

DOI: 10.5455/msm.2019.31.277-281

Received: Oct 19 2019; Accepted: Dec 17, 2019

© 2019 Minela Velagic, Jasmina Mahmutovic, Suada Brankovic

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ORIGINAL PAPER

Mater Sociomed. 2019 Dec; 31(4): 277-281

Development of Mother's Postnatal Sense of Security

Minela Velagic¹, Jasmina Mahmutovic¹, Suada Brankovic¹

¹Faculty of Health Studies, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Corresponding author: Minela Velagic, Faculty of Health Studies, University of Sarajevo, Sarajevo, Bosnia and Herzegovina. E-mail: minela.velagic@fzs.unsa.ba. ORCID ID: <https://orcid.org/0000-0002-5713-7919>.

ABSTRACT

Introduction: Although sense of security in mothers is not clearly specified in literature, most important factors that make it up in women that do not have issues in pregnancy are social support, prenatal health care and partner's support. Psychological factors play a key role in recognizing fear of childbirth, distinguishing anxiety from clinical depression. Recognizing risk factors and adequate intervention support would significantly reduce fear. **Aim:** to analyze development of mother's sense of security during the postnatal period and establish the differences between two study groups. **Methods:** The Cross section study was conducted in 2017 in the Public Institute for Health care Protection of Women and Maternity in Canton Sarajevo. Using random method in the study were included 395 mothers. The research instrument was PPSS-instrument and modified questionnaire. **Results:** Postnatal sense of security in n=395 of the mothers on average was 49, 61±7, 6. Mothers' sense of security during the first week after their child's birth differed significantly (p=0.004) between mothers whose husband actively participated in psycho-physical preparation for childbirth. Development of parents sense of security is in direct connection with psycho-physical preparations of pregnant women for labor only when both partners took active part in preparations for labor. **Conclusion:** Postnatal sense of security in parents is a term that has not been researched enough and it requires further studies. Bachelor degree in health care/ graduated nurse/midwife, especially in primary health care field, according to her competencies would be able to independently create and work on promoting prevention programs through holistic approach with individuals and families.

Keywords: pregnancy, prenatal care, sense of security, PPSS instrument.

1. INTRODUCTION

Fear of pregnancy, childbirth and possible complications after childbirth are often due to ignorance of the parents. The prevalence of fear of childbirth in pregnant women is estimated at around 20-25%, while 6-10% of them feel a serious fear that disrupts their daily activities, as well as their ability to cope with the pain of childbirth and childbirth in general (1).

Psychological factors play a key role in recognizing fear of childbirth, distinguishing anxiety from clinical depression. Recognizing risk factors and adequate intervention support would significantly reduce fear (1). Psychoeducation can reduce the fear of childbirth, as well as the number of births that are likely to end with a caesarean section. The costs of providing midwifery psychoeducation would be offset by an increased number of healthy vaginal births and a decreased number of cesarean sections (2).

Currently, antenatal care is of great importance in the world, including: better access to health education, control of risk factors, implementation of screening programs and access to cost-effective treatment (3), and the possibility of regular screening and risk assessment, as well as examination and treatment of conditions that may affect the health of a woman and / or her baby (4).

Quality birth care is just one element of the continuing care and health care required throughout and after pregnancy (4).

If parenting anxiety is predominant, health professionals must recognize it on time and provide individualized health care that will solve every woman's concerns with appropriate interventions. In addition to that, mothers in the early postpartum age experience anxiety and fears related to their role in parenting and their ability to care for the newborn. The physical availability of health care during this period

can help the mother overcome her fear (5).

Unfortunately, currently throughout the world, very few women have continuous care during pregnancy, childbirth and the postpartum period (4). Advisory interviews after childbirth can encourage mothers, and to encourage and support breastfeeding may also contribute to the feeling of security postpartum (6).

Although mothers' sense of security has not been clearly specified in the literature (7), the most significant safety-related factors are, for women who do not have pregnancy-related problems, social support, prenatal health care, and partner support. All pregnant women need the help of experts to find the elements that create security in their specific situation in order to promote and strengthen the feeling of security (8).

