ARAŞTIRMA

THE INFLUENCE OF SOCIAL SUPPORT ON MATERNAL-INFANT ATTACHMENT IN TURKISH SOCIETY

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ABSTRACT

Objective: *To investigate the influence of social support in post-partum period on the level of maternal-infant attachment and risk factors.*

Method: *The descriptive study was composed of 135 mothers with 4-6 month-old babies and giving birth in 2009. To collect data, a questionnaire, "Maternal Attachment Inventory" and "Multidimensional Scale Perceived Social Support" were used. In the analysis of data, percentage, mean, standard deviation and the tests of Mann Whitney U, Kruskal Wallis Variance Analysis, Spearman Correlation Analysis and Multiple Regression Analysis were used.*

Results: *Mean Maternal Attachment Inventory score of mothers was 96.53±9.25. A statistically significant assosation was determined between mean Maternal Attachment Inventory and Multidimensional Scale Perceived Social Support scores ($p<0.05$). Such factors as the location where mothers lived for a long time, the existence of social security, wanted pregnancy, baby's distinguishing the mother from others, the existence of a disorder in the baby after delivery, parental intercourse after the delivery, the support to the mother in baby care by the affinity family, and Multidimensional Scale Perceived Social Support were also determined to affect maternal-infant attachment in post-partum period at the rate of 46.9%.*

Conclusion: *It was determined that a significant relation is present between Multidimensional Scale Perceived Social Support and mother-infant attachment.*

Keywords: *Attachment; influence; social support.*

ÖZET

Türk Toplumunda Sosyal Desteğin Anne-Bebek Bağlılığına Etkisi

Amaç: *Çalışmanın amacı doğum sonrası dönemde sosyal desteğin anne-bebek bağlanması üzerine etkisini incelemek ve risk faktörlerini belirlemektir.*

Yöntem*: Tanımlayıcı türdeki araştırmanın örneklemini 2009 yılında doğum yapan, 4-6 aylık bebeği olan 135 anne oluşturmuştur. Verilerin toplanmasında anket formu, "Maternal Bağlanma Ölçeği" ve "Çok Boyutlu Algılanan Sosyal Destek Ölçeği" kullanılmıştır. Verilerin analizinde yüzde, ortalama, standart sapma, Mann Whitney U testi, Kruskal Wallis Varyans Analizi, Spearman Korelasyon Analizi, Multiple Regresyon Analizi kullanılmıştır.*

Bulgular: *Annelerin Maternal Bağlanma Ölçeği puan ortalamaları 96,53±9,25'dir. Annelerin Maternal Bağlanma Ölçeği puan ortalaması ile Çok Boyutlu Algılanan Sosyal Destek Ölçeği puan ortalaması arasında istatistiksel olarak anlamlı bir ilişki olduğu saptanmıştır ($p<0,05$). Annelerin uzun süre yaşadıkları yer, sosyal güvence varlığı, annelerin gebeliği istemesi, bebeğin anneyi yabancılardan ayırt etmesi, bebekte sonradan oluşan sağlık probleminin varlığı, annenin eşiyle genel ilişki durumu, bebek bakımında anneye eşin ailesinin desteği ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği toplam puanının, doğum sonu dönemde anne-bebek bağlılığını %46,9 oranında açıkladığı saptanmıştır*

Sonuç: *Doğum sonu dönemde annelerin algıladıkları sosyal destek ile anne-bebek bağlılığı arasında anlamlı ilişki olduğu saptanmıştır.*

Anahtar Kelimeler: *Bağlanma; etki; sosyal destek.*

INTRODUCTION

Postpartum is a period during which a new lifestyle has been established due to a new participant to the family, and parents experience some emotional changes in their relations and lives (Arslan and Uzun 2008). With the effect of physiological and anatomical changes, as well as new roles and responsibilities, mothers go

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through a difficult process. (Adam, Gunnar and Tanaka 2004). The perception of mothers related to babies in postpartum period constitutes the basis of relationship between the mother and the baby developing during the following days, months and years. The process in which mothers develop an emotional attachment as a result of a satisfactory and enjoyable interaction between mothers and babies is described as "maternal attachment" (Adam, Gunnar and Tanaka 2004; Ciechanowski, Walker, Katon and Russo 2002).

