

COURSE OF PREGNANCY, LABOR, AND WOMEN'S SATISFACTION WITH LIFE IN THE EARLY POSTPARTUM PERIOD

MAGDALENA DZIURKA¹ A-F
• ORCID: 0000-0001-7371-1418

MARZENA BUCHOLC² A-E

ANNA PILEWSKA-KOZAK³ A,B,D,E
• ORCID: 0000-0003-4562-2295

BEATA DOBROWOLSKA¹ A,D-F
• ORCID: 0000-0001-9178-9534

¹ Department of Management in Nursing, Faculty of Health Sciences, Medical University of Lublin, Poland

² Department of Obstetrics, Gynaecology and Obstetric-Gynaecological Nursing, Medical University of Lublin, Poland

³ Chair and Department of Gynaecology and Gynaecological Endocrinology, Faculty of Health Sciences, Medical University of Lublin, Poland

A – study design, B – data collection, C – statistical analysis, D – interpretation of data, E – manuscript preparation, F – literature review, G – sourcing of funding

ABSTRACT

Background: The postpartum period, including hospitalization after a birth, requires the woman in puerperium to adjust to her new social role. The subject of satisfaction with life (SWL) in women in the early postpartum period has been rarely addressed in the literature and requires up-to-date, thorough research.

Aim of the study: The present study aimed to evaluate the level of SWL among women after delivery according to selected characteristics concerning the course of pregnancy and labor.

Material and methods: The study included 128 females who after delivery were hospitalized at maternity units in Lublin, Poland. The participants were administered the Satisfaction With Life Scale (SWLS) and a questionnaire to collect data on the course of pregnancy and labor.

Results: It was found that 88 (68.75%) women had a high level of life satisfaction after childbirth, 27 (21.09%) had an average level, and 13 (10.16%) had a low level. Among the analyzed variables, a marginally significant increase in SWL was found for women in the early postpartum period that experienced skin-to-skin contact with the newborn immediately after delivery ($p=0.054$). The strength of the observed effect, as measured by Cohen's d coefficient, was low (0.37).

Conclusions: The current research contributes to the identification of factors occurring during pregnancy and labor that determine postpartum SWL. These results may enable the early elimination of variables that negatively affect postpartum SWL and place a focus on factors with a positive impact. The use of preventive measures designed to improve SWL are likely to aid in reducing the risk of mood disorders in the later postpartum period.

KEYWORDS: satisfaction with life, labor, delivery, postpartum, pregnancy

BACKGROUND

The postpartum period, including hospitalization after birth, requires the woman in puerperium to adapt to her new social role and to learn motherhood. Shin and Johnson (1978) state that satisfaction with life (SWL) is an overall assessment of the quality of life compared against self-selected criteria [1]. The individual nature of this phenomenon, its moderate dy-

namics, and relative persistence have been discussed by Venenhoven (2009) [2]. SWL is determined by both short-term (current mood), medium-term (life events), and long-term (personality traits) components [3]. The subject of SWL in women in the early postpartum period has been rarely addressed in the literature [4,5,6] and requires up-to-date, thorough research conducted within an extensive group. It is much more common in the literature to find reports

on a women's satisfaction with childbirth [7-10,11-13], or quality of life following childbirth [14-17].

Numerous scientific studies have demonstrated the positive effects of skin-to-skin contact with a newborn immediately after birth, both for the child's and mother's health. Contact with the newborn baby during the first hours after birth enables the new mother to initiate a relationship that will develop throughout the child's life, and provides a sense of love and closeness.

There are reports in the literature showing variation in the levels of satisfaction with delivery depending on its course. Nahaee et al. (2020) investigated the predictors of childbirth satisfaction using the Iranian Persian Birth Satisfaction Scale before and during labor among 647 women. It was reported that low levels of childbirth satisfaction were associated with postpartum women who delivered vaginally with perineal rupture/incisions, had emergency caesarean sections, were administered oxytocin for induction and during labor, and did not attend birthing classes [8]. Similar conclusions were reached by Falk et al. (2019) in a Swedish study examining the impact of interventions and obstetric complications on satisfaction with childbirth among 16,000 women. The main factors contributing to low satisfaction with childbirth were emergency caesarean section, induction of labor, postpartum hemorrhage, instrumental vaginal delivery, and postpartum anal sphincter injury [9]. In contrast, Hamm et al. (2019), using the Birth Satisfaction Scale-Revised, revealed that women having a caesarean section compared to those delivering vaginally were three times more likely to have a lower satisfaction with childbirth. Similar findings have been observed for primiparous and multiparous women, with the former experiencing a lower sense of satisfaction with childbirth [10].

