Original Research Article

**Determination of Postnatal Comfort Levels of Puerperants in a Public Hospital and Affecting Factors**

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**ABSTRACT**

**Objective:** The aim of this study was to determine the mother’s postnatal comfort and the affecting factors of it.

**Materials-Methods:** This is a cross-sectional and descriptive study. 245 postpartum women stay in delivery service of the maternity public hospital, who accepted to participate in the study. The study was conducted between 28 April 2016 and 30 March 2016 August. Research data was gathered with Individual Identification Form and Postnatal Comfort Scale (PCS).

**Results:** It was determined that the average age of the mothers was 27.84 ± 5.72 years (Min: 18, Max: 42), 56.7% had primary school graduates and 73.9% were multiparous. It was determined that only 35.9% of the mothers had a planned pregnancy and 60% gave birth with cesarean section. It was stated that the average PCS total score of puerperants was 117.80±14.91 and 66.5% of puerperants' care and educational requirements related to them and their babies are fulfilled by midwives/nurses. There was no significant difference found between the educational status, working status, the number of children, expectancy of pregnancy and PCS score averages. However, according to the income status and the delivery method, the comfort level differs.

**Conclusion:** This study revealed that postpartum women had a moderate level comfort. It has been found that psychospiritual comfort in postpartum period of women is higher in vaginal delivery. It can be suggested that to give qualified care in the direction of needs and expectations of mothers, and assess the level of satisfaction routinely.

**Key Words:** Comfort Score, Midwife/Nurse, Postnatal Period.

**INTRODUCTION**

Pregnancy and birth are the most special experiences of the woman. Although this process is a normal vital stage, it narrows the line between illness and health by affecting the mother physically and spiritually. Postpartum period, an important milestone in the protection and development of mother, baby and family health, and a significant period in the life of the family in which period of regenerations is experienced, psychosocial balances are deteriorated and in accordance with these changes, the mother and the family are experiencing intense stress. [¹,²] In this process, it is necessary to provide comprehensive care, to diagnose individual needs and potential problems, to be able to take the necessary initiatives, to take precautions and to inform the people in terms of their requirements. Because the level of health of a woman's future life is closely related to the nature of the care she receives during this period. [³]

Maternal and infant care is very important to facilitate postpartum compliance, to
facilitate early lactation initiation and maintenance, to provide mother-baby interaction, to accelerate the healing process, to avoid complications and to provide postpartum comfort. Midwives and nurses play a key role in this process. Midwife-nurses during the birth period focuses on caring for the adaptation of the mother, baby and family to the new situation in physical and psychosocial aspects and helping and guiding their educational requirements. In addition, midwives define the individual comfort needs in health care, eliminate or reduce anxiety by implementing nursing initiatives that enhance comfort for unmet needs and increase the expected comfort.

Kolcoba describes comfort as "the expected outcome having a complex structure in physical, psycho-spiritual, social and environmental integrity to provide assistance and comfort for the individual's needs and to overcome problems". Kolcoba stated that comfort theory could be used as a guide in the direction of the nursing care process in order to meet the comfort requirements of the individual in the health care environment. Furthermore, it was emphasized that the level of comfort of the patients was informing about the quality of nursing care and the level of sensitivity of the nurses. As a matter of fact, in the study conducted by Karakaplan, it was determined that the comfort of the mothers was influenced by problems experienced at the postpartum period, satisfaction level of expectations, nurses’ approach, nursing care they receive and environmental conditions of the hospital. It also stated that as maternal birth problems and physical complaints decrease, there is an increase in comfort level. For this reason, it has great importance that careful evaluation of the puerperants in postpartum period in the hospital environment, early diagnosis of complications, solving the problems with appropriate interventions and meeting the care and comfort requirements. Therefore, this study was conducted in order to determine the postnatal comfort levels of puerperants in a public hospital and the affecting factors.

**MATERIALS AND METHODS**

The population of this cross-sectional and descriptive study consisted of puerperants in the postpartum clinic of a public hospital between 28.04.2016 and 30.08.2016. The sample of the study consisted of 245 women who met the sample selection criteria and volunteered to participate in the study.

