Research Article DOI: 10.62425/esbder.1601053

Effects of Postpartum Stressors on Parenting Behaviors

Edanur TAR BOLACALI[1]
[1]Kırşehir Ahi Evran University, Faculty of Health Sciences, Department of Pediatric Nursing, Kırşehir, Türkiye

Derya KAYA ŞENOL[2]
[2]Osmaniye Korkut Ata University, Faculty of Health Sciences, Department of Midwifery, Osmaniye, Türkiye

Cansu AĞRALI[2]
[2]Osmaniye Korkut Ata, Faculty of Health Sciences, Department of Midwifery, Osmaniye, Türkiye

ABSTRACT

Objective: This study was conducted to determine the effects of postpartum stressors on parenting behaviors.

Methods: The population of this descriptive-relational study consisted of 520 postpartum women who gave birth in a hospital in southern Türkiye. The data were collected face-to-face between January and December 2022. The data of the study were collected face to face between January and December 2022 using the "Personal Information Form", "Postpartum Stress Scale" and "Postpartum Parental Behavior Scale".

Results: Number of children, employment status, dependency status, spouse's age, spouse's occupation, place of residence, social security status, pregnancy planning status, and education on pregnancy and childbirth were determined as significant predictors of postpartum stress; any problems during childbirth were determined as significant predictors of postpartum parenting behaviors (p<.05).

Conclusion: It was concluded that as the postpartum stress levels of postpartum women decreased, their parenting behaviors became more positive. For women to develop positive parenting behaviors in the postpartum period, it is important to provide holistic education, counseling, and care services by keeping the factors that affect parenting behaviors in mind.

Keywords: Parenting behaviors, nursing, postpartum period, stress.

Received 13.12.2024
Accepted 28.05.2025
Publication Date 13.07.2025

Corresponding author: Cansu AĞRALI
E-mail: agralicansu9@gmail.com

Cite this article: Tar Bolacalı, E., Kaya Şenol, D., & Ağralı, C. (2025). Effects of Postpartum Stressörs on Parenting Behaviors. *Journal of Midwifery and Health Sciences, 8*(2), 120-127.

Content of this journal is licensed under a Creative Commons Attribution-Noncommercial 4.0 International License.

Introduction

The transition to motherhood roles is a process in which the identity of the woman as a mother is shaped, the woman adopts motherhood roles, and she learns motherhood behaviors (Koç et al., 2016). The acquisition of parenting behaviors refers to the combination of developmental behaviors and attitudes with social roles that start in pregnancy, continue in the postpartum period, and are completed by the development of an identity as a mother (Rincón-Cortés & Grace, 2020). While the process of becoming parents, the decision of the couple to get pregnant, and having a baby is an event that is a source of happiness for a woman, it is a challenging situation because it is a process of change that requires new roles and responsibilities (Koç et al., 2016). The immediate emergence of motherhood behaviors at the moment of delivery originates from the hormonal changes that are observed during pregnancy and childbirth (Koç et al., 2016; Rincón-Cortés & Grace, 2020). The maintenance of motherhood behaviors on the days following childbirth is strongly affected by learning, as well as the tactile and olfactory stimuli originating from the newborn (Rincón-Cortés & Grace, 2020). In addition to this, the postpartum period is a period in which the woman tries to cope with the physiological and psychological changes occurring in her body, baby care, breastfeeding self-efficacy, breastfeeding-related problems, and issues experienced in this period such as pain, bleeding, and infections (Aydın et al., 2022). Previous studies have reported some significant sources of stress for mothers in the postpartum period as the health and care of the baby, the breastfeeding process, the struggle to manage the physical and psychological changes in their bodies, sleep disorders, and the balancing of their responsibilities in their work and personal lives (Razurel et al., 2017). Moreover, in some women, low perceived social support in the postpartum stage was associated with high perceived stress levels (Leonard et al., 2020). These high levels of stress perceived in the postpartum period may affect the quality of life and parenting behaviors of individuals negatively by raising the prevalence of depressive symptoms (Norhayati et al., 2015; Razurel et al., 2017). For expecting parents, childbirth and the transition to parenthood may represent stressful life events that are characterized by various changes and challenges in their lives that affect new responsibilities regarding a small baby, as well as the entire system of the family (Paschetta et al., 2014). The postpartum period was defined as a period of increased susceptibility to the development or exacerbation of mental health problems in individuals who are becoming new parents (Singley & Edwards, 2015). In this context, several studies have demonstrated that poor mental health in the postpartum period is associated with various negative outcomes for both parents and their children. In previous studies, the postpartum stress and depressive symptoms experienced by the new mother have been frequently associated with lower quality of life (Blum et al., 2022), difficulties in transition to parenthood (Garthus-Niegel et al., 2018), increased suicidal ideation (Pope et al., 2013), and negative outcomes in the relationship between the mother and her child (Lutkiewicz et al., 2020). While there are measurement instruments that assess the prenatal and postpartum needs of women in Türkiye, no study examining the stressors of women specific to the postpartum period and their effects on parenthood could be found. Hence, this study was conducted to determine the effects of postpartum stressors on parenting behaviors.