However, no research has been conducted on women in the early postpartum period that has examined the effects of the course of pregnancy and delivery on SWL using the Satisfaction with Life Scale (SWLS; Diener et. al. 1985). The current study aims to address this research gap. This research may help to identify the factors occurring during pregnancy and childbirth that determine postpartum SWL. These findings may also enable the early elimination of variables that negatively affect postpartum SWL and place a focus on the factors with a positive impact. This should aid in the design of preventive measures to improve SWL and reduce the risk of mood disorders in the later postpartum period.

AIM OF THE STUDY

The aim of this study was to evaluate the level of SWL in women after delivery and during early post-

partum period with respect to selected variables characteristic of the course of pregnancy and labor.

MATERIAL AND METHODS

Study design, setting, and duration

The study was carried out from December 2019 to March 2020 before the COVID-19 pandemic in Poland. The study was anonymous and voluntary, conducted in accordance with the Declaration of Helsinki, and after obtaining consent from the board of the Faculty of Health Sciences, Medical University of Lublin, and the hospitals' management.

Study population

The study included 128 women after labor and in early postpartum admitted to the maternity ward at several hospitals in Lublin, Poland. The inclusion criteria were as follows: informed consent, early postpartum (first 7 days after childbirth), and hospitalization in a maternity ward. The exclusion criterion was the respondents' lack of consent to participate in the study.

Research instruments

The SWLS designed by Diener et al. (1985), in its Polish adaptation by Z. Juczyński [18], and a questionnaire of our own design were used to collect data on life satisfaction and the course of pregnancy and delivery. The SWLS measures the level of satisfaction with one's accomplishments and living standards. It consists of five statements concerning a woman's life, rated on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with a possible range of scores from 5 to 35 points. The higher the score obtained, the higher the level of life satisfaction. The results should follow the properties characterizing the sten scale, where 1-4 stens (5-17 points) equals low SWL, 5-6 stens (18-23 points) indicates an average SWL, and 7-10 stens (24-35 points) shows a high SWL [19,20].

Statistical analyses

The results were statistically analyzed using the IBM SPSS Statistics 23 software suite. Basic descriptive statistics, Pearson's r coefficient correlations, Spearman's ρ rank correlations, Kolmogorov-Smirnov tests, one-way between-group analyses of variance, and Student's t -tests for independent samples were

performed. A threshold of $\alpha=0.05$ was considered the level of significance. Alpha values at $0.05 < p < 0.1$ were interpreted as significant at the level of a statistical trend.

RESULTS

Characteristics of the study group

The study included 128 (100%) postpartum women hospitalized in a maternity ward. The age of the respondents ranged from 18 to 43 years, with a mean age of 30.76 years and a standard deviation of 5.74. Detailed data on the sociodemographic characteristics of the postpartum women are shown in Table 1.

Table 1. Sociodemographic characteristics of the respondents

Sociodemographic variables		Frequency (N)	Percentage (%)
Education	Primary or vocational	13	10.2
	Secondary	37	28.9
	Higher	78	60.9
Marital status	Single	24	18.8
	Married	94	73.4
	Divorced	10	7.8
Place of residence	Urban area	85	66.4
	Rural area	43	33.6
Professional status	Employed	83	64.8
	Unemployed	45	35.2
Financial situation	Very good	37	28.9
	Good	89	69.5
	Bad	2	1.6

Main results

Based on the results obtained using the SWLS, it was found that 88 (68.75%) women had a high level of life satisfaction, 27 (21.09%) had an average level, and 13 (10.16%) had a low level during the early postpartum period. The minimum score obtained for the SWLS was 9 points and the maximum 35, with a standard deviation of 5.61, skewness -0.76 , kurtosis 0.57 , Kolmogorov-Smirnov test 0.12 , and statistical significance $p=0.001$.

