

# Evaluation of Nursing Care in the Early Postpartum Period

Seda Karacay Yikar<sup>1</sup>, Ebru Gozuyesil<sup>2</sup>, Evsen Nazik<sup>1</sup>, Ebru Var<sup>3</sup>

<sup>1</sup> Cukurova University, Faculty of Health Sciences, Department of Obstetrics and Gynecologic Nursing Adana, Türkiye.

<sup>2</sup> Cukurova University, Faculty of Health Sciences, Department of Midwifery, Adana, Türkiye.

<sup>3</sup> Adana Sehir Egitim ve Arastirma Hastanesi, Adana, Türkiye.

**Correspondence Author:** Seda Karacay Yikar

**E-mail:** sedakrcyyikar@gmail.com

**Received:** 17.03.2021

**Accepted:** 05.10.2022

## ABSTRACT

**Objective:** Evaluation of the care given in the postpartum period is vital in terms of the quality of care. The aim of this study was to evaluate nursing care in the early postpartum period.

**Methods:** This descriptive and cross-sectional study was conducted in a postpartum clinic between December 2016 and January 2017 with 130 mothers in postpartum period, and 18 nurses and midwives working in the same postpartum clinic. Data were collected using a personal information form, and the Postpartum Nursing Care Evaluation Tool (PPNCET). The data analysis was conducted using percentages, arithmetic mean, independent samples t-test, Mann-Whitney U test, and Kruskal-Wallis test.

**Results:** The mean age of the mothers was  $26.80 \pm 4.90$ , and of the nurses and midwives was  $35.83 \pm 12.14$ . The mean PPNCET score of the mothers was  $141.58 \pm 32.03$ . The mean care subscale score of the mothers was  $69.88 \pm 12.06$  and of the education subscale was  $71.70 \pm 19.97$ . The mean PPNCET score of the nurses and midwives was  $153.50 \pm 23.18$ . The mean care subscale score of the nurses and midwives was  $73.38 \pm 8.84$ , and the mean education subscale score was  $80.11 \pm 14.33$ .

**Conclusions:** The mean PPNCET score of mothers and nurses and midwives were higher than the average. Higher PPNCET scores of the nurses and midwives compared to the mothers suggests that either the postpartum care given was not perceived as adequate by the mothers, or the care was not served in adequate quality. To increase postpartum care satisfaction of the mothers, involving nurses and midwives in the care process more is suggested. In line with these results, planning in-service training programs to develop the knowledge and skills of the nurses and midwives would be beneficial in increasing the quality of service.

**Keywords:** postpartum care, nursing care, women, nurse

## 1. INTRODUCTION

The postpartum period is an important transition period in which physical and psychological changes are encountered by the woman, the new-born, and the family. It is also characterized by regressive and progressive changes occurring in the mother. This period is a challenging time in which a transit to parenting occurs, in addition to rapid physiological changes, while undertaking new roles and responsibilities (1, 2). The aim of care during this period, in which the mother and the new-born both need care more than during any other time, is to facilitate the accommodation of the woman to the physiological and psychological changes, prevent high risk conditions, start the process of bonding between the mother and the child, and to have the mother gain the abilities to take care of herself and the baby (2, 3, 4).

The duration of postpartum hospitalization is 24 hours for vaginal delivery and 48 hours for caesarean section delivery

in Turkey. Women who give birth in Turkey are followed three times after the birth at the hospital (first at 1 hour, then between 1-6 hours, and 6-24 hours), and three times at home (between the days of 2-5, 13-17, and 30-42 after birth) (5). Maternal mortality and morbidity rates are high during the postpartum period, and maternal mortality is unacceptably high in the world. According to the WHO (2017) maternal mortality report, 810 women die every day due to pregnancy or birth related problems (6). 99% of all maternal deaths occur in the developing countries. The risk of maternal mortality is highest within the first 24 hours postpartum. Maternal health problems, such as bleeding, occur at this period, and can cause maternal deaths (5). According to the Annual Turkish Health Statistic (2019) data, maternal mortality rate is 13.1 in every 100 000 in Turkey (7).

Most maternal deaths are avoidable since the healthcare solutions to prevent or manage complications are well known. All women need access to antenatal care during pregnancy, skilled care during childbirth, and care and support after childbirth (5). A healthy and successful adaptation to the postpartum period depends on the physical care, education, and counselling services given by the healthcare personnel to the mother, the baby, and the family (8). Feeling comfortable physically affects the mother's active contribution to the care of self and the baby positively, as well as her success in the continuation of the care and their physical and mental health. Therefore, nurses and midwives should evaluate the healthcare requirements of the mothers in the postpartum period, and provide necessary care and support, facilitating their accommodation to the role of mothering and decreasing the problems that might be encountered in the postpartum period (1, 2). The system and management of care is as important as the evaluation of the efficacy and the quality of the care given in the postpartum period (4).

