



The Relationship Between Postpartum Anxiety and Maternal Function in Mothers

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ABSTRACT

This descriptive and relationship-seeking study aimed to determine the relationship between postpartum anxiety and maternal function in mothers with 6-10 weeks old babies.

The study was carried out with 258 mothers who were 6-10 weeks postpartum. The data were collected using the Personal Information Form, Postpartum Specific Anxiety Scale (PSAS), and Barkin Index of Maternal Functioning (BIMF).

It was determined that the majority of the mothers participating in the study were between the ages of 27-34, high school graduates, not working, having health insurance, having a moderate income, living with a nuclear family, and married for 2-6 years. The majority of mothers had babies who were 8-9 weeks old, had a vaginal delivery, experienced 2-3 pregnancies, had assistance with postpartum care, and received education/information about postpartum care. The mean PSAS score for the mothers was determined to be at a moderate level (83.71±21.71), while the mean BIMF score was above a moderate level (71.49±13.89). It was found that there was a moderate, negative significant relationship between the PSAS total score and the BIMF total score, and it was determined that the level of maternal functioning decreased as postpartum anxiety increased ($r=-0.616$, $p=0.05$).

It has been determined that the mother's anxiety during the postpartum period negatively affects maternal function. Therefore, it is crucial for healthcare professionals to comprehensively assess the mother's physical, psychological, and social well-being during the postpartum period and identify potential issues early on.

Keywords: Anxiety, Functional Status, Maternity function, Midwifery, Postpartum Period

Annelerde Postpartum Anksiyete ve Annelik Fonksiyonu Arasındaki İlişki

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Öz

Bu araştırma, 6-10 haftalık bebeği olan annelerde postpartum anksiyete ve annelik fonksiyonu arasındaki ilişkinin belirlenmesi amacıyla tanımlayıcı, kesitsel ve ilişki arayıcı olarak yapılmıştır.

Araştırma postpartum 6-10 hafta da olan 258 anne ile gerçekleştirilmiştir. Veriler Kişisel Bilgi Formu, Postpartum Spesifik Anksiyete Ölçeği (PSAÖ) ve Barkin Annelik Fonksiyonu Ölçeği (BAFÖ) kullanılarak toplanmıştır.

Araştırmaya katılan annelerin çoğunluğunun 27-34 yaş aralığında, lise mezunu, çalışmayan, sağlık güvencesine olan, gelir durumu orta, çekirdek aile ile birlikte yaşadığı ve 2-6 yıldır evli olduğu belirlenmiştir. Annelerin çoğunluğunun bebeğinin 8-9 haftada olduğu, normal doğum yaptığı, 2-3 gebelik geçirdiği, doğum sonrasında yardımcı bir kişinin olduğu, doğum sonrası bakıma yönelik eğitim/bilgi aldığı belirlenmiştir. Annelerin PSAÖ puan ortalamasının 83,71±21,71 orta düzeyde olduğu, BAFÖ puan ortalamasının 71,49±13,89 orta düzeyin üzerinde olduğu belirlenmiştir. PSAÖ toplam puan ile BAFÖ toplam puan arasında orta düzeyde, negatif yönlü anlamlı bir ilişki olduğu saptanmış olup, postpartum anksiyete arttıkça annelik fonksiyonu düzeyinin azaldığı saptanmıştır ($r=-0,616$, $p=0,05$).

Postpartum dönemde annenin anksiyeteli olma durumunun annelik fonksiyonunu olumsuz yönde etkilediği belirlenmiştir. Bu nedenle sağlık profesyonellerinin postpartum süreçte anneyi fiziksel, ruhsal ve sosyal yönünden bütüncül olarak değerlendirilmesi, oluşabilecek sorunları erken dönemde tespit etmesi oldukça önemlidir.

Anahtar sözcükler: Anksiyete, Fonksiyonel Durum, Annelik Fonksiyonu, Ebelik, Postpartum Dönem

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Introduction

Pregnancy, childbirth, and the postpartum period are times when women's healthcare needs significantly increase, and they are affected both physically, mentally, and socially¹. The postpartum period is a critical crisis period in which many developments or tensions are experienced, the mother and family encounter many stressors in keeping up with these changes and have a significant place in protecting and improving the health of the mother-baby and the family as a whole¹⁻³. The postpartum period covers 6-8 weeks after birth and causes many physiological and psychological changes in the mother^{1,4,5}.

