Nazarbayev University School of Medicine

Master of Public Health Program

Prevalence and Associated Factors of Postpartum Depression in Astana, Kazakhstan

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Astana, Kazakhstan

2018

Table of Contents

Abstract

Background

Postpartum depression (PPD) is recognized as the major public psychological health issue that affects 13% of women at postnatal period worldwide (O'Hara and Swain, 1996). Currently, there is a lack of information about the state of PPD in Kazakhstan, Central Asian country with population of 17.8 million. To bridge this gap, PPD prevalence and risk factors among women in Astana, the capital of Kazakhstan, were evaluated.

Methods

A consecutive sample of women who gave birth within past 12 months were recruited in two major outpatient clinics of Astana, Republican Diagnostic Center and National Research Center for Maternal and Child Health. Participants of this ongoing cross-sectional study completed an anonymous self-reported questionnaire collecting sociodemographic and medical data. Maternal depression was assessed using the translated and adapted Kazakh and Russian versions of the Edinburgh Postnatal Depression Scale (EPDS). The EPDS score ≥13 was considered as PPD indicator. Potential associated factors were identified using bivariate tests and multivariate logistic regression.

Results

28.65% of 178 participants had EPDS score ≥13 (μ=10.09, σ=5.23). Notably, the following variables remained significant predictors of PPD after adjusting for confounders. Poor relationships with mother-in-law and lack of partner's support in household duties remained significant (OR 2.39, 95% CI 1.482-3.841 and OR 2.22, 95% CI 1.402-3.512, respectively). Women with PPD were more likely to have less number of children (p=0.002), inadequate partner's assistance in household duties (p=0.001), poor relationships with mother-in-law (p<0.001), and had previously been diagnosed with depression (p=0.050).

Conclusion

The estimated prevalence of PPD among Kazakhstani women exceeds the reported average PPD prevalence in Western countries. Frequently unreported family factors, that are attributable to the Kazakh culture were discovered, including relationships with partner and in-laws. Effective intervention strategies are necessary to strengthen the psychological health of mothers in Astana and Kazakhstan as a whole, targeting not only mothers, but also social family relationship norms.

1 Introduction

Pregnancy and early years of motherhood are the periods of the increased vulnerability for mothers. Going through these times, mothers undergo the significant physiological and psychological changes. It is of no surprise, that a large portion of women develop various depressive disorders – conditions, that not only affecting mother's health, but also severely jeopardizing the child's well-being, by impairing new mother's ability to cope with daily activities. Both antenatal and postnatal mental disorders are highly prevalent, affecting approximately 1 in 10 and 1 in 7 women respectively (Fisher et.al., 2012). According to Stewart et.al. (2003), public health specialists distinguish three forms of postnatal mental disorders: the blues, postpartum depression (PPD) and postpartum psychosis. Among these three diseases, the PPD has the highest prevalence (ibid.).

Postpartum depression (PPD) is the moderate psychological condition, characterized by prolonged low mood, anxiety and fatigue during the first 12 months after giving birth. The World Health Organization (n.d.) estimates the worldwide prevalence of PPD as 13%, while in developing countries, this percentage increases to 19.8%. A large pool of evidence suggests that PPD may have various negative health outcomes both for mother and child. A child whose mother suffered from PPD is more likely to have various behavioral, cognitive, physiological and psychological issues, that were shown to appear not only in infancy, but also in later stages of life, up to adolescence. For mother, PPD effects are researched far less thoroughly and include a higher risk of chronic depression (Stewart et.al., 2003), adverse physical health, complications in relationships with partner (Mitchell et.al., 2011).

2 Literature review

The susceptible mentality of women in postnatal period was cited in medical literature as early as 1904, by German psychiatrist Emil Kraepelin (1904), who referred to it as "Puerperal Insanity".

However, the problem of maternal mood was not in the spotlight of medical professionals until late 1950s. Prior to that period, the first half of 20th century can be characterized by the gradual rise of the pressure on mothers from numerous researchers, proposing their views on the best motherhood practices (Held and Rutherford, 2012).

Fortunately, second half of 20th century marked the gradual increase in the attention to the maternal mental health in the medical community along with the overall growing recognition of importance of psychological health (Bergler, 1959). The factors related to PPD were studied in greater detail. Attempts to evaluate the degree of the mental condition were made by different scientists. Notably, Rees (1971) revealed that the incidence of depression does not reduce during the first 12 months after birth.

A large variety of techniques for treatment of the depressed women was analyzed. Kleinberg (1977) demonstrated the utmost importance of emotional state of mothers for the "competent child care". The idea of emotional, rather than somatic nature of PPD was strengthened by revealing the importance of social support and life-events on the incidence of depressive conditions (O'Hara, et.al., 1983, Hopkins et.al., 1984, Cutrona and Troutman, 1986).

Most notable works of the field of PPD include a massive survey of risk-factors of PPD by O'Hara and Swain (1996) and Beck's studies of predictors and effects of PPD on child development and interactions between mother and child (1998, 1996, 1995). The compilation reinforced the evidence of emotional character of PPD, highlighting the fraught life events, depression history, poor relationships with partner and inadequate social support as the major predictors of PPD (O'Hara and Swain, 1996). The weakness of socioeconomic status as a PPD risk-factor was underlined as well. The meta-analysis by Beck (1995) compiled the knowledge about mother-infant relationships between 1983 and 1993. It

was concluded that the positive emotional feedback is not created between infant and depressed mother, denying woman enjoyment of motherhood, while negatively affecting child's behavioral development. The subsequent, though, revealed only weak effect of PPD on the further cognitive and behavioral development indicators, such as hyperactivity, aggression and neuroticism (Beck, 1998).

Interestingly, the prevalence of PPD was estimated as 10% (Rees, 1971), showing that the modern PPD prevalence in developed countries remains at approximately the same level as in 1970-s.

2.1 Modern state of PPD

2.1.1 Predictors

Despite the large number of studies describing the factors associated with PPD, the etiology of the disease remains unclear. Nevertheless, the research body suggests the following risk factors:

- Previously diagnosed depressive disorders (Lanes et.al., 2011, Räisänen, 2013)
- Stress levels during pregnancy (Lanes et.al., 2011, Räisänen, 2013)
- Availability of social support (Lanes et.al., 2011, Sword et.al., 2011, O'Hara and Swain, 1996)
- Relationships with partner (O'Hara and Swain, 1996, Wu et.al., 2012, Valentine et.al., 2010)
- Immigrant status (Lanes et.al., 2011, Falah-Hassani et.al., 2015)
- Childbirth complications (Räisänen, 2013, Sword et.al., 2011)
- Stressful life events during or after pregnancy (Räisänen, 2013, O'Hara and Swain, 1996)
- Genetic predisposition (Mitchell et.al., 2010)

Despite the factors, commonly found in general population, there is a high degree of disparity between the studies conducted in different countries around the globe. For example, Miyake et.al. (2011), Mayberry et.al. (2007) and Patel et.al. (2002) report protective effects of employment in, respectively, Japan, United States and Goa (India), whereas Tannous et.al. (2008) found no such

association in Brazil. Unemployment exhibited protective effect in studies by Inandi et.al. (2002), Jardri et.al. (2006) and Rubertsson et.al. (2005) in Turkey, France and Sweden, respectively.

Similar discrepancy is observed in several other factors. For example, the caesarian section was found to increase the probability of the PPD in prospective cohort study of Sword et.al. (2011) and review of Lobel et.al. (2007), while the earlier cross-sectional study of Chen and Wang (2002) and longitudinal study of Durik et.al. (2000) did not find significant associations.

2.1.2 Interventions

In recent years, a wide range of interventions to prevent or treat PPD were researched. Two major types of interventions can be pinpointed: psychological and pharmacological. Psychological is the most popular type of interventions in literature (Sockol et. al., 2011). There are two major types of psychological therapies used in treatment of depressive symptoms – the interpersonal psychotherapy (IPT) and cognitive behavioral therapy (CBT). Several unconventional treatment techniques are present in literature as well, such as non-directive counseling, psychodynamic therapy, mother-infant therapy group and manualized supportive psychotherapy (Sockol et.al., 2011). Due to the lack of research present in literature, further research is necessary, before more accurate conclusions may be drawn.

From the perspective of antidepressant medication, PPD can be viewed as a subcategory of major depression (Fitelson et.al., 2011). The major pharmacological concerns peculiar to PPD are the change in digestive patterns, breastfeeding, mother's lifestyle requiring constant care for the baby, as well as negative view of antidepressants in society (ibid.). The scarce research body suggests that intake of fluoxetine and paroxetine may reduce the depressive symptoms in postpartum women (ibid.). The hormonal treatment is another vector of pharmacological treatment of postpartum depression. The hormonal treatment of the PPD had shown significant improvements in non-breastfeeding women who

were given estrogen (ibid.). Nevertheless, pharmacological treatment of PPD requires high-quality studies to make definite conclusions, with the control for placebo and consideration of long-term effects.

2.1.3 Effects

A large body of research had been produced to address the effects of untreated PPD on mothers, children and families. From the perspective of parents, the following primary effects of PPD are prevalent: slowed cognition and physical movement, fatigue and enervation, unhealthy sleep and nutrition patterns, problems in concentrating and decision making, and thoughts about suicide and infanticide (Letourenau et.al., 2012). Although the healthy individuals may experience these symptoms intermittently, their consistent exhibition during prolonged time (14 days or more) is considered a depressive disorder.

Due to the prolonged effect of aforementioned primary factors, mothers, suffering from PPD are prone to develop secondary effects, such as, social isolation, severe reduction of self-efficacy, and self-esteem (ibid.). In a search for mitigation of these effects, affected mother may turn to their partners, that may result into relationship strain, causing the disagreements and lack of support between the partners (Leinonen et.al., 2003). In addition, Goodman (2004) reports that partners of mothers suffering from PPD have 24%-50% chance of developing depressive condition, experiencing the same symptoms as mothers. Guilt and frustration due to inability to help the partner in fighting the depression are added to the medley of depressive symptoms in partners, putting extra relationship burden (Davey et.al., 2006). The suboptimal parenting practices are associated with the marital conflicts, resulting into harsh and punitive parenting and lack of supportive interactions (Leinonen et.al., 2003). Aggression, violence, economic pressure and substance abuse may further complicate the affairs of the affected family (Letourenau et.al., 2012).

