

The Correlation between Adaptation to the Maternal Role and Social Support in a Sample of Iranian Primiparous Women

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Abstract

Introduction: Adaptation to the maternal role is an important factor for health of mothers and infants. With regards to numerous stresses after childbirth and effect of social support in modifying stresses, the present study was conducted for detecting the correlation between adaptation to the maternal role and social support in primiparous females.

Methods: This cross-sectional study was performed on 260 primiparous females, who had referred to public health centers of Shahid Beheshti University of Medical Sciences in Tehran, during year 2016. Data gathering tools included the «Demographic Questionnaire», «Adaptation to the Maternal Role in Iranian Primiparous Women Questionnaire», «Multidimensional Scale of Perceived Social Support», and Edinburgh Postnatal Depression Scale. Data analysis was done using the SPSS software (version 22) and it was based on descriptive statistics and statistical independent t-test, Analysis of Variance (ANOVA), Spearman correlation, and linear regression. P value < 0.05 was considered significant.

Results: The score of adaptation to a maternal role had a significant correlation with a total score of social support and its subscales (P = 0.001). Also, the adaptation to a maternal role had a reverse significant correlation with the mother and father's education and the rate of family income, yet the results of the linear regression demonstrated that only two variables, "social support" and "mother's education", were significant in predicting the adaptation to a maternal role (P = 0.001), and they could predict 15% of variance for adapting to a maternal role.

Conclusions: Social support is an effective factor for adaptation to the maternal role in primiparous females. Therefore, providing an appropriate situation for these supports is recommended. Also, it is required for health care providers to make sure about an adaptation to a maternal role, especially in mothers with higher education.

INTRODUCTION

Motherhood is associated with physical and psycho-social changes, which include a combination of positive and negative sensations [1]. However, having a child is pleasurable yet there are many postpartum stressors due to increased roles and

duties [2, 3] that could lead to emotions, such as weakness, inadequacy, guilt, inability, fatigue, mood swings, anger and resentment in the mother [4, 5]. Eventually, it is followed by complications, such as anxiety, post-traumatic stress disorder,

and postpartum depression [3]. For adapting to a new situation, the mother should overcome stimulants and be able to cope with these stresses properly [6]. Adaptation to motherhood includes a series of maternal emotions and behaviors, such as attachment to the fetus/infant and learning maternal behaviors, through which the maternal duties are fulfilled and the mother enjoys interacting with her child [4, 7]. In a normal situation, this process is formed during four months after delivery [7]; yet various factors, such as couple's relationship, the function of the family and significant others, stresses and social support affect the quality and quantity of adaptation to the maternal role [5]. Social support means to realize or to experience love, care, and value by others. In this situation, individuals are a part of a social network with mutual support and attention [8]. This support could include instrumental (financial assistance), informational (to provide the required information, suggestions, and consultations), emotional (empathy, understanding and admiration) and appraisal factors (to provide useful data for self-assessment). Partner and other members of the family could support the mother informally through taking part in home affairs and caring for the newborn. Also, support may be done formally by health care providers [9, 10]. Due to the lack of experience and inadequate knowledge, primiparous females need knowledgeable support. Lack of knowledgeable support decreases the mother's self-confidence, leading to a slow process of maternal adaptation role [11]. Also, if the partner cannot support the mother due to different reasons such as long working hours and another person has not been present for this support, she feels emotionally lonely and it affects her maternal identity. Mothers with appropriate support from their partners are less depressed and report lower stress symptoms [12]. With familial support, the mother can allocate sometimes to her self-care and with rest, exercise or recreation, she can gradually dominate the affairs of life [1, 13]. During stressful events, females seek more social support than males to cope with the new situation [14]. Studies from other countries have effectively considered the role of social support in facilitating compliance with maternal adaptation and accepting this responsibility [1, 15-17]; however, in different societies, mothers receive this support in various forms, according to social culture and needs of mothers. Even in the same society, mothers with different conditions, such as various job situations, require different supports [15]. In studies on the Iranian society, the correlation between social support and the variables of the mental and physical health of the mother during pregnancy, breastfeeding as well as postpartum psychological problems has been investigated. However, there are no studies about social support and adaptation to the maternal role. Social support is an important factor for modifying stresses [15], especially in primiparous females [18], which is decreased in Iran due to it is decreased by getting away from delivery [19]. Therefore, With regards to the importance of the role of maternal adaptation in maternal and infant health and impact of culture on perceived social support, this study was conducted to detect the correlation between adaptation to the maternal role and social support in primiparous females.

