İKÇÜSBFD

ARAŞTIRMA / RESEARCH

Effect of the Marital Adjustment on the Prevalence of Postpartum Depression in Fathers

Babalarda Evlilik Uyumunun Doğum Sonrası Depresyon Yaygınlığına Etkisi

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Abstract

Objective: The postpartum period is a process that can affect all members of the family and bring about stressful situations. Postpartum depression, which is one of the problems that we may encounter during this period, can complicate the process further. This study was conducted to analyze the effect of marital adjustment on the prevalence of postpartum depression in fathers.

Material and Method: This study was performed in January-April 2019 with the participation of 450 fathers who presented to family health centers for routine healthcare services. A structured Participant Information Form, the Marriage Adjustment Test, and the Edinburgh Postpartum Depression Scale were used to collect data.

Results: In the study, it was found that the mean total Edinburgh Postnatal Depression Scale and Marital Adjustment Test scores of the participants were 5.96±6.09 and 43.6±9.67, respectively, and there was a statistically significant negative relationship between their mean Edinburgh Postnatal Depression Scale score and mean Marital Adjustment Test score (r=0.447, p=0.000).

Conclusion: In this study, it was discerned that the marital adjustment between spouses affected postpartum depression in fathers, and fathers who had well-adjusted marital relationships were exposed to a lower risk of depression.

Keywords: Postpartum period, marriage, depression, fathers.

Öz

Amaç: Doğum sonrası dönem, ailenin tüm üyelerini etkileyebilen ve stresli durumları beraberinde getirebilen bir süreçtir. Bu dönemde karşılaşabileceğimiz sorunlardan biri olan doğum sonrası depresyon süreci daha da zorlaştırabilir. Bu çalışma, evlilik uyumunun babalarda doğum sonrası depresyon yaygınlığına etkisini incelemek amacıyla yapıldı.

Gereç ve Yöntem: Çalışma, Ocak-Nisan 2019 tarihlerinde aile sağlığı merkezlerine rutin sağlık hizmeti almak amacıyla başvuran 450 babanın katılımıyla gerçekleştirildi. Veri toplamak için yapılandırılmış bir Katılımcı Bilgi Formu, Evlilik Uyum Testi ve Edinburgh Doğum Sonrası Depresyon Ölçeği kullanıldı.

Bulgular: Çalışmada, babaların Edinburgh Doğum Sonrası Depresyon Ölçeği toplam puanın 5.96±6.09, Evlilik Uyum Testi toplam puanın ise 42.97±9.67 olduğu ve ölçeklerin toplam puanları arasında negatif yönde orta derecede istatistiksel olarak anlamlı bir ilişki saptandı (r=0,447, p=0,000).

Sonuç: Bu çalışmada eşler arasındaki evlilik uyumunun babalarda doğum sonrası depresyonu etkilediği, evlilik ilişkisi iyi olan babaların daha düşük depresyon risklerine maruz kaldıkları görüldü.

Anahtar Kelimeler: Doğum sonrası dönem, evlilik, depresyon, babalar.

1. Introduction

The postpartum period is a risky period which physiological and psychological changes are experienced. It was discerned that most parents could adapt to changes likely to be observed in this period whereas some parents would suffer psychological problems (1). One of the problems likely to be experienced during this period is postpartum depression (1-3).

Postpartum depression (PPD) is a psychiatric condition that can be seen within 4-6 weeks after childbirth. PPD, which is not only a problem experienced by the mother and father after childbirth, but also a condition that has negative effects on the development of the baby, on all family members, and on society (2,3). In the literature, PPD rates were reported as approximately 10-15% in women who recently gave birth (4) and 5.4–13.6% in fathers (5). The risk factors for PPD have been listed as low socio-economic status, history of depression, lack of social support, recent stress, and poor marital adjustment (6,7).

Marital adjustment which affects all individuals in the family is the harmony between people who interact with each other. Marital adjustment is defined as having an agreement between partners on different topics and being capable of seeking solutions, through a positive approach, to problems likely to be confronted throughout life (8). It is observed that spouses with high levels of marital adjustment succeed in adjusting to changes in their lives easily. Poor marital relationships in the postpartum period cause a decrease in the support of couples for each other during this difficult period, increasing the risk of depression. Peker et al. (2016) found that problems in the relationship between the spouses are factors that increase postpartum depressive symptoms.