Children of affected parents often find themselves at the receiving end of these issues. The recent longitudinal study of 9848 women suffering from different levels of PPD and 8287 children in UK by Netsi et.al. (2018) revealed the following adverse effects: behavioral disturbance, lower grades in mathematics at the age of 16 years, increased risk of depression at 18 years. The latter two effects indicate that the effects of PPD may potentially span through the entire lifetime of the affected children, once again underlining the importance of PPD treatment at the earliest time possible.

2.2 Postpartum depression in Kazakhstan

In order to prevent the aforementioned effects, of PPD, early diagnosis of the depressive conditions is necessary. However, it can be seen from the body of literature, that there are very few universal predictors of PPD. Usually, the combination of demographic, health and psychosocial factors is responsible for the development of the disease. In addition, the diversity of the results from different geographic locations (e.g. Miyake et.al., 2011, Mayberry et.al., 2007, Patel et.al., 2002) highly complicates the identification of populations at risk, requiring the local data collection to be performed.

To the best of author's knowledge, the data about the PPD in Kazakhstan is scarce in the literature. The study of Dauletyarova et.al. (2016) provides the information about the quality of maternity care and satisfaction of patients in referral hospitals of East Kazakhstan. The mean rate of PPD symptoms was 16% with the highest rate 25.1% found in the Perinatal Centre in Semey City – hospital with the highest workload in the region. However, the methods for assessment of depressive symptoms are unclear and no standardized metrics were used, that significantly complicates the comparison of results (ibid.).

Aside from the abovementioned research, no other studies regarding the status of PPD in Kazakhstan were found. In order to evaluate the prevalence of PPD in Kazakhstan, as well as to identify

factors associated with PPD, characteristic for Kazakhstani postpartum women, the current study will conduct a cross sectional study among the new mothers in Astana. Information about the local population would help to optimize the intervention strategies for the particular population, with consideration of cultural factors.

2.3 Study Aims

This study aims to figure out prevalence of PPD among Astana women and to identify associated factors that could potentially trigger postpartum depression.

3 Methods

3.1 Study design

The cross sectional analytical design had been conducted. A 62-item questionnaire had been designed to evaluate the basic socio-demographic information, data about the relationships within immediate and extended family, standardized scale measuring the symptoms of PPD (Edinburgh Postpartum Depression Scale - EPDS) and information regarding the pregnancy experience, infant characteristics and quality of services provided.

The potential subjects are the pregnant women under the supervision in clinics of Astana. The sample size was calculated using formula provided in Pourhoseingholi, Vahedi and Rahimzadeh (2013):

$$n = \frac{Z^2 P(1-P)}{d^2}$$

The confidence level used in this study is 95%, and corresponding Z value is 1.96. The expected prevalence P is assumed 13%, based estimates by Rahman et.al. (2013) for women, who just gave birth. Parameter d was chosen to be 5%, as suggested by Pourhoseingholi, Vahedi and Rahimzadeh (2013) for the expected prevalence higher than 10%. The resulting sample size is n=173.

3.2 Study Population

The study was held in perinatal clinics and hospitals of Astana, primarily National Research Center for Maternal and Child Health and Republic Diagnostic Center. Anonymous self-reported questionnaires were provided to participants. While mothers were coming to their check-ups or other need to their physicians registered or by queue, the researcher was suggesting to mothers to voluntarily participate in a survey while they were waiting during their queue.

Recruitment was conducted on the consensual basis. Mothers who attend their local pediatric doctors during the period up to 1 year after giving birth were invited to participate in the survey on voluntary basis after a brief informing with the research objectives. Participants were informed about confidentiality and anonymity of study.

The subjects were recruited by contacting them directly in health clinics and being introduced to the study topic, its significance for them and society and potential hazards for participants. After that, they were offered to participate in survey. The convenient private spaces with at least table, seat and lighting was prepared prior to the recruitment. If agreed, the subjects were offered the informed consent form, pencil and survey blanks to be filled in the prepared personal space.

3.3 Variables

The dependent variable is the postpartum depressive symptoms measured by cumulative EPDS scores. Threshold of 12.5 points was used, as suggested by Cox et.al. (1987), i.e. women, scoring 13 points or higher are considered likely to be suffering from PPD. In our study we used the translated EPDS scale that was validated in the study of PPD among international (including Russian-speaking) immigrant population in Canada (Dennis et.al., 2016).

There are 42 independent variables, divided into 4 categories. The first category is the sociodemographic information, that includes the following parameters: age of participants, place of living, ethnicity, marital status, educational and employment status for participant and her partner, maternity leave status, family income level, living setting (separate or with parents of either partner) and satisfaction with setting, and finally, number of children. All variables in this section are categorical, except the numerical age and number of children.

The second group consists of variables representing family relationships and social support: current and childhood relationships with own parents, current relationships with in-laws, having emotional support from friend and partner, assistance in childcare from extended family, involvement of partner in childcare, general problem solving and household chores. The relationships of participant with extended family were evaluated using 5-point scale from “very bad” to “very good”, having friend was a yes-no question. The availability of support from various sources was evaluated using four-point scale, from “Never” to “Always”

The last section of questionnaire consists of variables, assessing mother’s pregnancy and motherhood experience: age and gender of a child, whether the pregnancy was planned, who gave the name to a child, delivery method, presence of partner during parturition, gestational age and weight at birth, complications during and after parturition, frequency of child’s crying, breastfeeding status, previously diagnosed depression, satisfaction with own body, perceived competence as mother, attending check-ups and satisfaction with the medical services.

3.4 Data entry and analysis

The data collected by papers was entered into excel file. Every participant was given identification number. Questions with no answers were with empty cells as well as questions regarding relationship with parents and parents-in-law in case of their absence.

The main outcome variable is depressive symptoms measured by EDPS. The independent variables are socio-demographics, pregnancy history, depression history, and family relationships. Descriptive analysis, bivariate and multivariate logistic regression analysis were performed using STATA 2012 software package. The resulting models were checked for confounding and the appropriate model modifications were made in case of the discovery of confounders.

3.5 Ethical considerations

All participants were given verbal inform consent. Vulnerable populations are not identified in this study. According to the "International Ethical Guidelines for Health-related Research Involving Humans", by Council for International Organizations of Medical Sciences (2016), pregnant and breastfeeding postpartum women must not be considered as vulnerable population. Moreover, it is stated that: "Research designed to obtain knowledge relevant to the health needs of the pregnant and breastfeeding woman must be promoted. For research interventions or procedures that have no potential individual benefits for pregnant and breastfeeding women: (1) the risks must be minimized and no more than minimal; and (2) the purpose of the research must be to obtain knowledge relevant to the particular health needs of pregnant or breastfeeding women or their fetuses or infants. When the social value of the research for pregnant or breastfeeding women or their fetus or infant is compelling, and the research cannot be conducted in non-pregnant or non-breastfeeding women, a research ethics committee may permit a minor increase above minimal risk" (Guideline 19, page 71).

The survey is anonymous with no personally identifying data collected throughout the questionnaire. All collected data is used only for research purposes. No private information is requested in the questionnaires to avoid disclosure of participant identities. Obtained data is secured, kept in strict confidence and locked and the electronic database is under password protection. Access to password-protected PC is restricted to every individual except researcher. There was no usage of internet services for storing the data during study. Data that are from paper forms will be destroyed within 3 months after the end of the project. The hazards for personal data of participants are minimized, because data are presented only in aggregate form.

3.6 Exclusion and inclusion criteria

Despite the presence of scientific interest, due to the ethical considerations, the pool of participants was limited to adult women, whose age is 18 or higher. With regard to the upper age limit, restrictions were not implemented. All participants are mothers who had children within past 12 months. As for the number of children, no criteria were established. No restrictions on number of children were implemented, as long as the age of youngest child is less than 12 months. In addition, the questionnaires were offered in written form, in three languages: Kazakh, Russian or English, thereby requiring the participant to be capable of written communication in at least one of these languages.

Exclusion criteria are based on the basic requirements for the participants. Therefore, ineligible participants are: women with legal age below 18 years and women who are unable to read in Kazakh, Russian or English. To maintain the privacy of the participants' answers, the interpreters were not allowed in case of inability to communicate in any of three supported languages. In addition, the participants, who are in acquaintance with the investigator were not invited to the study, in order to further reduce the risks for participants' personal information.

4 Results

A total of 303 women were offered participation in the current study in the period between January and March 2018. The final number of recruited participants is 178 with participation rate of 58.7%. The reason for refusing to participate was not asked, in order to avoid the possible coercion. However, in rare cases, women provided the reasons for refusal voluntarily. The communicated reasons for refusing to participate included necessity to look after the infant and older children, doubts that the survey might not be completed before being called by physician, lack of interest in the subject, and disbelief that the depression is a disease worth researching. There were some cases when mothers were aggressive towards the theme of the study saying "write down that depression does not exist at all; all mothers should do sport". This low level of awareness about PPD in population may be one of the reasons for such attitude.

The goal of this study is to estimate the prevalence of PPD and associated factors among mothers in Astana. Prevalence of PPD was found as 28.7%, with 51 out of 178 of participants having EPDS score 13 or higher. The demographic characteristics of the participants are shown in Table 1.