We assume that the development of a sense of security among parents is significantly affected by attending psychophysical preparation for childbirth. As part of education in psychophysical preparation for childbirth, parents will be educated that the health of the fetus and infant is conditioned by many factors, first of all the complete physical health of both parents, their emotional and social well-being, as well as the socioeconomic conditions in which the family lives (9).

Based on the reviewed literature and previous research we have not found any research that deals with the topic of developing a sense of security in parents in the postpartum period in Bosnia and Herzegovina.

2. AIM

To analyze the development of mothers' sense of security in the early postpartum period and to compare whether the feeling of safety in mothers who went on psychophysical preparation of pregnant women for childbirth was higher than the feeling of safety for mothers who did not attend psychophysical preparation for childbirth.

3. METHODS

In the period from the beginning of February to the end of June 2017 in all areas of the public institution of the Institute for Health Protection of Women and Maternity of Sarajevo Canton, 395 women were surveyed by random selection method. The respondents were divided into two research groups. The study group consisted of 153 maternity mothers who attended the psychophysical preparation of pregnant women for childbirth, and the control group 242 maternity women who did not attend the psychophysical preparation of pregnant women for childbirth. Participation in the examination required the voluntary consent of the respondents, which they confirmed with their signature (i), and that the mother achieved her right to health care in one of the Institute's locations. The study excluded respondents who did not want to participate in the research voluntarily and mothers who did not achieve their right to health care in one of the Institute's locations. A cross-sectional study was conducted. The research instrument was a standardized questionnaire: Postnatal sense of security among the parents—version for mothers (10), for whose use consent was obtained. The mothers' version has 18 statements (items) which are answered according to how much

the individual agrees with the statement: "Not at all" (1), "To a certain degree" (2), "Quite a lot" (3) or "Altogether" (4). Score range was between 18 and 72. The higher score indicates the greater sense of security.

Statistical analysis

SPSS version 19.0 was used for statistical analysis of the obtained data. Descriptive statistics were used to represent data in absolute numbers (N) and relative frequencies (%). To examine the coherence between the groups we used a reality analysis and calculated Cronbach's Alpha coefficient. To show the mean and scatterplot of the PPSS score, we used arithmetic mean, standard deviation, and to compare the parametric tests independent T-test and ANOVA test. We used the Wilcoxon Signed Ranks test to compare PPSS scores with mean scores, for mothers PPSS=45. For the limit of statistical significance, we took the value $\alpha = 0.05$. $p < \alpha$ was considered statistically significant. Ethical approval for research was obtained from Faculty of Health studies of University of Sarajevo.

4. RESULTS

By random selection method, in the period from the beginning of February to the end of June 2017, in all areas of the public institution of the Institute for Health Protection of Women and Maternity of Sarajevo Canton, 395 maternity women were surveyed. The respondents were divided into two groups.

The study group consisted of 153 maternity women who attended psychophysical preparation of pregnant women for childbirth, while the control group consisted of 242 maternity women who did not attend psychophysical preparation for childbirth. The majority of women surveyed, 382 (96.7%) were married, while 13 (3.3%) were unmarried, i.e. living in extramarital affairs.

Of the total number of mothers $n = 395$, the majority of them did not attend psychophysical preparation of pregnant women for childbirth, 242 (61.3%), while the other 153 (38.7%) attended psychophysical preparation of pregnant women for childbirth.

A total of 60 (15.2%) maternity wives responded that their spouse / partner actively participated in psychophysical preparation for childbirth, while in 335 (84.8%) spouses / partners did not participate in psychophysical preparation for childbirth at all.

A large number of maternity respondents responded that their husband / partner did not attend childbirth and was not supportive during childbirth, 361 (91.4%), while 34 (8.6%) of the responded that their husband / partner attended childbirth and was support during childbirth.

A total of 252 (63.8%) mothers responded that their childbirth proceeded as they expected based on their birth knowledge or previous experiences, while 143 (36.2%) women responded that their childbirth did not proceed as they expected based on their birth knowledge or previous experiences.