**Inclusion Criteria for Participants:** The women who had cesarean section or vaginal delivery, had alive baby, had no medical complication that affects mother-infant health during and after birth process, 18 years and over, literate, agreed to participate in the study after being informed about the study were included to the research as participants.

**Exclusion criteria:** The women, who were illiterate, had communication difficulty and mental inadequacies were excluded from the study.

**Data Collection Tools:** The data were collected using the “Personal Information Form” and the “Postnatal Comfort Scale (PCS)” which were prepared by the researchers. The personal information form consists of a total of 21 questions including demographic and obstetric characteristics of women.

**Postnatal Comfort Scale:** It was developed by Karakaplan and Yıldız (2010) to determine postnatal comfort. The scale is likert type and consists of 34 items. For each item, it is scored between “I strongly agree” (5 points) and “I strongly disagree” (1 point). “I strongly agree” expresses the best comfort (5 points) in positive sentences and low comfort in negative sentences (1 point). In this direction, the lowest score can be taken from the scale is 34, the highest score is 170. The scale has three sub-dimensions: physical, psychosocial and sociocultural. The increase in score from the scale indicates that comfort is increased. The Cronbach Alpha for this study was found to be .82 for the total PCS.
The data of the study were collected by the researchers conducting the study by applying face-to-face interview technique with the puerperants who agreed to participate in the study. Forms took about 20 minutes to implement.

**Evaluation of the Data:** The data were calculated with the descriptive statistical analyses of number, percentage, mean and standard deviation by using the SPSS 18.0 (Software Statistical Package for the Social Science). The distribution of the data was evaluated by the Kolmogorov Smirnov test. Comparisons between groups were evaluated using the Mann Whitney U test and Kruskal Wallis test. The “p” values below 0.05 were considered as statistically significant.

**Ethical Aspect of the Research:** Written permission was obtained from the public hospital where the study was conducted. After informing the women about the study, verbal consent of the women was taken. The women who was going to participate in the study were informed about the individual information will keep confidential and “privacy principle” was protected.

**Limitations of the Research:** The study conducted with puerperants in only one public hospital. Therefore, findings of the research cannot be generalized to all puerperants in Turkey. In addition, the use of a scale to collect data in this study limits the responses of mothers with expressions on the scales. PCS was not reevaluated during the discharge phase of the mothers. This is also regarded as the limit of research.

**RESULTS**

It was determined that the average age of the women included in the study was 27.84±5.72 years, 56.7% of them had primary school graduate and 73.9% was multiparous. When the working status of women was evaluated, it was determined that 14% were working, 86% were housewives and 67.6% had moderate income to their expenses.

<table>
<thead>
<tr>
<th>Table 1: Obstetric Characteristics of Puerperants</th>
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<tbody>
<tr>
<td><strong>Mean± SD</strong></td>
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<td>Age (in years)</td>
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<td>Gravida Parity</td>
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<td>Abortions</td>
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<td>Curettage</td>
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<td>Number of follow-up in pregnancy</td>
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<td>Planned pregnancy</td>
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<td>Yes</td>
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<td>No</td>
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<thead>
<tr>
<th>Table 2: Postnatal Comfort Scale Sub-Group and Total Score Averages</th>
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<tr>
<td><strong>Mean± SD</strong></td>
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<tr>
<td>Physical</td>
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<td>Psychosocial</td>
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<td>Sociocultural</td>
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<td>Total Score</td>
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</table>

When the obstetric characteristics of the women participating in the study were examined, it was determined that 27% of the women were primiparous and 36.5% had planned pregnancies (Table 1). It was determined that 85.1% of the women went to regular control during their pregnancy and the mean number of follow-ups was 8.1±4.88. It was determined that 59.5% of the women gave birth with cesarean section. When cesarean section indications were examined, it was determined that 41.4% had previous cesarean section, 36.4% had non-progressive labor, 13.1% had fetal presentation anomaly, 5.4% had fetal distress and 3.6% had fetal macrosomia. 66.5% of the women stated that the care and education requirements related to themselves and the baby were met by midwives and nurses.

When the physical conditions of the rooms in which puerperants stay in postpartum clinics are examined, it was determined that rooms were for two people, there were seats for baby cots, wardrobe, shelf, WC / bathroom, liquid soap,
It was determined that women had a mean PCS total score of 117.80±14.91 and that puerperants had moderate postnatal comfort levels according to the scale result (Table 2).