Methods

Study Design

This study was conducted with a descriptive and correlational design to determine the effects of postpartum stressors on parenting behaviors.

Population and Sample of the Study

The study was carried out with postpartum women who were admitted to the maternity wards and obstetrics inpatient clinics of Osmaniye State Hospital between January and December 2022.

The population of the study consisted of postpartum women who were admitted to the maternity wards and obstetrics inpatient clinics of Osmaniye State Hospital. The sample included women who were selected from the population using the non-probability random sampling method, voluntarily agreed to participate in the study and did not have any risk in terms of maternal or neonatal health. The sample size needed to conduct the study was calculated using the G*Power V3.1.9.4 software (Faul et al., 2007). By taking the mean Postpartum Stressors Scale score reported in a similar study in the literature (18.33±5.92) as a reference (Şenol & Pekyiğit, 2021), based on a power of 0.95, an error margin of 0.05, and an effect size of 0.28, it was determined that at least 140 participants needed to be included in the sample. In order to increase the statistical significance and generalizability of the results of the study, to allow subgroup analyses and to take precautions against possible missing data, the sample size was increased and the study was completed with 520 postpartum women (Polit and Beck, 2017). The sample included mothers who were in the postpartum period, did not have any obstetric risk, had healthy and singleton babies, agreed to participate in the

study, and displayed adequate communication skills.

Data Collection Forms and Instruments

The data were collected using a "Personal Information Form" prepared by the researchers in line with the relevant literature (Britton et al., 2001; Çalışır et al., 2009), the "Postpartum Stressors Scale (PPSS)", and the "Postpartum Parenting Behavior Scale (PPBS)".

Personal Information Form

This form consisted of a total of 19 questions designed to collect information about the descriptive characteristics of the mothers and their babies such as age, education status, working status, number of pregnancies, mode of delivery, status of having received prenatal care, and sex of the baby.

Postpartum Stressors Scale (PPSS)

PPSS is used to identify stressors in women in the postpartum period. It was developed by Park et al. (2015) and adapted to Turkish society by Şahbaz (2024), who also conducted its validity and reliability study in Turkish. The scale, consisting of 9 items, is a 4-point Likert type and does not contain reverse items. Higher scores are interpreted as higher levels of stress experienced by the woman in the postpartum period. The Cronbach's alpha internal consistency coefficient of PPSS was reported as 0.76 (Şahbaz, 2024). In this study, this coefficient was found to be 0.85.

Postpartum Parenting Behavior Scale (PPBS)

PPBS is used to evaluate the parenting behaviors of parents shown to the newborn after childbirth during their first encounter. The scale was developed by et al. (Britton et al., 2001) and adapted to Turkish society by Çalışır et al. (2009). Higher scores are considered to indicate more positive parenting behaviors shown toward the baby. The Cronbach's alpha internal consistency coefficients of the scale were reported in the range of 0.85-0.93 (Çalışır et al., 2009). In this study, this coefficient was found to be 0.627.