The postpartum period, especially the first six weeks, is exposed to many stressors for mothers in terms of establishing an emotional bond with the baby, establishing a balance between the baby's needs, and bringing their emotional-mental state to a good level⁶. Due to these stressors, there is an increased risk of psychiatric issues such as maternal sadness, postpartum anxiety, postpartum depression, and postpartum psychosis in mothers^{6,7}.

It is reported that the prevalence of postpartum anxiety varies between 13% and 40% in a systematic review⁸. In another systematic review, it was stated that the prevalence of postpartum anxiety was 33.8% during COVID-19, and it was reported that the prevalence of postpartum anxiety increased 2.56 times compared to studies conducted before COVID-19⁹. Extensive research has been conducted on postpartum depression, while anxiety during pregnancy and postpartum anxiety have been relatively neglected^{10,11}. Anxiety, defined as a situation with an unknown source that causes a person to experience apprehension and depression, can have particularly negative effects on women, especially during the postpartum period when it is at a high level. Anxiety can also exacerbate depression and increase the risk of suicide⁷. Postpartum anxiety can cause negative perinatal outcomes in both mother and baby¹². In particular, it can seriously disrupt mother-infant interaction¹³. Therefore, correct diagnosis and treatment are vital in protecting the mental health of the mother in the postpartum period^{7,14}.

Since the mother experiences various physiological, psychological, and social changes in the postpartum period, a change in her functioning is also expected¹⁵. In the postpartum period, functional status is defined as the mother's infant care, self-care, mother-infant bonding, mother's emotional state, social support, housework, and adaptation to the

motherhood role¹⁶. In addition, it was emphasized that the psychological state of the mother should be especially evaluated when considering the functioning of the mother¹⁵.

In the postpartum period, while the mother adapts to her new role, she experiences psychological and physiological changes, her responsibilities increase, and her social life changes^{17,18}. It is considered that these changes experienced by the mother may cause an increase in anxiety and a decrease in the level of maternal functioning. Therefore, this study was conducted to examine the relationship between postpartum anxiety and maternal function in mothers with 6-10 weeks-old babies. In this regard, answers to the following questions were sought in the study.

1. What is the level of postpartum anxiety and maternal function in mothers?
2. Is there a difference between some descriptive and obstetric characteristics of mothers and postpartum anxiety levels?
3. Is there a difference between some descriptive and obstetric characteristics of mothers and the level of maternal function?
4. What is the relationship between postpartum anxiety and maternal function in mothers?

Material Method

Purpose and Type of the Study

This descriptive and relationship-seeking study aimed to determine the relationship between postpartum anxiety and maternal function in mothers with 6-10-weeks-old babies.

Time and Place of the Study

This research was conducted in 6 Family Health Centers (FHC) determined using a cluster sampling method in the city center of Sivas between March 15, 2021, and September 15, 2021.

Universe and the Sample of the Study

The universe of the study consists of mothers registered at the FHC determined in the city center of Sivas between March 15, 2021, and September 15, 2021, who are in the postpartum period between 6-10 weeks. The sample size was calculated to be 236 mothers using the formula $n = (t^2 S^2) / d^2$, with a $\alpha = 0,05$, $S = 6,28$, $t = 1,96$, $d = \pm 0,8$ ¹⁹ based on the study conducted by Yildirim et al., (2011)²⁰. Considering the possible data losses, the mothers who met the inclusion criteria were

sampled from the relevant universe by non-probability sampling method and the study was completed with 258 mothers.

Inclusion Criteria: Mothers who could speak Turkish, could read and write, had a single birth, did not have a physical or mental illness in their baby and themselves, did not have a chronic disease, did not have any risk factors during birth and postpartum period, were between 6-10 weeks postpartum, were between the ages of 19-45, and agreed to participate in the study were included in the study.

Do not have any risk factors during birth and postpartum period

Dependent variables: Scores from the Postpartum Specific Anxiety Scale (PSAS) and the Barkin Index of Maternal Functioning (BIMF).

Independent variables: Descriptive and obstetric characteristics of mothers

Data Collection Tools

The study data were collected using the Personal Information Form, PSAS, and BIMF. Data were collected by the researchers via face-to-face interview method.