Childbirth was completed by vaginal delivery in 281 (71.7%) births, of which 14 (3.5%) vaginal births was aided by forceps or vacuum extractors. 100 (25.3%) women were delivered by Caesarean section.

When asked if they were involved in the whole process of

	N	Arithmetic mean	S.D.	Min.	Max.	Percentile		
						25 th	50 th (Mediana)	75 th
PPSS	395	49,61	7,6	29,00	66,00	44,00	50,00	56,00

Table 1. Development of mother's postnatal sense of security. Mother's postnatal sense of security on a scale of 18 to 72, in this study at n = 395 mothers, averaged 49.61 ± 7.6

health care delivery and decision-making from admission to discharge in the healthcare institution where they gave birth, a total of 38 (9.6%) women said they were not involved at all. 54 (13.7%) responded that they were mostly not involved and 76 (19.2%) were neither excluded nor involved in decision making. 75 (19.0%) respondents said that they were fully involved in the whole process, and the largest number of mothers surveyed, 152 (38.5%) said that they were mainly involved in the process of health care provision and decision-making from admission to discharge.

Cronbach's Alpha	Total questions
0,715	18

Table 2. Cronbach's Alpha coefficient for mother's postnatal sense of security

The degree of coherence was calculated on the basis of 18 questions, Cronbach's Alpha = 0.715 which shows that the questions are meaningful and the answers are coherent, alpha > 0.7. The coherence of answering the 18 questions of the PPSS instrument - version for mothers is uniform, but stands out for PPSS 6 (I felt that I took part in decision making during our stay at the postnatal ward), where there is the least consistency. If this issue were to be eliminated, the total coefficient would increase to 0.775.

Using the T-test, it was shown that mothers' sense of security during the first week after the birth of their child was not significantly different (p=0.117) between mothers who did not attend psycho-physical preparation of pregnant women for delivery and those mothers who attended psycho-physical preparation of pregnant women for childbirth.

T-test also showed that mothers' sense of security during the first week after their child's birth differed significantly (p = 0.004) between mothers whose husband actively participated in psychophysical preparation for childbirth and those mothers whose husband did not participate in the same.

5. DISCUSSION

Knowledge of a woman's needs, her values, preferences and expectations during normal birth enables healthcare professionals, especially midwives, to organize and provide high-quality maternity care (11), which has been particularly expressed in recent years, when the demands and expectations of both parents regarding the participation of fathers during birth, taking responsibility for the child and equal participation in family life on the rise, especially in countries with high income (12).

Focusing on the involvement of both parents during pregnancy, and the positive and professional behavior of midwives and nurses, will be beneficial to both parents as

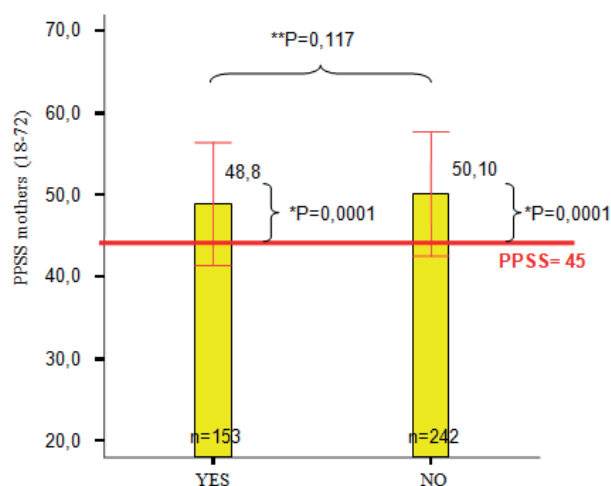


Figure 1. Maternal involvement in psychophysical preparation of pregnant women for childbirth. *Wilcoxon Signed Ranks Test; ** t-test for Equality of Means