Data Collection

The data were collected during the first encounter between the new mother and her baby in the postpartum room of the maternity ward and obstetrics clinic. The data collection instruments were administered face-to-face by the researchers after informing women who met the inclusion criteria of the study about the objective of the study and receiving their informed consent. It took approximately 20 minutes to collect data from each participant.

Data Analysis

The statistical analyses of the collected data were carried out using the SPSS 22 (IBM) program. Descriptive statistics are presented as frequency, percentage, mean, and standard deviation values, and the analyses included the Mann-Whitney U test, the Kruskal-Wallis test, ANOVA, Pearson's correlation analysis, and multiple linear regression analysis. The normality of the data distribution was assessed using the Kolmogorov-Smirnov test, skewness and kurtosis values, and histogram plots. Skewness and kurtosis values between -1.5 and +1.5 were considered indicators of acceptable normality. Based on these indicators, parametric or nonparametric tests were selected accordingly. The results were interpreted in a 95% confidence interval and at a significance level of $p<.05$.

Ethical Principles

Ethics committee approval was obtained from the Scientific Research and Publications Ethics Committee in Natural Sciences at Osmaniye Korkut Ata University (Date: 25.01.2022, Number: 2022/1/14), and institutional permission was granted by the hospital where the study would be conducted. After being informed about the purpose of the study, women who agreed to participate in the study provided written consent. Data were collected in compliance with the ethical standards set forth by the Declaration of Helsinki. The participants were informed that they had the right to withdraw from the study at any time before, during, or after the interviews. The participants approved the recording of the interviews and the publication of the results of the study in a scientific journal provided that their identifying information would be kept confidential.

Results

The mean age of the participants, who consisted of 520 postpartum women, was 26.72±5.27. It was determined that 37.3% of the participants were high school graduates, 37.9% had three or more children, 87.3% were not working, 89.8% did not have any addictions, and the partners of 45.8% were 27-33 years old. It was found that the partners of 41.3% of the participants were high school graduates, the partners of 98.7% were working, the income and expenses of 78.7% were equivalent, 53.5% were living in cities, and 64.2% had social security (Table 1).

The education levels of the participants, their family types, and the sexes of their babies were found to not significantly affect their mean total PPSS and PPBS scores ($p>.05$). The parameters of number of children, occupation, addiction status, age of the partner, occupation of the partner, place

of residence, social security status, pregnancy planning status, and status of having received education about pregnancy and childbirth were significantly effective on the mean total PPSS scores of the participants (p<.05). The parameters of education level of the partner, family income level, pregnancy planning status, mode of delivery, gestational week of the baby at birth, status of having a baby of the desired sex, and status of experiencing any problem during childbirth affected the mean total PPBS scores of the participants significantly (p<.05).

As significant differences were found in the PPSS scores of the participants based on the number of children they had, the ages of their partners, their places of residence, and their pregnancy planning statuses (p<.05), the mean scores of the groups were subjected to pairwise comparisons using the Mann-Whitney U test with Bonferroni correction to identify the sources of these differences. Because 3 pairwise comparisons were made in total, the alpha value as a result of the Bonferroni correction was taken as 0.05/3=0.017. Accordingly, as seen in Table 1, the PPSS scores of the participants who had 1 child were significantly higher than the scores of those who had 2 children and those who had 3 or more children (p=.000<.017). The PPSS scores of the participants whose partners were 18-26 years old and those whose partners were 27-33 years old were significantly higher than the PPSS scores of those whose partners were 34-50 years old (p=.000<.017). The PPSS scores of the participants who were living in districts were significantly higher than the PPSS scores of those who were living in cities (p=.016<.017).

