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Research / Araştırma

Evaluation of Newborn Mothers' Status of Bonding to the Baby, Experiencing Depression, and Associated Factors

Doğum Yapan Annelerin Bebeklerine Bağlanma ve Depresyon Yaşama Durumları ile Etkileyen Faktörlerin İncelenmesi

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ABSTRACT

Objective: The aim of this study is to evaluate newly delivered mothers' status of bonding to their babies, their status of experiencing depression following delivery.and associated factors.

Methods: The study was descriptive and sectional-type; and performed in a public hospital between February 1 and April 1 2015. Sample of the study was composed of 150 women who approved to participate in the study during this time interval. Participant information form. Mother to Infant Bonding Scale and Edinburgh Postnatal Depression Scale were used as data collection tools. Data were collected by face-to-face interview technique. Kruskal Wallis. Mann-Whitney U, student-t test and correlation analysis were used for statistical analysis of the data.

Results: It was found that mean score of women from mother-to-infant bonding scale was 1.13±1.81.mean score from depression scale was 8.12±4.85 and 16.7% of the women were within the risk group for depression. A statistically significant difference was detected between mother to infant bonding status of women in the study and their status of willingness at last pregnancy ($p<0.05$) ($p=0.043$); whereas no statistically significant differences were observed between mother-to-infant bonding status and mother's education. mother's occupation, family type, eager marriage, number of pregnancy and the gender of the baby ($p>0.05$). There was a significant difference between women's status of getting support from their spouses during the pregnancy and experiencing depression ($p<0.05$) ($p=0.03$).

It was found that there was a positive and weak correlation between women's status of experiencing depression and the level of mother-to-infant bonding; and the level of mother to infant bonding increased as the level of depression increased ($p=0.09$, $r=0.21$).

Conclusion: Mother to infant bonding rates of the women in the study were found to be high; and it was determined that eager pregnancy strengthened the bond between the mother and the baby, support taken from the spouse during pregnancy affected the level of depression, and the level of mother-to-infant bonding increased as the level of depression increased.

Keywords: Delivery, bonding, depression

ÖZ

Amaç: Araştırmanın amacı doğum yapan annelerin bebeklerine bağlanma durumları, doğum sonrası depresyon yaşama durumları ve etkileyen faktörlerin incelenmesidir.

Yöntem: Araştırma, tanımlayıcı ve kesitsel tipte olup, Şubat-Nisan 2015 tarihleri arasında bir devlet hastanesinde gerçekleştirilmiştir. Araştırmanın örneklemini 150 kadın oluşturmuştur. Veri toplama aracı olarak, katılımcı bilgi formu, anne-bebek bağlanma ölçeği ve Edinburgh doğum sonrası depresyon ölçeği kullanılmıştır. Veriler yüz yüze görüşme tekniği ile toplanmıştır. Verilerin değerlendirilmesinde istatistiksel analiz yöntemleri olarak Kruskal Wallis, Mann-Whitney U, student-t testi ile korelasyon analizi kullanılmıştır.

Bulgular: Kadınların anne-bebek bağlanma ölçeği puan ortalaması 1,13±1,81, depresyon ölçeği puan ortalaması ise 8,12±4,85 olduğu ve kadınların %16,7'sinin depresyon için risk grubunda olduğu saptanmıştır. Araştırmaya katılan kadınların son gebelikte istekli olma durumu ile anne bebek bağlanma durumu arasında istatistiksel olarak anlamlı fark saptanmış ($p<0,05$) ($p=0,043$), ancak annenin eğitimi, mesleği, aile tipi, istekli evlilik, gebelik sayısı ve bebeğin cinsiyeti ile anne-bebek bağlanma durumu arasında istatistiksel olarak anlamlı fark saptanmamıştır ($p>0,05$). Kadınların gebelik sırasında eşinden destek alma durumu ile depresyon yaşama durumları arasında istatistiksel olarak anlamlı fark saptanmıştır ($p<0,05$) ($p=0,03$).

Kadınların depresyon yaşama durumu ile anne-bebek bağlanma düzeyi arasında pozitif yönlü zayıf ilişki olduğu saptanmış olup depresyon düzeyi arttıkça anne-bebek bağlanma düzeyinin de arttığı saptanmıştır ($p=0,09$, $r=0,21$).