Personal Information Form

The form was created in line with the literature to determine the descriptive and obstetric characteristics of mothers ^{7,15}.

Postpartum Specific Anxiety Scale (PSAS)

PSAS was developed by Fallon et al. to measure the postpartum anxiety status of mothers ²¹. The validity and reliability study of the Turkish version was conducted by Duran ⁷. The scale is of a 4-point Likert type, one-dimensional, and has 47 items. According to the scoring results, a score of 73 or lower indicates a low level of postpartum anxiety, a score between 74 and 100 indicates a moderate level of postpartum anxiety, and a score of 101 or higher indicates a high level of postpartum anxiety. The Cronbach's Alpha value of PSAS was 0.91. In this study, the Cronbach's Alpha value was calculated as 0.93.

Barkin Index of Maternal Functioning (BIMF)

BIMF was developed by, Barkin et al. to measure the functional status of mothers in the postpartum period ¹⁶. The validity and reliability study of the Turkish version was carried out by Aydın and Kukulu ¹⁵. The scale consists of 16 items and is a 7-point Likert-type scale. The scale has 5 sub-dimensions;

Self-Care (items 2, 11, and 13), Maternal Psychology (items 8 and 10), Infant Care (items 12, 14, 15, and 16), Social Support (items 6, 7, and 9), and Adaptation to Motherhood (items 1, 3, 4, and 5). The scale has no cut-off points. Evaluation on the scale is made based on total scores. A high score indicates a high level of maternal function. The lowest score that can be obtained from the scale is 0 and the highest score is 96. The Cronbach's Alpha value for BIMF is 0.73, and the Cronbach's Alpha values for the sub-dimensions of the scale are as follows: 0.66 for Self-Care Sub-dimension, 0.71 for Maternal Psychology Sub-dimension, 0.62 for Infant Care Sub-dimension, 0.69 for Social Support Sub-dimension, and 0.50 for Maternal Adaptation Sub-dimension ¹⁵. In this study, the Cronbach's Alpha coefficient for the total BIMF was calculated as 0.91, and the Cronbach's Alpha coefficients for the sub-dimensions of the scale were calculated as 0.84 for Self-Care Sub-dimension, 0.65 for Maternal Psychology Sub-dimension, 0.82 for Infant Care Sub-dimension, 0.86 for Social Support Sub-dimension, and 0.73 for Maternal Adaptation Sub-dimension.

Data Analysis

The data obtained in the study were computerized and statistical analysis was performed using the SPSS 25.0 package software. In the analysis of the data obtained from the Personal Information Form, descriptive statistical criteria were used to determine the mean, standard deviation, minimum and maximum values, and percentage distribution. In the normality analysis conducted to determine the tests to be used in the evaluation of the data, it was found that the skewness and kurtosis coefficients of the PSAS total score and the BIMF total and sub-dimension scores were within the ± 2 limits, indicating that the data were distributed within normal ranges ¹⁹. According to this result, independent sample t-test was employed to determine the difference between the means of two independent groups, one-way analysis of variance for more than two independent groups (to determine which group's mean is different from the others, the Tukey test was used when homogeneity was achieved, and the Tamhane's T2 test was used when homogeneity was not achieved), Pearson correlation analysis was used to determine the direction and level of the relationship between the variables, and the error level was taken as 0.05.

Ethical Issues

All stages of the study were conducted following ethical principles. Before starting the study, ethics committee approval was obtained from the

Cumhuriyet University Non-Interventional Clinical Research Ethics Committee (dated 19.02.2020 and decision number 2020-02/41). Institutional permits were obtained from the Sivas Provincial Directorate of Health (Decision dated 01.03.2021 and numbered 2021/03). Permission was obtained from the authors of the scales to be used in the study via e-mail. When the mothers who met the inclusion criteria were invited to participate in the study, the information in the Informed Consent Form was read and their written/verbal consent was obtained. This study was conducted following the principles of the Helsinki Declaration.