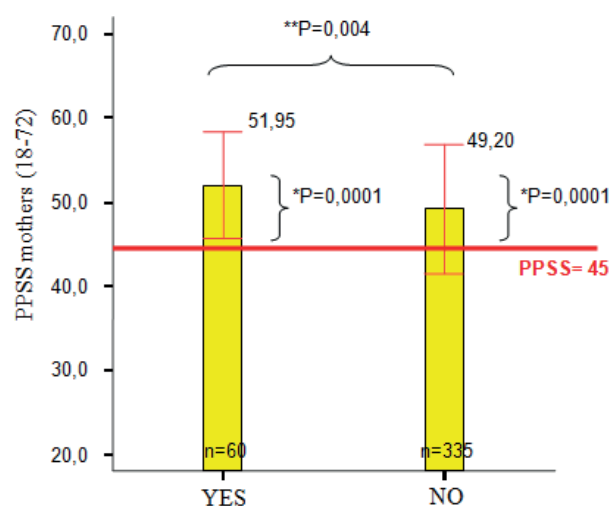


Figure 2. Partner involvement in psychophysical preparation of pregnant women for childbirth. *Wilcoxon Signed Ranks Test; ** t-test for Equality of Means

this will increase their sense of security in the postpartum period (13).

Since psychoeducation has been shown to help overcome fear (2), our research has shown that pregnant women's psychophysical preparation in postpartum period is directly connected to increased feelings of safety in mothers whose spouse / partner actively participated in the psychophysical preparation of pregnant women for childbirth. That is, mothers' sense of security during the first week after their child's birth was significantly different (p = 0.004)

between mothers whose husband actively participated in psychophysical preparation for delivery, and those mothers whose husband did not participate in psychophysical preparation for childbirth.

The study used a PPSS instrument developed by Persson and Dykes (2007) based on a qualitative study of parental experiences of early discharge from hospital after birth. The PPSS instrument is, so far, the only specific, valid, usable and reliable instrument to measure a parent's sense of security immediately after birth (10). It identifies important supporting elements of a sense of security for both parents: the behavior and actions of midwives in such a way as to increase their parents' sense of security, family harmony, health and general well-being of the family, as well as the organization of the health system on which these elements are strengthened (14).

The T-test shows that mothers' sense of security did not differ significantly ($p = 0.117$) during the first week after childbirth between mothers who attended psychophysical preparation for pregnant women and those mothers who did not go for psychophysical preparation for pregnant women. The PPSS score in the first group is slightly smaller, at 48.86 ± 7.5 , compared to the second group where it is 50.10 ± 7.6 .

The Wilcoxon Signed Ranks test showed that, in both groups, PPSS scores were statistically significantly higher than average (PPSS = 45) $p = 0.0001$, meaning that mothers' sense of security was good, regardless of whether they were going on preparation for childbirth.

However, the T-test shows that mothers' sense of security during the first week after childbirth was statistically significantly different ($p = 0.004$) between mothers whose husband actively participated in psychophysical preparation for childbirth and those mothers whose husband did not participate in the same. Thus, the PPSS score in the first group is larger, and is 51.95 ± 6.4 , compared to the second group where the score is 49.20 ± 7.7 , from which we can conclude that the feeling of safety is statistically significantly higher in mothers whose husbands participated in psychophysical preparation for childbirth. With the Wilcoxon Signed Ranks test in both groups, the PPSS score was statistically significantly higher than average (PPSS = 45) $p = 0.0001$, meaning that the mother's sense of security was fairly well developed (statistically significantly higher than average), regardless whether or not the husband participated in psychophysical preparation, however, the feeling of security is better, or statistically significantly higher, for mothers whose husbands participated in psychophysical preparation for childbirth.

Well-prepared fathers have a positive impact on partners, which can boost the perception of childbirth as a positive experience and reduce the fear of seeing a partner, a future mother in pain. Women who have the support of a partner during childbirth seek less pain relief medication and feel more positive about childbirth. There is also evidence that massage and relaxation techniques help fathers during childbirth to effectively increase partners contentment and reduce postnatal depressive symptoms, as well as providing psychosocial support to women (15).

The result obtained by Persson et al (2007) in the postpartum sense of security in $n = 113$ mothers, on a scale

of 18 to 72, was 56.3, while Cronbach's Alpha = 0.88 (10). Compared to Persson's, we obtained a smaller score in our study (PPSS at $n = 395$ mothers, on a scale of 18 to 72, was 19.61 ± 7.6 , while Cronbach's Alpha = 0.715), but if we take in considering a much larger number of respondents, we can assume that the result obtained in this research is probably more relevant.