The World Health Organization reports that only 35% of the women around the world benefit from postpartum services (9). According to the Turkey Demographic and Health Survey (TDHS-2018) data, the rate of receiving postpartum care varies between 83% and 97% in Turkey and depends on the level of education of the mother, age of the mother at the time of the birth, the location, and the region (10).

Early discharge is a routine procedure in the postpartum period. However, most of the signs and symptoms of the postpartum complications occur following discharge. Therefore, it is vital to define early signs of complications and identify mothers under risk, informing the mothers about the alarming signs by performing an extensive evaluation before the discharge (education to women, providing brochures, etc.) (11). In a study by Dag and associates, 66.4% of mothers did not receive information about the discharge and 31.8% of the individuals giving the information were nurses or nursing students (8). On the contrary, some studies in the literature indicate a high rate of mother satisfaction in the postpartum period. Among the mothers, 56%, 88%, and 90% reported that they were satisfied with the care they received in the early postpartum period in a study by Valbo and associates (12).

Patient satisfaction is a multi-dimensional concept including implementation of care, interaction between the patient and the caregiver, presence and continuation of care, adequacy of the caregivers, and communication skills, and has been accepted as an indicator of quality of care (13). Postpartum period is a stage where additional care is needed for the mother and the baby. Care during the postpartum period should be planned to meet the needs of the mother, the new-born, and the family. Care implications practiced in the postpartum period are prevented risks, guided, and helped to orientation family's new position in terms of physical and psychosocial, develop positive health behaviours. Midwives and nurses should critically scrutinize themselves and should re-evaluate themselves in terms of the care and service they provide to increase satisfaction and quality of

the healthcare. An evaluation of satisfaction of the women provides an opportunity to fulfill the needs and contributes to professional development (14). Therefore, it is important to evaluate the satisfaction of the group in terms of the implementation and the given education, and to assess the quality of the implementation. The aim of this study was to evaluate nursing care in the early postpartum period.

## 2. METHODS

### 2.1. Study Design

The descriptive and cross-sectional study was performed at a postpartum clinic in a government hospital between December 2016 and January 2017. Only mothers who delivered a baby through vaginal birth were hospitalized at this postpartum clinic.

### 2.2. Setting and Sample

The study included two groups. First group included 130 mothers who were hospitalized at the postpartum clinic. Mothers who gave birth by vaginal delivery, who were willing to participate in the study, who had no communication problems, who were at least primary school graduates, who spoke Turkish, and which is next to baby were included in the study. The mothers evaluated postpartum nursing care they received during their hospital stay. The duration of postpartum hospitalization is 24 hours for vaginal delivery in Turkey.

Power analysis was performed for the sample size. In the power analysis performed using GPower 3.1 (<http://www.gpower.hhu.de/>), sample size calculated using 80% power and  $\alpha = 0.05$ , and one-sample t-test, was 118 women at postpartum period. Considering the probability of women leaving the study, the study was conducted with 130 mothers.

The second group of the study included all the nurses and midwives working in the postpartum clinic without selecting a sample, which included 18 nurses and midwives working in the same postpartum clinic. Women receive care from nurses and midwives in obstetric clinics in Turkey, and nursing tasks and roles are defined by law, as well as by other regulations and directives. In Turkey, nurses are authorized to provide prenatal and postnatal care to women, with the exception to deliver patients' babies.

### 2.3. Materials

The data were collected using the "Personal Information Form" for mothers and nurses and midwives, and the "Postpartum Nursing Care Evaluation Tool (PPNCET)" for the evaluation of the nursing and midwifery care.

**Personal Information Form for Mothers:** The form was prepared by researchers and included mothers' socio-demographic characteristics (age, level of education, working status, economic

status, family type, etc.) and obstetric characteristics (number of deliveries, number of living children).

**Personal Information Form for Nurses:** This form was prepared by researchers and included socio-demographic characteristics of the nurses and midwives (age, level of education, and marital status), obstetric characteristics (number of living children), and professional characteristics (duration of employment as a nurse or midwife, duration of employment at the postpartum clinic, working hours at the postpartum clinic).

**Postpartum Nursing Care Evaluation Scale (PPNCET):** This tool was developed by Yıldız Eryılmaz in 1999 to evaluate the care and the education received by the mothers who gave birth through the normal vaginal route (15). The scale is bidirectional and used both with mothers who are receiving care and with the nurses and midwives who are giving care. Using both scales is possible, while it can be used as a single scale directed to the mothers alone or to the nurses alone. The scale consists of two subgroups with a total of 45 items. The subgroups include care and education (items 1-21 related to care, and items 22-45 related to education). The answers are given within a four-point Likert-type scale. Each item is evaluated with the responses of “completely agree,” “agree,” “partially agree,” and “do not agree.” The highest score for each item is four and the lowest score is one. The total scores of the complete scale, care subscale, and education subscale are 180, 84, and 96, respectively. These scores are valid for both the mothers and the nurses. High scores for the mean scores of evaluation of postpartum nursing care reflect the efficacy of the care given. Cronbach’s alpha internal consistency coefficient was 0.96 for the nurses and midwives, and 0.88 for the mothers. In this study, the Cronbach’s alpha internal consistency reliability of the scale was 0.97 for the mothers, and 0.98 for the nurses and midwives.

