.

6.2 Knowledge of Antenatal and Postpartum Depression

For 16 questions studying knowledge of antenatal depression and PPD, respondents received an average total score of 6.6 points SD= 1.9. The lowest overall score of this section was two and the highest 11.

Knowledge of antenatal depression

Answers to questions about antenatal depression are presented in Table 3. When analyzing question number 1 (Q1) about psychological illnesses, it was found that over four fifths of the respondents (81.1%, n=172) answered correctly that psychological illnesses, in particular depression and anxiety, are usually observed both in the prenatal and postpartum periods. It should be noted that tenth of the participants (10.4%, n=22) incorrectly indicated that psychological illnesses, such as depression and anxiety, were not associated with personality disorder, and 2.8% (n=6) answered they were not associated with drug addiction and alcoholism. In addition, 5.7% (n=12) of the respondents believed that it is not necessary to screen and differentiate concomitant depression and anxiety in pregnant women. Regarding the prevalence of depression, only about third of the respondents (32.1%, n=68) correctly reported the proportion of pregnant women who met the diagnostic criteria for depression.

Table 3. Nursing knowledge of antenatal depression in percentage/absolute numbers (the correct answers are shown in bold)

№	Question	Answers (percentage and n)
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Q1	Which statement is true? (n=212)	
	Psychological diseases, in particular depression and anxiety, are usually observed both in the prenatal and postpartum periods.	81.1% (172)
	Psychological illnesses, such as depression and anxiety, are not associated with personality disorder.	10.4% (22)
	Psychological illnesses such as depression and anxiety are not related to drug addiction and alcoholism.	2.8% (6)
	It is not necessary to screen and differentiate concomitant depression and anxiety in pregnant women.	5.7% (12)
Q2	The proportion of pregnant women who meet the diagnostic criteria for depression is approximately (n=212)	
	8–35%	17.9% (38)
	5–10%	35.4% (75)
	10–20%	32.1% (68)
	30–50%	14.6% (31)
Q3	Which of the following is associated with depression during pregnancy (n=212)	
	Gestational hypertension	8.0% (17)
	Preeclampsia	6.6% (14)
	Spontaneous Abortion	13.7% (29)
	All of the above answers	71.7% (152)
Q4	What is the most common reason for the lack of adequate care for pregnant women with depression? (n=212)	
	Lack of social support	43.9% (93)
	Lack of support from healthcare providers	10.4% (22)
	Lack of recognition of depression symptoms by health care providers	27.4% (58)
	Inadequate access to treatment for depression	18.4% (39)
Q5	The percentage of women suffering from depression during pregnancy who subsequently try to commit suicide is approximately (n=212):	
	1%	53.3% (113)
	10%	32.1% (68)
	15%	10.8% (23)
	25%	3.8% (8)

Nearly three quarters of respondents (71.7%, n= 153) reported correctly adverse outcomes associated with depression during pregnancy, these adverse outcomes being gestational hypertension, preeclampsia, and spontaneous abortion. It should be noted that tenth of the participants (13.7%) thought that spontaneous abortion was the only adverse effect associated with depression.

When analyzing question number 4 (Q4), it was found that more one quarter of respondents (27.4%, n=58) correctly indicated the most common reason for the lack of adequate care for pregnant women with depression. Interestingly, when asked about the most common reason for the lack of adequate care for pregnant women with depression, as much as 43.9% incorrectly thought the reason to be lack of social support, while the correct answer, lack of recognition of depression symptoms by health care providers, was chosen only by 27.4% of the participants. Inadequate access to treatment (18.4%) and the lack of support from the health care providers (10.4%) were selected notably less.

When analyzing the proportion of women suffering from depression during pregnancy who subsequently try to commit suicide (Q5), only 10.8% (n = 23) of the participants indicated the correct answer of 15%, while the clear majority of the respondents (85.4%, n=181) underestimated the amount by more than half, (53.3%, n=113) of the participants severely underestimated the amount by selecting the proportion to be 1%, and 32.1% (n=68) of the respondents answered 10%. Only 3.8% (n=8) of respondents overestimated the proportion.

The results showed that the majority of respondents were aware that psychological illnesses such as depression and anxiety usually occur in both the perinatal and postpartum periods and had knowledge of some of the adverse outcomes associated with antenatal depression, such as gestational hypertension, preeclampsia, and miscarriage. Many were unaware that depression and anxiety are associated with a personality disorder. The majority of respondents considered the lack of social support to be the reason for the lack of adequate care for pregnant women with depression but were unaware that the lack of knowledge of the symptoms of depression by health workers and inadequate access to treatment and lack of support from health workers were the main reasons. Also, the majority of

respondents underestimated the percentage of those suffering from depression during pregnancy who subsequently try to commit suicide.

6.3 Knowledge of Postpartum Depression

The nursing knowledge of “postpartum sadness,” or “sad mother syndrome” is presented in Table 4. An analysis of the proportion of mothers who experience this syndrome (Q6), revealed that only 14.2% (n=30) of the respondents indicated the correct answer, and more than three quarters (85.8%, n=182) of the participants underestimated the proportion of mothers surviving maternal blues.

When analyzing the recommendations for the treatment of “postpartum sadness”, it was found that nearly half of the respondents (44.8%, n=95) correctly indicated the recommended management methods for the syndrome to be understanding, empathy, and support.

It should be noted that more than a quarter of the respondents (27.8%, n = 59) reported that referral to a support group for postpartum disorders is a method of treating “postpartum sadness” or “sad mother’s syndrome”. Tenth of the participants recommended treating “postpartum sadness” or “sad mother syndrome” with childcare and psychotherapy.

Table 4. Nurses' knowledge of "postpartum sadness" in percentage/absolute numbers (the correct answers are shown in bold).