Maternal attachment starts just before the birth, and continues and develops during the following period (Merker and Ferketich 1994). Emotional attachment of mothers is one of the key components enabling babies to grow and develop healthily, and affecting future lives of babies positively (Ciechanowski, Walker, Katon and Russo 2002; Tilokskulchai, Phattanasiriwethin, Vichitsukon and Serisathien 2002). First caregivers and protectors of babies, mothers are individuals that babies develop a relationship to and get affection from the first hours and days. Babies become aware of themselves and the environment with the help of mothers or first caregivers (Schiffman, Omar and McKelvey 2003). During the initial months of their lives, the connection of babies to outside world is limited only to the mothers. Experiences acquired by babies are obtained by mothers. Thanks to such experiences, babies learn how to meet the needs, to sooth the worries and to assess the situation, and get an opportunity of identifying themselves. (Edward 2000; Schiffman, Omar and McKelvey 2003). A healthy relationship estublished between mothers and babies enables babies to form a healthy personality and a strong basis of positive relationships with others (Koo and Moon 1998; Mercer 1981; Mercer 1985). Therefore, the level of maternal attachment plays a crucial role in the lives of babies, because the first individual the baby feels very close (or the first caregiver) has been the mother since the birth, and the process is the most significant period which affects emotional, behavioral and cognitive talents (Carlson, Sampson and Sroufe 2003; Tilokskulchai, Phattanasiriwethin, Vichitsukon and Serisathien 2002).

In the formation of a healthy maternal attachment, the adaptation of mothers to the new role, the support from relatives and friends to cope with challenges, and the harmony between spouses have a vital importance. (Kivijarvi, Raiha, Virtanen, Lertola and Piha 2004; Taskin 2009). Such support systems, called social support, are the most important aids for the individuals to cope with the challenges encountered in life. Social support could alter the course between the source of stress and the result by affecting coping methods. The support obtained from relatives and friends plays a key role during and after the period of pregnancy. In light of literature, it was reported that a mother supported by her partner and sharing her problems related to motherhood in the adaptation period experiences less problems, and insufficient social support, lack of harmony between couples and stressful living conditions are among the psychiatric problems witnessed in postpartum period (Callister, Beckstrand and Corbett 2011; Ege, Timur, Zincir, Geckil, and Sunar 2008).

Postpartum health care includes meeting the physiological, psychological and social needs of mothers. The fact that mothers feel themselves relaxed from the beginnig, participate actively in the babycare and self-care in a succesful way has got a positive effect on mothers' physical and psychological health status. Therefore, both midwives and nurses should assess the needs for postpartum health care of mothers, help them adapt the role of motherhood and give assistance in order to reduce the problems encountered in postpartum period by providing primary care and support (Gorrie, McKinney and Murray 1998; Lugina et al. 2001).

The study was conducted in order to determine the effects of attachment, including social support between mothers and babies, and to understand the interactions between 4-6 month-old babies and their mothers. In light of the data obtained in the study, it is aimed to improve the midwifery/nursing approaches to the increase of maternal-infant attachment.

MATERIAL AND METHODS

Design: The study was designed as a descriptive one.

Population: The universe of the study was composed of 1234 mothers with 4-6 month-old babies, giving a birth in 2009 and living in a neighbourhood with 10 family health centers (FHC) in Kırşehir.

Sample: Stratified random sampling method was used to select the sampling group from the enrolled population. In the determination of sampling size, the formula was utilized for determining the number of individuals sampled to investigate the average of an event, the universe of which is known

(Sumbuloglu and Sumbuloglu 1997). By the formula, 135 participiants were included into the study. Those with single birth, full-term pregnancies, 4-6 month-old babies, no health problems (both babies and themselves), literacy, not in adolescent period, and participating in the study, constituted the inclusion criteria of the study.

Data Collection: To collect data, a 42-item questionnaire was designed by the researchers and used to assess mothers' socio demographic characteristics, obstetric features and babies' characteristics, and whether or not mothers were helped about the care during postpartum period. Data were collected using a face-to-face interview with mothers admitted to FHCs between 1st December, 2010 and 20th February, 2011. In order to assess maternal-infant attachment, MAI, and in order to assess social support levels of mothers, Multidimensional Scale Perceived Social Support (MSPSS) were used. Maternal Attachment Inventory (MAI) was originally developed by Mary E. Muller (1994) for the assessment of maternal attachment (Muller 1994). The validity and reliability trials of Turkish version of MAI were performed with 165 mothers with healthy babies. Croanbach Alpha Reliability Coefficient was found to be 0.77 in first-month trial and to be 0.82 in fourth-month trial (Kavlak and Sirin 2009). In the present study, however, Croanbach Alpha Reliability Coefficient was detected to be 0.93 for the mothers with 4-6 month-old babies.