The postpartum period brings new responsibilities and stressful situations which may affect all family members (9). Studies on PPD in the literature have been more interested in women. The postpartum period can cause serious psychological problems in fathers, as well as mothers. Some factors increasing the risk of depression in fathers in the postpartum period may be listed as the number of living children, a history of depression, unplanned pregnancies, low perceived social status, and the presence of family communication problems (5,7,10). The good health status of fathers in the postpartum period increases their communication with their child and their marital adjustment (7). In the study conducted by Gümüş et al. (2012), it was determined that women who evaluated their relationship with their spouses negatively experienced higher levels of PPD. In this process, it is very important for health professionals to examine the marital adjustment of spouses and support families through initiatives that will increase harmony.

This study was conducted to analyze the effect of marital adjustment on the prevalence of PPD in fathers.

2. Materials and Methods

2.1. Research design and participants

The population of this study, which was designed with a descriptive correlational design, consisted of 450 healthy fathers with 1-6-month-old babies registered at two Family Health Centers in eastern Turkey between 01.02.2019 and 31.06.2019. The sample size was calculated using a web page. The sample size was determined as 450 fathers with a 5% margin of error, two-tailed significance, in a 95% confidence interval, and with 0.89 representative power. Data collection continued until the aimed sample size was reached. The individuals to be included in the sample were selected using the random sampling method, which is a non-probability sampling method. Healthy fathers over the age of 18 who were able to communicate and volunteered to participate in the study were included. Fathers with any physical health problem in themselves or their babies were excluded from the study.

2.2. Data Collection

The data were collected by the researcher in the training room of the Family Health Centers where the research was conducted, by the face-to-face interview method during the weekdays. The fathers participating in the study were informed about the study, and their consent was obtained. A structured Participant Information Form, the Marital Adjustment Test (MAT), and the Edinburgh Postnatal Depression Scale (EPDS) were used for data collection. The average time to fill in the data collection forms was 15-20 minutes.

2.2.1. Participant Information Form

The form that was prepared by the researcher included 17 questions about the sociodemographic characteristics of the fathers and their babies, including the fathers' age, education level, spouse's education level, marriage year, marriage type, perceived monthly income, employment status, family type, cigarette smoking/alcohol consumption status, the infant's age, number of living siblings, infant's sex, whether the infant was wanted by the father, whether the father accompanied the spouse for health checks during pregnancy, whether the father assumed any role in the infant's care, whether the infant was breastfed, and the mode of delivery.

2.2.2. Marital Adjustment Test (MAT)

MAT was developed by Locke-Wallace in 1959 (11), and its validity and reliability tests were performed in Turkey by Kışlak-Tutarel in 1999 (12). It is composed of 15 items aiming to measure satisfaction of a person with their marital relationship and their marital adjustment. Each item is scored in the range of 0-6. The minimum score to be obtained from MAT is 0, whilst the maximum score is 60, and spouses who get a score of higher than 43 in total are evaluated as having marital harmony, whereas those with scores of lower than 43 are categorized as having marital incompatibility. Kışlak-Tutarel reported the Cronbach's alpha coefficient of MAT as 0.800, while the Cronbach's alpha coefficient of MAT in this study was calculated as 0.826 (12).

2.2.3. Edinburgh Postnatal Depression Scale (EPDS)

EPDS was developed by Cox et al. in 1987. The scale, which aims to identify people at risk for PPD, consists of 10 items, and each item is evaluated according to a 4-point Likert-type scale in the range of 0-3. The minimum score to be obtained from the scale is 0, whereas the maximum score is 30, and individuals who have a score of higher than 12 are evaluated as high-risk in terms of depression. The Turkish version of EPDS was published in 1996 by Engindeniz et al. (13). The Turkish validity and reliability study of this scale

for use in men was conducted by Alkan and Mevsim in 2017 (14). In the validity and reliability study conducted by Alkan and Mevsim, the Cronbach's alpha internal consistency coefficient of this scale was reported as 0.83. In this study, the Cronbach's alpha coefficient of EPDS was found as 0.800.

2.3. Statistical Analysis

For the statistical analysis of the data collected in this study, SPSS for Windows (Statistical Package for the Social Sciences for Windows, Version 15.0) was used. To analyze the distributions of the continuous variables, the Kolmogorov-Smirnov Test was utilized. The statistical analyses included independent-samples t-test, one-way analysis of variance (ANOVA), Pearson's correlation analysis, and logistic regression analysis. The continuous variables were presented with percentages, means, and standard deviations. Statistical significance was identified if the p-value was lower than 0.05.