	Questions	Answers (percentage and n)
Q6	The proportion of mothers who experience "postpartum sadness," or sad mother syndrome, is approximately equal (n = 171):	
	1–2%	26.9% (57)
	10–19%	42.0% (89)
	20–29%	17.0% (36)
	30–80%	14.2% (30)
Q7	What is the recommended management for "postpartum sadness," or sad mom's syndrome (n = 171)?	
	Understanding, empathy, and support	44.8% (95)
	Help with childcare	13.7% (29)
	Psychotherapy	13.7% (29)
	Referral to the Postpartum Disorder Support Group	27.8% (59)

Nursing knowledge on the diagnosis of postpartum depression is shown in Table 5. When analyzing the issue of diagnostic symptoms indicating postpartum depression (Q8), almost two thirds of the respondents (63.7%, n = 135) correctly reported the criteria to be persistent low mood for more than two months. It should be noted that nearly one third of the respondents (36.3%, n=77) did not correctly indicate the symptoms for diagnosing postpartum depression, frequent mood swings as a symptom receiving the highest proportion of incorrect answers (25.5%).

When assessing knowledge of the occurrence of postpartum depression (Q9), it was found that over four fifths of the respondents (80.2%, n=170) did not know about the most common time of PPD onset. Thus, almost half of the respondents (42.0%, n=89) reported that postpartum depression most often occurs within 10–14 days after childbirth. In addition, almost a third of the respondents (30.7%, n=65) reported that postpartum depression occurs within 2–5 days after giving birth. Only nearly one third of respondents (19.8%, n=42) reported correctly that postpartum depression most often occurs one month after birth.

Table 5. Nursing knowledge about diagnosing postpartum depression in percentage/numbers (the correct answers are shown in bold).

	Question	Answers (percentage and n)
Q8	Which of the following is needed to diagnose postpartum depression (n=212)?	
	Grand plans for the future	8.5% (18)
	Frequent mood swings	25.5% (54)
	Cleanliness	2.4% (5)
	Persistent low mood for more than 2 months	63.7% (135)
Q9	Postpartum depression most often occurs after childbirth (n=212)	
	Within 2–5 days	30.7% (65)
	Within 10–14 days	42.0% (89)
	After 1 month	19.8% (42)
	In 3 months	7.5% (16)
Q10	The proportion of mothers experiencing postpartum depression is approximately (n=212).	
	5%	37.7% (80)
	15%	38.2% (81)
	30%	14.6% (31)
	50%	9.4% (20)
Q13	Which of the following statements is false regarding the Edinburgh postpartum depression scale (n=212)?	
	It distinguishes between moderate and severe symptoms of depression.	27.4% (58)
	Measures depressive symptoms to give a likely diagnosis of depression.	26.4% (56)
	Fully evaluates the symptoms of psychotic depression.	25.9% (55)
	May detect antenatal depressive symptoms.	20.3% (43)
Q15	Which of the following is a symptom of postpartum depression (n=212)?	
	Annoyance with a partner or other children	17.9% (38)
	Feeling frustrated in today's life	8.5% (18)

	Worryaboutbaby	3.8% (8)
	All of the above answers	69.8% (148)
Q16	Which of the following statements is correct (n=212)?	
	Postpartum depression in 80% of women spontaneously recovers without treatment.	39.2% (83)
	Women experiencing postpartum depression in a previous pregnancy are more likely to develop postpartum depression in a subsequent pregnancy.	17.9% (38)
	Women experiencing postpartum depression do not develop a suicidal ideation or attempted suicide.	3.3% (7)
	Approximately 5% of all pregnant women postpartum develop postpartum psychosis.	39.6% (84)

An analysis of the frequency of mothers experiencing postpartum depression (Q10) revealed that only 38.2% (n=81) reported the correct answer, while almost the same amount of respondents (37.7%, n=80) underestimated the frequency, and nearly one quarter of respondents (24%, n=51) overestimated the proportion of mothers experiencing postpartum depression.

In question 13, the respondents were required to identify the false statement from the true ones concerning the Edinburgh Postpartum Depression Scale (Q13). It was found that nearly three quarters of the participants (74.1%, n=157) were not able to find the false statement among the true ones and only one quarter of the respondents (25.9%, n=55) could identify correctly that the Edinburgh postpartum depression scale is actually not able to fully assess the symptoms of psychotic depression.

An analysis of the symptoms of postpartum depression (Q15) revealed that 69.8% (n=148) correctly reported all of the given symptoms to be part postpartum depression. However, in the last question the participants had to select the statement concerning postpartum depression to be true (Q16), and only 17.9% (n=38) respondents identified the correct answer, that women experiencing postpartum depression in a previous pregnancy are more likely to develop postpartum depression in a subsequent pregnancy. The majority of respondents

39.2% (n=83) indicated that postpartum depression spontaneously recovers without treatment in 80% of women and 5% of all pregnant women develop postpartum psychosis after childbirth (39.6%, n=84). Seven participants (3.3%) underestimated the percentage in women experiencing suicidal thoughts or suicide attempts experiencing postpartum depression.

Nursing knowledge of the management of postpartum depression is shown in Table 6. An analysis of knowledge about the treatment of mild postpartum depression (Q11) revealed that more than half of respondents (58%, n=123) knew the correct treatment to be PPD education, supportive counseling, and peer support groups, while almost a third (30.7%, n=65) thought the treatment to be simple understanding and empathy. Only 9% (n=19) of the participants thought the recommended treatment to be psychotherapy and antidepressants and 2.4% (n=5) hospitalization and drug treatment. An analysis of nursing knowledge about the recommended treatment for moderate to severe postpartum depression (Q12) revealed that clearly more than half of respondents (59%, n=125) were not aware of the recommended treatment for moderate to severe PPD, and just 41% of the respondents identified correctly the recommended treatment to be psychotherapy and antidepressants. More than third of respondents (38.2%, n=81) identified the correct statement in question 14, that mothers could breast-feed while taking antidepressants. Almost a third of respondents (31.6%, n=67) incorrectly indicated that antidepressants are habit-forming. Also, 17.0% (n = 36) of respondents incorrectly indicated that antidepressants acted immediately, whereas it may take four to six weeks to achieve the effectiveness of antidepressant treatment.