MAI, an indicator of and measuring affection, is a self-administered scale and can only be administered to literate women (Kavlak and Sirin, 2009). It is a Likert-type scale with 26 items rating from "always" to "never". Each item contains statements and points, showing a=4 (always), b=3 (often), c=2 (sometimes) and d=1 (never). The lowest score to be obtained from the scale is 26, while the highest score is 104. The higher the scores are, the higher the level of maternal attachment is (Kavlak and Sirin 2009).

MSPSS was designed by Zimet et al. (1988). Cronbach Alpha reliability coefficient was found to be 0.80-0.95 in the study of factor analysis, validity and reliability of designed and revised form of MSPSS by Eker et al. (2001). However, in our study, cronbach alpha reliability coefficiency was found to be 0.91. Designed in Likert-type as seven degrees in an order from the weakest, "certainly no= 1" to the strongest, "certainly yes= 7", the scale is composed of 12 items and three subscales as family, friends and close support reflecting supportive sources of the scale. The items 3, 4, 8 and 11 measure the family; 6, 7, 9 and 12 measure the friends; and, 1, 2, 5 and 10 also measure close support. The lowest and highest scores obtained from the subscales range between 4 and 28. The scores of the scale obtained from the total score range from 12 to 84. As the score obtained increases, the perceived social support increases (Eker at al. 2001).

Data Analysis: In the analysis of data, percentage, mean, standard deviation and the tests of Mann Whitney U, Kruskal Wallis Variance Analysis, Spearman Correlation Analysis and Multiple Regression Analysis were used.

Ethics: All participants were informed about the design of the study, and oral consents were obtained. To perform the study in related institutions, written permission was obtained from the Health Department of Kırşehir. Also, the study was confirmed by the ethical board of Selcuk Medical School of Selcuk University. The permission was obtained from Oya Kavlak, preparing the reliability and validity of the scale, to use the Turkish version of MAI.

Questions in the Study

1. Are the socio-demographic characteristics of mothers associated with pospartum maternal attachment?
2. Are the obstetric characteristics of mothers associated with pospartum maternal attachment?
3. Are the charactetistics of infants associated with the attachment between mothers and infants?
4. Is the condition in which mothers get support about the postpartum care associated with the attachment between mothers and infants?
5. Are the levels of perceived social support by mothers associated with the attachment between mothers and infants?

Limitations: The findings in the study are valid only for the participants and cannot be generalized to the whole society. The fact that the illiterate were not included into the study forms another limitation in terms of the association between the level of social support and maternal attachment.

FINDINGS AND DISCUSSION

Mean rates of age and marriage were found to be 26.59±5.47 and 6.19±5.16. respectively. Of all participants, 75% were graduated from primary school, 85.2% were housewives, 91.9% were out of a socail security

system. No problems were experienced by 83.7% of mothers during the last pregnancies, 70.4% wanted their pregnancies consciously, pregnancies were wanted by partners in 82.2%, 54.8% were found to be informed about postpartum health care, and 48.9% were trained in a health center on the care.

Table 1: Distributions of support received in postpartum period (n=135)

Characteristics on care	Numbers	Percentage
Babycare and support for housework		
Yes	70	51.9
No	65	48.1
Support from partners in babycare		
Yes	115	85.2
No	20	14.8
Support from own family in babycare		
Yes	64	47.4
No	71	52.6
Support from partner's family in babycare		
Yes	65	48.1
No	70	51.9
Commnication with Partners		
Good	105	77.8
Moderate/Poor	30	22.2
Effect of maternity on anxiety		
Yes	111	82.2
No	24	17.8
Individuals the mother applies to when she is anxious		
Yes	104	77.0
No	31	23.0

Of the mothers included into the study, MAI scores were determined to range between 58 and 104, and mean rate of MAI scores was 96.53±9.25. The scores of MSPSS were observed to change between 18-84, and mean rate of MSPSS scores was 54.80±17.33. In addition, compared mean scores of MSPSS with those of MAI, a statistically significant positive correlation was defined ($r_{s=}$ 0.305 $p<0.05$).