3. Results

The distributions of the mean EPDS scores of the participants based on their sociodemographic characteristics were displayed in Table 1. The mean total EPDS score of the fathers aged ≤34 years was 4.75±5.05, and the mean total score of those who were ≥35 years old was 7.65±6.96 (p<0.05). It was determined that the mean total EPDS score of those with ≤4 years of education was 11.16±8.65, the mean total score of those who received

education for 5 to 8 years was 7.55±7.00, and the mean total score of those who received education for ≥9 years was 4.77±4.94 (p<0.05). It was determined that the mean total EPDS score of the participants whose spouses had ≤4 years of education was 10.22±8.47, the mean total score of those with spouses who had 5 to 8 years of education was 6.18±6.19, and the mean total score of those with spouses who had education for ≥9 years was 4.87±4.90 (p<0.05). It was found that the mean total EPDS score of those who had been married for ≤4 years was 4.44±4.67, the mean total score of those with 5-8 years of marriage was 5.12±5.22, and the mean total score of those with ≥9 years of marriage was 8.03±7.21 (p<0.05). Moreover, the mean total EPDS score of the participants who had arranged marriages was 7.43±6.82, and the mean total score of those who had love marriages was 4.48±4.85 (p<0.05). The participants who perceived their monthly income as high had a mean total EPDS score of 3.55±4.00, those who perceived their monthly income as moderate was a mean total score of 5.32±5.56, and those who perceived their monthly income as low had a mean total score of 9.51±7.09 (p<0.05). It was determined that the mean total EPDS score of the participants who wanted their baby was 4.94±4.94, and the mean total score of those who did not was 10.75±8.33 (p<0.05). Mean total EPDS scores did not differ according to the family types and cigarette smoking/alcohol consumption statuses of the participants (p>0.05) (Table 1).

Table 1. Distribution of the mean EPDS scores of the participants based on their sociodemographic characteristics (n: 450)

Sociodemographic Characteristics	Frequency	%	EPDS X ± SD	Statistical Test
Age				
≤34	262	58.1	4.75±5.05	t*=-5.11
≥35	188	41.9	7.65±6.96	**p=0.000**
Duration of father's education (years)				
≤4	18	4.4	11.16±8.65	Fᵒ=18.25
5-8	147	32.7	7.55±7.00	**p=0.000**
≥9	283	62.9	4.77±4.94	
Duration of spouse's education (years)				
≤4	44	9.7	10.22±8.47	Fᵒ=15.18
5-8	196	43.6	6.18±6.19	**p=0.000**
≥9	210	46.7	4.87±4.90	
Duration of marriage (years)				
≤4	172	38.2	4.44±4.67	Fᵒ=17.35
5-8	108	24.0	5.12±5.22	**p=0.000**
≥9	170	37.8	8.03±7.21	
Marriage type				
Arranged marriage	225	50.0	7.43±6.82	t*=-5.27
Love marriage	225	50.0	4.48±4.85	**p=0.000**
Perceived monthly income				
High	118	26.2	3.55±4.00	Fᵒ=35.31
Medium	213	47.2	5.32±5.56	**p=0.000**
Low	119	26.4	9.51±7.09	
Employment status				
Employed	425	94.4	5.61±5.83	--------
Unemployed	25	5.6	12.00±7.29	--------
Family type				
Nuclear family	363	80.7	6.04±6.05	t*=-0.57
Extended family	87	19.3	5.63±6.25	p=0.277
Smokes/consumes alcohol				
Yes	243	54.0	6.32±6.31	t*=-1.33
No	207	46.0	5.55±5.80	p=0.213

*t: Independent-Samples t-Test
Fᵒ: One-Way ANOVA

The distributions of the mean total EPDS scores of the participants based on the characteristics of their infants were demonstrated in Table 2. It was determined that the mean total EPDS score of the participants whose babies were 1-3 months old was 5.08±5.36, and the mean total score of those whose babies were 4-6 months old was 6.70±6.55 (p<0.05). The mean total EPDS score of the participants with ≤1 other living child was 3.55±5.06, and the mean total score of those with ≥2 children was 6.72±6.27 (p<0.05). The mean total EPDS score of the participants who attended health checks with their spouse during pregnancy was 5.25±5.06, and the mean total score of those who did not attend these health checks was 8.61±8.45 (p<0.05). The mean total EPDS score of the participants who took on a role in the care of the baby was 4.68±4.94, and the mean total score of those who did not take on such a role was 7.44±6.90 (p<0.05). Moreover, the mean total EPDS score of the participants whose babies were breastfed was 5.84±5.92, and the mean total score of those whose babies were not breastfed was 5.84±5.92 (p<0.05). On the other hand, the mean total EPDS scores did not differ according to infant's sex and mode of childbirth/delivery (p>0.05) (Table 2).