As significant differences were found in the PPBS scores of the participants based on the education levels of their partners, their family income levels, their pregnancy planning status, and their modes of delivery, pairwise comparisons of the mean scores of the groups were made using Tukey's test. According to the results of the test, the participants whose partners were middle school graduates had a significantly higher mean PPBS score than those whose partners were primary school graduates, and the participants who had equivalent income and expense levels had a significantly higher mean PPBS score than those whose income levels were lower than their expense levels (p<.05). The participants who stated, "my pregnancy was unplanned, I did not feel ready for this pregnancy" had a higher mean PPBS score than the participants who stated, "it was a planned pregnancy" and those who stated, "it was unplanned, but I was happy", and the participants who gave birth by cesarean section had a significantly higher PPBS score than those who gave birth through the vaginal route (p<.05). Significantly higher mean PPBS scores were found in the participants whose babies were born at or later than the 38th gestational week, those who stated that they had babies of the sexes they had wanted, and those who did not experience any problems during childbirth (p<.05).

Table 1.
Comparisons of the Mean PPSS and PPBS Scores of the Participants Based on Their Descriptive Characteristics (n: 520)

Characteristics	n (%)	PPSS	PPBS
		X±SD (Min-Max)	X±SD (Min-Max)
Education level			
Primary school	115 (22.1)	20.10±5.68	4.84±1.40
Middle school	169 (32.5)	18.88±5.84	5.16±1.26
High school	194 (37.3)	20.45±5.87	5.04±1.26
University	42 (8.1)	19.45±6.11	5.24±0.96
KW; *p*		5.471; .065	4.166; .125
Number of children			
1	150 (28.8)	21.34±5.26[1]	4.93±1.25
2	173 (33.3)	19.83±5.96[2]	5.10±1.25
3 or more	197 (37.9)	18.55±5.94[3]	5.09±1.31
KW; *p*		**20.439; .000** 1>3, 1>2**	3.158; .206
Occupation			
Not working	454 (87.3)	19.41±5.69	5.04±1.29
Working	66 (12.7)	22.32±.6.38	5.14±1.12
t; *p*		**-3.815; .000****	-0.590;.556
Addiction			
None	467 (89.8)	19.55±5.71	5.05±1.25
Smoking	53 (10.2)	21.77±6.77	5.02±1.50
t; *p*		**-2.294; .025***	0.188; .851
Age of partner			
18-26	122 (23.5)	20.45±5.61[1]	5.02±1.40
27-33	238 (45.8)	20.42±5.92[2]	4.98±1.24
34-50	160 (30.8)	18.31±5.72[3]	5.18±1.21
KW; *p*		**15.441; .000** 1>3, 2>3**	3.236; .198
Education level of partner			