Study participants underestimated the proportion of mothers who survived the maternal blues and did not know about "postpartum sadness" or "sad mother syndrome". The respondents correctly understand the recommended methods of managing the syndrome to be understanding, empathy, and support. The respondents reported that the treatment for "postpartum sadness" or "sad mother syndrome" is referral to a support group for the treatment of postpartum disorders, and the participants recommended treating "postpartum sadness" or "sad mother syndrome" through childcare and psychotherapy. Most of the respondents answered correctly about the diagnostic symptoms and reported the criteria for persistent low

mood for more than two months. The respondents did not know that frequent mood swings are characteristic of the diagnosis of postpartum depression. They were not aware of the onset of PPD; they answered 10–14 days instead of one month. Nearly half of the respondents answered that the Edinburgh Postpartum Depression Scale was able to fully assess the symptoms of psychotic depression. Respondents did not underestimate the proportion of women experiencing suicidal ideation or attempted suicide experiencing postpartum depression. Just over half of the respondents were not aware of the recommended therapy for moderate to severe PPA, which included psychotherapy and antidepressants.

Table 6. Nursing knowledge on the treatment of postpartum depression in percentage/numbers (the correct answers are shown in bold).

	Question	Answers (percentage and n)
Q11	What is the recommended treatment for mild postpartum depression (n=212)?	
	Understand sincere sympathy	30.7% (65)
	Postpartum Depression Education, Supportive Counseling, and Peer Support Groups.	58% (123)
	Psychotherapy and anti depressants	9.0% (19)
		2.4% (5)
Q12	What is the recommended treatment for mild to severe postpartum depression (n=212)?	
	Understanding and empathy	10.4% (22)
	Postpartum Depression Education, Supportive Counseling, and Peer Support Groups	32.1% (68)
	Psychotherapy and antidepressants	41.0% (87)
	Hospitalization and drugtreatment	16.5% (35)
Q14	Which of the following statements is true for antidepressants (n=212)?	
	Mothers may be able to breastfeed while taking antidepressants.	38.2% (81)
	The presence of antidepressants in breast milk has been well studied.	12.7% (27)

	Antidepressants form a habit.	31.6% (67)
	Antidepressant taken immediately.	17.0% (36)

7 Discussion

This study was designed to determine the current level of knowledge of Kazakh midwives and nurses about PPD. A study on this topic was conducted for the first time in Kazakhstan. The construction of the questionnaire was based on a study by Jones and colleagues (2011).

The research question of this study provided a solid foundation for research. The level of knowledge of nurses about postpartum depression can be said to be low. For example, an objective assessment of the knowledge of Kazakh midwives about antenatal depression and PPD showed that they lacked knowledge about the prenatal and postnatal mental health of their patients. Similar results were reported by Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), who also used the "Knowledge Test on Antenatal and Postpartum Depression" among Australian and Polish midwives.

Kazakh respondents correctly answered an average of 41.3% of questions about antenatal and postpartum depression. These figures are lower than those of the Australian (67.1%) (Jones et al. 2011) and Polish midwives (61.4%) (Chrzan-Detkos & Walczak-Kozłowska 2020). In this study, midwives had more knowledge about antenatal depression (40%) than about PPD (28.1%) while Australian (Jones et al. 2011) and Polish respondents had more knowledge about PPD (62.9% and 67%, respectively) than about antenatal depression (70.7% and 50%, respectively) (Chrzan-Detkos & Walczak-Kozłowska 2020).

This study confirms that the majority of respondents (80.1%) know that psychological illnesses, in particular depression and anxiety, are usually observed both in the prenatal and postpartum periods. This result is similar to Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), who reported that most Australian (86.9%) and Polish (89.2%) respondents knew that depression and anxiety could occur in the antenatal and postpartum periods.

The current survey showed that only a third of Kazakhstani midwives (32.1%) correctly indicated that the proportion of pregnant women who met the diagnostic criteria for depression was approximately 10–20%. This result showed that Kazakhstani respondents are less aware of the frequency of PPD than in similar studies by Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska(2020), which reported that half of the respondents (50.4% and 59.5%, respectively) correctly indicated the proportion of pregnant women who met the diagnostic criteria for depression.

In this study, Kazakhstani respondents had a limited understanding of the risks associated with antenatal depression. More than a quarter of respondents (28.3%) were unaware of some adverse outcomes associated with antenatal depression, including gestational hypertension, preeclampsia, and spontaneous abortion. This result is consistent with a similar study by Jones and colleagues (2011), which also reported that more than a quarter of respondents (28.6%) were unaware of these adverse outcomes.

The majority of Kazakhstani respondents (87.7%) underestimated the percentage of women suffering from depression during pregnancy who subsequently try to commit suicide. This result is consistent with a similar study by Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), which also reported that the majority of respondents (98.3% and 89.2%, respectively) underestimated this threat.

This study showed that only a bit over quarter of respondents (27.4%) correctly indicated the most common reason for the lack of adequate care for pregnant women with depression. This result is clearly worse than that in a study by Magdalena and colleagues (2020), which reported that 65.8% of Polish midwives knew the most common cause of depression in pregnant women who did not receive adequate care.

Our research showed that more than three-quarters (85.8%) of Kazakhstani participants underestimated the proportion of mothers who suffered from maternal blues. Our findings have some differences with those of Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), which reported that only 25.8% of Australian respondents and 47.7% of Polish respondents underestimated the

proportion of mothers who survived maternal blues. Almost half of Kazakhstani respondents (55.2%) incorrectly indicated the recommended treatment for “postpartum sadness” or “sad mother syndrome”. This is a remarkably poor result compared to the results of Chrzan-Detkos and Walczak-Kozłowska (2020), which reported that only 12.6% of respondents incorrectly indicated the recommended treatment for “postpartum sadness” or “sad mother syndrome”.

When assessing knowledge of postpartum depression, it was found that three quarters of Kazakhstani respondents (80.2%) were unaware of the most common PPD onset period. This result is consistent with similar studies by Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), which reported that the majority of Australian respondents (71.0%) and Polish respondents (64%) were unaware of the initial PDP period.

Despite the large number of published studies on PPD, midwives and nurses tend to underestimate the prevalence of PPD. Study showed that only a little over third of respondents (38.2%) indicated the correct frequency of mothers experiencing postpartum depression. This indicator was worse than that in the studies of Jones and colleagues (2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), who reported that 55.6% of Australian and 64.9% of Polish midwives knew that the proportion of mothers suffering from PPD was approximately 15%.

