The correlations between social support and state anxiety in mothers’ practices in newborn baby bathing

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ABSTRACT

Background & Aim: Although the literature provides evidence-based guidance for bathing infants, it is important to be aware of cultural differences what may arise when caring for infants with a diverse family background. The aim of this study was to examine the correlation between social support and state anxiety in mothers’ practices in newborn baby bathing.

Methods & Materials: The descriptive and correlation study was conducted in 256 mothers. The data collection forms and scales were administered by the researcher to the mothers using a face to face interview technique when they presented to FHCs.

Results: Majority (97.7%) of the mothers said that they bathed their babies at home for the first time and these mothers’ mean scores obtained from the PSS-Fa Scale was 15.54±4.63.

Conclusion: The study showed that mothers’ perceived social support level from the family was satisfactory and their state anxiety was moderate. Mothers’ past experiences related to baby bath showed that it decreased their state anxiety levels meaningfully and statistically. Mothers’ perceived social support levels from the family related to baby bath increased and their state anxiety levels decreased.

Key words: baby Bath, nurse, anxiety, social support

Introduction

Protection, sustainment and improvement of mother and child health both in Turkey and the rest of the world are of the important elements in establishing a healthy society. Mothers have common concerns and learning-needs about their own care as well as baby-care. Nurses are the most important personnel of basic health services that provide assistance to women so that they can acquire health preventive behaviors during pregnancy, birth and post-partum period and continue a healthy life. Mothers informed of baby care will contribute to the improvement of public health (1,2,3). Baby bath is one of the significant steps in baby care practices. However, there is limited number of studies on baby bath in the world (4,5,6) and also in Turkey (7). The studies conducted in Turkey have mainly focused on traditional baby care given by mothers. In a study conducted by Davis et al (4), it was seen that one of the training subjects to identify mothers who were anxious and needed assistance was baby bath. The study by Bull and Lawrence (8) examining possible change in anxiety levels of primiparous mothers one week after birth, indicated continuation of mothers’ anxiety level on baby care.

Bingöl and Ulukol (7) found that one of the answers mothers wanted to know was related to the question “How often should I bathe my...
baby?” Tatlı and Gürel (9) emphasized that rather than being beneficial, it was harmful to give the newborn a bath right after birth and that it should be taken into consideration that hypothermia would intensify the problem of oxygen-respiration and oxygen-consumption. Therefore, the first bath of the newborn should be delayed until vital signs are stabilized. Tatlı and Gürel (9) also underlined that problems like hypothermia might arise due to absorption of chemical substances used for bathing and contact with irritating substances. In the study of Joglekar (10), it was reported that vernix could provide a protection against microbes and accelerate wound healing. Bölükbaş et al., (11) examined the time of first baby-bath in their study and found that 66.0% of the mothers gave the first bath before the umbilical cord fell off. In the study of Dinç (12), 53.6% of mothers reported that they gave the first bath to their babies after umbilical cord fell off. The same finding was found in Dindar et al.’s (13) study in 70.7% of mothers. However, Özyaçoğlu and Polat (14) found that 37.7% of mothers gave their babies the first bath after 20 to 40 days after birth. In the study of Bölükbaş et al. (11), 20.8% of mothers thought that bathing effected the umbilical cord separation and the same was found in 15.4% of mothers in the study of Eğri and Gölbaşı (15). Başer et al., (16) pointed out that major baby care needs of the mothers and the newborn were feeding babies, care of umbilical cord, general care of babies, taking body temperature, provision of security, excretion, skin care, bathing and dressing and dealing with babies’ health problems. The reasons for mothers’ fears and anxiety about baby care are related to their insufficient knowledge and skills. Elimination of these fears and anxiety is possible only through acquisition of knowledge and skills on baby care. Although there were numerous support and training groups established in order to respond to the needs of parents during postpartum period in Western societies, such groups were not established in state-governed health facilities in Turkey. These groups provide education on many topics including baby bath (17). According to the results of the study of Arslan (18), mothers mostly required information on, and support with baby-bathing. Şenses and Yıldızoğlu (19) conducted a study in eight provinces in Turkey and showed that 54.8% of the women received help on baby care. In Turkey, a study showed that mothers experienced some problems on baby health during postpartum period yet they did not benefit from health services. It is assumed that supportive relationships could play important roles in the improvement of health outcomes, prevention of health problems, protection against stress and strengthening coping skills in mothers’ anxiety (20). Although the literature provides evidence-based guidance for bathing infants, it is important to be aware of cultural differences that may arise when caring for infants with a diverse family background. Therefore, this study aimed to examine the correlation between social support and state anxiety in mothers’ practices in newborn baby bathing.