METHODS

This cross-sectional study was performed on 260 mothers, who referred to social health centers of Shahid Beheshti University of Medical Sciences during year 2016. Multi-stage

sampling was used to select the subjects. Health centers of the Shemiranat Municipality, North Tehran, and East Tehran were taken as a class and 3 health centers were randomly selected from each class so as to take account of socio-economic differences. The samples were equally divided between the classes and the subjects were selected from these centers by the convenience method and based on the study inclusion criteria. The tools for data gathering included the "Demographic Questionnaire", "Adaptation to the Maternal Role in Iranian Primiparous Mothers Questionnaire", "Multidimensional Scale of Perceived Social Support" (MSPSS), and Edinburgh Postnatal Depression Scale. The demographic questionnaire included items about age, mother and her husband's education and job, mother's ethnicity, duration of the marriage, family's income, household size, gender of the infant, the presence of permanent care provider along with the mother, and the hours of child care during night and day. After reviewing the studies, this questionnaire was regulated by the researchers. Also, for determining the content validity, the final questionnaire was edited according to the views of 10 midwifery and reproductive health specialists. The "Adaptation to the Maternal Role in Iranian Primiparous Women Questionnaire" was designed by Javadifar in 2013 and consists of 33 items in subscales including support and consolidation of the couple's relationship (6 items), hardship and dissatisfaction (7 items) and attachment to the child, concern and anxiety, emotional development, performance, and adaptation and social development (4 items each). The answers were scored based on a 5-point Likert scale from totally agree to totally disagree. The minimum and maximum scores were 33 and 165. A higher score demonstrated better adaptation. The face and content validity of this tool was confirmed and the content validity index was reported as 0.956. Also, the Cronbach Alpha Coefficient was 0.786 and it showed suitable internal consistency of the questionnaire. Evaluating the inter-class correlation index with a two-week interval (ICC = 0.833, $P \leq 0.001$) demonstrated the tool's stability [20]. In this study, after completion of the data by 20 eligible participants, the total reliability of the instrument was evaluated through Cronbach Alpha measurement, which was 0.86. Multidimensional Scale of Perceived Social Support is a self-report scale including 12 items. This scale measures 3 subscales of perceived social support from family, significant others, and friends. Each subscale includes 4 statements according to a seven-point Likert; scores vary from completely agree [7] to completely disagree [1]. The range of total score was 12 to 84 and a higher score demonstrated better social support. Psychometric evaluation of the Iranian version of this questionnaire was performed by Bagherian et al. in 2013. The validity was measured by the factor analysis method. The Cronbach Alpha Coefficient was 0.84 and it was reported for subscales of friends, significant others, and family as 0.89, 0.92, and 0.95, respectively [21]. The questionnaire of Edinburgh about postpartum depression was constructed by Cox et al. in 1978 and it is a valid instrument for screening the signs and symptoms of postpartum depression. This instrument included 10 items and its score was based on a 4-point Likert scale. The minimum score was zero and the maximum was 30. The cutoff point of 12 has been considered as the diagnosis of risk for postpartum depression. The psychometric evaluation of the Iranian version of this questionnaire by Mazhari and Nakhaei reported it as a valid questionnaire and its reliability was 0.83 by calculating the Cronbach's alpha coefficient