Of the Kazakhstani participants, 63.7% knew that a diagnosis of PPD requires a persistent bad mood for more than two months. This result is consistent with a similar study by Chrzan-Detkos and Walczak-Kozłowska (2020).

Most midwives do not have adequate knowledge of screening tools for assessing perinatal depression, including the Edinburgh Postpartum Depression Scale (Jones et al. 2011; Chrzan-Detkos and Walczak-Kozłowska (2020). The results of this study showed that a quarter of Kazakhstani respondents (25.9%) reported that the Edinburgh postpartum depression scale was able to fully assess the symptoms of psychotic depression. Our results have some differences from the results of Jones and colleagues(2011) and Chrzan-Detkos and Walczak-Kozłowska (2020), which reported that almost half of Australian respondents (43.8%) and Polish respondents (42.3%) incorrectly answered that this diagnostic tool for postpartum depression was

able to fully assess the symptoms of psychotic depression. The Edinburgh Postpartum Depression Scale is recommended as a screening when used by medical personnel who do not directly provide psychological and/or psychiatric services. A high score in EPDS is an indication for referring a woman to a specialized assessment. (Chrzan-Detkos & Walczak-Kozłowska 2020.)

In the study, two quarters of Kazakhstani respondents (69.8%) correctly identified the symptoms of postpartum depression. This result is 20% worse than similar knowledge among Polish respondents (90.1%) in a study by Magdalena and colleagues (2020).

In our study, only 17.9% (38) of respondents reported that women who had postpartum depression in a previous pregnancy are more likely to develop postpartum depression in a subsequent pregnancy. This result showed that Kazakh respondents were very much less aware that a history of depression was a PPD risk factor than Polish respondents in a study by Chrzan-Detkos and Walczak-Kozłowska (2020). These data are consistent with those of Chrzan-Detkos and Walczak-Kozłowska (2020). Less than half of Kazakh recommended treatment respondents (41%) correctly indicated that psychotherapy and antidepressants are the recommended treatment for moderate to severe PPD, whereas Polish respondents in a study by Chrzan-Detkos and Walczak-Kozłowska (2020) and Australian respondents in a study by Jones and colleagues (2011) are more knowledgeable in this matter (74.8% and 68%, respectively). In study, only a little over third of respondents (38.2%) knew that mothers could breast-feed while taking antidepressants. This result is consistent with data from Jones and colleagues (2011) whereas Polish respondents in a study by Chrzan-Detkos and Walczak-Kozłowska (2020), were more knowledgeable in this matter (64.0%). Many midwives probably believe that taking antidepressants during pregnancy and the postpartum period is not advisable, although there is an official list of drugs that can be taken during this period (Rai, Pathak, & Sharma 2015). For example, during the postpartum period, sertraline is considered a safe drug for lactating women, since its concentration in breast milk is low (Pinheiro, Bogen, Hoxha, Ciolino, & Wisner 2015).

Study revealed that almost 90% of Kazakhstani respondents did not take advanced training courses in PPD. According to Carroll and colleagues (2018), only a third of

Irish midwives never received perinatal mental health education. In general, results showed that Kazakhstani midwives and nurses have knowledge gaps in various aspects of PPD.

The limitation of this study is a limited number of participants, which was due to limited resource provision. The research was conducted among medical workers working in hospitals in the administrative zone of the Public Association "Aktobe Association of Medical Workers". For this reason, the results cannot be applied to the entire population of nurses and midwives. It would be more useful and generalized if this study were conducted throughout the country to determine the knowledge and relationships of a wider selection of midwives and nurses in more institutions and regions than this study could cover.

8 Conclusions

This study showed that there are gaps in the knowledge of midwives and nurses in Kazakhstan regarding the prevalence, assessment, and treatment of depressive conditions in the prenatal and postpartum periods. To address these gaps, a strategy needs to be developed for training midwives and nurses in perinatal mental health and screening for symptoms of perinatal depression. It is also necessary to develop clinical protocols for assessing the mental state of women in the perinatal period.

It is also necessary to attract nurses to improve their skills and continue the educational process. The practice of bringing mental health in the perinatal period in line with international standards, perhaps even more. It is advisable to re-evaluate the knowledge among nurses from the women's clinic, where they are directly in contact with pregnant women. This study was conducted for educational purposes and provides the empirical data needed by doctors, nurses, researchers, policy makers, and public health stakeholders to understand the perspective, the need for future research, and the policy and programming priorities for evaluating, treating, and preventing PPD.

References

- Act, nurse: why is Kazakhstan reforming nursing care? 2018. Sputnik. Accessed on 25 March 2019. Retrieved from <https://ru.sputniknews.kz/health/20181004/7454193/reforma-medsestry.html>
- Alvarado-Esquivel, C., Sifuentes-Alvarez, A., & Salas-Martinez, C. 2016. Detection of mental disorders other than depression with the Edinburgh Postnatal Depression Scale in a sample of pregnant women in northern Mexico. *Mental Illness, 8*, 10-13, Article Unsp 6021. <https://doi.org/10.4081/mi.2016.6021>
- Alves, S., Fonseca, A., Canavarro, M.C., & Pereira, M. 2019. Predictive validity of the Postpartum Depression Predictors Inventory-Revised (PDPI-R): A longitudinal study with Portuguese women. *Midwifery, 69*, 113-120. <https://doi.org/10.1016/j.midw.2018.11.006>
- Antenatal and Postnatal Mental Health: Clinical Management and Service Guidance: Updated edition. 2014. NICE Clinical Guidelines, No. 192. National Collaborating Centre for Mental Health (United Kingdom). National Institute for Health and Clinical Excellence: Guidance. PMID: 26180865
- Bayrampour, H., Hapsari, A. P., & Pavlovic, J. 2018. Barriers to addressing perinatal mental health issues in midwifery settings. *Midwifery, 59*, 47-58.
- Beck, C.T. 2001. Predictors of postpartum depression - An update. *Nursing Research, 50*, 275-285. <https://doi.org/10.1097/00006199-200109000-00004>
- Borglin, G., Hentzel, J., & Bohman, D. M. 2015. Public health care nurses' views of mothers' mental health in paediatric healthcare services: a qualitative study. *Primary health care research & development, 16*(5), 470-480.
- Cardaillac, C., Rua, C., Simon, E. G., & El-Hage, W. 2016. Oxytocin and postpartum depression. *Journal de gynecologie, obstetrique et biologie de la reproduction, 45*(8), 786.
- Carroll, M., Downes, C., Gill, A., Monahan, M., Nagle, U., Madden, D., & Higgins, A. 2018. Knowledge, confidence, skills and practices among midwives in the republic of Ireland in relation to perinatal mental health care: The mind mothers study. *Midwifery, 64*, 29-37. <https://doi.org/10.1016/j.midw.2018.05.006>
- Chen, J., Cross, W. M., Plummer, V., Lam, L., & Tang, S. 2019. A systematic review of prevalence and risk factors of postpartum depression in Chinese immigrant women. *Women and Birth, 32*(6), 487-492.
- Chen, Y. H., & Lau, G. 2008. Maternal deaths from suicide in Singapore. *Singapore medical journal, 49*(9), 694.
- Depression and other common mental disorders: global health estimates. 2017. World Health Organization. World Health Organization. <https://apps.who.int/iris/handle/10665/254610>.