Sonuç: Araştırmaya katılan kadınların anne-bebek bağlanma oranları yüksek bulunmuş olup, istekli gebeliğin anne-bebek arasındaki bağı güçlendirdiği, gebelik sırasında eşinden destek almanın depresyon düzeyini etkilediği ve depresyon düzeyi arttıkça anne-bebek bağlanma düzeyinin de arttığı belirlenmiştir.

Anahtar Kelimeler: Doğum, bağlanma, depresyon

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INTRODUCTION

Development of each baby born to the world as a whole in terms of physical, mental, emotional and personal development can only be provided within a warm and loving environment. The interaction of the parents with the child within the family environment leaves positive and negative traces on the future life of the child. Therefore; family and the relationships within the family have very significant effects on the child (1).

The theory of bonding is the state of establishing strong and emotional bonds with the people who are important. Bonding is a two-sided relationship. It develops by meeting of the needs of both sides by each other and by time. A safe baby-mother-father bonding is generated as a result of signalling by the baby for her/his needs and ensuring an appropriate response for that by the caregiver. Establishing an emotional bond is necessary for the babies to maintain their lives and to develop. Bonding, that is developed between the mother and the baby following birth, maintains its efficiency during whole life by having an effect on the relationships with other people and on psychological adaptation. This safe bond significantly contributes to the self-confidence of the individual, and her/his friend relationships, problem-solving skills and self-control. Therefore; early detection of the bonding problems between the mother and the baby helps to prevent the development of psychopathologies in the baby (2).

Parental bonding is a theory based on a bonding type which is developed between the child and the parents. This theory was originated from the thought that the phenomenon of emotional bonding, which was developed by the children with their parents or with the people of close contact, directly affects their emotional, cognitive and social development during their lifetime (3,4). According to Bowlby, bonding that is identified by the attitudes and behaviors of the parents for the needs of the baby has three main functions including preservation of proximity, secure base and assurance base (5).

The baby discovers her/his environment and her/himself with the help of his/her mother or primary caregiver. The relationship of the newborn with the outer world is limited to her/his mother during the first months of life. The mother generates some experiences for the child. During these experiences, the child learns to meet his/her needs, soothing his/her tensions and retrieving a meaning from the various situations that they involve in; and finds the opportunity for self-recognition. A healthy communication established between the mother and the child provides the child to develop a healthy personality and creates a basis for establishing positive relationships with the others (6).

Bonding is a two-sided relationship and develops by time by meeting of the needs of both sides by each other. The behaviors that were used by the baby during his/her interaction with the mother and acquired during the first nine months of her/his life as this relationship develops are called as "bonding behaviors". Sucking, intrusion/reach, looking, smiling and crying are the main bonding behaviors of the baby (7). Rene Spitz found at the end of their research in kindergartes, orphanages and nurseries that lagging development of the babies, their adaptation disorders and sudden deaths of healthy newborns in these places were associated with the environment that was devoid of love and emotions (8).

The main goal of this study was to investigate bonding status of the mothers who recently gave birth to their babies and the affecting factors.

METHODS

Type of the study: This was a descriptive, sectional study that was performed to measure bonding between the mother and the baby and their status of experiencing depression.

Universe of the study and Sample Selection: The universe of the study was composed of women who delivered a baby in Obstetrics and Gynecology clinic of Zonguldak Ereğli State Hospital between February 1-April 1 2015. During the dates of the study, 187 women have delivered a baby in Obstetrics and Gynecology clinic. The sample of the study was composed of 150 women who met the inclusion criteria and who approved to participate in the study during these dates. 80.2% of the universe was achieved.

Inclusion criteria of the study;

The sample of the study included women who recently delivered a baby in Zonguldak Ereğli State Hospital and:

-who delivered at term (between gestational weeks 38-42),

-who approved to participate in the study,

-who delivered a healthy baby weighing more than 2500 gr,

-who were in the same room with her baby,

-who were literate.

Data collection Instruments: The instruments which were used during data collection were as follows;

Participant information form: A questionnaire form which was prepared by taking expert advice, and including a total of 32 open-ended and multiple-choice questions was used.