**2.4. Data Collection**

A face-to-face interview method to administer the questionnaires by the researcher was used. Data were collected before the mothers were discharged, and at suitable times for nurses and midwives. The interviews lasted approximately 20 minutes.

**2.5. Data Analysis**

The statistical analyses were performed using the SPSS for Windows version 16.0. Percentage, arithmetic mean, independent samples t-test, One-Way ANOVA Mann-Whitney U test, and Kruskal-Wallis test were used to analyze the data. The level of significance was accepted as  $p < .05$ .

**2.6. Ethical Considerations**

The School of Medicine Institutional Review Board reviewed and approved the study in 2016 (50-10/05.02.2016). The women included in the study were informed about the purpose of the study. They were also informed that the

information collected would not be read by anyone apart from the researchers, and that the information would be used for scientific purposes, and in this way, verbal consent was obtained. Verbal permission was obtained to use the scale.

**3. RESULTS**

Descriptive and obstetric characteristics of the mothers, and the nurses and midwives are presented in Table 1.

**Table 1.** Descriptive and obstetric characteristics of mothers and Nurses/Midwives

Descriptive and obstetric characteristics	Mothers (N=130) n %	Descriptive characteristics	Nurses/Midwives (N=18) n %
<b>Age</b>		<b>Age</b>	
19 years and younger	7 5.4	20-29	7 38.9
20-24	45 34.6	30-39	3 16.7
25-29	36 27.7	40 years and older	8 44.4
30-34	32 24.6		
35 years and older	10 7.7		
<b>Level of Education</b>		<b>Level of Education</b>	
Primary School	66 50.8	High School	3 16.7
Secondary School	36 27.7	Associate degree	6 33.3
High School	28 21.5	Bachelor’s	9 50.0
<b>Family Structure</b>		<b>Marital Status</b>	
Nuclear Family	93 71.5	Married	10 55.6
Large Family	37 28.5	Single	8 44.4
<b>State of Employment</b>		<b>Profession</b>	
Employed	20 15.4	Nurse	7 38.6
Unemployed	110 84.5	Midwife	11 61.1
<b>Level of Income</b>		<b>Experience year</b>	
income < expenditure	54 41.5	5 years and less	6 33.3
income = expenditure	65 50.0	6-10 years	3 16.7
income > expenditure	11 8.5	11 years and more	9 50.0
<b>Parity</b>		<b>Experience year at the Postpartum Clinic</b>	
1	30 23.1	1 year and less	8 47.1
2	40 30.8	2-4 years	
3 and above	60 46.2	5 years and more	
<b>Presence of Episiotomy</b>		<b>Parity</b>	
Present	77 59.2	None	8 55.6
None	53 40.8	1	3 16.7
		2	4 22.2
		3	3 16.7
<b>The Room Stayed in at the Hospital</b>			
A private room	112 86.2		
A regular room			

The comparison of Postpartum Nursing Care Evaluation Scale (PPNCET) and subscale mean scores of mothers, nurses and midwives are presented in Table 2. The mean total PPNCET scores of mothers in this study was  $141.58 \pm 32.03$ , while the mean PPNCET scores of the nurses and midwives was  $153.50 \pm 23.18$ . Mean scores of mothers for PPNCET care and education subscales were  $69.88 \pm 12.06$  and  $71.70 \pm$

19.97, respectively, and the mean scores of the nurses and midwives of the care and education subscales were  $73.38 \pm 8.84$  and  $80.11 \pm 14.33$ , respectively.

**Table 2.** Comparison of PPN CET and Subscale mean scores of Mothers and Nurses/Midwives

PPNCET and Subscales	PPNCET Min-Max	PPNCET Mothers	PPNCET Nurses/Midwives	
Care Subscale	21-84	69.88±12.06	73.38±8.84	t=-1.187 p=0.237
Education Subscale	22-96	71.70±19.97	80.11±14.33	t=-1.722 p=0.087
Total PPN CET	43-180	141.58±32.03	153.50±23.18	t=-1.581 p=0.116

<sup>a</sup>Independent Samples t

An examination of the relationship between descriptive and obstetric characteristics of the mothers and the total PPN CET scores demonstrated that mothers who had graduated from primary school, lived in nuclear families, whose income met their expenditure, who had parity 2, who were not given episiotomy, and stayed in a normal room in the hospital, had the highest PPN CET scores. The total PPN CET mean scores were not statistically significantly associated with age (KW = 6.086,  $p = 0.107$ ), level of education (KW = 0.07,  $p = 0.964$ ), family structure (t = 1.215,  $p = 0.227$ ), state of employment (MWU = 881.500,  $p = 0.158$ ), parity (F = 0.263,  $p = 0.7709$ ), or staying in normal room in the hospital (MWU = 937.500,  $p = 0.634$ ) of the mothers. There was a statistically significant relationship between the total mean scores of the PPN CET and the mothers' levels of income (KW = 9.820,  $p = 0.007$ ) (Table 3).