Table 1. Distribution of socio-demographic characteristics in women with and without depression

Variables	Values:	Prevalence of depression		p-value[a]
		No	Yes	
	Total	127(71.35%)	51(28.65%)	
Age (27.47±4.81)	18-28	79(62.20%)	36(70.59%)	0.208
	29-38	43(33.86%)	15(29.41%)	
	>38	5(3.94%)	0(0%)	
City	City	118(92.91%)	48(94.12%)	0.771
	Other	4(3,15%)	2(3.92%)	
Ethnicity	Kazakh	95(74.80%)	44(86.27%)	0.132
	Russian	19(14.96%)	6(11.26%)	
	Other	13(10.24%)	1(1.96%)	
Marital status	Married	124(97.64%)	48(94.12%)	0.239
	Other	3(2.36%)	3(5.88%)	

Education	Elementary school	0(0%)	0(0%)	0.235
	High school	4(3.15%)	1(1.96%)	
	Vocational school	25(19.69%)	4(7.84%)	
	Bachelor degree	84(66.14%)	37(72.55%)	
	Master degree	13(10.24%)	9(17.65%)	
	PhD	1(0.79%)	0(0%)	
Work outside	Yes, full time	7(5.51%)	1(1.96%)	0.323
	Yes, part time	17(13.39%)	3(5.88%)	
	No	28(22.05%)	14(27.45%)	
	Still on maternity leave	75(59.06%)	33(64.71%)	
Occupation	Unemployed	26(20.47%)	10(19.61%)	0.756
	Civil servant/ budget worker	25(19.69%)	9(17.65%)	
	Employee of a private company	51(40.16%)	25(49.02%)	
	Private entrepreneur	13(10.24%)	2(3.92%)	
	Self-employed	6(4.72%)	3(5.88%)	
	Student	6(4.72%)	2(3.92%)	
	Other	0(0%)	0(0%)	
Partner's education	Elementary school	0(0%)	0(0%)	0.715
	High school	10(7.87%)	4(7.84%)	
	Vocational school	28(22.05%)	8(15.69%)	
	Bachelor degree	79(62.20%)	33(64.71%)	
	Master degree	9(7.09%)	6(11.76%)	
	PhD	1(0.79%)	0(0%)	
Income	0 – 99 999	16(12.60%)	11(21.57%)	0.461
	100 000 – 199 999	47(37.01%)	19(37.25%)	
	200 000 – 299 999	33(25.98%)	11(21.57%)	
	300 000 and more	31(24.41%)	10(23.03%)	
Living arrangements	With your parents	10(7.87%)	4(7.84%)	0.469
	With parents in law	24(18.90%)	10(19.61%)	
	Separately	93(73.23%)	36(70.59%)	
	Other	0(0%)	1(1.96%)	
Satisfied with living arrangements	No	19(14.96%)	15(29.41%)	**0.027***
	Yes	108(85.04%)	36(70.59%)	
Number of children	1	58(45.67%)	35(68.63%)	**0.004***
	2	47(37.01%)	15(29.41%)	
	>=3	22(17.32%)	1(1.96%)	

[a] Results of $\chi 2$ tests for categorical variables are presented

*$p<0.05$

The mean age of participants was 27.5 years. The majority of participants were of Kazakh ethnicity, married and living in urban areas, separately from the extended family. The educational level of participants was at least high school with more than 80% having bachelor's degree. A similar pattern has been observed in partners' educational levels with all partners having at least high school diploma

and more than 70% having at least bachelor's degree. The distribution of participants across income categories is relatively even. More than half of the participating women have only one child.

The mean EPDS score was 10.13 with standard deviation of 5.28. After running chi-square test with all independent variables, 11 variables were found as statistically significant with p-value less than 0.05 (Table 2).

There is statistically significant difference in depression level among those woman who are satisfied and not satisfied with their living conditions (p=0.027). The bivariate logistic regression analysis has shown, that women, who live separately from extended families, are satisfied three times more often, than women, who live with the parents of their husbands (OR=3.08, p=0.029).

The number of children has shown to be correlated with PPD (p=0.004). This variable has statistically significant association and negative association with PPD (p=0.004), i.e. women having one child are more likely to suffer from PPD.

Three variables indicating external support had been shown significant in bivariate analysis. According to chi-square test, relationships with mother-in-law have statistically significant association with PPD (p<0.001). Having close friend to whom participant can rely and tell about problems was statistically significant predictor of PPD with p-value=0.049. The support from relatives is found to have statistically significant association with PPD with p=0.001.

Three variables measuring the partner's support were found significant. The chi2 test showed that ability to rely on partner in resolving problems is associated with PPD (p=0.001). The ability to open up to partner and to talk about worries has p-value<0.001. Statistically significant association (p=0.001) has also been found between depression status and sharing household duties, such as cleaning and cooking, with their husband/partner at home.

Table 2. Distribution of characteristics related to health, family and partner's support in women with and without depression

Independent Variables	Values	Non-depressed n(%)	Depressed n(%)	p-value
Previously diagnosed with depression	no	118(92.91%)	38(74.51%)	0.001
	yes	9(7.09%)	13(25.49%)	
Self-perceived competence as mother	very incompetent mother	1(0.82%)	1(2.00%)	0.016
	incompetent mother	1(0.82%)	5(10.00%)	
	like other mothers	61(50.00%)	26(52.00%)	
	better than other mothers	18(14.75%)	9(18.00%)	
	very competent mother	41(33.61%)	9(18.00%)	
Relationship with mother-in-law	very good	50(40.65%)	8(15.69%)	<0.001
	good	48(39.02%	15(29.41%)	
	neither good nor bad	23(18.70%)	27(52.94%)	
	bad	1(0.81%)	1(1.96%)	
	very bad	1(0.81%)	0(0%)	
Relationship with father-in-law	very good	50(43.10%)	7(14.89%)	0.005
	good	39(33.62%)	20(42.55%)	
	neither good nor bad	26(22.41%)	19(40.43%)	
	bad	1(0.86%)	1(2.13%)	
	very bad	0(0%)	0(0%)	
Ability to open up to partner and talk about worries	always	74(58.27%)	14(27.45%)	<0.001
	often	29(22.83%)	12(23.53%)	
	sometimes	21(16.54%)	23(45.10%)	
	never	3(2.36%)	2(3.92%)	
Having a close friend	no	15(11.81%)	12(23.53%)	0.049
	yes	112(88.19%)	39(76.47%)	
Frequency of relatives' support with child's care	always	43(89.58%)	5(10.42%)	0.001
	often	39(72.22%)	15(27.78%	
	sometimes	40(62.50%)	24(37.50%)	
	never	5(41.67%)	7(58.33%)	
Ability to rely on partner in solving problems	always	93(73.23%)	22(43.14%)	0.001
	often	23(18.11%)	16(31.37%)	
	sometimes	8(6.30%)	12(23.53%)	
	never	3(2.36%)	1(1.96%)	
Participation of partner in cleaning and cooking	always	29(22.83%)	2(3.92%)	0.001
	often	29(22.83%)	10(19.61%)	
	sometimes	53(41.73%)	22(43.14%)	
	never	16(12.60%	17(33.33%)	

There is statistically significant association between having EPDS score above 12.5 and having been diagnosed with depression in the past. The self-perceived competence as a mother was another statistically significant predictor of PPD (p=0.016).

The multivariate logistic regression analysis had been performed using the variables found to be statistically significant in the bivariate analysis.

Table 3. Final multivariate logistic regression analysis results

Variable	Value	OR	95% CI	p-value
Previous history of depression (ref. no)	yes	3.67	1.10 - 12.21	0.034
Primiparity (ref. no)	yes	4.44	1.68 - 11.74	0.003
Frequency of relatives' support with child care (ref. "always")	often	2.04	0.47 - 8.77	0.339
	sometimes	4.12	0.99 - 17.08	0.051
	never	12.11	1.74 - 84.50	0.012
Relationship with mother-in-law (ref. "very good")	good	1.49	0.47 - 4.68	0.499
	neither good nor bad	3.82	1.19 - 12.30	0.025
	bad	49.85	1.57 - 1578	0.027
Ability to rely on partner in solving problems (ref. "always")	often	3.15	1.14 - 8.69	0.027
	sometimes	5.74	1.71 - 19.27	0.005
	never	0.98	0.05 - 18.30	0.991
Partner's participation in cleaning and cooking (ref. "always")	often	3.53	0.51 - 24.23	0.20
	sometimes	3.56	0.61 - 21.00	0.16
	never	13.87	2.07 - 92.81	0.007

After performing multivariate logistic regression, variables shown in Table 2 remained significant. Previous diagnosis of depression was shown to have the strongest association with PPD (OR=3.43, p=0.029). Relationships with extended family are shown to be associated with PPD with having poor relationships with mother-in-law (OR=2.14, p=0.003) and infrequent relatives' support with child care (OR=2.14, p=0.003) being both statistically significant factors of PPD. The significance of association between partner's support and PPD was also demonstrated. Inadequate partner's participation in household duties (OR=1.97, p =0.007) and inability to rely on partner in solving problems (OR=1.82, p=0.017) were both positively associated with PPD. Finally, the negative association between primiparity and PPD has been found (OR=4.44, p=0.003). The results are summarized in Table 3.

The Cronbach's test had been conducted to evaluate the reliability of the Russian version of the scale. The calculated alpha-value was 0.83 in our sample of Kazakhstani postpartum women. The Kazakh version was not tested for internal consistency due to small sample size of questionnaires filled in Kazakh language.

5 Discussion

To the best of author's knowledge, the current research is the first comprehensive cross-sectional study of PPD in Kazakhstan. The results also add to the large body of literature in the field of PPD. The following section would compare the results of this research with the recent reviews to pinpoint the similarities with the worldwide data and differences, which may indicate the relevant cultural traits of women in Kazakhstan.

Relationships with mother-in-law were found as an important predictor of PPD among women in Kazakhstan. The anecdotal evidence suggests that the relationships between daughter-in-law and mother-in-law are often stretched, resulting into frequent conflicts or silent resentment. This nature of relationships might result from the remnants of social norms, practiced centuries ago, where the "kelin" (daughter-in-law) was supposed to do all the housework, to give birth to and look after children, and to take care of the husband's parents. Such norms are still practiced in Kazakhstan and Central Asian countries, especially in rural areas, as evidenced by sources from Kazakhstan (Werner, 2003), Kyrgyzstan (Ismailbekova, 2013, Ismailbekova, 2016), Uzbekistan (Kandiyoti, 1999, Ducloux, 2012), Tajikistan (Hegland, 2010, Becker and Turaeva, 2016). The findings about the effect of in-laws on new mothers' PPD are contradictory. It can be hypothesized that the mother-in-law support had been a part of the term "social support", often cited as a predictor of PPD. The evidence of the effect of

relationships with mother-in-law is inconsistent, with studies confirming or disproving the effect of relationships on the PPD risk. The effect may be largely shaped by culture and upbringing. A systematic review of Fisher et.al. (2011), suggests that having "hostile in-laws" increase the risk of PPD 2.1-4.4 times for women from low- and lower-middle-income countries. More recent research body, though, suggest far higher geographic heterogeneity of mother-in-law's influence. For example, the studies in Guangzhou and Northwestern China (Deng et.al., 2014, Chen et.al., 2018) and urban area of Ankara, Turkey (Cankorur et.al., 2018), had found significant effect of poor relationships with mother-in-law and PPD, while the studies in rural Bangladesh (Nasreen et.al., 2015) and Central Vietnam (Murray et.al., 2015) did not find the statistically significant relationships. From the opposite perspective, protective effect of social support from the side of mother-in-law has been noted (Falah-Hassani et.al., 2016). The current study suggests that Kazakh culture facilitates conditions, where new mothers are susceptible to the influence of mother-in-law — an important consideration for practitioners and policymakers. Hence, we have evidence to believe that mothers are more likely to have PPD if they have bad relationship with their mother-in-law.