Mother-to-infant bonding scale: Mother-to-infant Bonding Scale (MIBS) should be prepared as to be performed since the first day following delivery and should enable the mother to express her feelings for her baby with a single word. This scale can be performed by the mother and father by themselves easily and quickly; and shows the relationship between the bond established and mental state of the mother during the first period. The original name of the scale which was developed by Taylor et al. (9) in 2005 was "Mother-to-Infant Bonding Scale" (9). Validity and reliability studies of the scale in our country was performed by Karakulak (2009) (10) Mother-to-Infant Bonding Scale is a 4-Likert type scale including 8 items. Responses including four options are scored between 0-3; the least score that can be obtained from the scale was 0 and the highest score was 24. While 1st, 4th and 6th items were expressions of positive emotions and scored as 0,1,2 and 3 during evaluation; 2nd, 3rd, 5th, 7th and 8th items were negative emotional expressions and scored inversely as 3,2,1 and 0 (10).

Edinburgh Postnatal Depression Scale (EPDS): This scale was developed by Cox et al. (11) (1987); it was designed for the determination of depression risk among women during postnatal period. It was prepared for screening purposes; not for making a diagnosis of depression. EPDS is a 4-Likert type, self-reporting scale including 10 items. The responses including four options are scored between 0-3; the lowest score that can be obtained from the scale is 0 and the highest score is 30. While 1st, 2nd and 4th items were scored as 0,1,2 and 3 during evaluation, items 3, 5, 6, 7, 8, 9 and 10 are scored inversely as 3, 2, 1 and 0. Turkish adaptation of EPDS was done by Engindeniz (1996) (12). In the validity and reliability study by Engindeniz (12), internal consistency coefficient of this scale was found to be 0.79. Also; two half-reliability was 0.80; sensitivity was 0.84 when cut-off point was taken as 12/13; specificity was 0.88; positive predictive value was 0.69 and negative predictive value was 0.94. Validity was approved by finding correlation between EPDS and General Health Questionnaire as r=0.7 (p<0.0001). Cut-off point for EPDS was calculated as 13; and women whose scale scores were 13 and higher were considered as the risk group.

Collection of Data: Data were collected by face-to-face interviews. Each interview lasted for 10 minutes. All necessary permissions were taken from the relevant institutions in order to carry out the study. Written and verbal consents were taken from the women who approved to participate in the study. Ethics committee approval was received for this study from the human research.

Statistical Analysis

Assessment of data: SPSS 15.0 program was used for statistical assessment. Compliance of numerical variables with normal distribution was assessed by Shapiro-Wilk test. For descriptive statistics, mean±standard deviation (minimum-maksimum) values were used for numerical variables and numbers and percentages were used for categorical data. When parametric test assumptions were provided for numerical variables, Mann-Whitney U test was used for two groups; and Kruskal-Wallis variance analysis was used for the comparison of three groups. The results were assessed within 95% confidence interval and p<0.05 was considered as statistically significant.

RESULTS

In the study, results of 150 women who delivered a baby in an Obstetrics and Gynecology clinic were evaluated. It was found that the mean age of the women was 27.5±5.79 (16-42) years.

Table 1. Sociodemographic characteristics of the women

Based on the sociodemographic characteristics of women; it was determined that 35.3% of the women were graduates of middle school, 90.7% were housewives, 53.3% had a moderate income status, 66.7% had a core family type and 98.7% had a voluntary marriage (Table 1).

Table 2. Characteristics of women regarding fertility

Based on the characteristics of women regarding fertility; it was found that the number of pregnancies in 33.3% was 2, 42.7% had one live birth, 84.7% were willing at last pregnancy, 87.3% have taken support from their spouse during pregnancy, 82.7% wanted to have their spouses besides during the delivery and 29.3% have defined delivery as pleasing (Table 2).

Table 3. Antropometric measurement Values of the Infants

Based on the antropometric measurement values of the infants, it was determined that their mean weight was 3324.23 g, and mean height was 49.96 cm.

Table 4. Descriptive characteristics regarding infants

Based on the descriptive characteristics of the infants, it was determined that 57.3% were males, 60% of women have stated that they did not matter about the sex of the baby and 45.3% breastfed their babies immediately.

Table 5. Sociodemographic characteristics of the Fathers

It was found that mean age of the fathers who were included in the study was 31.16±5.85 (20-56) years.

Table 6. Comparison of the states of mother-infant bonding and experiencing depression among the women (N=150)

It was found that mean score of the women from mother-to-infant bonding scale was 1.13±1.81, their mean score from depression scale was 8.12±4.85; and 16.7% of the women were belong to the risk group for depression.

When socio-demographic characteristics of the women and their status of mother-infant bonding were compared, a statistically significant difference was found between voluntariness for the last pregnancy and status of mother-to-infant bonding ($p<0.05$) ($p=0.043$). When their sociodemographic characteristics were compared with their status of experiencing postnatal depression; a statistically significant difference was detected between the status of getting support from the spouse during pregnancy and experiencing depression ($p<0.05$) ($p=0.03$).

