Original Article

The Effect of the Care Given Usıng Orem's Self-Care Model on the Postpartum Self- Evaluation

Serap Ejder Apay, PhD
Assistant professor, Ataturk University Faculty of Health Science, Department of Midwifery, Erzurum, Turkey.

Ayla Çapik, PhD
Assistant Professor, Ataturk University Faculty of Health Science, Department of Midwifery, Erzurum, Turkey

Evşen Nazik, PhD
Associate Professor, Cukurova University Department of Nursing, Adana, Turkey

Funda Özdemir, PhD
Assistant Professor, Ankara University Department of Nursing, Ankara, Turkey.

Correspondence: Serap Ejder Apay, Ataturk University Faculty of Health Science, Department of Midwifery, Erzurum, MA 25100, Turkey. e-mail: sejder@hotmail.com

Abstract

Aim: The purpose of this study was to investigate the effect of care provided to confined women using Orem's Self Care Model on postpartum self-evaluation.
Method: The study was conducted using pretest- posttest experimental model with control group. "Personal Information Form", "Data Collection Form" and "Post-partum Self-Evaluation Questionnaire" were used to collect data. The data of experimental group was collected by making 6 home visits.
Results: In the experimental group, a total of 6 interviews were held and 35 nursing diagnoses were established in total for the 6 weeks of postpartum. In the control group, 1 interview was held with confined women at the end of the 6th week and 24 diagnoses were established in total.
Conclusions: It was determined that, the care provided using Orem's self-care model during the postpartum period recovered or prevented the postpartum problems and increased the postpartum adaptation of the confined women.

Key Words: Postpartum Period, Orem's Self Care Model, Nursing Care, Postpartum Adaptation.

Introduction

The health requirements of women are extensively related with fertility. The health problems, adversely affecting the health and life quality of the woman, emerge in the pregnancy, delivery and postpartum periods (Cengiz & Kimya, 2001).

Approximately 200 million women become pregnant every year all over the world, 128 million births are given and 500-600 thousand women pass away due to the complications of pregnancy and delivery. 1% of these deaths occur in developed countries while 99% take place in developing countries (NMMS, 2005). According to the results of Turkey National Maternal Mortality Study 2005, the maternal mortality ratio is 38.3 out of 100 thousand live births. 9% of the deaths caused by pregnancy emerge during delivery and 54.1% during the post-partum period (NMMS, 2005).

Postpartum period can be defined as the 6 weeks of period, when the anatomic, physiological, and psychological changes associated with pregnancy start to return to normal after the birth. This period is critical for the maternal health (Decherney & Nathan, 2003; Guler, 1998).

Postpartum period is a difficult time, where new roles and responsibilities are taken in addition to the physiological changes in the mother. During this period, the parents have to learn the infant care, establish a safe environment for the infant, communicate with him/her, learn the new roles, improve family sensitivity and deal with the problems related with the infant (Balcombe, 1992).

The studies conducted during the post-partum period have extensively discussed healing of reproductive organs; but have slightly mentioned issues such as the transition process to parenthood, increasing responsibilities, fatigue, changes in the relationships with the spouse, starting to the pre-pregnancy social, social and professional activities and adaption to post-partum period (Herbert, 1998; Hodnett, 1996; Ozkan & Sevil, 2007). In other words, diagnosis of the healing process in the post-partum period has conventionally focused on the recovery of reproductive organs and physiological adaptation.

During post-partum period, social and psychological healing was rarely pointed out (Ozkan & Sevil, 2007). Postpartum period is a period, where the mother needs the most information, support and qualitative care. Studies conducted concluded that in the postpartum period, the mothers required information regarding their physical care, exercising, nutrition, sleep, lochia and episiotomy (Moran et al., 1997; Ruchala, 2000). In the study conducted by Inanc (1990), midwifery applications during the postpartum period were essential for mothers and 66% of the mothers needed help in hemorrhage, pain, episiotomy, self-care and infant-care. In our country, mothers giving birth are usually discharged from the hospital 24 hours later. This duration might be considered sufficient to prevent some complications, which may urgently develop within the first 24 hours.