There was no statistically significant difference between the mean SWL value after delivery in the early postpartum period in the group of respondents hospitalized during pregnancy and those not hospitalized during pregnancy (Table 2). The type of vaginal delivery (spontaneous or induced) also did not significantly affect the mean SWL values after delivery, ($p=0.076$; Table 2). However, a marginal statistically significant difference was found between SWL levels and skin-to-skin contact with the newborn after delivery ($p=0.054$; Table 2). Respondents who had been provided an opportunity for such contact reported a higher level of life satisfaction. The strength of the observed effect, as measured by Cohen's d coefficient, was low.

The research also showed no statistically significant correlations between SWL level after delivery in the early postpartum period and the week of pregnancy completion, the number of pregnancies, the number of miscarriages, the number of vaginal deliveries, and the number of caesarean sections (Table 3).

No statistically significant differences were found between participation in birthing classes during the most recent pregnancy ($p=0.201$), mode of pregnancy completion ($p=0.128$), perineal incision during vaginal delivery ($p=0.994$), perineal suturing ($p=0.350$), mode of caesarean section ($p=0.234$), family's presence during delivery ($p=0.234$), and women's SWL after delivery in the early postpartum period.

Table 2. Satisfaction with life after delivery and selected characteristics of the course of pregnancy and labor

Variable		95% CI						
		M	SD	t	p	LL	UL	Cohen's d
Hospitalization during pregnancy (n=128)	Yes (n=49)	24.76	5.84	-0.85	0.399	-2.89	1.16	0.15
	No (n=79)	25.62	5.48					
Skin-to-skin contact with newborn after delivery (n=128)	Yes (n=89)	25.92	4.94	1.95	0.054	-0.03	4.19	0.37
	No (n=39)	23.85	6.76					
Type of vaginal delivery (n=58)	Spontaneous (n=32)	27.13	4.47	—	0.076	—	—	—
	Induced (n=26)	24.88	4.94					

M – mean; SD – standard deviation; t – result of Student's t-test; p – statistical significance; CI – confidence interval; LL – lower limit; UL – upper limit.

Table 3. Correlations between satisfaction with life after delivery in the early postpartum period, week of pregnancy completion, and variables associated with the number of pregnancies

Variable	Pearson's r	Significance (p)
Week of pregnancy completion	0.080	0.368
Number of pregnancies	0.076	0.396
Number of vaginal deliveries	0.144	0.104
Number of caesarean sections	0.050	0.575
Number of miscarriages	-0.102	0.252

DISCUSSION

The current study aimed to evaluate the level of SWL in women after delivery and during early postpartum period with respect to selected variables characteristic of the course of pregnancy and labor.

The study conducted by Aasheim et al. (2014) in Norway to assess postpartum SWL using the SWLS, depending on the week of pregnancy and 6 months and 3 years postpartum, found that, among Norwegian pregnant and postpartum women, SWL was higher during pregnancy and at 6 months postpartum than among the general Norwegian female population. In addition, SWL was demonstrated to increase 6 months after delivery, as compared to pre-delivery levels [4]. Similar results were reported by Dyrdal et al. (2014), where the highest level of SWL was found in the postpartum period and returned to pre-pregnancy levels within 2 years after childbirth [5].

Gebuza et al. (2018) showed no statistically significant differences with respect to life satisfaction across the studied groups of women and their mode of pregnancy completion, and found that caesarean section did not provide a greater SWL after childbirth. However, respondents that underwent a caesarean section received more social support from their partners in the postnatal period than women experiencing a vaginal delivery [6].

During a non-systematic review of the literature, no studies examining the correlations between the pregnancy and delivery factors selected for analysis in this study and women's SWL following delivery in the early puerperium were identified. Kahalon et al. (2021) point out that, as far as labor satisfaction is concerned, there is a significant difference in the effect of skin-to-skin contact with the newborn between women who gave birth vaginally and those who delivered with a caesarean section. The latter group, who had not been provided an opportunity for such contact, was more likely to report lower satisfaction with their delivery as compared to women delivering vaginally. In addition, for each type of childbirth (vaginal,

instrumental, through caesarean section), a higher level of satisfaction was found in women who were given the opportunity for skin-to-skin contact with the newborn immediately after delivery [7].