Methods

The study design was a descriptive and correlation. The population of the study consisted of mothers who had babies aged 0-1 months, registered at Family Health Centers (FHC) located in Turkey between January 2012 and March 2012. The sample size was 256 mothers based on a power of 0.99, 0.05 significance level and 0.95 confidence interval. The data were collected from mothers with babies who were healthy, did not have premature health problems, completed first month and who were brought to FHCs in order to get hepatitis B vaccination.

The data collection forms and scales were administered by the researcher to the mothers using a face to face interview technique when they presented to FHCs. Interviews were conducted at the breastfeeding room in the FHCs.

Data were collected using a questionnaire, developed specifically for this study and based on questionnaires from previously published studies (8,9,10,11,12). Face validity for the questionnaire was determined by the researchers (11,12).

The questionnaire form included 16 questions (close and open ended questions); 6 questions on mothers and babies socio-demographic characteristics, 10 questions on baby bath-related practices and on the social support and anxiety of the mothers.

Perceived Social Support Scale for Family (PSS-Fa) designed by Procidano and Heller in 1993 was used in order to determine social support level obtained by the mothers from family members. The PSS-Fa is composed of 20 items and is rated with “yes”, “no” and “I do not know” answer options. For any correct answer participants receive “+1” point. Respondents can obtain a score between 0 and 20. No point is given to the answer “I do not know”. Some questions (3rd, 4th, 6th, 16th, 19th and 20th questions) are worded negatively and reverse scoring are
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attributed to the responses and the answer “no” is marked “+1” point (21). The Cronbach’s alpha of translated Turkish version of the test was 0.76 (21,22). In this study, the Cronbach’s alpha coefficient for PSS- Fa scale was 0.89.

The State Anxiety Scale of State-Trait Anxiety Inventory was used. It was developed by Spielberger et al., in order to measure anxiety level of individuals aged ≥ 14 years. Its valid and reliable (alpha correlations ranged between .83 and .92) Turkish version was used in this study (22). Individuals were asked to assess how they feel themselves “at the moment” and to mark the items according to the degree of the emotions and behaviors experienced in the statements by marking “1=almost never, 2=somewhat, 3=very much, 4=completely”. The lowest score is 20 while the highest is 40. A higher score indicates higher level of anxiety. Items 3rd, 4th, 6th, 7th, 9th, 12th, 13th, 14th, 17th, 18th are worded positively but items 1st, 2nd, 5th, 8th, 10th, 11th, 15th, 16th, 19th, 20th are worded negatively and reverse scoring were attributed to the responses. The statements worded positively emphasized negative feelings whereas reversed statements indicated positive feelings. A total score between 0-19 is considered as no anxiety, between 20-39 as slight degree of anxiety, between 40-59 as moderate degree of anxiety and a score 80 as panic (21,22). In this study, Cronbach’s alpha coefficient for State Anxiety Scale was 0.93.

The data were coded analyzed using SPSS 15.0. The analysis presented by percentage distributions and averages, Pearson correlation analysis, t test, analysis of variance, Mann Whitney U and Kurskal Wallis tests. Level of significance was set at 0.05 for the statistical tests.

Necessary official permissions to undertake this study were obtained from the relevant institutions. The study was initiated with the approval document of ethical committee with issue-number “2011.5.1/6” and date 16.11.2011. Official permission was obtained from Province Health Directorate.