When the relationship between PCS scores and some variables were examined, it was found that while there were no significant differences between the variables of educational status, working status, parity, number of children and planning status of pregnancy and PCS scores, it was determined that physical sub-scale and PCS score were differentiated according to income status. In addition, when the PCS mean score was evaluated according to delivery type, it was found that the mean psycho-spiritual sub-scale score was significantly higher in puerperants who had vaginal delivery.

**DISCUSSION**

This study was conducted to examine the postnatal comfort levels of the puerperants and affecting factors. In our findings, it was determined that the mothers had moderate comfort levels (117.80±14.91). In the study of Karakaplan, the puerperants were evaluated twice on the first day after birth and before the discharge on the last day, and the PCS score average was 187.2 ±13.8 in the first evaluation and 191.2±15.1 in the last evaluation. \[7\] In the study of Çapık et al., it was determined that the average total score of the PCS was 118.28 ± 13.62. \[9\] Similarly, in our study, the PCS score average was determined as 117.80 ± 14.91. Unlike our study, in the study conducted by Pınar et al., it was determined that the average scores of PCS were 218.2 ± 13.2. \[10\] The different study results can be explained by the fact that the studies were conducted with women in different regions and cultural characteristics and the physical conditions of the hospitals.

When the relationship between comfort levels and socio-demographic variables of puerperants were examined, it was determined that there was no significant difference between educational status, working status, parity, number of children, planning pregnancy status and PCS scores. On the other hand, according to the income

**Table 3. Comparison of PCS Total Score and Sub-Scale Score Averages According to Socio-Demographic Characteristics of Women**

<table>
<thead>
<tr>
<th>Sub-Scales</th>
<th>Physical</th>
<th>Psychosocial</th>
<th>Sociocultural</th>
<th>Total Score</th>
<th>Mean± SD</th>
<th>Mean± SD</th>
<th>Mean± SD</th>
<th>Mean± SD</th>
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<tbody>
<tr>
<td>Education</td>
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<tr>
<td>Literate (n=39)</td>
<td>46,71±7,40</td>
<td>41,12±5,03</td>
<td>31,69±6,06</td>
<td>119,54±14,83</td>
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<tr>
<td>Primary-Secondary (n=128)</td>
<td>46±8,18</td>
<td>40,41±4,51</td>
<td>30,77±6,05</td>
<td>117,19±15,80</td>
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<td>Higher Education (n=55)</td>
<td>46,30±7,34</td>
<td>40,58±4,13</td>
<td>32,12±4,94</td>
<td>119,02±13,56</td>
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<td>Income</td>
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<tr>
<td>Low (n=64)</td>
<td>45,22±8</td>
<td>41,25±4,86</td>
<td>31,07±5,86</td>
<td>116,62±15,35</td>
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<tr>
<td>Moderate (n=150)</td>
<td>48,09±7,08</td>
<td>40,32±4,39</td>
<td>31,28±5,79</td>
<td>120,62±14,43</td>
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<tr>
<td>High (n=8)</td>
<td>49,37±7,15</td>
<td>40,12±3,31</td>
<td>34,87±3,72</td>
<td>124,38±11,62</td>
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<td>Planned pregnancy</td>
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<td>Yes (n=81)</td>
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<td>No (n=141)</td>
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<td>Parity</td>
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<td>Primiparous (n=60)</td>
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<td>Multiparous (n=162)</td>
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<td>Delivery type</td>
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<td>Vaginal birth (n=90)</td>
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<tr>
<td>Caesarean section (n=132)</td>
<td>45,40±7,66</td>
<td>39,94±4,59</td>
<td>30,59±5,90</td>
<td>115,95±15,26</td>
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KW: Kruskal Wallis Test, U: Mann Whitney U test
level, the physical sub-scale and PCS scores were differentiated and according to the delivery type, psycho-spiritual sub-scale average score was differentiated (Table 3).

It was determined that postnatal physical comfort levels and overall comfort levels were higher in the women with higher income levels. It is known that poor economic condition weakens the woman and the presence of a new participant in the family is also a factor that increases socio-economic anxiety. It is thought that women with higher income level have less such concerns and so their average PCS scores were higher than the other groups.