Kvist and Persson (2009) concluded that in order to develop a sense of security in mothers it is important to be treated as an individual, an individual with all their specificities, and that the nurse / midwife should have an individualized approach in providing health care (6).

Most parents, in the period immediately after birth, are faced with feelings of fear, uncertainty and responsibility for the infant. A visit by a community-health nurse during this period is an ideal opportunity for health education, especially for couples who did not go to psychophysical preparation for pregnant women for childbirth, which would reduce, or completely eliminate, the feeling of fear and insecurity and prevent the clinical manifestation of depression (16).

In their study, Persson and Kvist (2014) demonstrated a correlation between postnatal feelings of parental safety and the risk of postnatal anxiety and depression, so the PPSS instrument can be used to detect early those at risk of postpartum sadness, anxiety, and depression (17).

In their research, Fenwick et al. (2017) stated that counseling within the psychoeducational training of pregnant women significantly improves their knowledge, skills and confidence in midwives who educate them on many psychosocial issues. In this way, many fears caused by the forthcoming birth are reduced in pregnant women, and such education is still considered a major challenge (18).

Merx et al (2017) point out that it is very important to inform pregnant women about the positive effects of physical activity in pregnancy, and to encourage pregnant women to continue with moderately intense activities such as walking, cycling or swimming (19).

Considering the organizational structure of the health care system currently in Sarajevo Canton, generally speaking, we can say that the feeling of mothers' safety in the postpartum period is at a satisfactory level, but that improvements should be made to hospital health care in order to allow the stay of fathers of infants and provided an opportunity for mothers and their partners to actively participate in decision-making in the process of post-natal maternal and infant care. The mother must be treated as an individual, individually by post-natal midwives, and each of them must have an individualized approach to provide health care. Improving health care in hospitals after childbirth, would increase the sense of security among mothers in the postnatal period.

6. CONCLUSIONS

Mother's postnatal sense of security in our study was 49.61 ± 7.6 . Postnatal sense of security in mothers during the first week after birth does not depend on whether or not the mother attended the psychophysical preparation of pregnant women for childbirth ($p = 0.117$), but mother's sense of security during the first week after birth is statis-

tically significantly greater ($p = 0.004$) in mothers whose husband, together with her, actively participated in psychophysical preparation for childbirth.

- **Declaration of patient consent:** The authors certify that they have obtained all appropriate patient consent forms
- **Acknowledgments:** The authors would like to acknowledge patients who participated in this study and Eva-Kristina Persson on the provided questionnaire.
- **Author's contribution:** MV, JM gave substantial contribution to the conception and design of the work and in the acquisition, analysis and interpretation of data for the work. MV, JM, SB had a part in article preparing for drafting and revising it critically for important intellectual content. All authors gave final approval of the version to be published and they agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
- **Conflicts of interest:** There are no conflicts of interest.
- **Financial support and sponsorship:** Nil.

