ISSN 2458-8865 E-ISSN 2459-1505
www.fppc.com.tr
Family Practice & Palliative Care

Research Article

The effect of perceived spouse support on postpartum depression and maternal attachment in women

Kadınlarda algılanan eş desteğinin doğum sonrası depresyon ve maternal bağlanmaya etkisi

Pınar Tektaş[a], Büşra Çelik[b]

[a] Department of Psychiatric Nursing, Faculty of Health Science, Izmir Bakircay University, İzmir, Türkiye

[b] Dr. Behcet Uz Pediatric Diseases and Surgery Training and Research Hospital, University of Health Science, İzmir, Türkiye

Abstract

Introduction: The postpartum period is a stressful time for women. The woman expects support from her husband during this stressful period. The support received from the spouse is important for the physical and mental health of the woman and the baby. The aim of this study was to determine the effect of perceived spouse support on postpartum depression and maternal attachment in women.

Methods: This is a descriptive and correlational study. It was conducted with 205 women who met the study criteria and attended the newborn outpatient clinic of a university hospital between July and September 2023. A Personal Information Form, the Spouse Support Scale, the Edinburgh Postpartum Depression Scale and the Maternal Attachment Inventory were used to collect data. Pearson correlation analysis and simple linear regression analysis were used to analyze the data.

Results: It was determined that the women's spouse support scale mean score was 70.45±9.85, their postpartum depression mean score was 9.58±5.23, and their maternal attachment mean score was 101.84±2.99. There was a negative relationship between perceived spouse support and depression level and a positive relationship between perceived spouse support and maternal attachment.

Conclusion: Women's perceived spouse support is high. There is a negative relationship between spouse support and depression, and a positive relationship between spouse support and maternal attachment.

Key words: Attachment, depression, postpartum

Öz

Giriş: Doğum sonrası dönem kadınlar için stresli bir dönemdir. Kadın bu stresli dönemde en çok eşinden destek beklemektedir. Eşten alınan destek kadının ve bebeğin bedensel ve ruhsal sağlığı açısından önemlidir. Bu çalışmada kadınlarda algılanan eş desteğinin doğum sonrası depresyon ve maternal bağlanma üzerine etkisini belirlemek amaçlanmıştır.

Yöntem: Çalışma tanımlayıcı ve ilişki arayıcı türde bir çalışmadır. Araştırmanın örneklemini Temmuz -Eylül 2023 tarihleri arasında bir üniversite hastanesinin yeni doğan polikliniğine başvuran, çalışma kriterlerine uyan 205 kadın oluşturmuştur. Araştırmada veri toplama aracı olarak Tanıtıcı Bilgi Formu, Eş Destek Ölçeği, Edinburgh Doğum Sonrası Depresyon Ölçeği ve Maternal Bağlanma Ölçeği kullanılmıştır. Verilerin analizinde pearson korelasyon analizi ve basit doğrusal regresyon analizi kullanılmıştır.

Bulgular: Kadınların eş destek ölçeği puan ortalamasının 70,45±9,85, doğum sonrası depresyon puan ortalamasının 9,58±5,23 ve maternal bağlanma puan ortalamasının 101,84±2,99 olduğu saptanmıştır. Algıladıkları eş desteği ve depresyon düzeyi arasında negatif yönde; algıladıkları eş desteği ile maternal bağlanma arasında pozitif yönde ilişki olduğu saptanmıştır.

Sonuç: Kadınların algıladıkları eş desteği yüksektir. Eş desteği ile depresyon arasında ters yönde, eş desteği ile maternal bağlanma arasında pozitif yönde ilişki vardır.

Anahtar Kelimeler: Bağlanma, depresyon, doğum sonrası.

Received	Accepted	Published Online	Corresponding Author	E-mail
April 21, 2024	December 2, 2024	December 31, 2024	Pınar Tektaş	pnrcnkya@hotmail.com
Correspondence	Pınar Tektaş. Gazi Mustafa Kemal District, Kaynaklar Road, Menemen- İzmir, Türkiye			
	https://doi.org/10.22391/fppc.1470958			

Key Points

1. Women's perceived spouse support is high.
2. As spouse support increases in women, depression decreases.
3. As spouse support increases in women, maternal attachment also increases.

Introduction

For a healthy relationship in marriage, it is important that the partners receive support from one another [1]. In particular, in the face of events which cause stress, a person will first turn to their spouse for support [2, 3]. When it is thought that the postpartum period is a time of stress, it can be said that perceived spouse support is important for women at this time.

The postpartum period is a time when women experience important physiological and mental changes. It is a critical period for family and social health [4, 5], and a time when women expect support [6]. Studies have shown that the person from whom women expect support the most especially in the postpartum period is their spouse [4, 6, 7]. Women expect physical help from their husbands in relation to their daily work and child care, and in particular hope for emotional support and encouragement. Not receiving enough support at this time has a negative effect on a woman's physical and mental health [8].