The mean scores on the PPN CET care subscale were statistically significantly associated with the mothers' level of income (KW = 12.713,  $p = 0.002$ ). There was also a statistically significant association between the mean scores on the PPN CET education subscale, and the mothers' level of income (KW = 7.685,  $p = 0.021$ ), and between the mean scores on the PPN CET education subscale and receiving episiotomy (t = -1.927,  $p = 0.05$ ) (Table 3).

An examination of the relationship between descriptive and obstetric characteristics of the nurses and midwives and the total PPN CET scores demonstrated that nurses and midwives who were aged between 20-29, who were high school graduates and nurses, who were single, who had worked five years or less, who worked in the postpartum clinic for more than a year, and who had not given birth, had the highest PPN CET scores (Table 4).

There was a statistically significant relationship between the mean scores of the PPN CET care subscale and the nurses and midwives' age (KW = 7.239,  $p = 0.027$ ), marital status (MW-U = 9.000,  $p = 0.006$ ), and experience in years at the postpartum clinic (KW = 5.758,  $p = 0.05$ ). The mean scores on the PPN CET education subscale were statistically significantly associated with the nurses/midwives' age (KW = 10.396,  $p = 0.006$ ), and experience in years at the postpartum clinic (KW = 6,277,  $p$

= 0,04). There was also a statistically significant relationship between the mean scores on the total PPN CET, and the nurses and midwives' age (KW = 9.535,  $p = 0.009$ ), marital status (MW-U = 14.000,  $p = 0.021$ ), and experience in years at the postpartum clinic (KW = 6.577,  $p = 0.037$ ) (Table 4).

**Table 3.** Comparison of descriptive and obstetric characteristics of mothers with PPN CET

Descriptive and obstetric characteristics	PPNCET Care Subscale X±SS	PPNCET Education Subscale X±SS	PPNCET Total X±SS
<b>Age</b>			
19 years and younger	66,28±11,62	56,42±21,58	122.71±32.75
20-24	66,15±14,05	69,08±21,38	135.24±34.12
25-29	74,00±10,59	74,80±18,57	148.81±27.70
30-34	71,50±10,91	74,71±19,47	146.22±29.59
35 years and older	69,20±5,24	73,40±15,32	142.60±19.55
	<b>KW= 8.776<sup>b</sup></b>	<b>KW= 5.300<sup>b</sup></b>	<b>KW= 6.086<sup>b</sup></b>
	<b>P= 0.067</b>	<b>P= 0.258</b>	<b>P= 0.107</b>
<b>Level of Education</b>			
Primary School	70,33±12,29	71,89±20,45	142.23±31.64
Secondary School	69,69±11,99	70,58±20,79	140.28±31.36
High School	69,07±12,02	72,71±18,33	141.79±28.80
	<b>KW=0.452<sup>b</sup></b>	<b>KW=0.105<sup>b</sup></b>	<b>KW=0.07<sup>b</sup></b>
	<b>P=0.798</b>	<b>P=0.949</b>	<b>P=0.964</b>
<b>Family Structure</b>			
Nuclear Family	70,81±11,82	72,83±19,93	143.66±30.75
Large Family	67,54±12,52	68,86±20,06	136.41±30.54
	<b>t=1.402<sup>a</sup></b>	<b>t=1.021<sup>a</sup></b>	<b>t=1.215<sup>a</sup></b>
	<b>P=0.163</b>	<b>P=0.311</b>	<b>p=0.227</b>
<b>State of Employment</b>			
Employed	73,75±9,54	77,35±15,56	151.10±23.51
Unemployed	69,18±12,37	70,68±20,57	139.86±31.67
	<b>KW=885.500<sup>b</sup></b>	<b>KW=906.500<sup>b</sup></b>	<b>MWU=881.500<sup>b</sup></b>
	<b>P=0.165</b>	<b>P=0.210</b>	<b>p=0.158</b>
<b>Level of Income</b>			
income < expenditure	66,00±12,10	66,51±19,87	132.52±30.50
income = expenditure	73,35±11,40	76,06±19,73	149.42±29.91
income > expenditure	68,45±10,36	71,45±17,13	139.91±26.37
	<b>KW=12.713<sup>b</sup></b>	<b>KW=7.685<sup>b</sup></b>	<b>KW=9.820<sup>b</sup></b>
	<b>P=0.002</b>	<b>P=0.021</b>	<b>p=0.007</b>
<b>Parity</b>			
1	70,70±13,03	68,80±21,88	139.50±33.95
2	69,45±12,98	75,00±18,96	144.45±31.01
3 and above	69,76±11,09	70,96±19,67	140.73±29.27
	<b>F=0.096<sup>c</sup></b>	<b>F=0.901<sup>c</sup></b>	<b>F=0.263<sup>c</sup></b>
	<b>P=0.909</b>	<b>P=0.409</b>	<b>P=0.770</b>
<b>Presence of Episiotomy</b>			
Present	68,63±12,22	68,93±20,59	137.57±31.36
None	71,69±11,71	75,73±18,49	147.43±29.15
	<b>t=-1.427<sup>a</sup></b>	<b>t=-1.927<sup>a</sup></b>	<b>t=-1.813<sup>a</sup></b>
	<b>P=0.156</b>	<b>P=0.05</b>	<b>p=0.07</b>
<b>The Room Stayed in at the Hospital</b>			
A private room	69,94±10,94	69,61±18,06	139.56±27.03
A regular room	69,87±12,28	72,04±20,32	141.92±31.40
	<b>KW=995.000<sup>b</sup></b>	<b>KW=919.500<sup>b</sup></b>	<b>MWU=937.500<sup>b</sup></b>
	<b>P=0.990</b>	<b>P=0.549</b>	<b>p=0.634</b>