According to the results of the logistic regression analysis, the father's age (OR: 0.050), the duration of the father's education (OR: 0.073), the duration of the spouse's education (OR: 0.052), the duration of their marriage (OR: 0.064), marriage type (OR: 0.053), perceived monthly income level (OR: 0.125), the infant's age (months) (OR: 0.015), number of the living siblings of the infant (OR: 0.039), whether the infant was wanted by the father (OR: 0.130), whether the father accompanied his spouse for health checks during pregnancy (OR: 0.048), and whether the father assumed any role in the infant's care (OR: 0.049) were significant risk factors for depression (Table 3).

Table 2. Distribution of the mean EPDS scores of the participants based on infant characteristics (n: 450)

Infant Characteristics	Frequency	%	EPDS X ± SD	Statistical Test*
Infant's age (months)				
1-3	205	45.60	5.08±5.36	t=-2.83
4-6	245	54.40	6.70±6.55	p=0.019
Number of living siblings				
≤1	123	27.3	3.55±5.06	t=-4.37
≥2	327	72.7	6.72±6.27	p=0.004
Infant's sex				
Female	197	43.8	6.34±6.25	t=-1.19
Male	253	56.2	5.64±5.95	p=0.286
The infant was wanted by the father				
Yes	371	82.4	4.94±4.94	t=-8.25
No	79	17.6	10.75±8.33	p=0.000
The father accompanied his spouse for health checks during pregnancy				
Yes	355	78.9	5.25±5.06	t=-4.88
No	95	21.1	8.61±8.45	p=0.000
The father assumed a role in the infant's care				
Yes	241	53.6	4.68±4.94	t=-4.90
No	209	46.4	7.44±6.90	p=0.000
The infant was breastfed				
Yes	405	90.0	5.84±5.92	t=-1.290
No	45	10.0	7.09±7.42	p=0.035
Mode of childbirth/delivery				
Vaginal delivery	235	52.2	6.12±6.42	t=-0.59
Cesarean section	215	47.8	5.78±5.72	p=0.077

*t: Independent-Samples t-Test

Table 3. Analysis of risk factors associated with postpartum depression in fathers *

Risk factors	β	SE	Df	p	OR
Father's age	0.228	0.56	1	**0.001**	0.050
Duration of father's education	-0.274	0.48	1	**0.001**	0.073
Duration of spouse's education	-0.233	0.42	1	**0.001**	0.052
Duration of marriage	0.257	0.31	1	**0.001**	0.064
Marriage type	-0.234	0.54	1	**0.001**	0.053
Perceived monthly income	0.356	0.37	1	**0.001**	0.125
Infant's age (months)	0.133	0.57	1	**0.005**	0.015
Number of living siblings	0.201	0.63	1	**0.001**	0.039
Whether the infant was wanted by the father	0.364	0.70	1	**0.001**	0.130
Whether the father accompanied his spouse for health checks during pregnancy	0.225	0.68	1	**0.001**	0.048
Whether the father assumed any role in the infant's care	0.226	0.56	1	**0.001**	0.049
Whether the infant was breastfed	1.246	0.96	1	0.198	0.001

*Logistic Regression Analysis, SE; Standard error; df: Degrees of freedom; OR: Odds ratio

The results of the analysis on the relationship between the mean total EPDS score and the mean total MAT score of the participants were shown in Table 4. The mean total EPDS and mean total MAT scores of the participants were 5.96±6.09 and 43.6±9.67, respectively (Table 4). According to the Pearson's correlation analysis on the relationship between EPDS and MAT scores, a moderate, statistically significant, and negative relationship was identified ($r=-0.447$, $p=0.000$). Thus, it can be asserted that the PPD levels of spouses will decline as their marital adjustment levels increase.