In the period following birth, the commonest mental health problem encountered is postpartum depression [9]. Postpartum depression is an important public health problem, and when it is diagnosed and treated late, it causes health problems for the mother, the baby and the family [10]. A mother with postpartum depression feels a lack of love towards her family and negative feelings towards her baby. This, along with cognitive, behavioral, social and psychological problems, can cause physical problems in the child such as growth and development retarding [11, 12, 13, 14]. It is known that when postpartum depression occurs, both demographic and psychosocial factors affect it. Factors such as a history of depression in the mother herself or her family, economic conditions, the number of pregnancies, unplanned pregnancy, the number of children, family problems, stressful life events or inadequate social support affect the occurrence of postpartum depression [5, 15, 16]. One of the most important sources of social support is the spouse [17]. Study results show that spouse support reduces the risk of postpartum depression [18, 19, 20, 21, 22, 23]. The effect of spouse support in reducing depression is greater than that of the support of friends or family [22, 24, 25]. In a study by Cooper et al. (1999), no difference was found between depressive and non-depressive women with regard to social support given by friends and family, but the support obtained from a spouse or partner by non-depressive women was greater than that of depressive women [24]. In another study, it was seen that as spouse support increased, the severity of women's postpartum depression decreased [26].

Support perceived by women in the postpartum period has a positive effect on mother-baby relations and increases maternal bonding. Maternal bonding is defined as a warm, permanent and close relationship between mother and baby, and as the process of the formation of the developing bond of love of a mother for her baby [27]. Behaviors such as touching, embracing, cradling, singing, looking, kissing and feeding are behaviors which show maternal attachment [28], and these behaviors provide secure attachment [29]. Secure attachment has a positive effect on the baby's physical, mental, social, emotional and language development [30]. There are many factors which affect maternal attachment. These include whether or not a pregnancy is planned [31, 32], the family's socio-economic condition [31, 32, 33], the number of children [34], the mother's receipt of information on baby care [32] and perceived social support in the postpartum period [33, 35, 36]. It can be said that women expect support from their spouse most in the postpartum period [6], and that spouse support can have an effect on maternal attachment. Women's receipt of support from their spouses especially in the postpartum period allows them to devote more time to themselves and their babies, and this may be a factor which increases maternal attachment [31]. There are studies which show that maternal attachment levels are higher in women who receive support in baby care from their spouse [37, 38].

In Turkey, there are few studies on this topic. In particular, no studies were found researching the effect of spouse support on maternal attachment, and in one study, it was seen that a scale on spouse support was not used, and the women were assessed by asking questions about their perception of spouse support in baby care [37]. Also, no studies were found in the literature examining the effect of spouse support on both postpartum depression and maternal attachment. Therefore, this study is thought to be important in terms of revealing the effect of spousal support in preventing depression and increasing maternal attachment in the postpartum period. It is thought that the results of the study will guide both health professionals and spouses in terms of the participation of spouses in pregnancy classes starting from the pregnancy period, informing spouses about maternal mental health and emphasizing the importance of their support in protecting mental health of women. Starting from this point, this study was aimed at determining the effect of women's perception of spouse support on postpartum depression and maternal attachment.

Methods

Study Design

This study was a descriptive and correlational study conducted in the newborn outpatient clinic of a university hospital between July and September 2023.

Study Population

The research population consisted of the women who attended the neonatal outpatient clinic of a university hospital between July and September 2023. The research was conducted with the 205 women who attended the clinic between those dates and who agreed to participate in the research. Conditions for inclusion in the research were being aged 18 years or over, being literate, giving birth at term, having a healthy baby and not having a psychiatric diagnosis.

Instruments

A Descriptive Information Form, the Spouse Support Scale, the Edinburgh Postnatal Depression Scale and the Maternal Attachment Inventory were used to collect data.

The Descriptive Information Form consisted of 15 questions gathering information on women's socio-demographic and obstetric characteristics. It was prepared by the researchers in line with the literature [5, 15, 16, 31, 32, 33, 34, 39].

The Spouse Support Scale (SSS) was developed by Yıldırım (2004) to measure the support from each other which spouses perceived. It is of the three-way Likert type and is scored as 'Suitable to me' = 3, 'Partly suitable' = 2, and 'Not suitable to me' = 1. The scale has a total of 27 items, three of which (10, 20, 24) are scored in reverse. The lowest possible score on the scale is 27, and the highest is 81. A higher score indicates higher

perceived spouse support. The Cronbach alpha reliability coefficient of the scale is 0.95 [40]. Cronbach's alpha value of the Spouse Support Scale for this study was found to be 0.94.

The Edinburgh Postnatal Depression Scale (EPDS) was developed by Cox, Holden and Sagovsky (1987) to determine the depression risk of women in the postpartum period [41]. Work on the validity and reliability of the EPDS in Turkey was conducted by Engindeniz, Küey and Kültür (1996). The sensitivity of the scale in recognizing the symptoms of depression is high, and it can be used in diagnosis. The scale has ten items of four-way Likert type, scored from 0 to 3. Items 1, 2 and 4 are scored in the form 0, 1, 2, 3, and items 3, 5 ,6, 7, 8, 9 and 10 are scored 3, 2, 1, 0. The total score of the scale is obtained by totaling the item scores. The cutoff score of the scale is 13. A score of 12 or below is evaluated as the woman not being at risk of postpartum depression, while a score of 13 or over indicates that the woman is at risk of postpartum depression. The highest possible score on the scale is 30, and the lowest is 0. The Cronbach alpha coefficient of the scale developed by Cox et al. (1987) is 0.87, and that of the validity and reliability study carried out in Turkey by Engindeniz et al. (1996) is 0.79 [42]. The Cronbach's alpha value of Edinburg Postpartum Depression Scale for this study was 0.83.