From the analysis, it can be seen that mothers are more likely to be depressed after birth if unable to rely on her partner for help if problems occur. The reliance on the partner in household duties and problem resolution were found to be important protectors against PPD. The results are consistent with the literature (Misri et.al., 2000, Dennis and Ross, 2006). For example, Figuereido (2008) reports that the positive relationships are crucial mediator of the depressive symptoms. In a study of 92 couples in Ohio, USA, Don and Mickelson (2012) found the perceived support within relationships has protective effect against PPD for both partners. The novelty of this study is the separation of the partner's support into three components, viz. ability to rely on partner in case of problems, help with household duties and

help with the child care. The former two were found to be significant protectors against PPD, with assistance in household duties having stronger effect, than ability to rely for solving problems.

Support of relatives is also found to have protective effect against PPD. The consistency of this result is difficult to evaluate accurately. The relatives' support is rarely evaluated exclusively, more often, the term is included into the aggregate variable, such as "social support", that makes the evaluation of the effect of relatives' support a difficult task. In a systematic review of 59 studies, O'Hara and Swain (1996) find that the low social support is a strong predictor of the PPD. A more recent systematic review confirms these findings (Beck, 2002) However, earlier, O'Hara (1986) reported no significant relationship between support from friends and extended family and depression during pregnancy and puerperium. More research is necessary to evaluate the relative importance of particular sources of social support: partner, extended family, friends. As variable relative's support remained statistically significant after adjusting for confounders, there is evidence to believe that low frequency of relatives' support may be associated with PPD.

A notable finding of this study is the higher importance of instrumental support as compared to emotional support for Kazakhstani women. Contrasting the instrumental and emotional support is rarely made in literature. A legacy study of Collins et.al. (1993), supports the current finding, stating that presence or absence of PPD is more consistently predicted by availability of instrumental support, rather than emotional support. A recent study of antenatal depression among HIV infected women in South Africa also found the stronger effect of perceived instrumental support (Brittain et.al., 2017). Importance of the assistance with child care, problem-solving and household duties against PPD suggests that the Kazakh women highly value the instrumental support, i.e. the assistance with practical tasks. By contrast, such variables as having friend and ability to open up to partner and to talk about problems

were not found significant, indicating that the emotional support is less important for protection against PPD.

Unsurprisingly, the previous diagnosis of depression is a strongest predictor of PPD in Kazakhstani mothers. The results are highly consistent with the literature. Major meta-analyses of the field of PPD, namely O'Hara and Swain (1996), Beck (1996, 2001), agree that the history of previous depression is a strong predictor of PPD in future. More recent studies support this result, with Silverman et.al. (2017) reporting 20-fold increase in risk of PPD, while Kimmel et.al. (2014) suggesting that not only individual's history, but also family history of depression may serve as risk-factor.

The number of children is confirmed to be the important factor in PPD formation. This finding is consistent with the study by Wisner et.al. (2006) who found that primiparity is associated with the increased risk of PPD. A more recent study by Iwata et.al. (2016) further elucidates this relationship, finding, that the first two months postpartum are the times of the greatest susceptibility of primiparous women to PPD. The association can be explained by the pressure, that primipara might undergo due to the inexperience (ibid.). Alternatively, suffering from PPD during first childbirth may deter women from having more children, which, in turn may result in the above trend. More research is necessary to confirm or disprove this hypothesis.

5.1 Limitations of the study

There are several limitations of the current study. Firstly, many women did not have the opportunity to participate in the study due to the necessity of looking after their older children. This complication could result into underrepresentation of multiparous women, women, who did not have the partner or relative available nearby.

The cross-sectional nature of study design does not allow to establish the cause-effect relationship between independent and dependent variables.

The only source of data in the current study is the self-reported characteristics of the participating women. Self-report-bias, therefore, might be a limitation. Furthermore, in spite of the fact that EPDS scale is a validated tool for identification of PPD symptoms, the dependent variable, depression status of the participant, is not verified by the healthcare professionals.

Another limitation of the current research is limited generalizability of the results. Therefore, the results should be used with caution, when the underrepresented demographics are involved. The reason for this limitation, is, partly, time, location and bureaucratic constraints of the study. The permission for recruitment was obtained only in two clinics, while the recruitment outside city of Astana was too costly in terms of time.

Finally, the results of the study do not differentiate between different ages of the infant. The degree of postpartum depression may be different at different time instants portpartum, especially for primiparous women Iwata et.al. (2016). However, it should be noted that the ages of the children are distributed with a high degree of uniformity, that helps to avoid the potential biases in the sample in terms of infants age.

5.2 Strengths of the study

To the best of author's knowledge, this is the first cross-sectional research of PPD factors in Kazakhstan and Central Asia. The obtained value of PPD prevalence is higher than the global average and average in developing countries. This study will help to increase the awareness about PPD among the Kazakh population, practitioners and policymakers, as well as potential researchers around the globe.

More thorough investigation of the PPD in Kazakhstan and Central Asia will be of great value to help society and government to provide a better childbearing experience for women in Kazakhstan.

Several features were discovered throughout the research that of value not only for Kazakhstan, but also for the field of PPD. Firstly, the current research adds to the evidence, that the instrumental social support also has a strong protective effect against PPD.

Secondly, relationships with mother-in-law were found to have significant relationship with PPD that contributes to relatively scarce literature about the effects of relationships with in-laws on PPD risks.

Thirdly, this study identified potential associated factors of PPD that possibly came from the roots of cultural peculiarities of society living in the geographic area. Thus, it can be hypothesized, that in countries with better established gender equality, such significant risk factors as relationship with mother-in-law and frequency of sharing household duties with husband/partner may not be as strong predictor of PPD as in more Western cultures.

Fourthly, emotional support as well as instrumental support were tested separately for being factors associated with of PPD that revealed a higher effect of instrumental support as compared to the emotional support.

Finally, the gap in current literature body have been partially covered. While there are many sources, underlining the importance of social support, there is a lack of studies comparing the importance of particular sources of support, namely partner, relatives and friends. Moreover, there are very few articles comparing the nature of social support, i.e. emotional or instrumental. The current research has shed the light on this area, suggesting that the instrumental support from partner and relatives has the most significant protective effect.

6 Conclusion

The current research project had two main goals - to estimate the prevalence and to find the predictors of PPD in Kazakhstan. The obtained results, especially the alarming prevalence of PPD of 28.7%, provide the valuable insight into the PPD issue in Kazakhstan. While Kazakhstan makes considerable progress in healthcare, as noted in OECD Reviews of Health Systems (Organization for Economic Co-operation and Development, 2018), mental health receives far less attention, than the physical health. The ongoing transformations of primary healthcare in Kazakhstan provide the opportunity to improve the status of psychological health. The current research results may act as additional justification of the current plans to make psychological consultations more accessible for population (ibid.). In addition, the significant predictors of PPD were identified in this study, namely lack of support of relatives in child care, insufficient assistance of partner in household duties, inability to rely on the partner in solving problems, poor relationships with mother-in-law, primiparity and previous diagnosis of depression. This information may assist potential policy makers and practitioners in developing effective intervention strategies, while for the general population, these results may be valuable to be more aware of the disease and its potential risks. Finally, the value of this research for the field of PPD has been demonstrated and further research directions will be suggested.

6.1 Recommendations for future studies

Several further research directions were suggested throughout this work and summarized in this section. Firstly, since this is the first comprehensive study of PPD in Kazakhstan and Central Asia, additional similar studies can be made in order to measure prevalence of PPD in other locations of the region. PPD among underrepresented demographics of the current study, viz. single mothers, ethnic minorities of Kazakhstan and rural population may be studied more thoroughly.

Further studies are necessary to compare the protective effects of different sources of social support against PPD, i.e. from partners, relatives and friends. In addition, the influence of emotional support can be compared with the influence of instrumental support, in order to evaluate the difference in effect strength more accurately.

Finally, the effective intervention strategies need to be developed. Using the information gathered throughout this study, the interventions may be optimized to better suit the needs of Kazakhstani women. For example, the information about PPD may be communicated not only to mothers, but also to elder generation, in order to familiarize mothers-in-law with the potential lifelong risks of conflicts not only for mothers, but also for the entire family, including children.

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APPENDIX 1. Supplementary tables

Table S1. Family and partner's support characteristics in women with and without depression

Variables:	Depression NO	Depression YES	Chi2 test p-value
Relationship with mother			p=0.230
very good	84(68.29%)	29(56.86%)	
good	32(26.02%)	17(33.33%)	
neither good nor bad	5(4.07%)	5(9.80%)	
bad	0(0%)	0(0%)	
very bad	2(1.63%)	0(0%)	
Relationship with father			p=0.529
very good	70(57.38%)	22(44.00%)	
good	32(26.23%)	15(30.00%)	
neither good nor bad	14(11.48%)	9(18.00%)	
bad	2(1.64%)	1(2.00%)	
very bad	4(3,28%)	3(6.00%)	
Relationship with parents in childhood			p=0.188
very good	75(59.06%)	26(50.98%)	
good	42(33.07%)	17(33.33%)	
neither good nor bad	8(6.30%)	8(15.69%)	
bad	2(1.57%)	0(0%)	
very bad	0(0%)	0(0%)	
How often partner help in care for child			p=0.110
always	46(36.22%)	12(23.53%)	
often	47(37.01%)	16(35.39%)	
sometimes	33(25.98%)	55(30.90%)	
never	1(0.79%)	2(1.12%)	

Table S2. Pregnancy history and infant's health characteristics in women with and without depression

Variables	Depression NO	Depression YES	Chi2 test p-value
age of child (6.36±3.85)			p=0.173
1-3months	42(33.60%)	11(21.57%)	
4-6months	25(20.00%)	12(23.53%)	
7-9months	23(18.40%)	16(31.37%)	
10-12months	35(28.00%)	12(23.53%)	
planned pregnancy			p=0.988
no	35(27.56%)	14(27.45%)	
yes	92(72.44%)	37(72.55%)	
gender of child			
male	65(51.18%)	30(58.82%)	
female	62(48.82%)	21(41.18%)	