Primary school	81 (15.6)	19.74±5.32	4.79±1.53[1]
Middle school	163 (31.3)	18.99±6.16	5.25±1.22[2]
High school	215 (41.3)	20.42±5.64	4.96±1.25[3]
University	61 (11.7)	19.69±6.33	5.18±1.00[4]
F; *p*		1.845; .138	**2.990; .031* 2>1**
Occupation of partner			
Not working	7 (1.3)	12.86±2.85	5.43±0.98
Working	513 (98.7)	19.88±5.83	5.04±1.28
t; *p*		**-3.176; .002***	0.792; .429
Family type			
Nuclear	429 (82.5)	19.86±5.82	5.02±1.26
Extended	91 (17.5)	19.41±6.05	5.18±1.33
U; *p*		-0.727; .467	-1.474;.141
Family income level			
Income > expenses	27 (5.2)	20.07±5.45	4.78±0.97[1]
Income ~ expenses	409 (78.7)	19.85±5.87	5.13±1.25[2]
Income < expenses	84 (16.2)	19.33±5.96	4.76±1.43[3]
F; *p*		0.309; .734	**3.556; .029* 2>3**
Place of residence			
City	278 (53.5)	19.29±5.99[1]	5.08±1.31
District	203 (39.0)	20.57±5.55[2]	5.01±1.21
Village	39 (7.5)	19.18±6.11[3]	5.03±1.31
KW; *p*		**6.190; .045* 2>1**	1.462; .482
Has social security			
Yes	334 (64.2)	20.18±5.78	5.04±1.15
No	186 (35.8)	19.05±5.92	5.07±1.47
t; *p*		**2.103; .036***	-0.266; .791
Pregnancy planning status			
Planned pregnancy	355 (68.3)	19.99±5.76[1]	5.08±1.22[1]
Unplanned, but I was happy	159 (30.6)	19.11±6.03[2]	5.04±1.37[2]
Unplanned, and I did not feel ready for this pregnancy	6 (1.2)	24.67±3.72[3]	3.67±0.82[3]
F; *p*		**3.392; .034* 3>1, 3>2**	**3.680; .026* 3<1, 3<2**
Has received education about pregnancy and childbirth			
Yes	272 (52.3)	20.57±5.73	5.03±1.19
No	248 (47.7)	18.92±5.88	5.07±1.36
U; *p*		**-3.471; .001***	-1.163; .245
Mode of delivery			
Vaginal delivery	304 (58.5)	19.58±5.69	4.95±1.24[1]
Planned cesarean delivery	181 (34.8)	20.30±5.90	5.25±1.24[2]
Emergency cesarean delivery	35 (6.7)	18.86±7.09	4.83±1.60[3]
F; *p*		1.324; .267	**3.763; .024* 2>1**
Sex of baby			
F	262 (50.4)	19.47±5.70	5.05±1.27
M	258 (49.6)	20.09±6.01	5.05±1.28
t; *p*		-1.207; .228	-0.007; .995
Gestational week of baby at birth			
37 weeks or earlier	52 (10.0)	18.81±5.96	4.62±1.89
38 weeks or later	468 (90.0)	19.89±5.84	5.10±1.18
t; *p*		-1.263; .207	**-2.610; .009***
Had a baby of desired sex			
Yes	356 (68.5)	20.09±5.65	5.23±0.99
No	164 (31.5)	19.12±6.25	4.64±1.66
t; *p*		-1.393; .164	**4.282; .000****
Experienced a problem during childbirth			
Yes	19 (3.7)	20.79±5.91	4.26±1.66
No	501 (96.3)	19.74±5.86	5.08±1.25
t; *p*		0.764; .445	**-2.763; .006***
Source of support in the postpartum period *			
Partner	217 (41.7)	19.02±5.17	20.32±4.96
Mother	206 (39.6)	19.76±5.04	19.78±5.05
Mother-in-law	120 (23.1)	19.96±4.92	19.72±5.08
Sister	82 (15.8)	18.36±4.87	20.04±5.08
No one	6 (1.2)	23.33±4.33	19.73±5.05

X±SD: Mean±Standard Deviation, Min-Max: Minimum-Maximum, **p<.05, **p<.01, U: Mann-Whitney U test, t: Student's t-test, KW: Kruskal Wallis, *Multiple choices were allowed. F: One-Way Analysis of Variance (ANOVA)*

The total score range of PPSS is 9-35, and the mean PPSS score of the participants was 19.78±5.86. The total score range of PPBS is 0-6, and the mean score of the participants was 5.05±1.27. Cronbach's alpha coefficients were 0.73 for PPSS and 0.63 for PPBS (Table 2).

Table 2.
Mean PPSS and PPBS Scores of the Participants (n: 520)

Scales	X±SD	Min-Max	Cronbach's alpha
Postpartum Stressors Scale (PPSS)	19.78±5.86	9-35	0.728
Postpartum Parenting Behavior Scale (PPBS)	5.05±1.27	0-6	0.627

Table 3.
Relationship Between the PPSS and PPBS Scores of the Participants (n: 520)

	Postpartum Parenting Behavior Scale	
Postpartum Stressors Scale	r; *p*	-0.226; **.000****

There was a negative and significant relationship between the PPSS and PPBS scores of the participants (r=-0.226, *p*<.01) (Table 3).

In the multiple linear regression model established using the variables associated with the parenting behaviors of the participants, including the gestational week of the baby at birth, status of having a baby of the desired sex, status of experiencing any problems during childbirth, and PPSS, $AdjR^2$ was found to be 0.113. This result indicated that all factors in the model collectively explained 11.3% of the total variance in the total PPBS scores of the participants (R^2: 0.120, $AdjR^2$: 0.113, *p*: .000) (Table 4).