The Maternal Attachment Inventory (MAI) was developed by Müller (1994) to measure maternal attachment [43]. Validity and reliability work on the Turkish version was conducted by Kavlak and Şirin (2009). The scale has 26 items of four-way Likert type, and the scores are calculated as 'Always' (a) = 4, 'Frequently' (b) = 3, 'Sometimes' (c) = 2, and 'Never' (d) = 1. A high score indicates high maternal attachment. The lowest possible score on the scale is 26 and the highest is 104. The Cronbach alpha coefficient of the scale for mothers with one month-old babies is 0.77, and for mothers with four month-old babies it is 0.82 [44]. Maternal Attachment Scale Cronbach's alpha value for this study was 0.79.

Ethical Approval, informed consent and permissions

Ethics committee permission (Date: 15 March 2023, Decision No. 922) was obtained from the Non-Interventional Research Ethics Committee of a university for the ethical appropriateness of the research, and institutional permission was obtained from the hospital where the research was to be conducted. Permission to use the scales was obtained from their developers by email. Oral and written approval was obtained from the women participating in the study.

Statistical analysis

The program SPSS 26.0 (SPSS Inc., Chicago, IL, USA) was used in the analysis of the data. Skewness and kurtosis values were used for the normal distribution of data. For the reliability of the measurement instruments, Cronbach's α reliability coefficients were examined. For descriptive analyses, numbers, means and percentage segments were used; in the examination of the relations between variables, Pearson correlation analysis was used, and simple linear regression analysis was used to examine the effect of the variables on each other. In the statistical assessment, significance was taken as $p<0.05$.

Results

Table 1 shows findings relating to the descriptive and obstetric characteristics of the participants. The mean age of the women participating in the research was 29.49±5.08 years, 64.9% lived in a city, 36.1% were higher education graduates, 88.3% had a nuclear family, 54.1% were not working, 69.3% had an income equal to their expenditures, and 93.7% had social security. Regarding women's spouses, 41% were educated to secondary school level, and 96.4% were working. The women had been married for an average of 5.6±4.18 years. Concerning obstetric characteristics, the women were on average 2.6±1 weeks postpartum, 51.7% of them had not previously received information on the postpartum period, the most recent pregnancy of 67.8% was planned, their average number of pregnancies was 1.9±98, and the number of surviving children was 1.7±0.83.

In the correlation analysis, a low-level negative significant relationship was found between the SSS mean score and the EPDS mean score ($r=-.382$; $p<.001$). Another variable that correlation has been examined is the correlation between SSS and MAI. According to the findings of the study, a low and positive significant correlation was found between SSS and MAI ($r=.331$; $p<.001$).

A simple linear regression model was used to examine the predictive effect of perceived spouse support on postpartum depression and maternal attachment. In order to test the simple linear regression model, various assumptions of simple linear regression must first be met. Perceived spouse support, postpartum depression and maternal attachment variables included in the model are continuous variables assessed with a Likert-type scale. Normal distribution was tested for all three variables and found to be normally distributed. For the linearity condition between variables, scatter plots and correlations between variables were analyzed and it was seen that the linearity condition was met. Standardized residual values and Cook's distance were examined to check for outliers. It was observed that the standardized residual values obtained were within the range of ±3.29 and the maximum value of Cook's distance was below 1, so there were no outliers. For the normal distribution of the errors, the Histogram graph and the distribution curve for the standardized errors were examined and it was found that the errors were normally distributed. The scatter plot was analyzed for homoskedasticity of the variables, and it was determined that the variables were homoskedastic. In order to test the independence of the errors, the Durbin Watson coefficient was examined, and it was found that the coefficient was in the range of 0-4, thus it was understood that the errors were independent of each other. In line with these findings, it was decided that the model was appropriate in terms of simple linear regression.

According to the regression model, the effect of perceived spouse support on postpartum depression was found to be significant ($F=34.63$; $p<.001$). According to the findings, as the level of perceived spousal support increases in women, the level of postpartum depression decreases. According to the model, 15% of the variance in the variable "Postpartum depression" is explained by the variable "Perceived spouse support" ($R^2=,146$) (Figure 1).