Table 4. Relationship between the total EPDS and total MAT scores of the participants (n: 450)

	X ± SD	Statistical Test*
Total EPDS Score	5.96±6.09	r= -0.447
Total MAT Score	43.6±9.67	**p= 0.000**

*r: Pearson's Correlation Analysis

4. Discussion

In this study, which was conducted to examine the effect of marital adjustment on the prevalence of PPD, it was found that the father's age, the duration of the father's education, the duration of the spouse's education, their duration of marriage, marriage type, perceived monthly income level, the infant's age (months), the number of the living siblings of the infant, whether the infant was wanted by the father, whether the father accompanied his spouse for health checks during pregnancy, whether the father assumed any responsibility in the infant's care, and whether the infant was breastfed had an effect on the mean total EPDS scores of the participants ($p<0.05$). On the other hand, the variables of family type, cigarette smoking/alcohol consumption status, the infant's sex, and the mode of childbirth/delivery had no statistically significant effect on mean total EPDS scores ($p>0.05$). Upon the review of literature, it was discerned that studies on PPD have focused primarily on PPD in women. Among previous studies performed on fathers, there are studies that have identified statistically significant relationships between PPD and the duration of the father's education (5,18), family type (5), marriage type (5,18), perceived monthly income level (5,17,18), the infant's age (months) (17), the number of the living siblings of the infant (10), the infant's sex (5), whether the father assumes any role in the infant's care (5), and whether the infant is breastfed (5,18). The results of this study indicated that the sociodemographic and infant-related variables of the participants affected their PPD levels.

In this study, the mean EPDS score of the participants was 5.96±6.09, and 13.1% of them obtained scores higher than 12. Thus, the participants were in the high-risk group in terms of PPD. In the literature review, it was observed that the incidence of PPD in fathers with babies aged 1-6 months has ranged from 9% to 25% (2,15-17). Peker et al. (10) reported the mean PPD scores of fathers as 5.35±4.29 in the initial period of childbirth and 5.85±4.08 after six weeks following childbirth. PPD is a psychological condition under the influence of numerous factors. The socio-economic and cultural values of the regions where fathers lived could have affected the prevalence of PPD in previous studies. We consider that the differences in the prevalence of PPD in fathers in various studies arose from the differences between the regions where these studies were performed.

It was observed that the fathers participating in this study were in harmony with their spouses in terms of their marital relationships, and along with an increase in their marital adjustment levels, their PPD levels declined. As per the review of literature, studies performed with fathers in the postpartum period have shown that fathers who have good marital relationships with their spouses have lower levels of depression (5,9,10,17). The postpartum period is a complicated process in which a high number of changes are experienced by both parents. A good marital relationship between parents will enhance their adaptation to the changes to be experienced by them within the family. As a matter of fact, in this study, it was seen that the participants who had love marriages had significantly lower mean PPD scores than those who had arranged marriages. The results of this study were in accordance with those reported in the relevant literature, and it was discerned that PPD levels decreased as marital adjustment levels increased.

5. Conclusion And Recommendations

It is recommended that health professionals provide counseling services to examine the marital adjustment of fathers with their spouses in the postnatal period and help them successfully overcome this period. To support the findings of this study, further studies which will be performed at different times with larger samples including fathers with different sociodemographic and infant-related characteristics are recommended.

Contribution to the Field

Postpartum depression is not only a condition experienced by mothers but also a health problem that can affect fathers. Good marital adjustment between parents in the prenatal period will make both parents and other family members stronger in the face of new roles and responsibilities. Postpartum depression in fathers should be taken in consideration and be followed by health professionals especially in primary care. Additionally, appropriate counseling should be provided to couples with poor marital adjustment.

Ethical considerations

This study's ethics committee approval was obtained from Inonu University's Ethics Committee for Non-Interventional Clinical Research on 16/05/2017 with the decision number 2017/11-2. Informed consent was obtained from all participants. The research was conducted in accordance with the 1964 Declaration of Helsinki and its subsequent amendments or comparable ethical standards. The authors declare they have no conflict of interest. The authors have no funding to disclose.

Limitations of the study

The findings obtained in this study are limited to the measurement tools that were used and the self-reports of the participants. The results are applicable to fathers who present to family health centers. Because the study was conducted with only healthy fathers, it does not reflect the general population.

Conflict of Interest

This article did not receive any financial fund. There is no conflict of interest regarding any person and/or institution.

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Authorship Contribution

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