However, it is not sufficient to support the mother to adapt her new situation in the postpartum period (Guler, 1998). Therefore, at such a critical period, the mother's physical and mental health should be closely monitored after the discharge especially for the first 6 weeks. Within this period, some responsibilities of the midwife are; in line with the new mother and father's expectations, to enable them have biological and physical experiences as positive as possible, to prepare a supportive atmosphere at home and support the family in case of a crisis. Therefore, evaluations performed in postpartum period are essential (Hodnett, 1996).

Midwives and nurses accompany to the mothers at primary health care institutions, prenatal and postpartum clinics. Adaptation problems in postpartum period, usually occur mostly after they discharge from health institutions after delivery (postpartum 4-6 weeks later). It is possible not to overlook the symptoms and establish an early diagnosis for them during this period when the mothers are at home. Therefore, it is important that the mother is evaluated in terms of risk factors and the required preventions shall be taken at early stage. Midwives require to evaluate the adaptation, social and psychological healing of the confined after delivery. In order to provide a qualified follow up and care for 6 weeks of postpartum, the mothers' problems are evaluated by midwives and the care provided may recover or prevent the problems experienced by the mothers in the postpartum period.

Studies available in literature have emphasized that useful results were provided when the confined women were followed by midwives at home in the postpartum period (Apay, 2011; Lichtenstein et al., 2004; Nazik, 2009; O'Connor et al., 2003). Numerous studies conducted, concluded that mothers and infants, who were followed up and provided with care at home after early discharge during the postpartum period, had lower rate of application to hospitals for any health problem and lower rate of hospitalization (Bashiri et al., 2003; Gungor et al., 2004; Maera et al., 2004).

Orem defines the self-care requirement in three types. These are universal, developmental and health deviations. While universal requirements are associated with sustaining the integrity of human structure and function and with life events, the developmental requirements are arisen out of certain states of nature in the life cycle or are related with certain events. Health deviation requisites are observed in case of illness (Orem, 2001).

There are studies available in literature which were conducted on various fields using Orem's Self Care Model. These studies were made on different groups such as dialysis patients, inpatients, cancer patients, patients with diabetes, patients with multiple sclerosis, patients receiving home care, the confined women and adolescents. Results of these studies revealed that Orem's Self Care Model was very useful and increased the self care (Buyukkayaci Duman & Karatas, 2011; Kilic, 2005; Moore & Pichler, 2000; Nazik, 2009; Simmons, 2009).

This study was conducted to determine the effect of the care, provided to the confined women by using Orem's Self Care Model, on postpartum self evaluation.

Hypotheses of the Study

1. The home care provided to the confined women in accordance with Self Care Model reduces or prevents the problems observed during postpartum period.

2. The home care provided to the confined women in accordance with Self Care Model increases their postpartum adaptation.

Methods

Type of the Study

The study was conducted as pretest posttest experimental model with control group.

Population and Sample Group

The population of the study consisted of the primipara confined women, residing within the provincial borders and giving vaginal term delivery in a Maternity Hospital at the Eastern Anatolia Region of Turkey between 1 July 2011 and 30 May 2012. The confined women, who were chosen from the mentioned population using expedient sampling method, met the inclusion criteria of the study and accepted to participate to the study, were included in the sample group of the study. Voluntary confined women, who did not have any disease or disability, and whose infants did not have any disease or disability, and who are open to communication and corporation, were included in the scope of the study.

The minimum sample size was calculated by performing power analysis and determined to be 52 for each group. In this study, the representative power of the sample population was found to be 0.90 with 0.95 confidence interval at $\alpha=0.05$ level (Lenth, 2006). However, considering the possibility of some confined women to withdraw from the study due to certain reasons, the sample size was increased to 57 by 10%. In order to eliminate the possibility of taking sides in determining the experimental and control groups, the confined women taken on the even days of the week were included in the experimental group, while confined women taken on the odd days of the week were included in the control group. During the study, 2 participants from experimental group and 1 participant from control group withdrew from the study since they did not want to continue and the study was completed with 111 people (experimental group 55, Control group 56).