Table 1. The women's descriptive and obstetric characteristics (n=205)

Variable	Category	n	%
Place of residence	Village	23	11.2
	Town	51	24.9
	City	131	64.9
Woman's education level	Primary school	58	28.3
	Secondary school	73	35.6
	Higher education	74	36.1
Spouse's education level	Primary school	43	21.0
	Secondary school	84	41.0
	Higher education	78	38.0
Spouse's work status	Working	194	96.4
	Not working	11	5.4
Monthly income	Income less than expenses	36	17.6
	Income equals expenses	142	69.3
	Income more than expenses	27	13.2
Social security	Yes	192	93.7
	No	13	6.3
Family type	Nuclear family	181	88.3
	Extended family	24	11.7
Was your last pregnancy planned?	Yes	139	67.8
	No	66	32.2
Receipt of information after birth	Yes	99	48.3
	No	106	51.7
Variable	**Min**	**Max**	**Avg ± sd**
Age	18	42	29.49±5.08
Length of time married	1	19	5.6±4.18
No of pregnancies	1	6	1.9±0.98
No of surviving children	1	4	1.7±0.83
Weeks postpartum	1	5	2.6±1

It was seen that the participants' total score means for the SSS scale was 70.45±9.85, for the EPDS it was 9.58±5.23, and for the MAI it was 101.84±2.99. Kurtosis and skewness values were examined for normal distribution of the scale instruments. A practical rule for normal distribution is that skewness and kurtosis values should be between ±1.0 and ±1.5 [45]. Examining the relevant values, it was seen that the skewness and kurtosis values of the variables showed a distribution which was normal or close to normal (Table 2).

Table 2. Mean, normal distribution correlation and reliability findings of variables

Variable	Mean ±	SD	Skewness	Kurtosis	1	2	3	Cronbach's α
1. SSS	70.45 ±	9.85	-.715	-.779	1	-.382*	.331*	.95
2. EPDS	9.58 ±	5.23	.444	-.041		1	-.257*	.84
3. MAI	101.84 ±	2.99	-1.335	.629			1	.79

SSS: Spouse support Scale; EPDS: Edinburgh Postnatal Depression Scale; MAI: Maternal Attachment Inventory *p<0.001

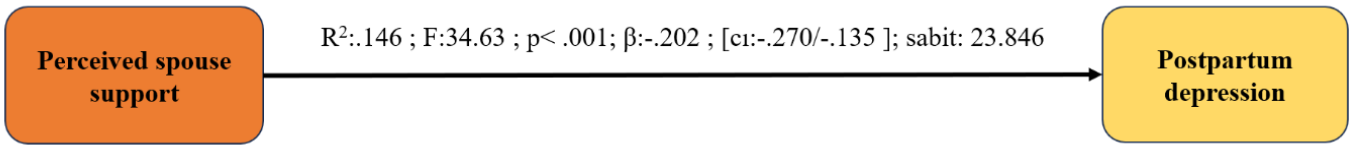

Figure 1: Regression results for the correlation between perceived spousal support and postpartum depression

In order to determine the effect of the perceived spouse support on postpartum depression, the regression equation y=a +bx was formed according to the model which was set up. According to the calculations, the equation "Postpartum depression"=23,846 - 0,20* "Perceived spousal support" was obtained. According to the equation obtained, a one-unit increase in the variable "Perceived spousal support" causes a 0.20-unit decrease in the variable "Postpartum depression".

According to another regression model, the effect of perceived spouse support on maternal attachment was found significant (F=24,976; p<,001). According to the findings, as the level of perceived spouse support increases, the level of maternal attachment also increases. According to the model, 11% of the variance in the variable "Maternal attachment" is explained by the variable "Perceived spouse support"(R^2=,110) (Figure 2).

In order to determine the effect of the level of perceived spouse support on maternal attachment, the regression equation y = a + bx was formed according to the model which was set up. According to these calculations, the equation Maternal attachment = 94.768 – 0.100 * perceived spouse support was obtained. According to the equation obtained, a one-unit increase in the variable of perceived spouse support causes an increase of 0.100 units in the variable of maternal attachment.

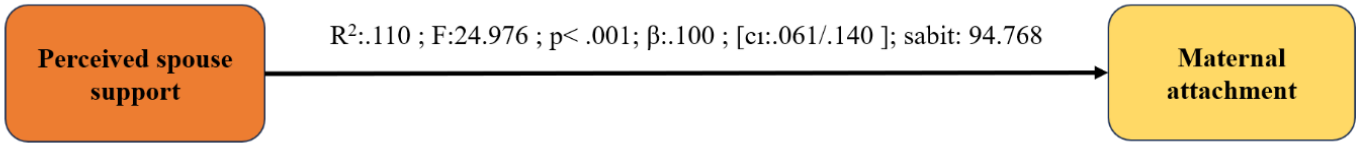

Figure 2. Regression results for the correlation between perceived spouse support and maternal attachment

Discussion

The findings obtained in this study, in which the effect on postpartum depression and maternal attachment of the spouse support perceived by women was examined, are discussed according to the literature. It was found according to the results of the study that the total score mean in the women's perceived spouse support scale was 70.45±9.85. Considering that the highest score obtainable on the spouse support scale is 81, it can be said that perceived spouse support was high. In a study by Akbay and Taşçı Duran (2018), women's spouse support scale mean score was found to be 71.12±9.97 [46]. In the results of other studies, women's spouse support scale mean scores have been found to be above average, and this is similar to the findings of our study [47, 48, 49, 50].