REFERENCES

1. Molgora S, Fenaroli V, Prino LE, Rollè L, Sechi C, Trovato A, et al. Fear of childbirth in primiparous Italian pregnant women: The role of anxiety, depression, and couple adjustment. *Women and birth: journal of the Australian College of Midwives*. 2017; S1871-5192(16)30158-5 doi: <https://doi.org/10.1016/j.wombi.2017.06.0225>
2. Toohill J, Callander E, Gamble J, Creedy DK, Fenwick J. A cost effectiveness analysis of midwife psycho-education for fearful pregnant women-a health system perspective for the antenatal period. *BMC Pregnancy Childbirth*. 2017; 17(1): 217 doi: 10.1186/s12884-017-1404-7
3. Report of a World Health Organisation. Women and health : today's evidence tomorrow's agenda. Chapter 5: Adult women. Geneva, 2009; 57 Available at URL: http://www.who.int/gender/women_health_report/full_report_20091104_en.pdf.
4. Report of a World Health Organisation. Women and health : today's evidence tomorrow's agenda. Chapter 5: Adult women. Maternal health. Geneva, 2009; 42 Available at URL: http://www.who.int/gender/women_health_report/full_report_20091104_en.pdf
5. Forster DA, McLachlan HL, Rayner J, Yelland J, Gold L, Rayner S. The early postnatal period: exploring women's views, expectations and experiences of care using focus groups in Victoria, Australia. *BMC Pregnancy Childbirth*. 2008; 8: 27 doi: 10.1186/1471-2393-8-27.
6. Kvist LJ, Persson EK. Evaluation of changes in postnatal care using the "Parents' Postnatal Sense of Security" instrument and an assessment of the instrument's reliability and validity. *BMC Pregnancy Childbirth*. 2009; 9: 35 doi: 10.1186/1471-2393-9-35.
7. Persson EK, Fridlund B, Kvist LJ, Dykes AK. Mothers' sense of security in the first postnatal week: interview study. *Journal of Advanced Nursing*. 2011; 67(1): 105-16 doi: 10.1111/j.1365-2648.2010.05485.x.
8. Melender HL, Lauri S. Experiences of security associated with pregnancy and childbirth: a study of pregnant women. *International Journal of Nursing Practice*. 2002; 8(6): 289-96 <https://doi.org/10.1046/j.1440-172X.2002.00382.x>.
9. Mesihović-Dinarević S. Fetal medicine: From Leonardo da Vinci to the present. In: *Fetal Medicine International Scientific Symposium: From Leonardo da Vinci to the Present. Proceedings: Special Issues, CLIX Book of the Department of Medical Sciences, Book 46. ANUBiH. Sarajevo 2015: 12*
10. Persson EK, Fridlund B, Dykes AK. Parents' postnatal sense of security (PPSS): development of the PPSS instrument. *Scandinavian Journal of Caring Sciences*. 2007; 21(1): 118-25 doi: 10.1111/j.1471-6712.2007.00442.x
11. Irvani M, Zarean E, Janghorbani M, Bahrami M. Women's needs and expectations during normal labor and delivery. *Journal of Education and Health Promotion*. 2015; 4: 6 doi: 10.4103/2277-9531.151885.
12. WHO. Fatherhood and Health outcomes in Europe. World Health Organization. Denmark, 2007 Available at URL: http://www.euro.who.int/_data/assets/pdf_file/0017/69011/E91129.pdf
13. Persson EK, Dykes AK. Important variables for parents' postnatal sense of security: evaluating a new Swedish instrument (the PPSS instrument). *Midwifery*. 2009; 25(4): 449-60 doi: 10.1016/j.midw.2007.08.001
14. Danbjørg DB. A lifeline connecting new parents with the hospital Using Participatory Design to develop and test an app for parents being discharged early postnatal. PhD Thesis. Odense: Research Unit of Nursing. Institute of Clinical Research. Faculty of Health Sciences. University of Southern Denmark, 2015. Available at URL: <https://core.ac.uk/download/pdf/50708019.pdf>
16. Ministry of Health of Sarajevo Canton. Institute for Scientific Research and Development at the Clinical Center of the University of Sarajevo. A Guide to Postpartum Maternal and Newborn Care. Sarajevo, 2009; 12 Available at URL: <https://mz.ks.gov.ba/sites/mz.ks.gov.ba/files/Njega%20majke%20i%20novorodjenceta.pdf>
17. Persson EK, Kvist LJ. Postnatal Sense of Security, Anxiety and Risk for Postnatal Depression. *Journal of Womens Health*. 2014; 3: 3 doi:10.4172/2325-9795.1000141
18. Fenwick J, Toohill J, Slavin V, Creedy DK, Gamble J. Improving psychoeducation for women fearful of childbirth: Evaluation of a research translation project. *Women Birth*. 2017; pii: S1871-5192(17)30108-7. doi: 10.1016/j.wombi.2017.06.004.
19. Merckx A, Aulsems M, Budé L, de Vries R, Nieuwenhuijze MJ. Factors affecting change in physical activity in pregnancy. *Midwifery*. 2017; 51: 16-23 doi: 10.1016/j.midw.2017.05.007.