Table 1. Socio-demographic characteristics of the women

Characteristics	Number (n=150)	%
Education level		
Elementary school	48	32.0
Middle school	53	35.3
High school	36	24.0
University and higher	13	8.7
Employment status		
Housewive	136	90.7
Employed	14	9.3
Income status		
Good	65	43.3
Moderate	80	53.3
Bad	5	3.3
Family type		
Large family	50	33.3
Core family	100	66.7
Voluntary marriage		
Yes	148	98.7
No	2	1.3
Total	150	100.0

It was also found that there was a positive but weak correlation between women's status of experiencing depression and their level of mother-infant bonding; and observed that the level of mother-infant bonding increased as the level of depression increased ($p=0.09$, $r=0.21$).

DISCUSSION

The relationship between the mother and the child is very important since the person whom the baby feels proximity at the first time following birth is the mother (or the person of primary care) and this is the period in which emotional, behavioral and cognitive capabilities that might affect her/his whole life will develop (8,13). "Maternal bonding" that

Table 2. Characteristics of women regarding fertility

Characteristics	Number (n=150)	%
Number of pregnancies		
1	45	30
2	50	33.3
3	38	25.3
4 and more	17	11.3
Status of experiencing abortion		
Yes	48	32.0
No	102	68.0
Number of live births		
1	64	42.7
2	52	34.7
3	25	16.6
4 and more	9	6.0
State of voluntariness for last pregnancy		
Yes	127	84.7
No	23	15.3
State of getting support from the spouse during pregnancy		
Yes	131	87.3
No	19	12.7
State of requesting to have spouse besides during delivery		
Yes	124	82.7
No	26	17.3
Definitions for delivery		
Painful	25	16.7
Frightening	21	14
Stressful	42	28
Pleasing	44	29.3
Other	18	12
Total	150	100.0

is defined as the period during which the mother shows her affection towards her child at the end of a satisfying and pleasing relationship between each other (14), starts just before the birth and continues to develop in the later months (15). The previous studies in the literature showed that the number of pregnancies of the mother, her education level, her employment status and social support structures affect the maternal bonding process between the mother and the infant during postnatal period (16-22).

In our study aiming to measure maternal-to-infant bonding, it was found that mean age of the mothers was 27.5±5.79 (16-42) years , 35.3% of them were graduates of middle school, 90.7% were housewives, 53.3% had an income at a moderate level, 66.7% had a core family type and 98.7% had a voluntary marriage. Despite the studies showing that maternal age has an effect on maternal bonding, there are also studies in the literature showing it has no effect (23-25). In the study by Pridham et al. (23) (1991) evaluating the factors affecting maternal bonding, it was stated that there was not a relationship between maternal age and maternal bonding. In the study by Diehl (26) (1997), it was reported that there was not a statistically significant relationship between maternal age and mother-infant interaction (25). In the study by Kavlak (24) (2004), mean age of the mothers were reported to be 25.96±4.68 years and maternal age was not effective in maternal bonding. In the study by Şen (13) (2007) on maternal bonding, mean age of the mothers was reported to be 26.94±5.18 years. At the end of this study, differences were found between the age of the mothers and maternal bonding scores; and it was found that maternal bonding scores of young mothers were higher compared to the mothers between 38 years old and above (13). This situation can be explained by the fact that young mothers mostly had their first child and they were more willing.

Table 3. Antropometric measurement values of the infants

Variables (N=150)	Mean±Std. Deviation	Median (min-maks)
Weight	3324.23±445.81	3327.50 (2250-4520)
Height	49.96±1.68	50.00 (45-53)
Head circumference	36.76±26.28	35.00 (30-36)
Chest circumference	31.73±1.35	32.00 (28-36)

min: Minimum, maks: Maksimum

Table 4. Descriptive characteristics regarding infants

Characteristics	Number (n)	%
Sex		
Female	64	42.7
Male	86	57.3
Status of wishing for a specific sex for the baby		
Girl	35	23.3
Boy	25	16.7
Does not matter	90	60.0
The first time for breastfeeding		
Immediately	68	45.3
Within 1-2 hours	48	32
Within 3 hours or after	12	8.0
I did not breastfeed	22	14.7
Total	150	100.0