The women's EPDS mean score in the study was 9.58±5.23. In a study conducted with women in the first day postpartum, it was found that their mean EPDS score was 5.61±4.51 [51], and similarly in another study that it was 6.95±5.32 [48]. In a study performed in the first 42 days postpartum, the EPDS mean score was found to be 7.10 ± 4.44 [52]. In a study performed with women with babies less than six months old, their mean postpartum depression score was found to be 11.92±5.58 [53]. The reason for the difference in the findings may arise from differences in the regions where the studies were conducted and in psychosocial factors of the groups. Also, looking at the study results, it is seen that the depression score was lower in studies conducted in the first days postpartum, while in studies conducted at a later period, it was higher. The explanation of this may be that the results in the first days did not indicate true depression but rather 'maternity blues' after giving birth [54].

It was found that the mean material attachment score of the women participating in the study was 101.84±2.99, which was high. In other studies, similar to the present study, women's maternal attachment scores were found to be high [32, 33, 35, 55, 56,57].

A negative correlation was found in the study between the women's spouse support mean score and their postpartum depression mean score, and spouse support was found to be a factor affecting postpartum depression. Social support is a protective factor for postpartum depression, independent of many other factors [53]. In the postpartum period, spouse support in particular plays an important role in improving a woman's physical and mental health, and is protective against postpartum depression [22]. Spouse support increases a woman' quality of life in the postpartum period [46] and reduces the amount of stress which the woman experiences [50]. Other studies conducted on the topic have found that as perceived spouse support in the postpartum period rises, depression levels fall [23, 48, 49, 54, 58]. Yaksi and Save (2021) found that spouse support was a protective factor for postpartum depression, and that the spouse support perceived by women who did not experience postpartum depression was higher [47]. In a prospective study conducted in Korea, spouses provided help for women in the postpartum period from the first to the sixth week, and it was found that that the depression rate, which was 24.3% in the first week, fell to 0% in the sixth week [59].

A positive correlation was found in the study between the women's mean spouse support score and their mean maternal attachment score, that as spouse support increased, maternal attachment also increased, and that spouse support was an important factor in increasing maternal attachment. Other studies have shown positive correlations between perceived social support from family, spouse, relatives and friends and maternal attachment scores [33, 56, 60]. Spouse support in the postpartum period makes it easier for women to deal with their difficulties, develops their coping skills and improves the mother-baby relationship [61]. At the same time, this support reduces the stress which the mother experiences in the postpartum period and makes it easier for her to adapt to the role of motherhood. Thus, spouse support is a factor which increases maternal attachment [62]. There are few studies examining the effect of spouse support on maternal attachment. In a study asking the question of whether their spouses support them in baby care, it was determined that the average maternal attachment score of women who stated that they received support from their spouses was high [37]. In another study asking similar questions, no difference was found between the main maternal attachment scores of women who stated that they received support from their spouse and those who stated that they did not [34]. On this point, it is thought that the results of studies determining spouse support by using a measurement instrument are important. In a randomized controlled study examining the effect of peer-centered supportive counseling practice on spousal support and maternal attachment, it was found that the intervention group's perceived spousal support and maternal attachment scores increased, and it was concluded that improving spousal relationships would increase maternal attachment and perceived spousal support [38].

As a result of the study, it was seen that spouse support affected depression and maternal attachment in the postpartum period. In the light of the current literature and our findings it is recomended that spouse support before birth should be assesed by the health care professionals. It is thought that health professionals should take responsibility for including spouses in prenatal and postnatal care services as much as possible to protect maternal and infant mental health.

Limitations

The women included in the study were only those who attended the neonatal outpatient department of a single hospital. For this reason, the results cannot be generalized to all women with the same characteristics. The data is limited to the answers given to the scales. At the same time, it was difficult for the women with their babies to complete the data collection forms, and so some of them left the forms half completed. This is also a problem with the study.

Conclusion

As the conclusion of this study, it was found that there was a negative correlation between spouse support perceived by the women and their levels of postpartum depression, and that spouse support was a predictor of postpartum depression. It was found that there was a positive correlation between perceived spouse support and maternal attachment, and that spouse support was a predictor of maternal attachment.

Recommendations for future research

It is recommended that when health professionals are giving instruction and counselling during pregnancy, at birth and in the postpartum period, they should take the family as a whole, women's spouse support should be evaluated, and that the spouse should be included in education and counselling services. At the same time, it is recommended that the subject be examined by quantitative and qualitative study methods with wider sampling.

Conflict of interest: none

Author Contributions		Author Initials
SCD	Study Conception and Design	PT, BÇ
AD	Acquisition of Data	BÇ
AID	Analysis and Interpretation of Data	PT, BÇ
DM	Drafting of Manuscript	PT, BÇ
CR	Critical Revision	PT

Financial support: No financial support was received from any institutions or people for this study.

Acknowledgments: We thank all the women who participated in our study and Alec Rylands for the translation.