Findings

When the descriptive and obstetric characteristics of the mothers were examined, it was found that 45.3% were between the ages of 27-34, 37.6% were high school graduates, 76.0% lived in a nuclear family, 69.8% were not working, 53.9% had a moderate income level, 87.6% had social security, 50.4% had been married for 2-6 years, 69.8% had a baby 8-9 weeks old, 50.8% had a male baby, 67.4% had a normal vaginal delivery, 47.7% had 2-3 pregnancies, 93.8% had a person who would help them after birth. 69.8% of them received training/information on postpartum care, the mean age was 28.70 ± 5.31 (min: 19 – max: 42), the mean duration of marriage was 6.71 ± 5.18 (min: 1 – max: 23), the mean age of the babies was 7.96 ± 1.07 weeks (min: 6 weeks – max: 10 weeks), and the mean number of pregnancies was 2.24 ± 1.25 (min: 1 – max: 6) (Table 1).

It was determined that the mean PSAS score of the mothers was 83.71 ± 21.71 , and the mean BIMF score was 71.49 ± 13.89 (Table 2).

When the statistical comparison of the descriptive and obstetric characteristics of the mothers and the mean scores obtained from the PSAS was examined, it was found that there was a significant difference between the variables of age, education level, family type, employment status, income status, social security presence, duration of marriage, baby's age, and number of pregnancies and the score obtained from the scale ($p < 0,05$) (Table 3).

When the statistical comparison of the descriptive and obstetric characteristics of the mothers and the

total mean scores obtained from the BIMF was examined, it was found that there was a significant difference between the variables of age, income status, presence of social security, baby's age, type of delivery, presence of a person who helped after birth, and education/information status for postpartum care and the score obtained from the scale ($p < 0,05$) (Table 3).

The relationships between mothers' PSAS scores and BIMF total and sub-dimensions scores were examined, and according to the correlation analysis conducted, the highest correlation was found between maternal psychology sub-dimensions and the total BIMF score. This correlation was very high, significant, and positively oriented. The lowest correlation was between the PSAS total score and the self-care sub-dimension of the BIMF. This correlation was very weak, significant, and negatively oriented. In general, it was determined that there was a moderate-level, significant, positive relationship between the BIMF sub-dimensions ($p < 0.05$).

According to the correlation analysis between the sub-dimensions of the scales, it was determined that there was a significant relationship between the total and all sub-dimensions of BIMF and PSAS. Accordingly, it was determined that as the level of anxiety increased, the level of self-care, maternal psychology, infant care, social support, and adaptation to motherhood decreased.

It was found that there was a moderate, negative significant relationship between the PSAS total score and the BIMF total score, and it was determined that the level of maternal functioning decreased as postpartum anxiety increased ($p < 0,05$).

Table 1: Distribution of Mothers According to Descriptive and Obstetric Characteristics (n=258)

| Characteristics | n | % |
|---|-----|------|
| Age | | |
| 19-26 | 99 | 38.4 |
| 27-34 | 117 | 45.3 |
| 35-42 | 42 | 16.3 |
| Educational status | | |
| Primary school | 72 | 27.9 |
| High school | 97 | 37.6 |
| Associate Degree | 47 | 18.2 |
| Undergraduate and graduate | 42 | 16.3 |
| Family Type | | |
| Nuclear family | 196 | 76.0 |
| Extended family | 62 | 24.0 |
| Employment Status | | |
| Employed | 78 | 30.2 |
| Unemployed | 180 | 69.8 |
| Income Status | | |
| High | 98 | 38.0 |
| Moderate | 139 | 53.9 |
| Low | 21 | 8.1 |
| Presence of social security | | |
| Yes | 226 | 87.6 |
| No | 32 | 12.4 |
| Duration of marriage | | |
| 1 year | 23 | 8.9 |
| 2-6 years | 130 | 50.4 |
| 7-11 years | 62 | 24.0 |
| 12 years and more | 43 | 16.7 |
| Baby's age | | |
| 6-7 weeks | 49 | 19.0 |
| 8-9 weeks | 180 | 69.8 |
| 10 weeks | 29 | 11.2 |
| Sex of the baby | | |
| Female | 127 | 49.2 |
| Male | 131 | 50.8 |
| Delivery method | | |
| Normal vaginal delivery | 174 | 67.4 |
| Cesarean delivery | 84 | 32.6 |
| Number of pregnancies | | |
| First pregnancy | 94 | 36.4 |
| 2-3 pregnancies | 123 | 47.7 |
| 4 and more pregnancies | 41 | 15.9 |
| Presence of a helper after childbirth | | |
| Yes | | |
| No | 242 | 93.8 |
| | 16 | 6.2 |
| Education/information status on postnatal care | | |
| Yes | 180 | 69.8 |
| No | 78 | 30.2 |