Of all mothers, 51.9% were determined to be supported for housework and babycare. While 85.2% were supported by partners, the rates of those supported by own and partners' families were 47.4 and 48.1%. The rate of communication between spouses was 77.8%, 82.2% reported that a correlation was present between maternity and level of anxiety, and 77% stated to need close friends when level of anxiety was high.

Between MAI scores, and age rates of mothers and partners, period of marriages, level of income and number of children and births, a statistically negative and insignificant correlation was found ($p\geq0.05$). Also, compared MAI scores with educational status of mothers and partners, partners' professions, whether mothers were employed or not, perceived level of income, type of families, type of the last birth, experiencing health challenges during pregnancies, duration of hospital stay during delivery, being trained for births, being informed and sources of information during pregnancies, infants' sexes, the moment of hugging and breastfeeding infants for the first time, and being supported by own families, a statistically insignificant differences was observed ($p\geq0.05$). Mean MAI scores and statistically significant variables were presented in Table 2.

Mean MAI scores of mothers without social security were found to be lower (Table 2). Some studies reported that mothers' socioeconomic status and income level were related to maternal-infant attachment (Diehl 1997; Pederson et al. 1990). Broom (1998) reported that employed mothers were more sensitive to their 3-month-old infants than unemployed mothers. As a new individual in the family, the newborn infant may be considered to be an increasing contributor to socio-economic anxieties. Of all participants in the study, those living in city centers were also found to have higher mean MAI scores (Table 2). Now that living in a city center is more appropriate for mothers to access to facilities such as health, education and transportation, quality of live may be suggested to affect maternal attachment positively. Experiencing health challenges in postpartum period was determined to have a positive effect on maternal attachment and to increase MAI scores (Table 2). When questioned between 4-6 months after births, partipicants reported to experience such problems as urinary incontinence, opened sutures, infections and long-term lochia. In all participants, whether pregnancies were wanted or unwanted was observed to affect level of maternal attachment. While mean MAI scores were higher among

women choosing wanted pregnancies, mothers with unwanted pregnancies were found to have lower scores (Table 2).

Table 2: Findings as to the associations between characteristics of mothers and mean MAI scores (n= 135)

Introductory characteristics	MAI scores $\overline{X}$ ± SD	Test and p
Social security		
Yes	97.39±8.27	z=2.538
No	86.81±13.87	p=0.011
Location lived for a long time		
Province	98.38±7.18	z=3.333
County/village	93.38±11.38	p=0.000
Experiencing postpartum problems*		
Yes	98.72±10.65	z=1.994
No	96.19±9.02	p=0.046
Wanted pregnancy		
Yes	98.34±6.54	z=2.555
No	92.22±12.80	p=0.011
Wanted pregnancy by partners		
Yes	97.56±7.93	z=2.282
No	91.75±12.99	p=0.023
Health problems of infants encountered after births		
Yes	99.16±5.53	z=1.977
No	95.03±10.55	p=0.048
Being supported by partners' families in babycare		
Yes	94.95±9.82	z=2.368
No	98.00±8.50	p=0.018
Communication with partners		
Good	98.49±6.14	z=3.093
Moderate/poor	89.66±14.05	p=0.002

*experienced problems; urinary incontinence, opened sutures or contracting infections, and long-term lochia etc.

In light of other studies in literature, unwanted pregnancies or infants were reported to jeopardize the attachment between mother/father and infants. Stresses may be experienced, especially unless parents sort out ambivalence and cope with the role of parenthood. One of the characteristics of adulthood, the motherhood was reported not to improve satisfactorily or to improve in a late phase in adolescents and less physically, socially and psychologically matured mothers (Andreozzi, Flanagan, Seifer, Brunner and Lester 2002; Goulet, Bell, Tribble, Paul and Lang 1998).