[22]. The mothers were selected on the basis of the inclusion criteria and they completed the demographic, adaptation to the maternal role, and social support questionnaires. The inclusion criteria for mothers were Iranian nationality, age of more than 18 years, primiparity, living with her husband, term and singleton delivery with a birth weight of more than 2500 grams, lack of malformation, having a healthy child between 6 and 12 months, being physically and mentally, and lack of depression. The eligible mothers participated in the study if they had a score of 12 or less for the Edinburgh Depression Screening Questionnaire. The sample size was estimated 260 participants and it was calculated through correlation studies formula by using correlation coefficient parameters (r) as 0.2 [9], the possibility of α as 5%, β as 10% and the power of the test (1- β) as 90%. The formula was:

Data were analyzed by the SPSS-22 software at a significance level of $P < 0.05$. Descriptive tests, independent t-test, Analysis of Variance (ANOVA), Spearman correlation coefficient, and linear regression were used. The written informed consent was obtained from eligible females for participating in the study. The study was approved by the ethics committee of Shahid Beheshti University of Medical Sciences.

RESULTS

The mean age of mothers and their husbands was 28.60 ± 4.08 and 32.72 ± 4.51 years old, respectively. Also, the mean duration of marriage was 4.62 ± 2.25 years. The education of most of the mothers was a bachelor's degree (40.4%) and their husband had high school di-

ploma (28.5%). Most of the mothers were housewives (83.1%) and their husbands were self-employed. Also, the income of most families (28.8%) was 1 to 1.5 million tomans and the number of family members was three in most of the cases (96.5%). The mean score of adaptation to the maternal role was 123.98 ± 13.19 . The most and the least obtained scores were 152 and 84, respectively. Also, the mean total score of maternal social support was 62.62 ± 14.06 ; however, the most and the least scores were 84 and 12, respectively. In 57.7% of the samples, the husband was the first person, who supported the mother for child caring; however, the participants' mothers with 34.6 and relatives with 7.7% had the second and third ranks. According to the T-test, the gender of the infant (female or male), the mother's job (housewife or employed), mother's ethnicity (Persian or Non-Persian), and the presence of a permanent care provider along with the mother (yes or no) and according to the Analysis of Variance (ANOVA) test, husband's job (self-employed, employer, employee, laborer, and other) did not have a significant effect on the mean score of adaptation to the maternal role. Also, there was no significant correlation between the score of adaptation to the maternal role and the mother's age, husband's age, the duration of the marriage, and the hours of child care during night and day according to the Spearman correlation test. However, there was a significantly reversed correlation between the mean score of adaptation to the maternal role with the mother and husband's education and the rate of family income (Table 1).

Table 1: The Correlation of Mean Score of Adaptation to the Maternal Role with Demographic Characteristics

Demographic characteristic	Adaptation to maternal role mean \pm SD	Spearman correlation coefficient	P
Mother's education		-0.19	0.002
Primary school	131.13 \pm 17.74		
Junior high school	120 \pm 12.72		
High school	126.08 \pm 13.45		
Associate degree	127.81 \pm 12.78		
Bachelor's Degree	123.49 \pm 11.02		
Master's Degree	118.73 \pm 14.31		
PhD	106 \pm 21.07		
Husband's education		-0.12	0.05
Primary school	133.63 \pm 11.40		
Junior high school	123.06 \pm 13.44		
High school	126.16 \pm 12.93		
Associate degree	122.91 \pm 14.23		
Bachelor's Degree	123.68 \pm 11.27		
Master's Degree	122.10 \pm 15.11		
PhD	116.18 \pm 13.23		
Family's monthly income (in Tomans)		-0.15	0.01
Less than one million	127.04 \pm 12.25		
1-1.5 million	125.09 \pm 12.84		
1.5-2 million	124.61 \pm 13.05		
More than 2 million	119.99 \pm 14.01		

Table 2: The Correlation between Adaptation to the Maternal Role and Social Support and its Subscales

Social support	Mean ± SD	Adaptation to maternal role	
		Spearman correlation coefficient	P
Total score	62.62 ± 14.06	0.37	0.001
Family' support	22.39 ± 5.84	0.35	0.001
Friends' support	17.49 ± 6.86	0.26	0.001
Significant other support	22.74 ± 5.01	0.33	0.001

Table 3: Predicting the Adaptation to Maternal Role by Stepwise Linear Regression

variable	Regression coefficient	Standard coefficient	P
Social support	0.31	0.33	0.001
Mother's education	-2.36	-0.22	0.001

According to the Spearman correlation test, there was a significant correlation between adaptation to the maternal role and social support and its subscales (Table 2).