Table 2: Comparison of Mothers' PSAS, BIMF Total, and BIMF Sub-Dimension Mean Scores (n=258)

| Scales | \bar{X} | SD | Min | Max |
|--------------------------|-----------|-------|-----|-----|
| PSAS | 83.71 | 21.71 | 47 | 151 |
| BIMF | 71.49 | 13.89 | 2 | 96 |
| Self-care | 10.12 | 3.97 | 0 | 18 |
| Maternal psychology | 9.09 | 2.12 | 0 | 12 |
| Infant care | 20.51 | 3.20 | 0 | 24 |
| Social support | 12.84 | 4.26 | 0 | 18 |
| Adaptation to motherhood | 18.92 | 3.65 | 2 | 24 |

PSAS: Postpartum Specific Anxiety Scale, BIMF: Barkin Index of Maternal Functioning

Table 3: Comparison of Mothers' Descriptive and Obstetric Characteristics and PSAS and BIMF Total Mean Scores (n=258)

| Characteristics | PSAS Total Score $\bar{x} \pm SD$ | BIMF Total Score $\bar{x} \pm SD$ |
|------------------------------------|---|---|
| Age | | |
| 19-26 | 85.38±22.59 ^a | 68.76±14.43 ^a |
| 27-34 | 85.42±21.19 ^b | 72.32± 13.35 |
| 35-42 | 75.02±19.26 ^{ab} | 75.62±13.06 ^a |
| Test value*/p | 4.116/0.017 | 4.068/0.018 |
| Educational status | | |
| Primary school | 77.78±19.36 ^a | 68.65± 15.92 |
| High school | 84.67± 21.40 | 71.42± 12.29 |
| Associate Degree | 84.17± 22.56 | 74.30± 13.97 |
| Undergraduate and graduate | 91.17±23.23 ^a | 73.36± 13.12 |
| Test value*/p | 3.621/0.014 | 1.913/0.128 |
| Family Type | | |
| Nuclear family | 85.22± 22.82 | 72.33± 13.28 |
| Extended family | 78.94± 17.03 | 68.84± 15.49 |
| Test value**/p | 2.322/0.022 | 1.729/0.085 |
| Employment Status | | |
| Employed | 90.79± 24.62 | 73.13± 14.58 |
| Unemployed | 80.64± 19.61 | 70.78± 13.57 |
| Test value**/p | 3.225/0.002 | 1.249/0.213 |
| Income Status | | |
| High | 79.94±22.16 ^a | 77.21±12.13 ^{ab} |
| Moderate | 84.60± 21.04 | 69.28±13.83 ^{ac} |
| Low | 95.48±19.90 ^a | 59.38±9.94 ^{bc} |
| Test value*/p | 4.818/0.009 | 20.822/0.000 |
| Presence of social security | | |
| Yes | 84.94± 22.17 | 72.55± 12.74 |
| No | 75.06± 15.78 | 64.00± 18.87 |
| Test value**/p | 3.129/0.003 | 3.319/0.001 |
| Duration of marriage | | |
| 1 year | 87.96± 26.51 | 70.91± 14.99 |
| 2-6 years | 86.64±22.54 ^a | 70.16± 15.16 |
| 7-11 years | 82.82± 19.90 | 73.50± 12.07 |
| 12 years and more | 73.88±15.57 ^a | 72.91± 11.51 |
| Test value*/p | 4.204/0.006 | 0.990/0.398 |