Table 5. Socio-demographic characteristics of the Fathers

Characteristics	Number (n=150)	%
Education level		
Elementary school	28	18.7
Middle school	33	22.0
High school	69	46.0
University and higher	20	13.3
Employment status		
Unemployed	4	2.7
Employed	146	97.3
Voluntary marriage		
Yes	148	98.7
No	2	1.3
Feelings during pregnancy		
I felt so happy	124	82.7
I was surprised	7	4.7
I had no feeling	7	4.7
Other	12	8.0
Status of supporting wife during pregnancy		
Yes	133	88.7
No	17	11.3
Willingness for a specific sex for the baby		
Girl	28	18.7
Boy	32	21.3
It does not matter	90	60.0
The time of cuddling the baby for the first time		
Immediately	66	44.0
Within 1-2 hours	29	19.3
Within 3-4 hours	13	8.7
After 4 hours and more	13	8.7
Other	29	19.3
Total	150	100.0

In the performed studies, there were no information about the effect of education of the mother on mother-infant bonding. However; it is thought that all kinds of trainings (breastfeeding, baby care, baby feeding, etc) may have positive effects on mother-infant bonding. When characteristics of the mothers included in the study regarding fertility were examined, it was detected that 33.3% had two pregnancies and 42.7% had one live birth at least (Table 2). In the study by Alan (6) (2011), it was found that mean number of pregnancies among the mothers was 2.01±1.25 and mean number of children was 1.95±1.16; and in the study by Kavlak (25) (2004), it was detected that mean number of their children was found to be 1,51±0,640 (6,13). According to TNSA 2013 data, it is observed that mean number of pregnancies among women is 2.26 and the rate of fertility has decreased approximately by 15% compared to 2000s (TNSA 2013). Pridham (23) (1991) found the satisfaction levels of multiparous mothers from the motherhood as high. Walker et al. (16) (1996) concluded that multiparous mothers turned back to their own care, housework and social activities more quickly compared to primiparous women (13). In the study by Şolt (24) (2011), mean maternal bonding scores of the mothers in primiparous group (97,34±4,61) was found to be higher than the mothers in multiparous group (95.22±5.63), and this difference was statistically significant (24). In the study by Alan (6) (2011), level of maternal bonding decreased as the number of pregnancies and number of children increased. In the study by Şen (13) (2007) examining the mothers in terms of the number of children, it was found that maternal bonding weakened as the number of children increased and maternal bonding became stronger as the interval between deliveries increased.

When the willingness of the mothers in the study for their last pregnancies was examined, it was determined that 84.7% of them was voluntary for their last pregnancy (Table 2). In the study by Kavlak (25) (2004), it was reported that 82.4% of the mothers have planned their pregnancy and 78.2% did not experience any problems duing the pregnancy; and in the study by Şen (13) (2007), it was concluded that 91.4% of the mothers had a voluntary and planned pregnancy and 85.7% have not experienced any problems during the pregnancy (13,25). Moreover, in the study by Alan (6) (2011), it was found that 70.4% of the mothers were willing for their last pregnancy and spouses of 82.2% wanted the last pregnancy. Based on the outcomes of previous studies, it is possible to say that more than half of the pregnancies in recent years were planned and voluntary (6,13,25).

When socio-demographic characteristics of the women in our study and their states of mother-to-infant bonding were examined, a statistically significant difference was found between voluntariness for the last pregnancy and mother-infant bonding status ($p<0.05$) ($p=0.043$) (Table 6). It was concluded that bonding states of the mothers who were willing for their pregnancies were more positive. In the study by Alan (6) (2011), mean MIBS scores of the mothers who were voluntary for their last pregnancies was found to be 98.34±6.54 and it was 96.15±9.74 among involuntary women (6). The relationship between voluntariness for the pregnancy and mean MIBS scores was found to be statistically significant ($p<0.05$) (6). Other findings in the literature were also examined, and it was indicated that an unplanned pregnancy or an unwanted baby negatively affected mother-to-infant bonding (Ard 2000, Kavlak 2004, Eris 2007) (25,27,28). In the study performed by Top et al. (29) in 2005 about the attitudes of pregnant women regarding their changing body image, they found that voluntariness for pregnancy had an effect on the adaptation to motherhood (28). The results of our study are in accordance with the other studies in the literature in this aspect. According to Brockington (2006), there was a strong correlation between bonding disorder and unwanted pregnancies and lack of establishing a connection with the fetus during pregnancy (29). In the study performed by Alan (6) (2011), mean MIBS scores of the mothers whose spouses wanted pregnancy was 97.56±7.93 whereas it was 91.75±12.99 among the ones whose spouses did not (6). The relationship between the state of voluntariness among spouses and mean MIBS scores were found to be statistically significant ($p<0.05$) (6). Planning the pregnancy, acceptance of pregnancy by the father and paternal support have shown significant effects on maternal bonding (27). Moreover, it has been suggested that a safe bonding between the mother and the infant may help fathers to establish a safe attachment with the baby (30). It can be considered that unwanted pregnancies negatively affects mother-infant bonding and may create a risk for attachment. As in this study and the other ones in the literature, establishment of a safe mother-infant bonding as a result of wanted pregnancies can be considered as a common outcome.