- Dikmen-Yildiz, P., Ayers, S., & Phillips, L. 2017. Depression, anxiety, PTSD and comorbidity in perinatal women in Turkey: A longitudinal population-based study. *Midwifery*, 55, 29-37.
- Dlamini, L. P., Mahanya, S., Dlamini, S. D., & Shongwe, M. C. 2019. Prevalence and factors associated with postpartum depression at a primary healthcare facility in Eswatini. *South African Journal of Psychiatry*, 25(1), 1-7.
- Elshatarat, R.A., Yacoub, M.I., Saleh, Z.T., Ebeid, I.A., Abu Raddaha, A.H., Al-Za'areer, M.S., & Maabreh, R.S. 2018. Perinatal Nurses' and Midwives' Knowledge About Assessment and Management of Postpartum Depression [Abstract]. *Journal of Psychosocial Nursing and Mental Health Services*, 56, 36-46.
<https://doi.org/10.3928/02793695-20180612-02>
- Franks, W. L., Crozier, K. E., & Penhale, B. L. 2017. Women's mental health during pregnancy: A participatory qualitative study. *Women and Birth*, 30(4), e179-e187.
- Fisher J, Cabral de MelloMello M, Patel V, Rahman A, Tran T, Holton S, et al. Prevalence and determinants of common perinatal mental disorders in women in low-and lower-middle-income countries: a systematic review. *Bull WHO* (2012) 90(2):139–49. doi:10.2471/BLT.11.091850
- Gelaye, B., Rondon, M.B., Araya, R., & Williams, M.A. 2016. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. *Lancet Psychiatry*, 3, 973-982. [https://doi.org/10.1016/s2215-0366\(16\)30284-x](https://doi.org/10.1016/s2215-0366(16)30284-x)
- Gerli, S., Fraternali, F., Lucarini, E., Chiaraluce, S., Tortorella, A., Bini, V., Giardina, I., Moretti, P. & Favilli, A. (2019). Obstetric and psychosocial risk factors associated with maternity blues. *The Journal of Maternal-Fetal & Neonatal Medicine*, 1-6.
- GÖLBAŞI, Z. 2014. Postpartum depression: Knowledge and opinions of nurses and midwives employed in primary health care centers. Accessed on 25 March 2019. Retrieved from http://tip.fusabil.org/pdf/pdf_FUSABIL_1007.pdf
- Guintivano, J., Manuck, T., & Meltzer-Brody, S. 2018. Predictors of Postpartum Depression: A Comprehensive Review of the Last Decade of Evidence. *Clinical Obstetrics and Gynecology*, 61, 591-603.
<https://doi.org/10.1097/grf.0000000000000368>
- Hahn-Holbrook, J., Cornwell-Hinrichs, T., & Anaya, I. 2018. Economic and Health Predictors of National Postpartum Depression Prevalence: A Systematic Review, Meta-analysis, and Meta-Regression of 291 Studies from 56 Countries. *Frontiers in Psychiatry*, 8, Article 248. <https://doi.org/10.3389/fpsy.2017.00248>
- Hanna, B., Jarman, H., Savage, S., & Layton, K. 2004. The early detection of postpartum depression: Midwives and nurses trial a checklist. *Jognn-Journal of Obstetric Gynecologic and Neonatal Nursing*, 33, 191-197.
<https://doi.org/10.1177/0884217504262972>
- Hauck, Y.L., Kelly, G., Dragovic, M., Butt, J., Whittaker, P., & Badcock, J.C. 2015. Australian midwives knowledge, attitude and perceived learning needs around perinatal mental health. *Midwifery*, 31, 247-255.
<https://doi.org/10.1016/j.midw.2014.09.002>

Higgins, A., Downes, C., Monahan, M., Gill, A., Lamb, S.A., & Carroll, M. 2018. Barriers to midwives and nurses addressing mental health issues with women during the perinatal period: The Mind Mothers study. *Journal of clinical nursing*, 27, 1872-1883. doi: 10.1111/jocn.14252

Hyde, J. S., & Mezulis, A. H. 2020. Gender differences in depression: biological, affective, cognitive, and sociocultural factors. *Harvard review of psychiatry*, 28(1), 4-13.