| | | |
|---|---------------------------|--------------------------|
| Baby's age | | |
| 6-7 weeks | 76.08±23.22 ^a | 77.31±13.94 ^a |
| 8-9 weeks | 87.41±20.42 ^{ab} | 69.26±12.70 ^a |
| 10 weeks | 73.66±20.96 ^b | 75.48± 17.32 |
| Test value*/p | 9.318/0.000 | 8.242/0.000 |
| Sex of the baby | | |
| Female | 83.34± 22.29 | 71.77± 13.20 |
| Male | 84.08± 21.20 | 71.21± 14.58 |
| Test value**/p | -0.272/0.786 | 0.322/0.748 |
| Delivery method | | |
| Normal vaginal delivery | 83.59± 21.37 | 70.16± 13.83 |
| Cesarean delivery | 83.98± 22.50 | 74.25± 13.69 |
| Test value**/p | -0.135/0.893 | -2.235/0.026 |
| Number of pregnancies | | |
| First pregnancy | 91.21±24.96 ^{ab} | 70.53± 13.98 |
| 2-3 pregnancies | 79.78±18.70 ^a | 72.44± 14.48 |
| 4 and more pregnancies | 78.32±17.39 ^b | 70.17± 11.74 |
| Test value*/p | 9.480/0.000 | 0.842/0.432 |
| Presence of a helper after childbirth | | |
| Yes | 83.37± 21.77 | 72.14± 13.89 |
| No | 88.88± 20.74 | 61.56± 9.68 |
| Test value**/p | -0.982/0.327 | 2.995/0.003 |
| Education/information status on postnatal care | | |
| Yes | | |
| No | 82.80± 22.57 | 74.00± 12.84 |
| Test value**/p | 85.82± 19.54 | 65.69± 14.57 |
| | -1.026/0.306 | 4.578/0.000 |

*F: One Way Anova test was used, ** t: Independent Sample t-test was used, a-c: There is a significant difference between variables with the same letter within the group, PSAS: Postpartum Specific Anxiety Scale, BIMF: Barkin Index of Maternal Functioning

Table 4: Relationships between mothers' PSAS total, BIMF total, and BIMF sub-dimension scores

| | | PSAS Total | Self-care | Maternal psychology | Infant care | Social support | Adaptation to motherhood | BIMF total |
|--------------------------|--------|------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| PSAS Total | r p | 1 | -0.621 0.000 | -0.565 0.000 | -0.421 0.000 | -0.380 0.000 | -0.528 0.000 | -0.616 0.000 |
| Self-care | r p | | 1 | 0.594 0.000 | 0.528 0.000 | 0.507 0.000 | 0.569 0.000 | 0.804 0.000 |
| Maternal psychology | r p | | | 1 | 0.734 0.000 | 0.599 0.000 | 0.727 0.000 | 0.867 0.000 |
| Infant care | r p | | | | 1 | 0.425 0.000 | 0.710 0.000 | 0.811 0.000 |
| Social support | r p | | | | | 1 | 0.434 0.000 | 0.756 0.000 |
| Adaptation to motherhood | r p | | | | | | 1 | 0.833 0.000 |
| BIMF total | r p | | | | | | | 1 |

*Pearson Correlation Analysis was used, PSAS: Postpartum Specific Anxiety Scale, BIMF: Barkin Index of Maternal Functioning

Discussion

The findings of the study conducted to examine the relationship between postpartum anxiety and maternal function in mothers whose babies are 6-10 weeks old are discussed in light of the literature.

In this study, it was determined that the mean PSAS score of the mothers was moderate level. In a previous study, the mean score obtained from PSAS was moderate level ²², which supports the findings of this study. In Karademir's study using the Beck Anxiety Scale, it was determined that the anxiety level of the participants was low ²³. Di Paolo et al., found that the COVID-19 pandemic has increased the anxiety level of mothers ²⁴. The moderate level of postpartum anxiety in this study is considered to be attributed to the fact that the study was conducted during the COVID-19 pandemic, the use of a scale specific to the postpartum period.

In this study, it was determined that the mean total BIMF score and sub-dimensions of mothers was above the moderate level. In Palancı's (2019) thesis, the total mean score of BIMF and sub-dimension averages were above the moderate level ²⁵. Karataş and Ejder Apay compared maternal functioning by birth methods and found that the mean total BIMF score for mothers who had a normal and cesarean section delivery was above the moderate level ²⁶. Similarly, in these studies in the literature, maternal function and its sub-dimensions were determined to be above the medium level.

When the statistical comparison of the descriptive and obstetric characteristics of the mothers and the mean scores obtained from the PSAS was examined, it was found that there was a significant difference between the variables of age, education level, family type, employment status, income status, social security presence, duration of marriage, baby's age, and number of pregnancies and the score obtained from the scale. The findings of the literature are similar to the findings of this study ^{8, 22, 27-34}.