Who gave name to child			p=0.069
myself	14(11.02%)	11(21.57%)	
my husband/partner	27(21.26%)	10(19.61%)	
together with husband/partner	36(28.35%)	8(15.69%)	
parents of my husband/partner	36(28.35%)	20(39.22%)	
other	14(11.02%)	2(3.92%)	
complications during pregnancy			p=0.987
no	87(68.50%)	35(68.63%)	
yes	40(31.50%0	16(31.37%)	
mode of birth			p=0.061
natural	87(68.50%)	42(82.35%)	
cesarean section/other	40(31.50%)	9(17.65%)	
weight of child at birth			p=0.601
<2500g	16(12.60%)	5(9.80%)	
>=2500g	111(87.40%)	46(90.20%)	
week of pregnancy at birth			p=0.734
<37weeks	20(15.75%)	7(13.73%)	
>=37weeks	107(84.25%)	44(86.27%)	
Problems with health of newborn			p=0.926
no	93(73.23%)	37(72.55%)	
yes	34(26.77%)	14(27.45%)	
Breastfeeding			p=0.327
no	24(18.90%)	13(25.49%)	
yes	103(81.10%)	38(74.51%)	
diagnosed with depression			p=0.001*
no	118(92.91%)	38(74.51%)	
yes	9(7.09%)	13(25.49%)	
body			p=0.321
with a normal weight	58(45.67%)	17(33.33%)	
overweight	59(46.46%)	29(56.86%)	
underweight	10(7.87%)	5(9.80%)	
myself			p=0.016*
very incompetent mother	1(0.82%)	1(2.00%)	
incompetent mother	1(0.82%)	5(10.00%)	
like other mothers	61(50.00%)	26(52.00%)	
better than other mothers	18(14.75%)	9(18.00%)	
very competent mother	41(33.61%)	9(18.00%)	
check-up during pregnancy			p=0.231
no	16(12.60%)	10(19.61%)	
yes	111(87.40%)	41(80.39%)	
Child cried more than 3 hours per day			p=0.125
no	115(90.55%)	42(82.35%)	
yes	12(9.45%)	9(17.65%)	
Who attended childbirth			p=0.370
nobody from family or friends	44(34.65%)	12(23.53%)	
spouse/partner	27(21.26%)	16(31.37%)	
friends or relatives	44(34.65%)	19(37.25%)	
other	12(9.45%)	4(7.84%)	

APPENDIX 2

Questionnaires in English, Russian and Kazakh Languages

QUESTIONNAIRE

PART 1. SOCIO-DEMOGRAPHIC DATA

1. **What is your age?**
   - ☐ _____
2. **Where do you live?**
   - ☐ City
   - ☐ Near city
   - ☐ Rural area
3. **Your ethnicity:**
   - ☐ Kazakh
   - ☐ Russian
   - ☐ Other _____
4. **Please indicate your marital status:**
   - ☐ Single
   - ☐ Married
   - ☐ Divorced
   - ☐ Widow
   - ☐ I am in a civil marriage
5. **Your current level of education is:**
   - ☐ Elementary school
   - ☐ High school
   - ☐ Vocational school
   - ☐ Bachelor degree
   - ☐ Master degree
   - ☐ PhD
6. **At present, are you working outside the home?**
   - ☐ Yes, full-time
   - ☐ Yes, part-time
   - ☐ No
   - ☐ Still on maternity leave
7. **Your usual occupation:**
   - ☐ Unemployed / Housewife
   - ☐ Civil servant/ Budget worker
   - ☐ Employee of a private company
   - ☐ Private entrepreneur
   - ☐ Self-employed
   - ☐ Student
   - ☐ Other _____
8. **Your partner's level of education is:**
   - ☐ Elementary school
   - ☐ High school
   - ☐ Vocational school
   - ☐ Bachelor degree
   - ☐ Master degree
   - ☐ PhD
9. **Your partner's employment status:**
   - ☐ Full-time job
   - ☐ Part-time job
   - ☐ Self-employed
   - ☐ Unemployed
   - ☐ Other _____
10. **What is the average monthly income of your family (in tenge)?**
    - ☐ Less than 50 000
    - ☐ 50 000 – 99 999
    - ☐ 100 000 – 149 999
    - ☐ 150 000 – 199 999
    - ☐ 200 000 – 249 999
    - ☐ 250 000 - 299 999
    - ☐ 300 000 and more
11. **Living arrangement:**
    - ☐ With your parents
    - ☐ With parents-in-law
    - ☐ Separately
    - ☐ Other _____
12. **Are you satisfied with your living conditions?**
    - ☐ Yes
    - ☐ No
13. **How many children do you have?**

    _____

PART 2. FAMILY RELATIONSHIPS AND SOCIAL SUPPORT

Instructions: To assess your relationships with family members, please circle one answer in front of the each statement.

	Very bad	Bad	Neither good nor bad	Good	Very good
14. Relationships with your mother	1	2	3	4	5
15. Relationships with your father	1	2	3	4	5
16. Relationships with your parents during childhood	1	2	3	4	5
17. Relationships with your mother-in-law	1	2	3	4	5
18. Relationships with your mother-in-law	1	2	3	4	5

19. Do you have a close friend to whom you can tell about all your problems?

- ☐ Yes
- ☐ No

20. How often does your family and relatives provide the support in caring for your child?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

21. How often can you open up to spouse/partner if you need to talk about your worries?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

22. How often can you rely on your spouse/partner for help if you have a problem?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

23. How often does your partner share with you household duties such as cleaning and/or cooking?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

24. How often does your partner help in caring for the child?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

PART 3. POSTNATAL PERIOD

For the questions # 25-34, please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

25. I have been able to laugh and see the funny side of things

- ☐ As much as I always could
- ☐ Not quite so much now
- ☐ Definitely not so much now
- ☐ Not at all

26. I have looked forward with enjoyment to things

- ☐ As much as I ever did
- ☐ Rather less than I used to
- ☐ Definitely less than I used to
- ☐ Hardly at all

27. I have blamed myself unnecessarily when things went wrong

- ☐ Yes, most of the time
- ☐ Yes, some of the time
- ☐ Not very often
- ☐ No, never

28. I have been anxious or worried for no good reason

- ☐ No, not at all
- ☐ Hardly ever
- ☐ Yes, sometimes
- ☐ Yes, very often

29. I have felt scared or panicky for no very good reason

- ☐ Yes, quite a lot
- ☐ Yes, sometimes
- ☐ No, not much
- ☐ No, not at all

30. Things have been getting on top of me

- ☐ Yes, most of the time I haven't been able to cope at all
- ☐ Yes, sometimes I haven't been coping as well as usual
- ☐ No, most of the time I have coped quite well
- ☐ No, I have been coping as well as ever

31. I have been so unhappy that I have had difficulty sleeping

- ☐ Yes, most of the time
- ☐ Yes, sometimes
- ☐ Not very often
- ☐ No, not at all

32. I have felt sad or miserable

- ☐ Yes, most of the time
- ☐ Yes, quite often
- ☐ Not very often
- ☐ No, not at all

33. I have been so unhappy that I have been crying

- ☐ Yes, most of the time
- ☐ Yes, quite often
- ☐ Only occasionally
- ☐ No, never

34. The thought of harming myself has occurred to me

- ☐ Yes, quite often
- ☐ Sometimes
- ☐ Hardly ever
- ☐ Never

For the questions #35-44, please indicate how often the following are true for you. There are no "right" or "wrong" answers: choose the answer, which seems right in your recent experience.

35. Feel loving towards my baby
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

36. Feel scared or panicky when I have to do something for my baby
- ☐ Not at all
- ☐ Slightly, some of the time
- ☐ Very much so, some of the time
- ☐ Very much so, most of the time

37. Feel resentful towards my baby
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

38. Feel nothing towards my baby
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

39. Feel angry with my baby
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

40. Enjoy doing things with my baby
- ☐ Not at all
- ☐ Slightly, some of the time
- ☐ Very much so, some of the time
- ☐ Very much so, most of the time

41. Wish my baby was different
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

42. Feel protective towards my baby
- ☐ Not at all
- ☐ Slightly, some of the time
- ☐ Very much so, some of the time
- ☐ Very much so, most of the time

43. Wish I did not have my baby
- ☐ Very much so, most of the time
- ☐ Very much so, some of the time
- ☐ Slightly, some of the time
- ☐ Not at all

44. Feel close to my baby
- ☐ Not at all
- ☐ Slightly, some of the time
- ☐ Very much so, some of the time
- ☐ Very much so, most of the time

PART 4. PREGNANCY AND MOTHERHOOD

Questions #45-57 will be regarding to your **youngest** child

45. What is the age of your youngest child?

_____

46. Was it a planned pregnancy?

☐ Yes
☐ No

47. What is the gender of the child?

☐ Male
☐ Female

48. Who gave a name to your child?

☐ Myself
☐ My husband/partner
☐ Together with husband/partner
☐ Parents of my husband/partner
☐ Other _____

49. Have you had any complications during pregnancy?

☐ Yes
☐ No

50. The mode of birth?

☐ Natural
☐ Cesarean section
☐ Other

51. Who attended your childbirth?

☐ Nobody from family or friends
☐ Spouse/partner
☐ Other_____

52. The weight of the child at birth:

☐ Less than 2500 grams
☐ 2500 grams or more

53. The child was born at:

☐ Less than 37 weeks of pregnancy
☐ 37 weeks of pregnancy or later

54. Were there any problems with newborn's health?

☐ Yes
☐ No

55. During the last week, did your child cried more than 3 hours per day?

☐ Yes
☐ No *(If no, skip to question 57)*

56. For how many days during the last week your child cried more than 3 hours per day?

☐ 0 days
☐ 1-2 days
☐ 3-4 days
☐ 5-7 days

57. Do you practice breastfeeding?

☐ Yes
☐ No

58. Have you *ever* been diagnosed with depression?

☐ Yes
☐ No

59. Your body seems to you:

☐ With a normal weight
☐ Overweight
☐ Underweight

60. You consider yourself to be:

☐ Very incompetent mother
☐ Incompetent mother
☐ Like most mothers
☐ Better than most mothers
☐ Very competent mother