The results of stepwise linear regression test demonstrated that only two variables of social support and mother's education were significant in predicting the variation of adaptation to the maternal role (Table 3), and they could predict 15% of the variation in adaptation to the maternal role. Assuming all other variables are held constant, the part of social support in predicting the variation of adaptation to the maternal role was 10%.

DISCUSSION

In this study, adaptation to the maternal role significantly correlated with social support both generally and in each subscale (family, significant others, and friends support). The role of social support in predicting the variation of adaptation to the maternal role was 10%. Among contextual factors, only mother's education along with social support had a significant role in predicting variations of adaptation to the maternal role. Social support is an important adaptive source, which covers the mother's emotional needs. In addition, it decreases stress and increases maternal delicate behaviors [12]. Maternal sensitive behaviors enable the mother to respond to the child's needs and produces a positive interaction between the mother and the infant [23]. Moreover, social support has a positive relationship with mother's self-efficacy and mother-infant attachment; however, it has a negative relationship with postpartum anxiety and depression [17, 24]. All of these items underlie successful adaptation to the maternal role. A study from Thailand evaluated the effect of social support on first-time mother's performance. This study found that social support had the most powerful influence on mothers' performance so that the share of social support in predicting the performance of the mother was 20% [25]. Higher contribution of social support than the present study may be due to the difference in the elapsed time from delivery. The present study was conducted on mothers 6 to 12 months after delivery; however, the Thai study was performed one month after delivery. In addition, the social context in these two studies was different. In the Thai study, most of the participants lived in extended families, in which the greatest source of knowledge about the care of the child was the grandmother and relatives. Perhaps in this situation, the social support expectation and its perception is higher than the Iranian society. However, in the present study, most of the mothers lived in

nuclear families. In Australia, Emmanuel et al. (2008) found a significant correlation between social support and maternal role development on the third month after childbirth. Among the studied variables, they considered social support as the most important factor in the development of the maternal role. The suitable development of the maternal role produces maternal adaptation [26]. In another study in Singapore, social support was the most powerful predictor of maternal self-efficacy during the first three days after delivery [9]. Akan's (2012) study indicated that the mothers with higher social support up to 6 months after childbirth experienced less anxiety [27]. In Warren's study (2005), the relationship between social support in the dimensions of appraisal and information with the self-confidence of primiparous females for child care was shown [28]. In contrast, Hung (2006) did not find any correlation between first 6 weeks of postpartum stresses and social support in first-time mothers in Thailand. This may be due to the participation of mothers with lower vulnerability in the study [29]. In the present study, the share of social support in predicting changes of adaptation to the maternal role was the result of the direct assessment of social support in this role. However, social support may have a greater share by affecting other variables, such as self-efficacy, self-care, and prevention of postpartum depression. On the other side, providing support without regarding the mother's needs could result in a lack of perception of support, lack of support effectiveness, and even dissatisfaction of support recipients. In other words, more appropriate supportive services could be provided by realizing the mother's needs, which may possibly lead to better adaptation to the maternal role. However, mothers, who participated in the present study, had a low-risk condition as well as their infants. It seems that in these conditions, the needs and expectations for support are less than high-risk conditions, such as preterm delivery or having an unhealthy child.