When the statistical comparison of the descriptive and obstetric characteristics of the mothers and the total mean scores obtained from the BIMF was examined, it was found that there was a significant difference between the variables of age, income status, presence of social security, baby's age, type of delivery, presence of a person who helped after birth, and education/information status for postpartum care and the score obtained from the scale. The findings of the literature are similar to the findings of this study ³⁵⁻³⁸.

In this study, it was determined that there was a significant negative relationship between the mothers' PSAS total score and BIMF total score. In a previous study, a negative significant relationship was found between the postpartum anxiety level in the sixth week of postpartum and the functional status, social activities, and self-care activities of the mothers ³⁹. Aktan (2010) determined a negative relationship between postpartum anxiety and the functional status of the mother ⁴⁰. In another study, a significant and moderate negative correlation was determined between anxiety and the functional status in the postpartum period in mothers who gave birth by cesarean section ⁴¹. In a study conducted in East India, a relationship between functional status and anxiety was determined in the sixth week of birth, and it was found that mothers with no anxiety or mild anxiety had higher functional status ⁴². Gholizadeh, Shamasbi, et al. (2020) found a positive significant correlation between a mother's mental health and the total score and sub-dimensions of maternal function during the postpartum period and determined that as the mental health of mothers increased, the level of maternal function also increased ⁴³. In the literature and in this research, it is seen that having a psychological problem such as postpartum anxiety in mothers affects the functional status of mothers in the postpartum period.

In this study, it was determined that there was a significant negative relationship between the mothers' PSAS total score and BIMF sub-dimensions total score. According to a systematic review, women's postpartum self-care needs include aspects of their emotional well-being, such as adapting to a new role as a mother ⁴⁴. Karademir (2021) found a negative relationship between the anxiety level of mothers and their self-confidence levels towards newborn care ²³. A study conducted in Northern Jordan found that mothers who perceived high levels of information support from health professionals were significantly associated with lower levels of postpartum anxiety related to practical infant care ⁴⁵. Dol et al., determined that social support was negatively associated with postpartum depressive symptoms and anxiety symptoms ⁴⁶. A previous study indicated that postpartum anxiety can arise in mothers due to various factors; therefore, comprehensive support and care are needed in the postpartum maternal adaptation process ⁴⁷. In the literature and in this research, it is seen that the presence of postpartum anxiety in the mother negatively affects maternal psychology, self-care of the baby and mother,

social support and adaptation to motherhood, making it difficult for the mother to adapt to the postpartum process.

Conclusion and Recommendations

In this study, it was determined that the mean PSAS score of the mothers was moderate level and the total mean BIMF score was above the moderate level. It was found that there was a moderate, negative significant relationship between the PSAS total score and the BIMF total score.

It has been determined that the mother's anxiety during the postpartum period negatively affects maternal function. For this reason, it is important for health professionals to evaluate the mother as a complete whole, physically, spiritually and socially, in the postpartum period. If postpartum anxiety is present, the functional status of the mother should be increased by taking necessary interventions.

In order to reduce the anxiety levels of expectant mothers and enable them to use their motherhood functions effectively during the postpartum period, pregnancy training classes and consultancy services are to be made widespread. It is crucial for midwives particularly working in primary healthcare to evaluate the physical condition of mothers, as well as their psychological and social conditions during the postpartum period. When evaluating mothers psychologically, anxiety scales related to the postpartum period are to be used in particular. Mothers with a higher level of postpartum anxiety should be determined during the early phase. These mothers should be supported both psychologically and socially and necessary precautions are to be taken. In addition, trainings should be provided to strengthen the functional condition and alleviate the adaptation to motherhood. In line with the results of this study, it is recommended that scales specific to the postpartum period be used and similar studies with larger sample groups be conducted in different areas.

Ethics Committee Approval: Ethics committee approval was obtained from Cumhuriyet University Non-Interventional Clinical Research Ethics Committee (dated 19.02.2020 and decision number 2020-02/41)

Informed Consent: The participants were provided with information about the purpose of the study and their informed consent was obtained before they started filling out the questionnaire.

Remarks: This study was produced from the thesis study on the Relationship between Postpartum Anxiety and Maternal Function in Mothers.

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Limitations of the Study The fact that this study was conducted during the COVID-19 pandemic and the limited number of studies related to the subject have posed limitations to the discussion of the findings. This study can be generalized to mothers who are between 6-10 weeks postpartum in the determined primary care clinic region.

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