61. Have you attended check-ups regularly during the last pregnancy?

☐ Yes
☐ No

62. Have you been satisfied with the care provided?

☐ Very satisfied
☐ Satisfied
☐ Moderately satisfied
☐ Not satisfied
☐ Extremely dissatisfied

ВОПРОСНИК

ЧАСТЬ 1. ДЕМОГРАФИЧЕСКИЕ ДАННЫЕ

1. **Ваш возраст**
   - ☐ _____
2. **Ваше место проживания**
   - ☐ Город
   - ☐ Пригород
   - ☐ Село
3. **Ваша национальность:**
   - ☐ Казашка
   - ☐ Русская
   - ☐ Другое (укажите)_____
4. **Укажите Ваше семейное положение**
   - ☐ Не замужем
   - ☐ Замужем
   - ☐ Разведена
   - ☐ Вдова
   - ☐ Сожительствую (с партнером или в гражданском браке)
5. **Ваш уровень образования на данный момент**
   - ☐ Начальная школа
   - ☐ Среднее образование
   - ☐ Среднее специальное образование
   - ☐ Высшее образование
   - ☐ Степень магистра
   - ☐ Докторская степень
6. **В настоящее время работаете ли вы вне дома?**
   - ☐ Да, полная занятость
   - ☐ Да, частичная занятость
   - ☐ Нет
   - ☐ В декрете
7. **Ваш обычный род занятий**
   - ☐ Госслужащий / Бюджетник
   - ☐ Сотрудник частной компании
   - ☐ Частный предприниматель
   - ☐ Самозанятость
   - ☐ Не работаю / Домохозяйка
   - ☐ Студент
   - ☐ Другое _____
8. **Уровень образования Вашего супруга/партнера**
   - ☐ Начальная школа
   - ☐ Среднее образование
   - ☐ Среднее специальное образование
   - ☐ Высшее образование
   - ☐ Степень магистра
   - ☐ Докторская степень
9. **Род занятий Вашего супруга/партнера**
   - ☐ Полная занятость
   - ☐ Частичная занятость
   - ☐ Самозанятость
   - ☐ Не работает
   - ☐ Другое _____
10. **Каков среднемесячный доход Вашей семьи (в тенге)?**
    - ☐ Менее 50 000
    - ☐ 50 000 – 99 999
    - ☐ 100 000 – 149 999
    - ☐ 150 000 – 199 999
    - ☐ 200 000 – 249 999
    - ☐ 250 000 – 299 999
    - ☐ 300 000 и больше
11. **Тип проживания**
    - ☐ Совместно с Вашими родителями
    - ☐ Совместно с родителями Вашего партнера
    - ☐ Отдельно
    - ☐ Другое _____
12. **Довольны ли Вы условиями проживания?**
    - ☐ Да
    - ☐ Нет
13. **Сколько у вас детей?**

_____

ЧАСТЬ 2. СЕМЕЙНЫЕ ОТНОШЕНИЯ И СОЦИАЛЬНАЯ ПОДДЕРЖКА

Инструкции: Чтобы оценить Ваши отношения с членами семьи, пожалуйста, обведите подходящий ответ рядом с каждым утверждением.

	Очень плохие	Плохие	Нейтральные	Хорошие	Очень хорошие
14. Отношения с Вашей матерью	1	2	3	4	5
15. Отношения с Вашим отцом	1	2	3	4	5
16. Отношения с Вашими родителями в детстве	1	2	3	4	5
17. Отношения с Вашей свекровью	1	2	3	4	5
18. Отношения с Вашим свекром	1	2	3	4	5

19. Есть ли у Вас близкий друг/подруга, которому Вы можете рассказать о своих проблемах?
- ☐ Да
- ☐ Нет

20. Как часто Ваша семья и родственники оказывают поддержку в уходе за Вашим ребенком?
- ☐ Никогда
- ☐ Иногда
- ☐ Часто
- ☐ Всегда

21. Как часто Вы можете открыться своему супругу/партнеру, если Вам нужно поговорить о Ваших беспокойствах?
- ☐ Никогда
- ☐ Иногда
- ☐ Часто
- ☐ Всегда

22. Как часто Вы можете положиться на своего партнера в решении проблем?
- ☐ Никогда
- ☐ Иногда
- ☐ Часто
- ☐ Всегда

23. Как часто Ваш муж/партнер разделяет с Вами домашние обязанности, такие как уборка и/или приготовление пищи?
- ☐ Никогда
- ☐ Иногда
- ☐ Часто
- ☐ Всегда

24. Как часто Ваш партнер помогает Вам по уходу за ребенком?
- ☐ Никогда
- ☐ Иногда
- ☐ Часто
- ☐ Всегда

ЧАСТЬ 3. ПОСЛЕРОДОВОЙ ПЕРИОД.

На вопросы № 25-34, пожалуйста, укажите ответ, который ближе всего к тому, как вы чувствовали себя **В ТЕЧЕНИЕ ПОСЛЕДНИХ 7 ДНЕЙ,** а не только то, как вы себя чувствуете себя сегодня:

25. Я могла смеяться и замечать смешное вокруг себя

- Так же, как обычно
- Несколько меньше, чем обычно
- Нет, гораздо меньше, чем обычно
- Нет, совсем не могла

26. Я ощущала радость, думая о будущем

- Так же, как обычно
- Несколько меньше, чем обычно
- Значительно меньше, чем обычно
- Практически никогда

27. Я корила себя понапрасну, когда дела шли не так, как надо

- Да, все время
- Да, иногда
- Нет, не так часто
- Нет, никогда

28. Я тревожилась и беспокоилась понапрасну

- Нет, никогда
- Нет, почти никогда
- Да, иногда
- Да, очень часто

29. Меня охватывали беспричинный страх и паника

- Да, почти все время
- Да, иногда
- Нет, очень редко
- Нет, не так часто

30. На меня слишком много всего навалилось

- Да, я почти ни с чем не справлялась
- Да, иногда я кое с чем не справлялась
- Нет, по большей части я со всем справлялась
- Нет, я справлялась со всем, как обычно

31. Мне было так плохо, что я не могла спать:

- Да, почти все время
- Да, иногда
- Нет, очень редко
- Нет, никогда

32. Я чувствовала себя грустной или несчастной:

- Да, большую часть времени
- Да, довольно часто
- Нет, не так часто
- Нет, никогда

33. Мне было так плохо, что я плакала:

- Да, почти все время
- Да, довольно часто
- Очень редко
- Нет, никогда

34. Мне приходило в голову сделать с собой что-нибудь плохое

- Да, очень часто
- Иногда
- Нет, почти никогда
- Нет, никогда

В вопросах № 35-44 укажите, как часто для Вас правдивы данные утверждения. Здесь нет “правильных”или “неправильных” ответов: выберите ответ, который кажется наиболее верным в исходя из Вашего текущего опыта.

35. Я чувствую любовь к своему ребенку
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

36. Я боюсь или паникую, когда мне нужно сделать что-либо для своего ребенка
- ☐ Нисколько
- ☐ В некоторой степени да, иногда
- ☐ Определенно да, иногда
- ☐ Определенно да, почти всегда

37. Я чувствую обиду в отношении своего ребенка
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

38. Я не чувствую ничего к своему ребенку
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

39. Я чувствую гнев в отношении своего ребенка
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

40. Я наслаждаюсь всем, чем занимаюсь вместе со своим ребенком
- ☐ Нисколько
- ☐ В некоторой степени да, иногда
- ☐ Определенно да, иногда
- ☐ Определенно да, почти всегда

41. Я бы хотела, чтобы мой ребенок был другим
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

42. Я чувствую желание защищать своего ребенка
- ☐ Нисколько
- ☐ В некоторой степени да, иногда
- ☐ Определенно да, иногда
- ☐ Определенно да, почти всегда

43. Я бы хотела, чтобы у меня не было ребенка
- ☐ Определенно да, почти всегда
- ☐ Определенно да, иногда
- ☐ В некоторой степени да, иногда
- ☐ Нисколько

44. Я чувствую близость к своему ребенку
- ☐ Нисколько
- ☐ В некоторой степени да, иногда
- ☐ Определенно да, иногда
- ☐ Определенно да, почти всегда

Часть 4. БЕРЕМЕННОСТЬ И МАТЕРИНСТВО

Вопросы #45-57 будут касательно вашего **младшего** ребенка

45. Какой возраст у вашего младшего ребенка?

_____

46. Была ли беременность запланирована?

☐ Да
☐ Нет

47. Пол вашего ребенка?

☐ Мужской
☐ Женский

48. Кто дал имя вашему ребенку?

☐ Я сама
☐ Мой супруг/партнер
☐ Совместно с супругом/ партнером
☐ Родители моего супруга/партнера
☐ Другое _____

49. Были ли у Вас осложнения при беременности?

☐ Да
☐ Нет

50. Родоразрешение?

☐ Естественные
☐ Кесарево Сечение
☐ Другое

51. Кто присутствовал при родах?

☐ Никто из родственников или друзей
☐ Друзья или родственники
☐ Супруг/партнер
☐ Другое_____

52. Вес ребенка при рождении:

☐ Меньше 2500 грамм
☐ 2500 грамм или больше

53. Ребенок был рожден:

☐ Раньше 37 недели беременности
☐ В 37 недель беременности или позже

54. Были ли какие-либо проблемы со здоровьем новорожденного?

☐ Да
☐ Нет

55. В течение последней недели ваш ребенок плакал более 3 часов в день?

☐ Да
☐ Нет *(если нет, переходите к вопросу 57)*

56. Сколько дней в течение последней недели ваш ребенок плакал более 3 часов в день?

☐ 1-2 дня
☐ 3-4 дня
☐ 5-7 дней

57. Вы кормите грудью?

☐ Да
☐ Нет

58. Была ли у Вас *когда-либо* диагностирована депрессия?

☐ Да
☐ Нет

59. Ваше тело кажется вам:

☐ С нормальным весом
☐ С лишним весом
☐ С недовесом

60. Вы считаете себя:

☐ Очень некомпетентной мамой
☐ Некомпетентной мамой
☐ Как большинство матерей
☐ Лучше остальных матерей
☐ Очень компетентной мамой

61. Посещали ли Вы женскую консультацию регулярно во время беременности?

☐ Да
☐ Нет

62. Удовлетворены ли Вы предоставленными Вам медицинскими услугами?