<sup>a</sup>Independent Samples t, <sup>b</sup>Test Kruskal-Wallis <sup>c</sup>One-Way ANOVA

**Table 4.** Comparison of descriptive characteristics of Nurses/ Midwives with PPN CET

Descriptive Specifications	PPNCET Care Subscale X±SS	PPNCET Education Subscale X±SS	PPNCET Total X±SS
<b>Age</b>			
20-29	80.00+4.76	89.28+9.82	169.29+14.33
30-39	75.66+6.42	87.00+4.35	162.67+10.69
40 years and older	66.75+7.90	69.50+13.34	136.25+20.90
	<b>KW=10.396<sup>b</sup></b> <b>p=0.006</b>	<b>KW=7.239<sup>b</sup></b> <b>p=0.027</b>	<b>KW=9.535<sup>b</sup></b> <b>p=0.009</b>
<b>Level of Education</b>			
High School	77.33+8.14	88.00+10.44	165.33+18.58
Associate degree	73.33+7.11	78.83+15.09	152.17+22.03
Bachelor's	72.11+10.50	78.33+15.46	150.44+25.65
	<b>KW= 0.429<sup>b</sup></b> <b>p=0.807</b>	<b>KW=0.805<sup>b</sup></b> <b>p=0.669</b>	<b>KW=0.615<sup>b</sup></b> <b>p=0.735</b>
<b>Marital Status</b>			
Married	68.30+7.36	74.10+12.63	142.40+19.75
Single	79.75+6.08	87.62+13.34	167.38+19.32
	<b>MW-U= 9.000<sup>d</sup></b> <b>p=0.006</b>	<b>MW-U=19.000<sup>d</sup></b> <b>p=0.061</b>	<b>MW-U=14.000<sup>d</sup></b> <b>p=0.021</b>
<b>Profession</b>			
Nurse	76.14+8.21	84.57+12.06	160.71+20.21
Midwife	71.63+9.15	77.27+15.47	148.91+24.18
	<b>MW-U= 28.500<sup>d</sup></b> <b>p=0.363</b>	<b>MW-U=31.000<sup>d</sup></b> <b>p=0.495</b>	<b>MW-U=30.000<sup>d</sup></b> <b>p=0.440</b>
<b>Experience year</b>			
5 years and less	80.66+4.84	91.83+7.83	172.50+12.64
6-10 years	76.66+6.02	83.66+9.07	160.33+13.05
11 years and more	67.44+7.68	71.11+13.38	138.56+20.74
	<b>KW=0.852<sup>b</sup></b> <b>p=0.356</b>	<b>KW=3.322<sup>b</sup></b> <b>p=0.068</b>	<b>KW=1.724<sup>b</sup></b> <b>p=0.189</b>
<b>Experience year at the Postpartum Clinic</b>			
1 year and less	82.50+1.29	95.00+1.41	177.50+2.51
2-4 years	70.83+3.54	76.83+6.24	147.67+8.38
5 years and more	70.75+10.9	75.12+17.50	145.88+28.17
	<b>KW= 5.758<sup>b</sup></b> <b>p=0.05</b>	<b>KW=6,277<sup>b</sup></b> <b>p=0,04</b>	<b>KW=6.577<sup>b</sup></b> <b>p=0.037</b>
<b>Parity</b>			
None	78.50+6.34	86.25+13.03	164.75+19.09
1	75.00+6.92	85.33+9.50	160.33+15.94
2	70.50+7.32	74.75+14.38	145.25+21.57
3	62.00+8.71	65.66+13.79	127.67+22.50
	<b>KW= 5.022<sup>b</sup></b> <b>p=0.081</b>	<b>KW=2.722<sup>b</sup></b> <b>p=0.256</b>	<b>KW=3.973<sup>b</sup></b> <b>p=0.137</b>