Shorten et al. (2012) examined satisfaction with birth experiences using a 10-point visual analogue scale in 165 women at 6 to 8 weeks after birth following a previous caesarean section. It was reported that the mode of pregnancy completion was the most important determinant of satisfaction with the birth experience and health in postnatal period. Moreover, respondents who experienced a spontaneous vaginal birth after a caesarean section in a previous pregnancy were the most satisfied group of participants. Women who elected to receive a repeat caesarean section were also highly satisfied. The least satisfied with their childbirth experience were respondents who received an emergency caesarean section and those who did not achieve what they had planned before delivery [11].

A review of the literature also showed that satisfaction with birth is associated with a short labor time (less than 6 hours) [12]. Bitew et al. (2015) also found that 95% of respondents were satisfied with the helpfulness of health care providers and positions of their choice during delivery [12]. Similar results were obtained by Kempe et al. (2020). In addition to duration of labor, mode of birth, epidural anesthesia and oxytocin augmentation are also significantly related to satisfaction with the birthing experience. Respondents with a longer delivery declared a lower mean satisfaction with the birth experience than participants with a shorter childbirth. Also, women who received epidural anesthesia or oxytocin augmentation over course of their deliveries had a lower mean satisfaction with the birthing experience than respondents who did not receive these treatments [13].

Nahae et al. (2020) also reported that low birth satisfaction is associated with insufficient support from health care workers, vaginal birth with episiotomy and tear, labor dystocia, emergency caesarean section, labor induction and labor augmentation with oxytocin, primiparous, preference for cesarean section, and no attendance at pregnancy classes [8].

The results of the current study and the associated literature review indicate that there is a need to conduct further research in this area. In particular, studies with a larger research group are required to gain a better understanding of women's SWL in the postpartum period and to identify its determinants.

LIMITATIONS

The current study had a relatively small sample size and was conducted over a short period of time.

For future studies, the inclusion of a larger population would be beneficial.

CONCLUSIONS

A higher level of life satisfaction in postpartum women during the early puerperium was reported by respondents who were allowed skin-to-skin contact with the newborn immediately after birth. Therefore, in clinical practice during labor and delivery, future mothers should be provided with customized care adapted to the pace of labor and their preferences, in order to reduce the medicalization of labor and to al-

low them to take responsibility for delivery by adopting the principles of psychoprophylaxis of childbirth.

The current research contributes to the identification of factors occurring during pregnancy and childbirth that determine women's postpartum SWL. These results may enable the early elimination of variables that negatively affect women's postpartum SWL. Special consideration should also be given to factors with a positive impact on postpartum SWL and to their subsequent use in preventive measures designed to improve women's SWL levels. These measures may be helpful in reducing the risk of mood disorders in the later postpartum period.