☐ Полностью удовлетворена
☐ Удовлетворена
☐ Частично удовлетворена
☐ Не удовлетворена
☐ Крайне не удовлетворена

САУАЛНАМА

1-БӨЛІМ. ДЕМОГРАФИЯЛЫҚ ДЕРЕКТЕР

1. **Сіздің жасыңыз**
   - ☐ _____
2. **Тұратын жеріңіз**
   - ☐ Қала
   - ☐ Қала маңы
   - ☐ Ауыл
3. **Ұлтыңыз:**
   - ☐ Қазақ
   - ☐ Орыс
   - ☐ Басқа (жазыңыз)_____
4. **Отбасы жағдайыңыз.**
   - ☐ Тұрмыста емеспін
   - ☐ Тұрмыстамын
   - ☐ Ажырасқанмын
   - ☐ Жесірмін
   - ☐ Азаматтық некеде немесе серігіммен бирге тұрамын
5. **Осы сәтке Сіздің білім деңгейіңіз**
   - ☐ Бастауыш мектеп
   - ☐ Орта білім
   - ☐ Арнайы орта білім
   - ☐ Жоғары білім
   - ☐ Магистр дәрежесі
   - ☐ Докторлық дәреже
6. **Қазіргі уақытта Сіз үйден тыс жерде жұмыс істейсіз бе?**
   - ☐ Иә, толық күндік жұмыстамын
   - ☐ Иә, жарты күндік жұмыстамын
   - ☐ Жоқ
   - ☐ Декреттік демалыстамын
7. **Әдеттегі кәсібіңіз**
   - ☐ Мемлекеттік қызметші / Бюджеттік ұйымның қызметкері
   - ☐ Жеке компанияның қызметкері
   - ☐ Жеке кәсіпкер
   - ☐ Өзін өзі жұмыспен қамту
   - ☐ Жұмыс істемеймін / Үй шаруасындағы әйел
   - ☐ Студент
   - ☐ Басқасы _____
8. **Жұбайыңыздың /серігіңіздің білім деңгейі**
   - ☐ Бастауыш мектеп
   - ☐ Орта білім
   - ☐ Арнайы орта білім
   - ☐ Жоғары білім
   - ☐ Магистр дәрежесі
   - ☐ Докторлық дәреже
9. **Жұбайыңыздың /серігіңіздің кәсібі**
   - ☐ Жұмыспен толық қамтылған
   - ☐ Жұмыспен жартылай қамтылған
   - ☐ Өзін өзі жұмыспен қамтиды
   - ☐ Жұмыс істемейді
   - ☐ Басқасы _____
10. **Отбасыңыздың орташа айлық кірісі қандай (теңгемен)?**
    - ☐ 50 000 –нан кем
    - ☐ 50 000 – 99 999
    - ☐ 100 000 – 149 999
    - ☐ 150 000 – 199 999
    - ☐ 200 000 – 249 999
    - ☐ 250 000 - 299 999
    - ☐ 300 000 және одан көп
11. **Кіммен бірге тұрасыз?**
    - ☐ Сіздің ата-анаңызбен бірге
    - ☐ Жұбайыңыздың ата-анасымен бірге
    - ☐ Жеке
    - ☐ Басқасы _____
12. **Тұру жағдайларына ризасыз ба?**
    - ☐ Иә
    - ☐ Жоқ
13. **Қанша балаңыз бар?**

    _____

2-БӨЛІМ. ОТБАСЫЛЫҚ ҚАРЫМ-ҚАТЫНАСТАР ЖӘНЕ ӘЛЕУМЕТТІК ҚОЛДАУ

Нұсқаулар: Сіздің отбасымен қарым-қатынасыңызды бағалау үшін әрбір мақұлдаудың жанындағы қолайлы жауапты шеңбермен белгілеңіз.

	Өте жаман	Жаман	Бейтарап	Жақсы	Өте жақсы
14. Анаңызбен қарым-қатынасыңыз	1	2	3	4	5
15. Әкеңізбен қарым-қатынасыңыз	1	2	3	4	5
16. Бала кездегі ата-анаңызбен қарым-қатынасыңыз	1	2	3	4	5
17. Қайын енеңізбен қарым- қатынасыңыз	1	2	3	4	5
18. Қайын атаңызбен қарым- қатынасыңыз	1	2	3	4	5

19. Өзіңіздің проблемаңыз туралы айтып бере алатын жақын досыңыз бар ма?
- ☐ Иә
- ☐ Жоқ

20. Сіздің балаңызды күтуге отбасыңыз және туысқандарыңыз қаншалықты жиі қолдау көрсетеді?
- ☐ Ешқашан
- ☐ Кей кезде
- ☐ Жиі
- ☐ Үнемі

21. Өзіңізді не мазалап жүргені туралы жұбайыңызға/серігіңізге қаншалықты жиі ашыла аласыз?
- ☐ Ешқашан
- ☐ Кей кезде
- ☐ Жиі
- ☐ Үнемі

22. Проблемаларды шешуде Сіз серігіңізге қаншалықты жиі сенім арта аласыз?
- ☐ Ешқашан
- ☐ Кей кезде
- ☐ Жиі
- ☐ Үнемі

23. Үй жинау және/немесе тамақ дайындау сияқты үй міндеттерін жұбайыңыз/ серігіңіз қаншалықты жиі Сізбен бөлісе алады?
- ☐ Ешқашан
- ☐ Кей кезде
- ☐ Жиі
- ☐ Үнемі

24. Бала күтуге серігіңіз Сізге қаншалықты жиі көмектеседі?
- ☐ Ешқашан
- ☐ Кей кезде
- ☐ Жиі
- ☐ Үнемі

3- БӨЛІМ. БОСАНҒАННАН КЕЙІНГІ КЕЗЕҢ.

№ 25-34 сұрақтарға бүгін өзіңізді қалай сезінетініңізді ғана емес**, СОҢҒЫ 7-КҮННІҢ ІШІНДЕ** өзіңізді қалай сезінгеніңізге қатысты жақынырақ жауапты көрсетуді өтінемін

25. Мен күлуге және әр нәрсенің қызық жағын көруге қабілетті болдым

- ☐ Әдеттегідей
- ☐ Әдеттегіден азырақ
- ☐ Әдеттегіден әлдеқайда азырақ
- ☐ Мүлдем қабілетті болмадым

26. Мен болашақтағы әрбір нәрсені қуана-қуана күттім

- ☐ Әдеттегідей
- ☐ Әдеттегіден азырақ
- ☐ Әдеттегіден әлдеқайда азырақ
- ☐ Мүлдем қуанбадым

27. Бірдеңе дұрыс жүрмесе мен өзімді босқа кінәләдім

- ☐ Иә, көбінесе
- ☐ Иә, кейде
- ☐ Жоқ, өте жиі емес
- ☐ Жоқ, ешқашан

28. Мен ешбір себепсіз алаңдау мен уайымға шалдықтым

- ☐ Жоқ, ешқашан
- ☐ Жоқ, өте сирек
- ☐ Иә, кей уақытта
- ☐ Иә, өте жиі

29. Мен ешбір себепсіз қорқу мен үрейге шалдықтым

- ☐ Иә, өте жиі
- ☐ Иә, кей уақытта
- ☐ Жоқ, жиі емес
- ☐ Жоқ, ешқашан

30. Тірлігімде қапылыс көбейіп кетті

- ☐ Иә, көбінесе тірлігімді орындауға шамам келмеді
- ☐ Иә, кейде тірлігімді түгел орындай алған жоқпын
- ☐ Жоқ, көбінесе тірлігімнің бәрін орындай алдым
- ☐ Жоқ, тірлігімнің бәрін әдеттегідей орындадым

31. Жабырқанудың себебінен ұйқым қашты

- ☐ Иә, жиі
- ☐ Иә, кейде
- ☐ Жоқ, өте жиі емес
- ☐ Жоқ, ешқашан

32. Мен өзімді көңілсіз немесе бақытсыз сезіндім

- ☐ Иә, көбінесе
- ☐ Иә, кейде
- ☐ Жоқ, өте жиі емес
- ☐ Жоқ, ешқашан

33. Жабырқанудың себебінен жылауға дейін бардым

- ☐ Иә, жиі
- ☐ Иә, кейде
- ☐ Жоқ, өте жиі емес
- ☐ Жоқ, ешқашан

34. Маған өзіме зиян келтіру жайлы ойлар келді

- ☐ Иә, жиі
- ☐ Иә, кейде
- ☐ Жоқ, өте жиі емес
- ☐ Жоқ, ешқашан

№ 35-44 сұрақтарда осы мақұлдауларыңыз Сіз үшін қаншалықты жиі шын екенін көрсетіңіз. Бұл жерде «дұрыс» немесе «дұрыс емес» жауаптар жоқ: Сіздің күнделікті тәжірибеңізге негізделе отырып, ең дұрыс болатын сияқты жауапты таңдаңыз.