<sup>b</sup>Kruskal-Wallis, <sup>d</sup> Mann-Whitney U test

#### 4. DISCUSSION

Some of the primary issues affecting satisfaction are presentation and perception of care. Currently in health care services, meeting the necessities and requirements of the women and increasing their satisfaction constitutes an important dimension of quality in service care. Past experiences of the individual, as well as age, gender, level of education, social characteristics, health status, diagnosis,

mental health, and such characteristics are among the factors that affect satisfaction. However, in addition to these characteristics, meeting the expectations of the patient about care, and providing physical and mental comfort, are among the important factors to increase satisfaction (16, 17, 18).

In a study by Larkin and associates, the mothers expected behavioral and communication skills from midwives (19). The quality of the desired obstetric care in the postpartum period was evaluated from the point of view of mothers in a qualitative study by Chan and associates. In the study, all the participants reported that the most important characteristic of the nurses as an indicator of quality was a positive attitude, and nurses were defined as compassionate, emphatic, polite, friendly, and valuable (20). The mothers' expectation of postpartum care was high in the study by Mirzaei and associates. In the study, the rate of matching the expectations was low, and the women reported to be unsatisfied with the care they received (2). It was reported also in the study by McCarter, Law, Cabullo and Pinto that the expectations of the mothers in the postpartum period were unmet (21). This suggests that mothers have high expectations of nurses and midwives during the postpartum period, as was reported in the related studies. During the postpartum period, women have the right to receive quality health care from the health institutions in line with their expectations.

When the distribution of the mean PPN CET scores of the mothers according to their sociodemographic properties were evaluated, age, level of education, marital status, status of employment, number of deliveries, and presence of a companion had no effect on the mean total scores of the scale ( $p > 0.05$ ). Parallel to the present study, similar sociodemographic and obstetric specifications were found not to affect the satisfaction from the care in different studies (22, 23).

In the present study, a statistically significant relationship was found between the level of income of the mothers, and mean PPN CET scores ( $p < 0.05$ ). In addition, mean PPN CET scores were higher in individuals whose income were equal to expenses, namely, a normal level of income. This result suggests that the expectations of women with normal level of income were met.

A statistically significant relationship was found between the age and marital status of the nurses and midwives, and mean PPN CET care subscale scores ( $p < 0.05$ ). The mean scores of individuals with an age range of 20-29 years and single were higher. Productivity in caregiving may be decreased with married individuals due to stress, family, and professional load. Also, the fact that the young individuals were newly graduated, and therefore their knowledge is more current, might have a role in the high mean scores of the care subscale of the nurses and midwives. A statistically significant relationship was found between the age of the nurses and midwives and duration of work at the obstetrics clinic, and the mean education subscale scores ( $p < 0.05$ ). The mean scores of individuals in the age range of 20-29 years, and who

had worked less than one year at the obstetrics clinic, was higher. This result suggests that the younger individuals, and nurses and midwives, who had recently started working at the clinic, presented more quality care.

It is important to develop provided care to increase patient satisfaction in the health sector. Care satisfaction of women during hospitalization is an important factor affecting the satisfaction of all the hospital services (4). In the present study, care was evaluated from the perspective of mothers receiving care and nurses giving care, and in general, the mean total PPN CET scores were higher than average. This result demonstrates that mothers were satisfied with the care given during the postpartum period. In the studies by Valbo and associates, and Kesuma and Chongsuvatwong, mothers reported being satisfied with care received during the early postpartum period (12, 24). In a study by Ertem and Sevil, the effect of care provided by nurses on women's satisfaction, as well as quality of care given during the postpartum period, was evaluated. In the study, 94.3% of the women in the experimental group and 31.4% of the women in the control group were satisfied with the care they received (25). In a study by Chan and associates, women reported being satisfied with the care received. In another study, in which the level of satisfaction of women hospitalized at the gynecology and obstetrics clinics associated with the care was evaluated, women were satisfied with the care. Also, in general, the mean total scores of PPN CET of the nurses and midwives were higher than the average. This result demonstrates that the care provided during the postpartum period was good (20).