REFERENCES

1. Shin DC, Johnson DM. Avowed happiness as an overall assessment of the quality of life. *Soc Indic Res* 1978; 5: 475-492.
2. Veenhoven, R. Healthy happiness: effects of happiness on physical health and the consequences for preventive health care. *J Happiness Stud* 2008; 9: 449-469.
3. Basińska MA, Sucharska-Draż A, Wolszczak K. Satysfakcja z życia osób bezdomnych. In: Basińska MA, editor. *Osoby bezdomne. Psychologiczne aspekty ich funkcjonowania*. Bydgoszcz: Fundacja Salvus, 2014: 149-168. (In Polish).
4. Aasheim V, Waldenström U, Rasmussen S, Espehaug B, Schytt E. Satisfaction with life during pregnancy and early motherhood in first-time mothers of advanced age: a population-based longitudinal study. *BMC Pregnancy Childbirth* 2014; 14: 86.
5. Dyrdal GM, Lucas R. Reaction and adaptation to the birth of a child a couple-level analysis. *Dev Psychol* 2013; 49(5): 749.
6. Gebuza G, Kaźmierczak M, Mieczkowska E, Gierszewska M. Wsparcie społeczne jako determinant zadowolenia z życia w okresie ciąży i po cięciu cesarskim. *Psychiatr Pol* 2018; 5(6): 585-598. (In Polish).
7. Kahalon R, Preis H, Benyamini Y. Who benefits most from skin-to-skin mother-infant contact after birth? Survey findings on skin-to-skin and birth satisfaction by mode of birth. *Midwifery* 2021; 92: 102862.
8. Nahae J, Mohammad-Alizadeh-Charandabi S, Abbas-Alizadeh F, Martin CR, Hollins Martin CJ, Mirghafourvand M, et al. Pre- and during-labour predictors of low birth satisfaction among Iranian women: a prospective analytical study. *BMC Pregnancy Childbirth* 2020; 20(1): 408-418.
9. Falk M, Nelson M, Blomberg M. The impact of obstetric interventions and complications on women's satisfaction with childbirth: a population based cohort study including 16,000 women. *BMC Pregnancy Childbirth* 2019; 19(1): 494-452.
10. Hamm RE, Srinivas SK, Levine LD. Risk factors and racial disparities related to low maternal birth satisfaction with labor induction: a prospective, cohort study. *BMC Pregnancy Childbirth* 2019; 19(1): 530-538.
11. Shorten, A. Shorten, B. The importance of mode of birth after previous cesarean: success, satisfaction, and postnatal health. *J Midwifery Womens Health* 2012; 57: 126-132.
12. Bitew K, Ayichiluhm M, Yimam K. Maternal satisfaction on delivery service and its associated factors among mothers who gave birth in public health facilities of Debre Markos town, Northwest Ethiopia. *Biomed Res Int* 2015; 460767.
13. Kempe P, Vikström-Bolin M. Women's satisfaction with the birthing experience in relation to duration of labour, obstetric interventions and mode of birth. *Eur J Obstet Gynecol Reprod Biol* 2020; 246: 156-159.
14. Rezaei N, Tavalae Z, Sayehmiri K, Sharif N, Daliri S. The relationship between quality of life and methods of delivery: a systematic review and meta-analysis. *Electron Physician* 2018; 10(4): 6596-6607.
15. Tel H, Ertekin Pinar S, Daglar G. Effects of home visits and planned education on mothers' postpartum depression and quality of life. *J Clin Exp Invest* 2018; 9(3): 119-125.
16. Martínez-Galiano JM, Hernández-Martínez A, Rodríguez-Almagro J, Delgado-Rodríguez M, Rubio-Alvarez A, Gómez-Salgado J. Women's quality of life at 6 weeks postpartum: influence of the discomfort present in the puerperium. *Int J Environ Res Public Health* 2019; 16(2): 253-261.
17. Martínez-Galiano JM, Hernández-Martínez A, Rodríguez-Almagro J, Delgado-Rodríguez M. Quality of life of women after giving birth: associated factors related with the birth process. *J Clin Med* 2019; 8(3): 324-333.
18. Juczyński Z. *Narzędzia pomiaru w promocji i psychologii zdrowia*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego; 2001. (In Polish).
19. Pavot W, Diener E. Review of the satisfaction with life scale. *Psychological Assessment* 1993; 5: 164-171.
20. Pavot W, Diener E. Review of the satisfaction with life scale. In: Diener E. editor. *Assessing well-being*. Netherlands: Springer, 2009: 101-117.

Word count: 2363

• Tables: 3

• Figures: 0

• References: 20

Sources of funding:

The research was funded by the authors.

Conflicts of interests:

The authors report that there were no conflicts of interest.

Cite this article as:

Dziurka M, Bucholc M, Pilewska-Kozak A, Dobrowolska B.
Course of pregnancy, labor, and women's satisfaction with life in the early postpartum period.
Med Sci Pulse 2021; 15 (3): 10-15. DOI: 10.5604/01.3001.0015.0615.

Correspondence address:

Magdalena Dziurka

Department of Management in Nursing Faculty of Health Sciences,

Medical University of Lublin, Poland

E-mail: md.dziurka@gmail.com

Received: 17.03.2021

Reviewed: 16.06.2021

Accepted: 30.06.2021