Results

There were 53.9% male babies with an average gestational age (±SD) of 39.45±1.14 weeks, average (±SD) birth weight of 3142.26±471.62 grams and average birth height of 49.61±1.70 cm. Mean (±SD) score obtained from the PSS-Fa and State Anxiety scales were 15.51±4.67, and 34.59±10.38, reppectively. In the correlation analysis conducted to understand the correlation between the mean of the PSS- Fa Scale and the mean of the State Anxiety Scale, it was noted that there was a negative correlation (r:-.0.151, p:0.016). Accordingly, it was found out

| Table 1. The comparison of mean scores of PSS-Fa and State Anxiety according to mothers some characteristic intended for baby’s first bathing experiences |
|-------------------|----------------|----------------|----------------|
| Bathing experiences | N   | %    | PSS_Fa | State Anxiety |
| 1-3    | 138  | 53.9 | 15.46±4.63 | 32.94±9.46 |
| 4-6    | 30   | 11.7 | 16.16±3.96 | 36.60±9.93 |
| 7-9    | 53   | 20.7 | 15.16±5.13 | 37.15±11.80 |
| 10 and over | 35  | 13.7 | 15.68±4.77 | 35.8±11.16 |
| Test (Significance) |      |      | F:0.310 | F:2.750** |
| The person to have given the first bath |      |      |      |      |
| Mother/Father | 32   | 12.5 | 15.37±4.63 | 33.21±9.39 |
| Grandmother | 179  | 69.9 | 16.01±3.94 | 34.54±10.36 |
| Aunt    | 29   | 11.3 | 13.68±5.59 | 37.27±10.48 |
| neighbors / friends | 10  | 3.9  | 13.10±5.48 | 32.40±10.29 |
| health personnel | 6   | 2.3  | 14.16±6.36 | 34.00±15.96 |
| Test    |      |      | KW:8.258 | KW:4.927 |
| The place where baby was bathed |      |      |      |      |
| house   | 249  | 97.7 | 15.54±4.63 | 34.60±10.26 |
| Hospital | 6    | 2.3  | 14.16±6.36 | 34.00±15.96 |
| Test    | MWU:637.000 | MWU:594.000 |      |      |
| Style of the first bathing |      |      |      |      |
| Brow bathroom | 8   | 3.1  | 12.37±7.28 | 34.12±6.01 |
| Normal bath | 248  | 96.9 | 15.61±4.54 | 34.60±10.50 |
| Test    | MWU:677.500 | MWU:866.000 |      |      |

*PSS-Fa scale: the scale of PSS- Fa scale
**p<0.05
that as mothers’ mean scores obtained from the PSS-Fa Scale increased, their mean scores obtained from the State Anxiety Scale decreased.

There were 53.9% mothers who bathed their babies in the first three days. When mean scores obtained from the PSS-Fa Scale were investigated in terms of the person to have given first bath; the mean scores of the PSS-Fa Scale of the mothers whose babies were bathed by maternal grandmothers and paternal grandmothers was 16.01±3.94. Majority (97.7%) of the mothers said that they bathed their babies at home for the first time and these mothers’ mean scores obtained from the PSS-Fa Scale was 15.54±4.63 (Table 1).

The difference among the mothers’ mean total score obtained from State Anxiety Scale was found to be statistically significant in terms of the day when the first bath was given and status of mothers’ previous baby bathing experience (Table 1). The mean state anxiety levels of the mothers who gave the first bath between the 7th and 9th days (37.15±11.80) were higher than those who gave the first bath between the 1st and 3rd days.
days (32.94±9.46). The mean state anxiety levels of the mothers who had not given bath before and who had no experience (35.98±11.51) was higher than those who had given bath before (32.90±8.57). The mean State Anxiety Scale in mothers who gave normal bath was 34.60±10.50 whereas mean scores in those who cleaned their baby by wiping was 34.12±6.01. The mean scores of PSS- Fa in mothers who bathed babies once in a month was 16.66±1.52 whereas mean PSS- Fa in mothers who bathed babies’ ≥ 4 times in a month was 15.42±4.69. It was observed that a statistically significant difference existed among the mean total scores obtained from the State Anxiety Scale in mothers in terms of time duration spent for bathing. Most of the participant mothers (64.8%) emphasized that they had difficulty washing the baby’s head and mean scores of PSS- Fa scale in mothers who had difficulty washing the baby’s head was 15.75±4.17 while mean scores of PSS- Fa in mothers who had difficulty washing all parts of body of their babies (6.3%) was 13.31±6.39.