Table 4.
Relationships between some variables and the PPBS scores of the participants (n: 520)

PPBS risk factors	PPBS total				
	B	SE	β	t	*p*
Gestational week of baby at birth	0.442	0.177	0.104	2.498	**.013**
Baby having the desired sex	-0.570	0.114	-0.208	-5.019	**.000**
Experiencing any problem during childbirth	0.596	0.282	0.088	2.110	**.035**
PPSS	-0.050	0.009	-0.231	-5.564	**.000**
R: 0.347, R^2: 0.120, $AdjR^2$: 0.113, *p*: .000					

**Multiple Linear Regression Analysis*

Discussion

The postpartum period refers to a period of 6-12 weeks after the birth of the baby and the placenta in which the bodily systems of the woman return to their pre-pregnancy state (Aksakallı et al., 2012). While trying to get used to parenthood in this period, the mother also tries to maintain communication with her baby and other members of her family (Razurel et al., 2017). In similar studies in the literature, the stress levels of mothers in the postpartum period have been associated with having more children, having an unplanned pregnancy (Bolak Boratav et al., 2016; Mete et al., 2016), inadequate social support or lower levels of social support than expected (Lee & Hwang, 2015), living outside the city center (Üst & Pasinlioğlu, 2015). As the education levels of parents increase, their skills of self-expression, coping with stress, and solution-oriented thinking are improved, and they are able to make use of opportunities in the context of healthcare services as they understand them better (Üst & Pasinlioğlu, 2015). It was also reported that care services and education services provided to mothers in the prenatal period calmed the mothers and reduced their stress levels (Uludağ & Mete, 2015). The journey of becoming parents begins with the decision and brings lifelong roles and responsibilities as the woman becomes a mother (Özdemir et al., 2021). The first minutes, hours, and days after birth are critical for the mother-baby bond, with behaviors like eye contact, touching, and observing the baby defining parenting behaviors (Koç et al., 2016; Özdemir et al., 2021). In this study, the mean PPBS score was 5.05±1.27, consistent with scores in the literature: Özdemir et al. (2021) at 5.27±1.17, Koç et al. (2016) at 4.68±1.34, and Özkan et al. (2013) at 3.20±1.95. These results indicate generally positive postpartum parenting behaviors. Factors such as education, income, and pregnancy planning were found to influence PPBS scores, while mode of delivery and baby's sex did not (Özdemir et al., 2021). Similar findings were reported by Özkan et al. (2013), who emphasized the impact of education, income, and pregnancy intention on parenting behaviors.

This study observed a positive relationship between lower postpartum stress levels and improved parenting behaviors. Similarly, studies link postpartum anxiety and depression with poorer parenting outcomes (Makeen et al., 2022) and highlight that mothers experiencing high stress show less positive parenting behaviors (Martinez-Torteya et al., 2018).

Postpartum anxiety and stress can lead to parenting behaviors that undermine caregiving roles, such as aggression, poor communication, and low responsiveness (Stewart, 2007). These issues also negatively affect breastfeeding duration, which impacts the baby's neurocognitive development (Hoff et al., 2019). Perinatal anxiety and stress constitute a maladaptive state with long-term consequences for both mother and child (Makeen et al., 2022). The findings of this study align with the literature, highlighting the importance of reducing postpartum stress to support positive parenting behaviors.

Conclusion and Recommendations

As a result, it was concluded that as postpartum stress levels of women decreased, their parenting behaviors became more positive. Considering these results, it is important to offer holistic education, counseling, and care services to women in prenatal and postpartum care processes by aiming at their development of successful and positive motherhood behaviors and keeping effective factors in mind. It can be recommended to evaluate the physical needs and psychological health of women together in the prenatal and postpartum periods, provide them with education about parenthood roles and transition to motherhood, support them, and plan and offer services to increase the self-confidence of mothers.