The other finding of the present study demonstrated that in the majority of cases, the husband was the first supporter of mother in caring for the child. One of the effective factors in preventing postpartum depression and therefore successful adaptation to the maternal role is emotional support by a spouse and his assistance in household activities and child care [3, 15, 20]. Support needs of postpartum mothers are sometimes to an extent that they expect their husband and family to provide their needs without any request [30]. In Warren's study, the first time mothers received the most informative support from their mothers up to 6 weeks after

delivery, yet the first supportive source in terms of appraisal, instrumental, and emotional were their husbands [31]. In Razurel et al.'s (2011) study in Taiwan, husbands were the first supporter for first-time mothers during the initial days after childbirth; however, grandmothers and midwifery staff had a more effective role on the next days because husbands did not have enough knowledge about mother's needs, such as breastfeeding difficulties. The difference in results between these two studies with the present study may be due to cultural differences, differences in elapsed time from delivery, and different questionnaires. Other results of the present study indicated a reverse correlation between mother's education and adaptation to the maternal role. A study on 128 moderate and low economic level countries demonstrated that females with higher education, in countries with higher socio-economical level have different responsibilities. Therefore, they devote less time to taking care of their child. However, even if women with lower education have an occupation, they have fewer responsibilities and they are able to spend more time on their children [31]. Along with the present study, Azmoude et al. (2015) showed that the mother's self-efficacy in the early days after delivery was decreased in more educated mothers [32]. In contrast, two studies from the USA demonstrated that with increasing levels of maternal education, readiness to accept the maternal role was increased [33, 34]. The inconsistency between these results may be due to cultural differences. It could be said that previously, Iranian females spent all their time on mothering and housewifery; however, today, specially educated women, tend to perform their role as a mother and also spend time for themselves. Since the maternal role is a fulltime responsibility, which affects the leisure time and other social roles of the mother, it may impose the feeling of captivity to the mother and it may result in conflict in the mother for deciding between spending time on herself or her child. This situation may reduce the maternal role adaptation.

Studies have shown that in Iran, social support is decreased several months after childbirth [19, 35]. However, the first year after childbirth is a vulnerable period for the family because different tensions could have a negative impact on family health during this period [15, 36]. Many studies have emphasized on the positive effect of social support on stress, anxiety, and other psychic diseases [14]. These studies have considered social support as a modifying factor for physical health and reducing the duration of illness. Mother's belief and acceptance of people who are helpful when needed decreases psychological distress [37]. Although more studies have investigated social support in improving the negative effects of an event, they also contribute to the advancement of individuals and their interactions for better opportunities and closer relationships in non-stressful fields. Therefore, social support could result in better and healthier life [38]. Using the native questionnaire for measuring adaptation to the maternal role was the strength of this study. Moreover, in contrast to most studies, in which the mother's behavior and emotions, as well as the social support, were evaluated during 6 weeks after delivery, in this study, mothers were evaluated up to 12 months after childbirth. The limitation of the current study were its cross-sectional method because of time limitation and self-report instruments.

CONCLUSIONS

Considering social support as an effective factor on adaptation to the maternal role, it is recommended for policymakers to facilitate the trend of adaptation to the maternal role by accurate determination of the maternal supportive needs and provision of an optimum context for offering this service to mothers and their infants. Also, it is required for health care providers to make sure of mothers' perceived support, especially vulnerable ones, so in the case of inappropriate support, the required intervention could be performed.

ETHICAL CONSIDERATIONS

The written informed consent was obtained from eligible women for participating in the study. The study was approved by the ethics committee of Shahid Beheshti University of Medical Sciences approved under the code of ethics IR.SBMU.PHNM.1394.179

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CONFLICTS OF INTEREST

The authors had no conflicts of interest to report.

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AUTHORS CONTRIBUTION

Hedyeh Riazi developed the original idea, supervised the study and critically valued the manuscript and contributed to the writing process and prepared the final draft. Samine Khandan was the investigator and carried the study. Sedigheh Amir Ali Akbari was the study advisor. Malihe Nasiri and zohreh Sheikhan was the statistical advisor and involved in data analysis. All authors read and approved the manuscript.

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