Johnson, M. & Long, T. 2015. *Research in Ethics. Q: The research process in nursing*. Edit. Lathlean, J. & Gerrish, C. Chichester, UK: John Wiley & Sons, Ltd. 31 - 41. Accessed September 16, 2017. Retrieved from <https://www.wiley.com/en-us/The+Research+Process+in+Nursing%2C+7th+Edition-p-9781118522585>

Jones, M. & Rattray, J. 2015. *Questionnaire Design. Q: The research process in nursing*. Edit. Lathlean, J. & Gerrish, C. Chichester, UK: John Wiley & Sons, Ltd. 412 - 425. Accessed September 16, 2017. <https://www.wiley.com/en-us/The+Research+Process+in+Nursing%2C+7th+Edition-p-9781118522585>

Jones, C. J., Creedy, D. K., & Gamble, J. A. (2012). Australian midwives' awareness and management of antenatal and postpartum depression. *Women and Birth*, 25(1), 23-28. <https://doi.org/10.1016/j.wombi.2011.03.001>

Jones, C.J., Creedy, D.K., & Gamble, J.A. Australian midwives' knowledge of antenatal and postpartum depression: a national survey. *Journal Of Midwifery & Women's Health*. 2011;56(4):353-361. doi:10.1111/j.1542-2011.2011.00039.x.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. 2005. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, 62(6), 593-602

Khalifeh, H., Hunt, I. M., Appleby, L., & Howard, L. M. (2016). Suicide in perinatal and non-perinatal women in contact with psychiatric services: 15 year findings from a UK national inquiry. *The Lancet Psychiatry*, 3(3), 233-242.

Lillie, M., Hembling, J., Owusu, R. K., Ali, M., Safiyatu, A. B., Raymond, A., Ali, M., Abubakr-Bibilazu, S., Aborigo, R., Adam, H., McEwan, E., Awoonor-Williams, A.K. & Baumgartner, J. N. 2020. Prevalence and Correlates of Depression Among Pregnant Women Enrolled in a Maternal and Newborn Health Program in Rural Northern Ghana: a Cross-sectional Survey. *Global Social Welfare*, 7(2), 131-140.

Chrzan-Detkos M., & Walczak-Kozłowska T. 2020. *Antenatal and postnatal depression – Are Polish midwives really ready for them? Midwifery*, 83, 102646. doi:10.1016/j.midw.2020.102646

Milgrom, J., & Gemmill, A. W. 2014. *Screening for perinatal depression. Best Practice & Research Clinical Obstetrics & Gynaecology*, 28(1), 13–23. doi:10.1016/j.bpobgyn.2013.08.014

Noonan, M., Jomeen, J., Galvin, R., & Doody, O. 2018. Survey of midwives' perinatal mental health knowledge, confidence, attitudes and learning needs. *Women and Birth*, 31, E358-E366. <https://doi.org/10.1016/j.wombi.2018.02.002>

Norhayati, M.N., Hazlina, N.H.N., Asrenee, A.R., & Emilin, W. 2015. Magnitude and risk factors for postpartum symptoms: A literature review. *Journal of Affective Disorders*, 175, 34-52. <https://doi.org/10.1016/j.jad.2014.12.041>

O'Connor, T. G., Tang, W., Gilchrist, M. A., Moynihan, J. A., Pressman, E. K., & Blackmore, E. R. 2014. Diurnal cortisol patterns and psychiatric symptoms in pregnancy: short-term longitudinal study. *Biological psychology*, 96, 35-41.

Oates, M. 2003. Perinatal psychiatric disorders: a leading cause of maternal morbidity and mortality. *British Medical Bulletin*, 67, 219-229. <https://doi.org/10.1093/bmb/ldg011>

On the main measures to reduce maternal and infant mortality in Kazakhstan 2014. Accessed on 25 February 2019. Retrieved from <https://www.zakon.kz/4658033-ob-osnovnykh-meroprijatijakh-po.html>

Palladino, C. L., Singh, V., Campbell, J., Flynn, H., & Gold, K. J. 2011. *Homicide and Suicide During the Perinatal Period. Obstetrics & Gynecology*, 118(5), 1056–1063. doi:10.1097/aog.0b013e31823294da

Pineiro, E., Bogen, D. L., Hoxha, D., Ciolino, J. D., & Wisner, K. L. 2015. *Sertraline and breastfeeding: review and meta-analysis. Archives of Women's Mental Health*, 18(2), 139–146. doi:10.1007/s00737-015-0499-y

Queirós, A., Faria, D., & Almeida, F. 2017. Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*.

Qutteina, Y., Nasrallah, C., James-Hawkins, L., Nur, A. A., Yount, K. M., Hennink, M., & Rahim, H. F. A. 2018. Social resources and Arab women's perinatal mental health: A systematic review. *Women and Birth*, 31(5), 386-397.

Rai, S., Pathak, A., & Sharma, I. 2015. Postpartum psychiatric disorders: Early diagnosis and management. *Indian Journal of Psychiatry*, 57, S216-S221. <https://doi.org/10.4103/0019-5545.161481>

Republican Center for Health Development 2018. List of operating procedure standards (OPs) and rules for medical organizations providing outpatient care. Accessed on 25 March 2019. Retrieved from http://www.rcrz.kz/index.php/ru/?option=com_content&view=article&layout=edit&id=1387

Resolution of the government of the Republic of Kazakhstan №752. 2014. On the adoption of the action plan for the implementation of the Concept of Kazakhstan's entry into the top 30 most developed countries in the world for 2014-2020. Accessed on 25 April 2019. Retrieved from <http://adilet.zan.kz/rus/docs/P1400000752/links>

Screening for Perinatal Depression. 2018. American College of Obstetricians and Gynecologists (ACOG) Committee Opinion. *Obstetrics and Gynecology*, 132, E208-E212. <https://doi.org/10.1097/aog.0000000000002927>

Screening for perinatal depression. Committee on Obstetric Practice. 2015. The American College of Obstetricians and Gynecologists Committee opinion no. 630. *Obstetrics and gynecology*, 125(5), 1268.