Ethics Committee Approval: Ethics committee approval was obtained from the Scientific Research and Publications Ethics Committee in Natural Sciences at Osmaniye Korkut Ata University (Date: 25.01.2022, Number: 2022/1/14).
Informed Consent: Patient consent was obtained.
Peer-review: Externally peer-reviewed.
Author Contributions: Idea proposal: ET, DKS, Design: ET, DKS, CA, Literature Review: ET, DKS, CA, Data Collection: ET, CA, Data Analysis: ET, Writing: ET, DKS, CA, Critical Review: ET, DKS, CA.
Conflict of Interest: The authors do not have any conflict of interest to declare.
Financial Disclosure: The authors declared that they received no financial support for this study.

References

Aksakallı, M., Çapık, A., Ejder Apay, S., Pasinlioğlu, T., & Bayram, S. (2012). *Determining the support needs of postpartum women and the levels of support received in the postpartum period*.

Aydın, R., Ay, Ö. P., & Aktaş, S. (2022). The effect of mothers' perception of spousal support in the early postpartum period on postpartum stress. *Journal of Continuing Medical Education*, *31*(2), 126–133.

Blum, S., Mack, J. T., Weise, V., Kopp, M., Asselmann, E., Martini, J., & Garthus-Niegel, S. (2022). The impact of postpartum obsessive-compulsive symptoms on child development and the mediating role of the parent–child relationship: A prospective longitudinal study. *Frontiers in Psychiatry*, *13*, 886347.

Bolak Boratav, H., Toker, Ö., & Küey, L. (2016). Postpartum depression and its psychosocial correlates: A longitudinal study among a group of women in Turkey. *Women & Health*, *56*(5), 502–521.

Britton, H. L., Gronwaldt, V., & Britton, J. R. (2001). Maternal postpartum behaviors and mother-infant relationship during the first year of life. *The Journal of Pediatrics*, *138*(6), 905–909.

Çalışır, H., Karaçam, Z., Akgül, F., & Kurnaz, D. (2009). Validity and Reliability of the Turkish Form of the Postpartum Parenting Behavior Scale. *Anatolian Journal of Nursing and Health Sciences*, *12*(1), 1–8.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191.

Garthus-Niegel, S., Horsch, A., Handtke, E., Von Soest, T., Ayers, S., Weidner, K., & Eberhard-Gran, M. (2018). The impact of postpartum posttraumatic stress and depression symptoms on couples' relationship satisfaction: a population-based prospective study. *Frontiers in Psychology*, *9*, 1728.

Hoff, C. E., Movva, N., Vollmar, A. K. R., & Pérez-Escamilla, R. (2019). Impact of maternal anxiety on breastfeeding outcomes: a systematic review. *Advances in Nutrition*, *10*(5), 816–826.

Koç, Ö., Özkan, H., & Karakoç, H. (2016). *Evaluating the relationship between maternal role and parenting behavior.*

Lee, J. Y., & Hwang, J. Y. (2015). A study on postpartum symptoms and their related factors in Korea. *Taiwanese Journal of Obstetrics and Gynecology*, *54*(4), 355–363.

Leonard, K. S., Evans, M. B., Kjerulff, K. H., & Downs, D. S. (2020). Postpartum perceived stress explains the association between perceived social support and depressive symptoms. *Women's Health Issues*, *30*(4), 231–239.

Lutkiewicz, K., Bieleninik, Ł., Cieślak, M., & Bidzan, M. (2020). Maternal–infant bonding and its relationships with maternal depressive symptoms, stress and anxiety in the early postpartum period in a Polish sample. *International*

Journal of Environmental Research and Public Health, *17*(15), 5427.

Makeen, M., Farrell, L. M., LaSorda, K. R., Deng, Y., Altamirano, V., Jarvis, O., … Lim, G. (2022). Associations between postpartum pain, mood, and maternal–infant attachment and parenting outcomes. *Scientific Reports*, *12*(1), 17814.