35. Мен нәрестеме деген махабатымды сезінемін
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

36. Мен нәрестем үшін бір нәрсе жасау керек болғанда, қорқамын немесе үрейленемін
- ☐ Ешқандай
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Әрине, кейде
- ☐ Әрине, әрқашан

37. Мен өзімнің нәрестеме қатысты реніш сезінемін
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

38. Мен өзімнің нәрестеме ештеңе сезінбеймін
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

39. Мен өзімнің нәрестеме қатысты ашу –ыза сезінемін
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

40. Мен нәрестеммен айналысып жатқан барлық ісіммен рахаттанамын
- ☐ Ешқандай
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Әрине, кейде
- ☐ Әрине, әрқашан

41. Мен өзімнің нәрестемнің басқа болғанын қалар едім
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

42. Мен нәрестемді қорғағым келетінімді сезінемін
- ☐ Ешқандай
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Әрине, кейде
- ☐ Әрине, әрқашан

43. Мен балам болмағанын қалар едім
- ☐ Әрине, әрқашан
- ☐ Әрине, кейде
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Ешқандай

44. Мен нәрестеме жақындығымды сезінемін
- ☐ Ешқандай
- ☐ Белгілі бір дәрежеде, кейде
- ☐ Әрине, кейде
- ☐ Әрине, әрқашан

4-БӨЛІМ. ЖҮКТІЛІК ЖӘНЕ АНА БОЛУ

№45-57 сұрақтар Сіздің ең **кіші** балаңызға қатысты болады

45. Сіздің ең кіші балаңыздың жасы нешеде?
_____

46. Жүктілік жоспарлы болды ма?
- ☐ Иә
- ☐ Жоқ

47. Балаңыздың жынысы қандай?
- ☐ Ер бала
- ☐ Қыз бала

48. Балаңыздың атын кім қойды?
- ☐ Өзім
- ☐ Менің жұбайым/серігім
- ☐ Жұбайымның/серігімнің ата-анасы
- ☐ Басқа _____

49. Жүктілік кезінде асқынулар болды ма?
- ☐ Иә
- ☐ Жоқ

50. Қалай босандыңыз?
- ☐ Табиғи
- ☐ Ішімді жарып алды
- ☐ Басқа

51. Босану кезінде кім болды?
- ☐ Туысқандардың немесе достардың ешқайсысы
- ☐ Жұбайым/серігім
- ☐ Басқа_____

52. Нәрестенің туған кездегі салмағы:
- ☐ 2500 граммнан аз
- ☐ 2500 грамм немесе одан жоғары

53. Нәресте қандай мерзімде туды:
- ☐ 37 аптадан бурын
- ☐ 37 аптада немесе одан кейін

54. Жаңа туған нәрестенің денсаулығымен қандайда бір проблема болды ма?
- ☐ Иә
- ☐ Жоқ

55. Өткен уақыттың ішінде нәрестеңіз күніне 3 сағаттан көп жылады ма?
- ☐ Иә
- ☐ Жоқ *(егер жок болса, 57-ші сұраққа көшіңіз)*

56. Соңғы аптаның ішінде нәрестеңіз күніне 3 сағаттан артық қанша күн жылады?
- ☐ 0 күн
- ☐ 1-2 күн
- ☐ 3-4 күн
- ☐ 5-7 күн

57. Сіз балаға емшек бересіз бе?
- ☐ Иә
- ☐ Жоқ

58. Сізге бұрын депрессия деген диагноз қойылды ма?
- ☐ Иә
- ☐ Жоқ

59. Сіздің денеңіздің салмағы:
- ☐ Қалыпты салмақ
- ☐ Артық салмақ
- ☐ Салмағым жеткіліксіз сияқты

60. Сіз өзінізді:
- ☐ Өте біліксіз анамын
- ☐ Біліксіз анамын
- ☐ Аналардың көпшілігі сияқтымын
- ☐ Басқа аналардан жақсырақпын
- ☐ Өте білікті анамын деп санайсыз

61. Сіз жүкті болған кезде әйелдер консультациясына жүйелі түрде барып тұрдыңыз ба?
- ☐ Иә
- ☐ Жоқ

62. Сіз өзіңізге ұсынылған медициналық қызметтермен қанағаттанасыз ба?
- ☐ Толық қанағаттанамын
- ☐ Қанағаттанамын
- ☐ Жартылай қанағаттанамын
- ☐ Қанағаттанбаймын
- ☐ Мүлдем қанағаттанбаймын

APPENDIX 3

Informed Consent Forms

Verbal Informed Consent

My name is Zhansaya Zhanasbayeva, I'm a Master of Public Health student at Nazarbayev University. I am conducting a study on the postpartum depression among women. The study is necessary for understanding of risk factors of depression among postpartum women in Kazakhstan. The obtained data would be useful for creation of effective intervention programs, creation of prevention policies and for aiding the diagnosis of postpartum depression.

I would like to receive honest answers to questions provided in the questionnaire. The questionnaire consists of 4 chapters which are the following: socio-demographic information, social support, postnatal depression, pregnancy history and mothering.

There are no risks involved in the study greater than you would encounter in your everyday life. Data will be reported in aggregated form without any potential hazard to reveal the personal information. If you feel uncomfortable answering any question in the provided questionnaire, feel free to skip it. If at any time you think you would like to withdraw from the study, please, let me know and I'll exclude your answers from the study. There are no direct benefits, however your participation will benefit society, and help to develop programs for intervention in the field of depression in postnatal period. There is no penalty for withdrawal from the study nor for the skipping the questions. Neither your name, nor other personally identifying information would be recorded and the strongest effort would be made in order to maintain privacy of participants.

If you feel complaints about depression, you can get help for free. Support of psychologist and gynecologist is available by contacting national helpline 150.

Do you agree to anonymously participate and provide answers to the questions in the questionnaire?

Contacts:

National Help line 150,
free consultations from gynecologyst and psychologist
E-mail: http://www.hls.kz/hotline-150/

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The oral consent text provided above will be read aloud in the language of a prospective participant. The text would provide the prospective participant with all necessary information about the study, associated risks and benefits. The consent text is adapted from University of Virginia oral consent script retrieved from: http://www.virginia.edu/vpr/irb/sbs/forms_consent.html

Информированное согласие на участие в исследовании

Меня зовут Жансая Жанасбаева, я студентка магистратуры по общественному здравоохранению Назарбаев Университета. Я занимаюсь изучением послеродовой депрессии среди женщин. Это исследование необходимо для понимания факторов риска послеродовой депрессии среди женщин в Казахстане. Полученные данные были бы полезны для создания эффективных программ интервенции, создания профилактических стратегий и содействия диагнозу послеродовой депрессии.

Я хотела бы получить честные ответы на вопросы, заданные в вопроснике. Анкета состоит из 4 разделов: демографическая информация, социальная поддержка, постнатальная депрессия, а также беременность и материнство.

Участие в данном исследовании не вовлекает рисков больше чем, с которыми вы сталкиваетесь в ежедневной жизни. Данные будут представлены в усредненной форме без какой-либо потенциальной опасности для участников. Если вам неудобно отвечать на любой вопрос в предоставленном вопроснике, не стесняйтесь пропустить его. Если в любой момент вы думаете, что хотите выйти из исследования, пожалуйста, сообщите мне, и я исключу ваши ответы из исследования. Прямых выгод нет, однако ваше участие принесет пользу обществу и поможет разработать программы интервенций касательно депрессии в постнатальном периоде. За выход из исследования или за пропуски вопросов нет никаких негативных последствий и штрафов. Ни ваше имя, ни другая личная информация не будут записаны, и будут предприняты самые сильные усилия для обеспечения конфиденциальности участников.

Если вы чувствуете жалобы на депрессию, вы можете получить помощь бесплатно. Поддержка психолога и гинеколога доступна и бесплатна. Можете обратиться в национальную службу помощи 150.

Согласны ли вы анонимно участвовать и давать ответы на вопросы в анкете?

Контакты:

Национальная горячая линия 150, Бесплатные консультации гинеколога и психолога
E-mail: http://www.hls.kz/hotline-150/

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Текст устного согласия, указанный выше, будет прочтён вслух на языке удобном предполагаемому участнику. Текст предоставит потенциальному участнику всю необходимую информацию об исследовании, связанных с ним рисках и преимуществах. Текст согласия адаптирован из сценария устного согласия Университета штата Вирджиния, полученного по адресу: http://www.virginia.edu/vpr/irb/sbs/forms_consent.html

NAZARBAYEV UNIVERSITY

Зерттеуге қатысуға ақпараттандырылған келісім

Менің атым Жансая Жанасбаева, мен Назарбаев Университетінің қоғамдық денсаулық сақтау жөніндегі магистратурасының студентімін.

Мен әйелдер арасындағы босанғаннан кейінгі депрессияны зерделеумен айналысып жүрмін. Бұл зерттеу Қазақстандағы әйелдер арасындағы босанғаннан кейінгі депрессияның қауіп-қатер факторын түсіну үшін қажет. Алынған деректер интервенцияның тиімді бағдарламаларын құру, профилактикалық стратегиялар құру және босанғаннан кейінгі депрессияның диагнозына көмектесу үшін пайдалы болмақ.

Мен сауалнамада қойылған сұрақтарға шынайы таза жауап алғым келеді.

Сауалнама 4 бөлімнен тұрады: демографиялық ақпарат, әлеуметтік қолдау, постнаталды депрессия, сондай-ақ жүктілік және ана болу.

Бұл зерттеуге қатысу сіздер күнделікті өмірде кездесіп жүрген қауіп-қатерден артық қатер келтірмейді. Деректер қатысушылар үшін қандайда бір әлеуетті тұрғыдан қауіпсіз, орташа нысанда ұсынылатын болады. Егер Сіз үшін осы сауалнамада қойылған кез келген сұраққа жауап беру қолайсыз болса, оған жауап бермеуге қысылмаңыз. Егер кез келген сәтте зерттеуден шыққыңыз келсе, маған хабарлауыңызды өтінемін, мен зерттеуден Сіздің жауаптарыңызды алып тастаймын. Жеке пайда табатын мақсатым жоқ, бірақ Сіздің қатысуыңыз қоғамға пайда әкеледі және постнаталды кезеңдегі депрессияға қатысты интервенциялар бағдарламасын әзірлеуге көмегін тигізеді. Зерттеуден шыққаныңыз үшін немесе кейбір сұрақтарға жауап бермегеніңіз үшін ешқандай теріс салдары жоқ және айыппұлдар тағылмайды. Сіздің атыңыз да, не басқадай жеке ақпаратыңыз да ешбір жерде жазылмайды, және қатысушылардың құпиялылығын қамтамасыз ету үшін көп күш салынып, шара қолданылады.

Егер Сіз депрессияға шағымданғыңыз келсе, тегін көмек ала аласыз. Психолог және гинеколог Сізге тегін қолдау көрсетеді әрі бұл қол жетімді. Сіз 150 ұлттық көмек көрсету қызметіне жүгіне аласыз.

Сіз атыңызды жасыра отырып қатысып, сауалнамадағы сұрақтарға жауап беруге келісесіз бе?

Байланыс телефондары:

150 Ұлттық ыстық желі, Гинекологтің және психологтің тегін консультациясы
E-mail: http://www.hls.kz/hotline-150/

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Жоғарыда көрсетілген ауызша келісімнің мәтіні болжалды қатысушыға оған ыңғайлы тілде дауыстап оқылады. Мәтін әлеуетті қатысушыға зерттеумен байланысты қауіп-қатер мен артықшылықтар туралы барлық қажетті ақпаратты ұсынады.

Келісімнің мәтіні http://www.virginia.edu/vpr/irb/sbs/forms_consent.html мекенжайы бойынша алынған Вирджиния штаты Университетінің ауызша келісімінің сценарийінен бейімделіп құрылған.