When the distribution of mothers based on their characteristics regarding fertility and their states of getting support from their spouses was examined, it was found

Table 6. Comparison of the states of mother-infant bonding and experiencing depression among the women (N=150)

Characteristics	Mother-to-Infant Bonding scale $\bar{x}$ ±SD	Test Values	Edinburgh Postnatal Depression Scale (EPDS) $\bar{x}$ ±SD	Test Values
Education of the mother		**KW; P**		**F; P**
Elementary school	1.1250±1.8	0.223;0.974	8.7292±4.9	0.107;0.744
Middle school	1.1321±1.8		8.0189±4.3	
High school	1.0000±1.4		7.6667±5.5	
University and higher	1.5385±2.4		7.5385±4.7	
Employment status of mother		U; P		T; P
Housewive	1.0956±1.7	912.5;0.767	8.1618±4.8	0.324;0750
Employed	1.5000±2.3		7.7143±4.9	
Family type		U; P		T; P
Large family	1.3800±1.8	2200.5;0.166	8.2200±4.0	-0.193;0.847
Core family	1.0100±1.8		8.0700±5.2	
Voluntary marriage		U; P		U; P
Yes	1.1436±1.8	93;0.296	8.0473±4.8	37.000;0.068
No	0.0000±0.0		13.5000±0.7	
Number of pregnancies		KW; P		F; P
1	1.0667±1.7	1.717;0.633	7.4889±4.7	0.469;0.704
2	1.0400±1.7		8.1200±4.6	
3	1.5263±2.1		8.5526±4.9	
4 and more	0.7059±1.4		8.8235±5.5	
Status of experiencing abortion		U; P		T; P
Yes	1.2292±1.9	2344;0.627	7.9792±4.6	-0.250;0.803
No	1.882±1.7		8.1863±4.9	
Number of live births		KW; P		F; P
1	1.0469±1.7	1.264;0.738	7.2187±4.5	1.426;0.238
2	1.1538±1.8		8.7500±4.8	
3	1.4000±1.8		9.1600±5.1	
4 and more	0.8889±1.6		8.0000±6.1	
Voluntariness for last pregnancy		U; P		T; P
Yes	0.9843±1.6	1126.5;0.043	7.9843±4.8	-0.786;0.438
No	1.9565±2.2		8.8696±4.9	
Status of getting support from the spouse during pregnancy		U; P		T; P
Yes	1.0840±1.7	1084.5;0.294	7.7099±4.8	-3.227;0.03
No	1.4737±1.9		10.9474±3.9	
Sex of the baby		U; P		T; P
Girl	1.1094±1.9	2663.0;0.695	7.5938±4.2	-1.182;0.239
Boy	1.1512±1.7		8.5116±5.2	
Willingness for a specific sex for the baby		KW; P		F; P
Girl	1.5143±2.2	1.076;0.584	8.8286±4.6	0.601;0.550
Boy	1.0400±1.8		8.3200±5.1	
It does not matter	1.0111±1.6		7.7889±4.8	