Another finding in our study is that a statictically significant correlation was present between maternal attachment, and infants' distinguishing between mothers and others (Table 2). In light of the findings as described by Bell (1974) in Bakkaloglu and Sucuoglu's (2000) study, Bell (1974) suggested a model of interactive association describing that the more mothers affect infants, the more infants affect mothers, and explained that infants play an active role in initiating, maintaining, and finishing the behaviours of mothers related to both babycare and relationship. Bell described behaviours, such as infants' distinguishing between mothers and others, verbal expressions, mimics, postures, differential weep and response to stimulants as markers, and explained that such behaviours feel mothers' having a special meaning for infants and motivate mothers to meet infants' needs. Infants' distinguishing between mothers and others may be suggested to have a positive effect on maternal-infantile attachment.

Between the existence of postpartum health problems seen in infants and mean MAI scores, a statistically significant association was found (Table 2). Health problems in infants may be suggested to increase feelings of affection and compassion in mothers. Compared mothers supported in terms of housework and babycare with unsupported mothers, mean MAI scores of mothers supported as to housework and babycare were found to be lower than unsupported ones, and the diffference was statictically significant (Table 2).

In traditional societies such as Turkey, motherhood is considered a holy concept, and so social support increases in this period. Although mothers are socially supported in postpartum period, whom mothers are supported by is also as important as the quality of support. Our findings indicate that the support from the relatives of partners decreases maternal attachment. The condition may arise from the fact that partners' families consider infants their own and externalize mothers. In addition, causing mothers to spend less time and less skin-to-skin contact with infants, the support given mothers while looking after infants may be suggested to decrease maternal attachment scores.

The correlation between mean MAI scores and general communication of mothers to partners was found to be statistically significant

(Table 2). Mean MAI scores of mothers with good communication were determined to be higher. Parents maintaining happy marriages are observed to exhibit more positive attitutes to their children (Montigny and Lacharité 2004).

A statistically significant association was found between mean MSPSS and MAI scores. As mean MSPSS scores of mothers increased, mean MAI scores were also determined to increase. The finding makes the question more significant, asked in "Method" section, "Are the levels of perceived social support by mothers associated with postpartum maternal attachment?". Social support decreases the incidence of depression in mothers by increasing the feeling of satisfaction related to motherhood and influences babies' health positively (Gulseren 1996).

Table 3: Determinants of MAI scores related to socio-demographic data, communication, mean scores of MSPSS and infants' characteristics, according to Multiple Regression Analysis (Backward Stepwise Model)

Determinants of maternal attachment scale (n=135)	**d. β**	**% 95 CI**		**t**	**p**
		Lower value	**Upper value**		
Communication (poor)	-0.291	-9.428	-3.465	-4.277	0.009
Social security (no)	-0.230	-12.209	-3.325	-3.460	0.001
Infants' distinguishing between mothers and others (no)	-0.222	-14.672	-3.797	-3.361	0.001
Infants' health problems encountered after births (no)	-0.208	-6.392	-1.593	-3.293	0.001
Being supported by partners' families in babycare (yes)	-0.200	-6.133	-1.250	-2.992	0.003
Total MSPSS scores	0.190	0.030	0.173	2.814	0.006
Wanted pregnancy (no)	-0.168	-6.154	-0.625	-2.426	0.017
Location lived for a long time (county/village)	-0.164	-5.602	-0.601	-2.500	0.014
R= 0.707	**R^2= 0.501**	**Adjusted R^2=0.469**			

In light of multiple regression analysis, the independent variable leading to the highest risk on maternal attachment was observed as the communication between mothers and partners. The following variables as second and third were the existence of social security and babies' distinguishing between mothers and others. As seen from our findings, the harmony and communication between parents are the most significant determinants for maternal attachment in postpartum period. In this context, the family should be holistically evaluated in postpartum period, and involving family members into consultancy may be put forth to affect maternal attachment positively.

CONCLUSION

Our study indicated that as mean MSPSS scores increase, mean MAI scores also increase positively. Upon listing from the most significant to the least, the factors affecting maternal attachment negatively in postpartum period were ranked as follows: poor communication between parents, the absence of social security, babies' failure in distinguishing between mothers and other individuals, postpartum health problems in infants, support given to mothers by partners' families, lower MSPSS scores, unwanted pregnancies and living in counties/villiages for a long time.

A positive relationship between mothers and infants formed at an early stage is known to constitute a healthy profile for children in future years and a positive background in terms of communication with other individuals. Therefore, nurses and midwives should be aware of risk factors affecting maternal attachment negatively in postpartum period and provide a healthy postpartum period for mothers and infants alike by taking essential measures in time.

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