Martinez-Torteya, C., Rosenblum, K. L., Beeghly, M., Oppenheim, D., Koren-Karie, N., & Muzik, M. (2018). Maternal insightfulness protects against the detrimental effects of postpartum stress on positive parenting among at-risk mother–infant dyads. *Attachment & Human Development*, *20*(3), 272–286.

Mete, S., Çiçek, Ö., & Uludağ, E. (2016). Investigation of the relationship between labor pain and anxiety. *Dokuz Eylul University Faculty of Nursing Electronic Journal*, *9*(3), 101–104.

Norhayati, M. N., Hazlina, N. H. N., Asrenee, A. R., & Emilin, W. M. A. W. (2015). Magnitude and risk factors for postpartum symptoms: a literature review. *Journal of Affective Disorders*, *175*, 34–52.

Özdemir, A. A., Köse, S., Küçükoğlu, S., & Akbakay, S. (2021). Parentıng Behavıors Of Mothers Lıvıng In A Provınce In Eastern Turkey Durıng The Postpartum Perıod. *Anatolian Journal of Nursing and Health Sciences*, *24*(2), 231–238.

Özkan, H., Kanbur, A., Apay, S., Kılıç, M., Ağapınar, S., & Özorhan, E. Y. (2013). Evaluation of mothers' parenting behaviors in the postpartum period. *Şişli Etfal Hospital Medical Bulletin*, *47*(3), 117–121.

Park, E. R., Psaros, C., Traeger, L., Stagg, A., Jacquart, J., Willett, J., … Ecker, J. L. (2015). Development of a Postpartum Stressor Measure. *Maternal and Child Health Journal*, *19*(10), 2094–2101. https://doi.org/10.1007/s10995-015-1731-0

Paschetta, E., Berrisford, G., Coccia, F., Whitmore, J., Wood, A. G., Pretlove, S., & Ismail, K. M. K. (2014). Perinatal psychiatric disorders: an overview. *American Journal of Obstetrics and Gynecology*, *210*(6), 501–509.

Polit, D. F., & Beck, C. T. (2017). *Nursing Research: Generating and Assessing Evidence for Nursing Practice* (10th ed.). Wolters Kluwer.

Pope, C. J., Xie, B., Sharma, V., & Campbell, M. K. (2013). A prospective study of thoughts of self-harm and suicidal ideation during the postpartum period in women with mood disorders. *Archives of Women's Mental Health*, *16*, 483–488.

Razurel, C., Kaiser, B., Antonietti, J.-P., Epiney, M., & Sellenet, C. (2017). Relationship between perceived perinatal stress and depressive symptoms, anxiety, and parental self-efficacy in primiparous mothers and the role of social support. *Women & Health*, *57*(2), 154–172.

Rincón-Cortés, M., & Grace, A. A. (2020). Adaptations in reward-related behaviors and mesolimbic dopamine function during motherhood and the postpartum period. *Frontiers in Neuroendocrinology*, *57*, 100839.

Şahbaz, G., & Erbil, N. (2024). Turkish validity and reliability of the postpartum stressors scale. Psychology, Health & Medicine, 29(2), 350-361.

Şenol, D. K., & Pekyiğit, A. (2021). Normal doğum ve sezaryende doğum sonu stresin emzirme öz-yeterliliğine etkisi. *Jinekoloji-Obstetrik ve Neonatoloji Tıp Dergisi*, *18*(4), 1062–1069.

Singley, D. B., & Edwards, L. M. (2015). Men's perinatal mental health in the transition to fatherhood. *Professional Psychology: Research and Practice*, *46*(5), 309.

Stewart, R. C. (2007). Maternal depression and infant growth–a review of recent evidence. *Maternal & Child Nutrition*, *3*(2), 94–107.

Uludağ, E., & Mete, S. (2015). Supportive care during labor. *Cumhuriyet Nursing Journal*, *3*(2), 22–29.

Üst, Z., & Pasinlioğlu, T. (2015). Determination of concerns regarding birth and postpartum period in primiparous and multiparous pregnant women. *Journal of Health Sciences and Professions*, *2*(3), 306–317.