- Šebela, A., Hanka, J., & Mohr, P. 2018. Etiology, risk factors, and methods of postpartum depression prevention [Abstract]. *Ceska gynekologie*, 83(6), 468-473.
- Shorey, S., Chee, C.Y.I., Ng, E.D., Chan, Y.H., Tam, W.W.S., & Chong, Y.S. 2018. Prevalence and incidence of postpartum depression among healthy mothers: A systematic review and meta-analysis. *Journal of Psychiatric Research*, 104, 235-248. <https://doi.org/10.1016/j.jpsychires.2018.08.001>
- Silverman, M.E., Reichenberg, A., Savitz, D.A., Cnattingius, S., Lichtenstein, P., Hultman, C.M., Larsson, H., & Sandin, S. 2017. The risk factors for postpartum depression: A population-based study. *Depression and Anxiety*, 34, 178-187. <https://doi.org/10.1002/da.22597>
- State program of health care development of the Republic of Kazakhstan "Densaulyk for 2016-2019" 2015. Accessed on 25 March 2019. Retrieved from <http://adilet.zan.kz/rus/docs/U1600000176>
- Strapasson, M. R., Ferreira, C. F., & Ramos, J. G. 2018. Associations between postpartum depression and hypertensive disorders of pregnancy. *International Journal of Gynecology & Obstetrics*, 143(3), 367-373.
- The order of the Prime Minister of the Republic of Kazakhstan No. 38-R 2006. Accessed on 25 March 2019. Retrieved from https://online.zakon.kz/m/Document/?doc_id=30065051
- Topatan, S., & Demirci, N. 2019. Frequency of depression and risk factors among adolescent mothers in Turkey within the first year of the postnatal period. *Journal of pediatric and adolescent gynecology*, 32(5), 514-519.
- Tavakol, M & Dennick, R. 2011. Reflecting on Cronbach's alpha. *International Journal of Medical Education*, 53-55. Accessed April 1, 2019, extracted from <https://www.ijme.net/archive/2/cronbachs-alpha.pdf>
- van de Loo, K. F., Vlenterie, R., Nikkels, S. J., Merkus, P. J., Roukema, J., Verhaak, C. M., Roeleveld, N., & van Gelder, M. M. 2018. Depression and anxiety during pregnancy: The influence of maternal characteristics. *Birth*, 45(4), 478-489.
- Viktorin, A., Meltzer-Brody, S., Kuja-Halkola, R., Sullivan, P.F., Landen, M., Lichtenstein, P., & Magnusson, P.K.E. 2016. Heritability of Perinatal Depression and Genetic Overlap With Nonperinatal Depression. *American Journal of Psychiatry*, 173, 158-165. <https://doi.org/10.1176/appi.ajp.2015.15010085>
- What you need to know about postpartum depression. 2017. Sputnik. Accessed on 25 March 2019. Retrieved from <https://ru.sputniknews.kz/society/20171212/4012006/chto-nuzhno-znat-o-poslerodovoj-depressii.html>
- Wikman, A., Axfors, C., Iliadis, S.I., Cox, J., Fransson, E., & Skalkidou, A. 2019. Characteristics of women with different perinatal depression trajectories. *Journal of neuroscience research*. doi:10.1002/jnr.24390
- Xiong, R., & Deng, A. 2020. Incidence and risk factors associated with postpartum depression among women of advanced maternal age from Guangzhou, China. [Abstract]. *Perspectives in Psychiatric Care*, 56(2), 316-320.

Appendices

Appendix 1. Standard of Operating Procedures: How a visitor can deal with postpartum depression in a woman

Actions of a patronage nurse in a state of postpartum depression in a woman.

1.Purpose: determination of a management plan for women in the postpartum period and early detection of postpartum depression; stabilization / improvement of the condition of the woman in the postpartum period.

1.Scope: all sections of the Clinic.

2.Responsibility: nursing staff of the Clinic.

Definition:Patronage is an active patient monitoring system at home.

Postpartum depression is a violation of the emotional sphere that occurs in women after the birth of a child, manifested by a decreased mood, anxiety, and inability to cope with their duties. This pathology negatively affects both the mother and the child.

Symptoms of postpartum depression:

- deep anxiety and anxiety;
- deep sadness;
- frequent tears;
- a feeling of inability to take care of a child;
- guilt;
- panicattacks;stress and irritability;
- fatigue and lack of energy;
- inability to focus;
- sleep disturbance;
- problems with appetite;
- loss of interest in sexual intimacy with a partner;
- a feeling of helplessness and hopelessness;

- antipathy to the child.

Resources:

- 1.a form of medical documentation;
- 2.skin antiseptic (in the absence of the ability to wash your hands with running water and soap);
- 3.tonometer and phonendoscope;
- 4).a thermometer;
- 5.a disposable mask (if necessary).

Documentation:

- 1.an inspection record in the form No. 116 / y;
- 2.entry in the outpatient card of the child - form No. 112 / u.

The main part of the procedure:

- 1.Visit during the first 3 days after discharge from the hospital. When visiting, say hello, tell the purpose of the visit, establish a trusting relationship with a woman
2. Immediately before the examination, wash hands in accordance with the rules of hand hygiene, if necessary, wear a mask;
- 3.To clarify the complaints of the mother;
- 4.To assess the general condition of the mother and newborn;
5. Identify signs of family abuse: physical abuse, neglect, physical and emotional abandonment;
6. Maternal health assessment: physical symptoms, examination of the mammary glands, general health;
- 7.Assessment for maternal postpartum depression;
8. Give recommendations and conduct counseling (with the involvement of family members): tell family members about what is happening to the woman and the importance of caring and attention to the woman and the child; create an atmosphere in which the child will be in the spotlight;
 - try to touch the child more often, think about the child;
 - to eat well; • take care of the child, postponing other activities;
 - take care of yourself;
 - more often go out and move.

After completing the inspection, wash hands in accordance with the rules of hand hygiene.

Clinics

Ask a woman and family members for any questions. After completing the patronage and upon returning to the office

1. Make a record of the examination in the outpatient card of the child (form No. 112/y);
2. Inform the local doctor about the results of the patronage;
3. Notify the local doctor (GP, general practitioner, pediatrician), obstetrician-gynecologist, senior patronage nurse, department head and psychologist; Conduct follow-up observations in accordance with an individual observation plan

References:

1. Order of the Minister of Health of the Republic of Kazakhstan dated July 3, 2012 No. 452 "On measures to improve medical care for pregnant women, women in labor, women in childbirth and women of childbearing age";
2. The order of the acting Minister of Health of the Republic of Kazakhstan dated November 23, 2010 No. 907 "On approval of the forms of primary medical documentation of healthcare organizations" (as amended on March 24, 2017);
3. Order of the Minister of Health of the Republic of Kazakhstan dated October 2, 2012 No. 676 "On approval of standards for accreditation of medical organizations" (as amended on June 5, 2018), Appendix 1. Chapter 4: Treatment and care of a patient. Section 3. Basics of clinical care. 70. Reception of outpatients; 71. Primary health care specialists (general practitioner, district general practitioner / pediatrician, district nurse / general practice nurse, obstetrician, paramedic) carry out activities in accordance with the legislation of the Republic of Kazakhstan; 72. Consultation of outpatients
4. UNICEF. Module 7: Parental Well-Being, 2016;
Obukhovets T.P., Sklyarova T.P., Chernova O.V. "Basics of nursing." 2005 year.