that 87.3% of them got support from their spouses, 82.7% wanted their spouses besides during delivery and 29.3% have defined the delivery as pleasing (Table 2). In the study by Alan (6) (2011) 51.9% of the mothers were getting support for baby care and housework; and among them, 85.2% were getting support from their spouses, 47.4% from their own families and 48.1% from the family of their spouses. According to the results of the study by Şen (13) (2007), 57.9% of the mothers stated that they got support for baby care and 45.7% of these were getting support from their spouses.(31) Ertürk (32) (2007) have declared that 68.2% of the mothers got support for baby care and 41.2% of these were getting this support from their own mothers (31). In this study, mothers have told that they got support from their spouses with a low ratio of 7.6% (31). According to the results of the study by Ege et al. (33) (2008), 68% of the mothers stated that they got support from their own families during postnatal period whereas 44% of them declared that they got this support from the families of their spouses and 9.3% from their spouses (32). In the study by Akın et al. (34) (2008), it was reported that 61.5% of a group of mothers whose social support levels were examined during postnatal period have got support from their families. In the study performed by Kavlak (25) in 2004, it was detected that 65.5% of the mothers were getting support for baby care, 55.5% of them were getting this support from their own mothers or spouses and the ratio of supporting spouses was 35.2%. The results of this study show similarity with the other studies in the literature examining the fact of getting support. It was concluded that the mothers included in the study constituted the group having the highest support from their spouses during postnatal period. It is thought that spouses contribute to mother-to-infant bonding by helping the mothers during postnatal period at such a high level due to the importance given to the concept of family in our country.

When sociodemographic characteristics of the women and their status of experiencing postnatal depression were compared in our study, a statistically significant difference was found between getting support from the spouse during pregnancy and status of experiencing depression ($p<0.05$) ($p=0.03$) (Table 6). It was indicated that the women who were supported by their spouses and could share the difficulties they lived with them experienced less problems in the role of motherhood and during the adaptation period for motherhood. In the literature, facts such as lack of social support, mismatch between the spouses and stressful living conditions are among the most important reasons of depression cases that are observed during postnatal period (32,34-38). In the studies performed in the western countries, it was reported that postnatal depression has been developed among the women who had recently given birth at a ratio of nearly 10-15% (42-43). In the studies performed in Turkey, the incidence of experiencing postnatal depression has been varied between 21.2-54.2% (44). In the study performed by Danaci et al. (43) (2002) in Turkey, the incidence of postnatal depression was determined to be 15-30%, and similar findings were obtained also in the study by Inandı et al. (42) (2005). Besides, in the study by Smith-Nielsen et al. (44), it was reported that postnatal depression has been encountered more among the mothers who had any previous problems.

It is highly difficult to adapt to postnatal period which is very stressful (21). Women are in expectancy for a support from their spouses especially during this period and their physical and mental well-being are positively affected when this support is met at an adequate level (32). It was detected in the literature studies that postnatal depression occurs in one of every eight women (33,37) When social support needs of the mothers included in the study group are adequately met, it is observed that their depression experiences are decreased and mother-infant bonding relationship is positively affected.

At the end of the study, a positive but weak relationship was found between womens' status of experiencing depression and the level of mother-to-infant bonding; and it was observed that the level of mother-to-infant bonding increased as the level of depression increased ($p=0.09$, $r=0.21$). Based on this result, it is considered that women who experience postnatal depression attach their babies more in order to cope with this situation.

CONCLUSIONS

In conclusion, the state of mother-to-infant bonding was found to be higher among the mothers who were voluntary for the pregnancy compared to unwanted pregnancies. Based on the status of experiencing depression among the mothers in the study, it was found that the ones who have got support from their spouses about baby care and other stuff had a lower level of experiencing depression. A positive but weak correlation was found between depression states of the mothers and their mother-to-infant bonding levels.

Nurses are very important in terms of the evaluation of

mother-infant relationship during early postnatal period, consultancy and support. Nurses who plays a significant role in grounding mother-infant bonding, should encourage parents about having an eye contact with the baby, touching the baby, cuddling, caring, examining the baby and talking about the baby (15). Nurses should keep the newborn on the breast of the mother immediately after birth, help mother to breastfeed and should make the father contribute by creating a suitable environment. Considering the importance of bonding, especially mothers should be supported for enhancing mother-infant interaction and its quality. Nurses and other healthcare professionals should be given in-service trainings before and after birth for starting, promoting and maintaining mother-to-infant bonding. Necessary environment and support should be provided for the mothers in the hospital to keep them in a more physical and emotional interaction with their babies.

Ethics

Ethics Committee Approval: Bülent Ecevit University Human Research Ethics Committee received approval.

Informed Consent: Informed consent was obtained from the patient.

Authorship Contributions

Concept: A.T., Design: A.T., Data Collection or Processing: S.D., S.Do., Analysis or Interpretation: A.T., T.K.A., Literature Search: A.T., I.A., Writing: A.T., S.D., S.Do., T.K.A., I.A.

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