It was found that the mean scores of PSS- Fa scale in mothers who had a helper during the baby bathing was 15.94±4.09, in mothers who occasionally had a helper during the baby bathing was 14.77±5.33 whereas in mothers who did not have a helper during the baby bathing, it was 12.46±7.49.

It was noted that there was a statistically significant difference among the total scores obtained from the State Anxiety Scale in terms of whether or not babies were fearful during bathing. It was seen that state anxiety levels of those who feared that baby could be drowned were higher (35.88±10.58) than those who feared that baby may slip and fall (30.81±6.83) (Table 2).

The mean of State Anxiety Scale scores in mothers who previously recieved information about baby bathing was 34.14±10.44 while that in mothers who previously did not received information about baby bathing was 34.95±10.35. Accordingly, the levels of PSS- Fa scale of the mothers whose helpers were experienced (15.91±4.12) were higher than those whose helpers were not experienced (13.79±6.30) (Table 3).

**Discussion**

There were several limitations to the study. The survey was performed in only one region of Turkey. In addition, we were not able to verify the actual practices as data were collected through recall. We limited our interviews to only mothers with babies up to one month.

When the lowest and the highest values marked in the study were thought, it might be said that mothers’ perceived social support level obtained from family (15.51±4.67) was satisfactory. In the study of Arslan and Kahrnian (23) on primiparous mothers with a newborn; it was seen that mean (±SD) scores of mothers’ social support level obtained from family was 14.80±3.16. In the study of Okanlı et al., (20) conducted with the pregnant women; their social support level obtained from family was found to be 13.78±4.1. This result was similar to our result. In the current study; mothers’ mean scores obtained from the State Anxiety Scale was 34.59±10.38. It might be concluded that mothers’ anxiety level was at slight level. In the study of Kaplan et al., (24) conducted in order to assess pre-partum anxiety status and post-partum anxiety status among the pregnant women; it was seen that mean scores of mothers’ anxiety level was 41.74±8.2. In the study of Altınay et al.,(25) on depression prevalence during puerperal period; it was noted that mothers’ mean scores obtained from the State Anxiety Scale was 40. When the result of the current study was compared to the results of other studies undertaken in Turkey; mothers’ state anxiety levels obtained in other studies were at moderate levels while ours was found to be at a slight level.

It was determined that as mean scores obtained from the PSS- Fa scale increased, the mean scores obtained from the State Anxiety Scale decreased. No relevant finding was found. It was noted that levels of the state anxiety and the PSS- Fa scale of mothers who bathed the babies 4-6 days after birth for the first time were high; which may be due to the possibility that mothers were worried to damage umbilicus because umbilical cord did not fall off, yet. The biggest support was received from paternal or maternal grandmothers; that is, from the first degree relatives. In the study of Özçelik (26); 72.9% of the mothers reported that it was their mothers who were to help them after birth for baby care; which was similar to our study. In the study of Arslan (18), 67.7% of the mothers stated that they had a helper during postpartum period. Having a helper after birth is closely related to family structure. In the study we carried out, 36.3% of the mothers had extended family structure. It is very important for candidate mothers to seek help as a social support prior to child birth, during birth and after birth so that mothers can be effective in the care
of their babies. It was understood that although mean scores obtained from the PSS- Fa scale by the mothers who told that it was their homes where first bath was given were higher. This result may have been due to the fact that it was health care personnel who gave the first bath to the babies at hospital. It was found that mean scores obtained from the State Anxiety Scale and the PSS- Fa scale of the mothers (45.3%) who bathed babies previously were lower than those who did not bathe babies previously. It was concluded that mothers who needed less social support, their anxiety levels reduced as their experiences on baby bathing increased. Primiparous mothers may undergo more difficulties because they are inexperienced and responsible for the care of the baby for the first time. In the study of Başer et al., (27) conducted with both parents during postpartum period in order to explore the degree of difficulty experienced in baby care in terms of the number of the pregnancy of mothers; it was discovered that mothers with first pregnancy had more difficulty.