Appendix 2. Questionnaire

1. Which statement is true?

- a. Psychological morbidity, specifically depression and anxiety, are commonly seen in both the antenatal and postpartum periods.
- b. Psychological morbidity, such as depression and anxiety, is not associated with personality disorder.
- c. Psychological morbidity, such as depression and anxiety, is not associated with drug and alcohol abuse.
- d. It is not essential to screen for, and differentiate between, depression and anxiety comorbidity in pregnant women.

2. The proportion of pregnant women who meet the diagnostic criteria for depression is approximately:

- a. 8-35%
- b. 5-10%
- c. 10-20%
- d. 30-50%

3. Which of the following is associated with depression during pregnancy?

- a. Gestational hypertension
- b. Preeclampsia
- c. Spontaneous abortion
- d. All of the above

4. What is the most common reason for depressed pregnant women not receiving adequate help?

- a. Lack of social support
- b. Lack of support from healthcare providers
- c. Lack of recognition of depression symptoms by healthcare providers
- d. Poor access to treatment for depression

5. The percentage of women suffering depression during pregnancy who subsequently attempt suicide is approximately:

- a. 1%
- b. 10%
- c. 15%
- d. 25%

6. The proportion of mothers who experience the “baby blues” is approximately:

- a. 1-2%
- b. 10-20%
- c. 20-30%
- d. 30-80%

7. What is the recommended management for the “baby blues”?

- a. Understanding, empathy and support
- b. Baby care assistance
- c. Psychotherapy
- d. Referral to a postpartum disorder support group

8. Which of the following is required for a diagnosis of postpartum depression?

- a. Grandiose future plans
- b. Frequent mood swings
- c. Preoccupation with cleanliness
- d. Persistent low mood for more than 2 months

9. Postpartum depression most commonly occurs after the birth:

- a. Within 2-5 days
- b. Within 10-14 days
- c. After 1 month
- d. After 3 months

10. The proportion of mothers who experience postpartum depression is approximately:

- a. 5%
- b. 15%
- c. 30%
- d. 50%

11. What is the recommended treatment for mild postpartum depression?

- a. Understanding and empathy
- b. Education about postpartum depression, supportive counselling, and peer support groups
- c. Psychotherapy and antidepressant medication
- d. Hospitalisation and medication

12. What is the recommended treatment for moderate to severe postpartum depression?

- a. Understanding and empathy
- b. Education about postpartum depression, supportive counselling, and peer support groups
- c. Psychotherapy and antidepressant medication
- d. Hospitalisation and medication

13. Which of the following statements is false about the Edinburgh Postnatal Depression Scale?

- a. It distinguishes well between moderate and severe depression symptoms.
- b. It measures depressive symptoms to give a probable diagnosis of depression.
- c. It fully assesses symptoms of psychotic depression.
- d. It can detect antenatal depressive symptoms.

14. Which of the following statements is true about antidepressant medication?

- a. Mothers may be able to breastfeed while taking antidepressants.
- b. The presence of antidepressants in breast milk has been well studied.
- c. Antidepressants are habit-forming.
- d. Antidepressant medications are effective immediately.

15. Which of the following is a symptom of postpartum depression?

- a. Annoyance with your partner or other children
- b. Feeling a sense of frustration with present life
- c. Anxious about the baby
- d. All of the above

16. Which of the following statements is correct?

- a. Without treatment, 80% of women recover spontaneously from postpartum depression.
- b. Women experiencing postpartum depression are more likely to develop postpartum depression in a subsequent pregnancy.
- c. Women experiencing postpartum depression do not develop suicide ideation or attempt suicide.
- d. Approximately 5% of all pregnant women develop puerperal psychosis following childbirth.

17. Your work experience

- a. 0-5 years
- b. 5-10 years
- c. 10-15 years
- d. 15 years and more

18. College graduation

- a. 0-5 years,
- b. 5-10 years
- c. 10-15 years
- d. 15 years and more

19. Gender

a. Male

b. Female

20. Do you have advanced training about postpartum depression.

a. Yes

b. Not

Answers: 1-a; 2-c; 3-d; 4-c; 5-c; 6-d; 7-a; 8-d; 9-c; 10-b; 11-b; 12-c; 13-c; 14-a; 15-d; 16-b.

Appendix 3. Cover letter of the questionnaire

I am Makhmutova Elmira Abdimizhitovna undergraduate in KazMUNO JSC Kazakh-Finnish magistracy.

The purpose of my study is to assess the knowledge of nurses and midwives about postpartum depression.

I ask you to participate in the survey and answer the questionnaire. The questionnaire consists of 20 questions.

This questionnaire belongs to my research thesis.

Carefully read each question and possible answers to it.

Choose the answer that best suits your opinion and indicate it.

Please respond sincerely and work independently.

Answers will be used in a generalized form. Anonymity is guaranteed.

Confidentiality: The data obtained during the study will be stored on the personal computer of the principal investigator, access to which is available only to the principal investigator; none of the computer files will contain personal identification information. The data will be used for the implementation of the scientific project. Respondent profiles will be assigned code numbers, and the list of survey participants will be stored in a locked cabinet in the house of the principal investigator. When the study is completed and the data is analyzed, the list of participants will be destroyed. All data will be destroyed 3 years after the completion of the study.

Surnames and names of respondents will not be mentioned in any publication or report.

By filling out the form, you give permission to use your answers for the purposes described above.

Thank you in advance for your cooperation.

To go from one page to another, click the NEXT button

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Russian-

Kazakh-