In the present study, the total scores and the education and care subscale scores of the nurses and midwives were higher than the mothers' scores. This result can be interpreted in two ways. First, care in the early postpartum period may not be adequately perceived by the mothers. Early discharge of the mothers in the early postpartum period precludes them to benefit adequately from the health care. In general, the duration of hospitalization in Turkey in cases without any complications is accepted to be at least 24 hours after vaginal birth, and at least 48 hours after cesarean birth (26).

Early postpartum discharge means hospital discharge of mothers within 24 hours after vaginal birth or 48 hours after caesarean section. In recent years, early discharge of mothers and newborns after an uncomplicated birth has been more accepted. Among the mothers, 90% wanted to be discharged after resolving problems related to breast feeding, and therefore, desired to stay in the hospital for more than 72 hours. In a study by Lindberg and associates, 61.3% of mothers wanted to be discharged no earlier than 72 hours, and 94.9% wanted to stay in the hospital as long as they wanted. These results suggest that early discharge may affect the postpartum care process perceived by the mother. Also, the care requirements defined by the mothers and health care personnel are different during the postpartum period. This condition precludes the requirements of the mothers to be met and decreases the efficacy of the postpartum care

(4). These factors might have affected the perception of the care by the mothers.

Secondly, since nurses apply postpartum care and education services in line with the education they have received, their level of awareness is likely high, and thus the mean PPN CET, and education and care subscales of the nurses and midwives, are higher compared to the mothers. Postpartum care was evaluated from the perspective of care givers and care receivers in a study by Valbo and associates, and whether the education on baby care provided to the mothers was adequate was investigated, where 40.7% of the mothers and 51% of the workers reported that the education given was adequate. The findings of the present study are parallel to the findings of Valbo and associates (12).

## 5. CONCLUSIONS

It was determined that women and nurses/midwives had high scale total mean scores of PPN CET. Total mean scores of PPN CET nurses/midwives are higher than mothers. This result shows that mothers are less satisfied with the care they receive. The highest score obtainable from the PPN CET is 180, and mothers and nurses in this study received  $141.76 \pm 32.03$  and  $153.50 \pm 23.18$  scores, respectively. PPN CET scores of the mothers receiving postpartum care, and nurses giving care, were higher than the mean scores. This result suggests that the care and education given during the postpartum period was effective. Income level and receiving episiotomy affected the total mean scores of PPN CET of the women. In line with these results, planning the in-service training programs directed to develop knowledge and skills of the nurses and midwives would be beneficial to increase the that the nurses/midwives should evaluate the care and the quality of care they give during the quality of service presentation. Also, it is recommended postpartum period from the perspective of care receivers. In order to assess the postpartum care more effectively, and to increase the satisfaction of the postpartum care, involving the mothers more, and allowing them to make decisions regarding the care, is recommended.

This study has several limitations. First, this study included 130 postpartum women who gave birth at a single hospital in southern Turkey, limiting the generalizability of the results. Third, some factors such as the physical environment, the number of nurses/midwives and the time they spend with their patients may affect the nursing care received by mothers that were not evaluated in this study. Despite its limitations, this study may be helpful in guiding further research.

## REFERENCES

- [1] Fahey JO, Shenassa E. Understanding and meeting the needs of women in the postpartum period: the perinatal maternal health promotion model. *Journal of Midwifery & Women's Health* 2013;58: 613-621.
- [2] Mirzaei Kh, Oladi Ghadikolaee S, Mousavi Bazzaz M, Ziaee M. Mother's satisfaction of postpartum care and its relationship