Prior publication: This study was presented as an oral presentation at the 2nd International and 3rd National Women's Health Nursing Congress (21-23 December 2023).

References

1. Xu Y, Burleson BR. Effects of sex, culture, and support type on perceptions of spousal social support: An assessment of the "Support Gap" hypothesis in early marriage. Hum Commun Res 2001;27(4):535-66. https://doi.org/10.1111/j.1468-2958.2001.tb00792.x
2. Dehle C, Larsen D, Landers JE. Social support in marriage. American Journal of Family Therapy 2001;29(4):307-24. https://doi.org/10.1080/01926180126500
3. Shorey S, Chan SWC, Chong YS, He HG. Maternal parental self-efficacy in newborn care and social support needs in Singapore: A correlational study. J Clin Nurs 2014;23(15-16):2272-83. https://doi.org/10.1111/jocn.12507
4. Aksakalli M, Capik A, Ejder Apay S, Pasinlioglu T, Bayram S. [Determination of support needs and post-partum support levels of post-partum women] (in Turkish). J Psychiatr Nurs 2012;3(3):129-35. doi: 10.5505/phd.2012.57441
5. Ay F, Tektas E, Mak A, Aktay N. [Postpartum depression and the factors affecting it: 2000-2017 study results] (in Turkish). J Psychiatr Nurs 2018;9(3):147-52. doi: 10.14744/phd.2018.31549
6. Pinar G, Dogan N, Algier L, Kaya N, Cakmak F. [Factors that affecting mothers' postnatal comfort] (in Turkish). Dicle Med J 2009;36(3):184-90.
7. Gülsen Ç, Dogan Merih Y. [What Support Do Postpartum Mothers Expect, And From Whom?] (in Turkish). KASHED 2018; 4(1):20-34.
8. Mermer G, Bilge A, Yücel U, Çeber E. [Evaluation of Perceived Social Support Levels in Pregnancy and Postpartum Periods] (in Turkish). J Psychiatr Nurs 2010; 1(2):71-76.
9. Toohey J. Depression During Pregnancy and Postpartum. Clin Obstet and Gynecol 2012; 55(3): 788-97. DOI: 10.1097/GRF.0b013e318253b2b4
10. Perfetti J, Clark R, Fillmore CM. Postpartum depression: identification, screening, and treatment. WMJ 2004;103(6):56-63.
11. Durukan E, Ilhan MN, Bumin MA, Aycan S. Postpartum depression frequency and quality of life among a group of mothers having a child aged 2 weeks-18 months. Balkan Med J 2011;28(4):385-93. doi: 10.5174/tutfd.2010.04117.3
12. Babacan Gümüs A, Keskin G, Alp Dal N, Ozyar S, Karsak A. [The prevalence of Postpartum Depression and Associated Variables] (in Turkish). New Symposium 2012;50(3):145-54.
13. Erdem Ö, Bucaktepe Erten PG. [The prevalence and screening methods of postpartum depression] in Turkish). Dicle Medical Journal 2012;39(3):458-61. https://doi.org/10.5798/diclemedj.0921.2012.03.0182
14. Erdogan F, Kadak MT, Kartal V, Arici N, Eliacik M, Demirel ÖF. et al. [Postpartum depression in mothers of babies with infantile colic] (in Turkish). Yeni Symposium 2014;52(1):7-11. DOI: 10.5455/NYS.20140911011652
15. Tavares Pinheiro R, Monteiro Da Cunha Coelho F, Azevedo Da Silva R, Tavares Pinheiro KA, Oses JP, Qevedo Al. et al. Association of a serotonin transporter gene polymorphism (5-HTTLPR) and stressful life events with postpartum depressive symptoms: A population-based study. *J Psychosom Obstet and Gynaecol* 2013;34(1):29-33. https://doi.org/10.3109/0167482X.2012.759555
16. Malus A, Szyluk J, Galinska-Skok B, Konarzewska B. Incidence of postpartum depression and couple relationship quality. Psychiatr Pol 2016;50(6):1135-46. DOI: https://doi.org/10.12740/PP/61569
17. Bintas Zörer P, Tulum Akbulut S, Dirik G. Role of Attachment Patterns and Partner Support in Postpartum Depression. Current Approaches in Psychiatry 2019;11(2):154-66. https://doi.org/10.18863/pgy.387288
18. Dennis CLE, Janssen PA, Singer J. Identifying women at-risk for postpartum depression in the immediate postpartum period. Acta Psychiatr Scand 2004;110(5):338-46. DOI: 10.1111/j.1600-0447.2004.00337.x
19. Lemola S, Stadlmayr W, Grob A. Maternal adjustment five months after birth: The impact of the subjective experience of childbirth and emotional support from the partner. J Reprod Infant Psychol 2007;25(3):190-202. https://doi.org/10.1080/02646830701467231