It was understood that type of the first bath did not affect mean scores obtained from the State Anxiety Scale and the PSS- Fa scale. In the literature, it is advised not to give general bathing to the babies until umbilical cord falls off to prevent infection risk and to prevent delayed umbilical cord separation (6). In the meantime, bathing the baby by wiping is enough (3,28).

The mothers’ scores of Perceived Social Support from The Family Scale and The State Anxiety Scale decreased as the number of the bathing mothers gave increased; which showed that mothers’ anxiety levels reduced as their experience levels increased. In the literature, it is recommended to give bath twice or three times a week (6) Özçelik (26) in the study of when the candidate mothers’ answers given to the question “how often bathing of the baby should be” found that; 41.4% of the mothers answered “it should be once a week” while 20.9% believed to “twice or three times a week”. In this study, 45.3% of the participant mothers explained that they received information about baby bathing before birth. In the study of Güner (29) on adolescent mothers; it was reported that 50.6% of the adolescent mothers with normal delivery received information while 62.2% of the adolescent mothers with cesarean delivery received information on baby bathing. The study of Doğaner (30) demonstrated that 79.8% of the mothers received information about the newborn care during postpartum period upon hospital discharge and it was noted that 19.7% of those who received information were trained on baby bathing and dressing while 18.9% on eye and umbilical cord care. The findings of the study were in agreement with ours. About 64.8% of the participant mothers told that they had the biggest difficulty washing the head of the baby. It was concluded that mothers may have had difficulty washing the head of the baby because they fear that the baby may be drowned or the baby may cry much.

When the fears of the mothers during bathing were investigated; state anxiety levels of the mothers who were fearful of drowning babies (35.88±10.58) were higher than those who feared slipping of the babies (30.81±6.83). Small but important precautions to be taken during bath such as not to leave babies alone—even if for a few minutes, to use bathtub support net cradle and to put sponge or towel in the bathtub so that babies do not slip will decrease the fears and anxiety levels of the mothers (31). About 75.0% of the participant mothers told that they had always a helper, 19.1% had sometimes a helper and 5.9% had never a helper during bathing and it was discovered that 49.6% of the mothers stayed together with the helpers. In the study of Özçelik (26), it was found out that 85.3% of the candidate mothers were accompanied by a helper during postpartum period while 14.7% had no helper but only husband and older children. The study of Arslan (18) on primiparous mothers reported that 62.6% of the mothers explained that they would have their mothers as a helper and it was detected that 67.9% of them had a helper after birth. Having someone as a helper during postpartum period is closely correlated with family structure. In the study we undertook, 36.3% of the mothers had extended family structure. It is very important to acquire social support and assistance on care from the significant others so that mothers become able to perform effective baby care before, during and after birth. Levels of PSS- Fa scale of the mothers whose helpers were experienced were higher than those with inexperienced helpers. This outcome may emphasize the fact that mothers receive more support and they trust them more when they know that their helpers are experienced. About 96.9% of the mothers reported that presence of a helper comforted them. The study of Tarkka et al., (32) emphasized that women who became mothers for the first time needed both their relatives and professional nursing assistance so that they could
perform a better baby care and rely on their abilities more during the first months of the motherhood. However, some studies concluded that social sources may sometimes develop stress rather than support (33,34). This outcome was supported by the fact that there were some mothers in our study who told that helpers did not comfort them.

Conclusion

The study highlighted that higher level of PSS- Fa scale on baby bath decreased mothers’ state anxiety level. In light of these results; it is recommended that nurses should provide mothers a planned training on baby bathing before and after birth. Implementation of an effective program for promotion of childbirth and newborn care practices requires understanding of the community and household traditional newborn care practices. Such information will enable the development of programs to promote culturally sensitive and acceptable change in practices.

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