In the study, the rate of cesarean section was found to be 59.5%. In Turkey, 2012, 47.43% of the births were vaginal and 52.57% were cesarean section, in the first 6 months of 2013 41.40% of births were vaginal and 58.60% were cesarean section. Turkey is in the third place with the cesarean section rate of 48% after the highest cesarean rates of Brasil and China. [11]

In studies conducted in our country, recurrent cesarean sections are at the top of the cesarean indications and the rate is over 30%. [12,13] In our study, with the rate of 41.4%, former cesarean section indication takes the first place. The involvement of previous cesarean operations during the first period of cesarean indications can be interpreted as a sign of the tendency of cesarean section in our country in recent years. Trying to decrease cesarean rate by making vaginal birth tests after cesarean section as in many countries and placing caesarean indications more carefully is an important issue that should be emphasized for our country.

In the study, the postnatal psycho-spiritual comforts of puerperants who had vaginal delivery were found to be significantly higher than those who had cesarean section. The type of delivery is very important in facilitating the adjustment of the mother to the postnatal compliance and in the postnatal comfort (Table 4). Postnatal psycho-spiritual comfort includes maternal role adaptation, emotional changes, mother-baby interaction, and factors creating stress in mother, fear and worry of the mothers. [14] Cesarean section causes great fears for the pregnant women and the family especially if it was not planned. Surgery is not only physiological, but also a powerful source of psychological stress for the patient and family. Despite the fact that cesarean section is a birth event and it makes families experience a physiological process, it is a traumatic experience with adverse effects due to the fact that it is a surgical intervention. In addition, there is a significant decrease in the comfort of the mother compared to those who had vaginal delivery because of the reasons like postoperative pain, fatigue, negative effects of anesthesia, late onset of mother-infant interaction and lactation, later mobilization and continuity of bowel function. Besides, it is an inevitable fact that the mother who experiences problems of both the postnatal period and past operation will have more problems in the infant care and the mother-infant communication will start late. [15] In the study of Pınar et al., it was found that women who had cesarean section experienced the problems of standing up (44%), inability to breastfeed (36%) and personal hygiene deficiency (30%), and those who had vaginal delivery experienced the problems of deficiency in infant care (24%) and being unable to perform perineal care (20%). [10] In the study conducted by Çapık et al., it was found that the way of delivery is effective in physical and socio-cultural comfort and postnatal comfort was higher in women who had vaginal delivery. [9] Karakaplan (2007) stated that the physical comfort of the puerperants who had vaginal delivery was higher. [7] Similarly, Pınar et al., (2009) stated that postnatal comfort levels of puerperants who had vaginal delivery were higher than those who had cesarean section. [10] According to these results, it can be said that the mothers who had cesarean section live more physical and psycho-spiritual problems than those who had vaginal delivery.
In the study, it was determined that 67% of the puerperants’ care and education needs related to themselves and their babies were adequately covered by the midwives and nurses. In the study of Karakaplan, it was found that comfort of mothers is affected by postnatal problems, level of expectation satisfaction, approach of the nurses, nursing care they received. [7] In the study conducted by Zengin, it was found that nursing education and behavioral therapy were effective in improving comfort, self-efficacy and quality of life. [16] In this context, it is concluded that the level of comfort increases with the satisfaction of the requirements and to increase the level of comfort nursing care is important.

CONCLUSION AND RECOMMENDATIONS
In this study, it was determined that the puerperants had moderate comfort levels. It was determined that physical comfort and postnatal comfort were higher in the group who had high income, and psycho-spiritual comfort was higher in the group who had vaginal delivery. In line with these results; In order to increase the postnatal comfort of puerperants, it can be suggested that the provision of qualified care in line with the needs and expectations of mothers, the routine evaluation of satisfaction levels, providing care based on comfort theory to puerperants and establishing standards in these regards. Moreover, due to the significant increase in cesarean section rates in recent years, puerperants experience problems in their own and baby care and need more help and support during the postnatal period. Taking all of these into consideration, vaginal delivery-promoting policies should be followed an indication of cesarean section should be treated more carefully.

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