20. Sayil M, Güre A, Ucanok Z. First time mothers' anxiety and depressive symptoms across the transition to motherhood: Associations with maternal and environmental characteristics. Women Health 2006;44(3):61-77. DOI: 10.1300/J013v44n03_04
21. Gremigni P, Mariani L, Marracino V, Tranquilli AL, Turi A. Partner support and postpartum depressive symptoms. J Psychosom Obstet and Gynaecol 2011;32(3):135-40. DOI: 10.3109/0167482X.2011.589017
22. Reid KM, Taylor MG. Social support, stress, and maternal postpartum depression: A comparison of supportive relationships. Soc Sci Res 2015;54:246-62. DOI: 10.1016/j.ssresearch.2015.08.009
23. Kölükirik Ü, Simsek H, Ergör A.[Factors related with depressive symptoms among postpartum mothers: A community-based, cross-sectional study] (in Turkish). Journal of DEU Medical Faculty 2019; 33(1):1-8. doi: 10.5505/deutfd.2019.30092
24. Cooper PJ, Tomlinson M, Swartz L, Woolgar M, Murray L, Molteno C. Post-partum depression and the mother-infant relationship in a South. Br J Psychiatry 1999;175(6):554-8. DOI: 10.1192/bjp.175.6.554
25. O'hara MW, Swain AM. Rates and risk of postpartum depression—a meta-analysis. International Review of Psychiatry 2009;8(1):37-54. DOI: 10.3109/09540269609037816
26. Iles J, Slade P, Spiby H. Posttraumatic stress symptoms and postpartum depression in couples after childbirth: The role of partner support and attachment. J Anxiety Disord 2011;25(4):520-30. DOI: 10.1016/j.janxdis.2010.12.006
27. Köptür A, Güner Emül T. [Two faces of fetal/ınfant attachment: maternal and paternal attachment] (in Turkish). Journal Of Ege University Nursing Faculty 2017;33(3):153-64.
28. Gholampour F, Riem MME, van den Heuvel MI. Maternal brain in the process of maternal-infant bonding: Review of the literature. Soc Neurosci 2020;15(4):380-4. DOI: 10.1080/17470919.2020.1764093
29. Kinik E, Özcan H. [Factors Affecting Maternal Attachment and Maternal Status in Primipara] (in Turkish). J Health Pro Res 2020; 2(1):47-53.
30. Cakır D. Maternal Attachment Theory. I. Caltekin, M. Caltekin, editörs. Research articles in the field of health sciences. 1. Edi. Ankara: Gece Publishing 2019:9-29.
31. Durualp E, Kaytez N, Aykanat Girgin B. [An analysis of the relation between marital satisfaction and maternal bonding] (in Turkish). Anatolian Journal of Psychiatry 2017;18(2):129-38. doi: 10.5455/apd.231562
32. Durmaz A, Gün Kakascı C, Basar F. The relationship between postpartum maternal attachment and mother's happiness levels with socio-demographic and obstetric characteristics: a cross-sectional research. Turkiye Klinikleri J. Nurs Sci 2021;13(4):795-804. DOI: 10.5336/nurses.2020-79251
33. Ozdemir K, Baskaya Y, Idare A. [Evaluation of the relationship between maternal attachment levels of mothers and perceived social support] (in Turkish). The Journal of Gynecology - Obstetrics and Neonatology 2021;18(1):638-42. DOI: 10.38136/jgon.715703
34. Keskin F, Yagmur Y. The factors affecting maternal attachment in Eastern Turkey. Int J Caring Sci. 2020;13(2):858-67.
35. Alan H, Ege E. The influence of social support on maternal-infant attachment in Turkish society. Journal of Anatolia Nursing and Health Science 2013;16(4):234-40.
36. Hergüner S, Cicek E, Annagür A, Hergüner A, Ors R. Association of delivery type with postpartum depression, perceived social support and maternal attachment. Dusunen Adam - The Journal of Psychiatry and Neurological Sciences. 2014;27(1):15-20. DOI: 10.5350/DAJPN2014270102
37. Cankaya S, Dereli-Yılmaz S, Can R, Degerli Kodaz N. [Effect of postpartum depressıon on maternal attachment] (in Turkish). AUHSJ 2017; 2017(4):232-40.
38. Tabrizi FM, Khanzadeh Z. The effect of supportive couple centered counselling on perception of support for spouse and maternal attachment in parturients referring to health centers of Urmia University of Medical Science in 2018-2019. |Avicenna J Nurs Midwifery Care 2020; 28 (2): 112-26. doi:10.30699/sjhnmf.28.2.112
39. Kahveci G, Kahveci B, Aslanhan H, Bucaktepe PGE. Evaluation of prevalence and risk factors for postpartum depression using the Edinburgh Postpartum Depression Scale: a cross-sectional analytic study. Gynecol Obstet Reprod Med 2021;27(3):227-33. DOI: 10.21613/GORM.2020.1109
40. Yıldırım I. [Development of the peer support scale] (in Turkish). Turkish Psychological Counseling and Guidance Journal 2004;3(22):19-26. https://doi.org/10.17066/pdrd.95605
41. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Br J Psychiatry 1987;150(6):782-86. DOI: 10.1192/bjp.150.6.782
42. Engindeniz AN, Küey L, Kültür S. [Edinburgh postpartum depression scale Turkish form validity and reliability study] (in Turkish). Spring Symposiums 1996;1:51-52.
43. Müller ME. A questionnaire to measure mother-to-infant attachment. J Nurs Meas. 1994;2(2):129-41.
44. Kavlak O, Şirin A. [The Turkish version of Maternal Attachment Inventory] (in Turkish). Journal of Human Sciences 2009; 6(1):188-202.
45. Bayram N. Introduction to Structural Equation Modeling AMOS Applications. 1. Edi. Ezgi Publications 2010:9-29.
46. Akbay AS, Tascı-Duran E. How does spousal support affect women's quality of life in the postpartum period in Turkish culture? Asian Women 2018;34(3):29-45. https://doi.org/10.14431/aw.2018.09.34.3.29
47. Yaksi N, Save D. How do social and spousal support influence postpartum depression? Marmara Medical Journal 2021;34(3):327-34. http://doi.org/10.5472/marumj.1012403
48. Eslahi Z, Bahrami N, Allen KA, Alimoradi Z. Spouse's social support in the postpartum period, predictors and its relationship with postpartum depression in a sample of Iranian primiparous women. *Int J Gynaecol Obstet*. 2021;154(1):24-30. DOI: 10.1002/ijgo.13488
49. Kizilirmak A, Calpbinici P, Tabakan G, Kartal B. Correlation between postpartum depression and spousal support and factors affecting postpartum depression. Health Care Women Int. 2021;42(12):1325-1339. DOI: 10.1080/07399332.2020.1764562
50. Aydin R, Palanci Ay O, Yazıcı Topcu T, Aktas S. [The Effect of Mothers' Perceived Spousal Support in the Early Postpartum Period on Postpartum Stress] (in Turkish). Journal of Continuing Medical Education 2022; 31(2):126-33. DOI: 10.17942/sted.1027517
51. Ozsahin Z, Akça E, Gokbulut N. [The Relationship between Postpartum Depression Level and Maternal Attachment] (in Turkish). Journal of Inonu University Health Services Vocational School. 2020;8(3):715-24. https://doi.org/10.33715/inonusaglik.757249