- with midwifery care at Urban Health Centers, Mashhad, Iran. *Journal of Midwifery and Reproductive Health* 2016; 4(3): 679-688.
- [3] Güneri SE. Evidence based practices in early postpartum period. *Gumushane University Journal of Health Sciences*. 2015; 4(3): 482-496.
- [4] WHO Technical Consultation on Postpartum and Postnatal Care Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland. 2010.
- [5] T.C. Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü Kadın ve Üreme Sağlığı Dairesi Başkanlığı , Doğum Sonu Bakım Yönetim Rehberi, 2018 <https://kirklareliism.saglik.gov.tr/Eklenti/115526/0/dogum-sonu-bakim-rehberi-2018pdf.pdf> [30 September 2022]
- [6] WHO New global targets to prevent maternal deaths <https://www.who.int/news/item/05-10-2021-new-global-targets-to-prevent-maternal-deaths> [30 September 2022]
- [7] T.C. Sağlık Bakanlığı Sağlık İstatistikleri Yıllığı . 2019 <https://dosyasb.saglik.gov.tr/Eklenti/40564,saglik-istatistikleri-yilligi-2019pdf.pdf?0> [30 September 2022]
- [8] Dağ H, Güneri SE, Kavlak O, Şirin, A. The learning needs and perceived readiness of mothers for discharge after birth. *International Refereed Academic Journal of Sports* 2014; 10 (4) :26-38.
- [9] WHO Urges Quality Care For Women And Newborns In Critical First Weeks After Childbirth .2022. <https://www.who.int/news/item/30-03-2022-who-urges-quality-care-for-women-and-newborns-in-critical-first-weeks-after-childbirth> [30 September 2022]
- [10] Turkey Demographic and Health Survey (TDHS-2018) . Hacettepe University Institute of Population Studies. Ankara, Turkey. 2018 [http://www.sck.gov.tr/wp-content/uploads/2020/08/TNSA2018\\_ana\\_Rapor.pdf](http://www.sck.gov.tr/wp-content/uploads/2020/08/TNSA2018_ana_Rapor.pdf) [30 September 2022]
- [11] Say L, Chou D, Gemmil A, Tunçalp Ö, Moller B, Daniels J, Gülmezoglu M, Temmerman M, Alkema L. Global causes of maternal death: a WHO systematic analysis. *Lancet Glob Health* 2014;2(6): 323–333
- [12] Valbo A, Iversen HH, Kristoffersen M. Postpartum Care: Evaluation and Experience Among Care Providers and Care Receivers. *Journal of Midwifery & Women's Health* 2011; 56(4): 332-339 DOI: 10.1111/j.1542-2011.2011.00038.x
- [13] Molina-Mula J, Gallo-Estrada J. Impact of Nurse-Patient Relationship on Quality of Care and Patient Autonomy in Decision-Making. *International Journal of Environmental Research and Public Health* 2020; 17(3): 835.
- [14] Lotfi M, Zamanzadeh V, Valizadeh L, Khajehgoodari M. Assessment of nurse–patient communication and patient satisfaction from nursing care. *Nursing Open* 2019; 6(3): 1189-1196.
- [15] Yıldız Eryılmaz H. Doğum sonu hemşirelik bakımının değerlendirilmesinde ölçek geliştirilmesi ve uygulanan bakım yönteminin (pathway) etkilerinin belirlenmesi (Doktora tezi). Marmara Üniversitesi Sağlık Bilimleri Enstitüsü,1999; İstanbul. (Turkish)
- [16] Cheng SH, Yang MC, Chiang TL. Patient satisfaction with and recommendation of hospital: effects of interpersonal and technical aspects of hospital care. *International Journal for Quality in Health Care* 2003; 15 (4) : 345-355.
- [17] Wagner DL, Washington C. Patient satisfaction with postpartum teaching methods. *The Journal of Perinatal Education* 2016; 25(2):129-136.
- [18] Ingwell-Spolan C. Chief Nursing Officers' Views on Meeting the Needs of the Professional Nurse: How This Can Affect Patient Outcomes. *In Healthcare* 2018;6(2):56
- [19] Larkin P, Begley CM, Devane D. Women's preferences for childbirth experiences in the Republic of Ireland; a mixed methods study. *BMC Pregnancy Childbirth* 2017; 17(1):19.
- [20] Chan ZCY, Wong KS, Lam WM, Wong KY, Kwok YC. An exploration of postpartum women's perspective on desired obstetric nursing qualities. *Journal of Clinical Nursing* 2013; 23, 103–112
- [21] McCarter D, Law A, Cabullo H, Pinto K. Scoping review of postpartum discharge education provided by nurses. *Journal of Obstetric, Gynecologic & Neonatal Nursing* 2022; 51(4):377-387
- [22] Makarem J, Larijani B, Joodaki K, Ghaderi S, Nayeri F, Mohammadpoor M. Patients' satisfaction with inpatient services provided in hospitals affiliated to Tehran University of Medical Sciences, Iran, during 2011-2013. *Journal of Medical Ethics and History of Medicine* 2016; 9(6):1-10.
- [23] Taddese AA, Gashaye KT, Dagne H, Andualem Z. Maternal and partner's level of satisfaction on the delivery room service in University of Gondar Referral Hospital, n o r t h w e s t , Ethiopia: a comparative cross-sectional study. *BMC Health Services Research* 2020; 20(1):1-8.
- [24] Kesuma ZM, Chongsuvivatwong V. Comparison of satisfaction with maternal health-care services using different health insurance schemes in aceh province, Indonesia. *Indian J Public Health* 2016; 60(3):195-202.
- [25] Ertem G, Sevil U. The examination of the effect of nurse care to the quality of care and to the patient satisfaction which is given through the standards. *International Journal of Human Sciences* 2007; 4: 2.
- [26] Haran C, Driel MV, Mitchell LB, Brodribb LB. Clinical guidelines for postpartum women and infants in primary care—a systematic review. *BMC Pregnancy and Childbirth* 2014;51(14):1-9

**How to cite this article:** Karacay Yikar S, Gozuyesil E, Nazik E, Var E. Evaluation of Nursing Care in the Early Postpartum Period. *Clin Exp Health Sci* 2022; 12: 860-866. DOI: 10.33808/clinexphealthsci.891578