52. Mercan Y, Selcuk KT. Association between postpartum depression level, social support level and breastfeeding attitude and breastfeeding self-efficacy in early postpartum women. *PLoS One*. 2021;16(4):1-12. DOI: 10.1371/journal.pone.0249538
53. Vaezi A, Soojoodi F, Banihashemi AT, Nojomi M. The association between social support and postpartum depression in women: A cross sectional study. Women Birth. 2019;32(2):238-42. DOI: 10.1016/j.wombi.2018.07.014
54. Nasr RS Al, Altharwi K, Derbah MS, Gharibo SO, Fallatah SA, Alotaibi SG et al. Prevalence and predictors of postpartum depression in Riyadh, Saudi Arabia: A cross sectional study. *PLoS One*. 2020;15(2): e0228666. DOI: 10.1371/journal.pone.0228666
55. Yesilcinar I, Yavan T, Karasahin KE, Yenen MC. The identification of the relationship between the perceived social support, fatigue levels and maternal attachment during the postpartum period. J Matern Fetal Neonatal Med. 2017;30(10):1213-20. DOI: 10.1080/14767058.2016.1209649
56. Ertekin Pinar S, Polat S. [The relationship between perceived social support in postpartum period and post-traumatic stress and maternal-infant attachment] (in Turkish). Mersin University Journal of Health Sciences 2019;12(3):448-56. DOI: 10.26559/mersinsbd.568132
57. Cimen K, Varol H. [Evaluation of the relationship between maternal attachment levels of mothers and affecting factors] (in Turkish). Sakarya University Journal of Holistic Health. 2021;4(3):126-35. https://doi.org/10.54803/sauhsd.977480
58. Boratav HB, Toker O, Küey L. Postpartum depression and its psychosocial correlates: A longitudinal study among a group of women in Turkey. Women Health. 2016;56(5):502-21. http://dx.doi.org/10.1080/03630242.2015.1101737
59. Yang JW, Jung IS. Convergence effect of spouse's support on postpartum depression and self-efficacy in primipara. Journal of the Korea Convergence Society. 2018;9(1):171-80. https://doi.org/10.15207/JKCS.2018.9.1.171
60. Delavari M, Mohammad-Alizadeh-Charandabi S, Mirghafourvand M. The relationship of maternal-fetal attachment and postpartum depression: a longitudinal study. Arch Psychiatr Nurs. 2018;32(2):263-67. DOI: 10.1016/j.apnu.2017.11.013
61. Mann JR, Mannan J, Quiñones LA, Palmer AA, Torres M. Religion, Spirituality, Social Support, and Perceived Stress in Pregnant and Postpartum Hispanic Women. J Obstet Gynecol Neonatal Nurs 2010;39(6):645-57. DOI: 10.1111/j.1552-6909.2010.01188.x
62. Bat Tonkus M, Muslu SN. [Maternal Attachment and Related Factors] (in Turkish). Journal of Medical Sciences. 2021;2(2):32-40. DOI: 10.46629/JMS.2021.39