Survey methods

Study data were collected between 1 July 2011 and 30 December 2011. "Personal Information Form", "Data Collection Form" and "Postpartum Self-Evaluation Questionnaire" were used to collect the data. Also, researchers used face-to-face interviewing method for data collection. The confined women's addresses and contact information were obtained via Personal Information Form, before they were discharged from the hospital. All confined women were visited at their homes on the 3rd day after delivery to apply Postpartum Self Evaluation Questionnaire, and the confined women receiving total score of 200 and above from the questionnaire were included into the scope of study. The those in the experimental group were visited at their homes six times, once a week on the 4th day and then in the 2nd (between 10-14 day), 3rd (between 17-21 day), 4th (between 24-28 day), 5th (between 31-35 day), and the 6th (between 38-42 day) weeks after the delivery, and Data Collection Form was applied to them at each home visit in order to establish their nursing diagnoses. Afterwards, nursing interventions were applied in accordance with the identified diagnoses. At the end of each visit, the next visit's appointment was taken and telephone numbers of the researchers were given to the confined women so that they could contact with them at any time. At the last week of the postpartum (6th week), the care results were evaluated and the ***Postpartum Self Evaluation Questionnaire*** was reapplied.

Those in the control group were visited at their homes in the 6th week after the delivery. During home visit, ***Postpartum Self Evaluation Questionnaire*** was reapplied, and whether or not the confined women had the nursing diagnosis for the current week (6th week) was determined; then, nursing interventions in accordance with the identified diagnoses were applied also to those in the control group in terms of ethics.

Data Collection Tools

a. Personal Information Form: Personal Information Form was prepared by researchers. This form consists of 10 questions including the socio-demographical characteristics of the confined women.

b. Data Collection Form: Data Collection Form was developed by researchers based on Orem's Self Care Model in line with the literature (Alligood & Tomey, 2002; Orem, 2001; Tomey & Alligood, 2006). This form includes universal self care requirements, developmental self care requirements and self care requirements in health deviations.

Content validity testing of the Data Collection Form was conducted by 3 nursing experts. This form consisted of questions that examined Orem's self-care needs of universal self-care requirements, developmental self-care requirements and health deviations self-care requirements relevant to nursing diagnoses. The form was trialled with 10 confined women in order to test its intelligibility and the necessary corrections were then made to the final form. Women who were part of this trial were not included in the sample.

c. Postpartum Self Evaluation Questionnaire (PSEQ): It was developed by Lederman (1981), to evaluate the adaption of the women in postpartum period to motherhood. The questionnaire, Turkish validity and reliability study of which was conducted by Tascı and Mete (2007), was adapted to the Turkish society. The questionnaire is a 4-point likert scale with 82 items in total. Postpartum adaption is evaluated in accordance with the points from "1" to "4" (4: Very much so, 3: Moderately so, 2: Somewhat so, 1: Not at all). 39 items in the questionnaire are reversed. The scoring of these reverse items is calculated in an exact opposite way (1: Very much so, 2: Moderately so, 3: Somewhat so, 4: Not at all). For the entire questionnaire, the scoring ranges from 82 (minimum) and 328 (maximum). ***Low scores*** indicate that the postpartum adaptation was ***high***. Postpartum Self Evaluation Questionnaire (PSEQ) has 7 sub-scales, evaluating postpartum adaptations of the mothers. Each sub-scale consists of 10- 13 items. The sub-scales are grouped as; the quality of the relationship between partners, the view of the partners regarding participating to infant-care, the satisfaction for the birth experience, satisfaction for the continuation of life, trusting the power in coping with motherhood duties, satisfaction for the motherhood and neonatal care and support of the family and the friends for motherhood.

The Cronbach's Alpha coefficient was 0.87 in the validity- reliability study of the questionnaire (Tascı & Mete, 2007).

In this study, the Cronbach's Alpha coefficient was found to be 0.97.

Nursing Intervention

In the nursing care provided to postpartum women, nursing diagnosis was made. The primary nursing intervention in accordance with the nursing diagnoses identified was applied at homes of confined women, by using the form of care plan which had been prepared previously and consisted of the nursing diagnoses. "Nursing Process" was used in nursing interventions and "Data Collection Form" was used to evaluate the intervention results. If the determined problem is recovered, "problem is recovered" evaluation was made; if not, "problem is ongoing" evaluation was made.

The current diagnoses and possible new diagnoses were evaluated with "Data Collection Form". At each visit, it was evaluated whether the diagnoses identified at the previous visit were recovered or not. Necessary interventions were sustained for the ongoing diagnoses. Nursing interventions were applied for new and possible diagnoses and they were evaluated at the next visit. Care results were evaluated at the end of the postpartum period.

Variables of the Study

Independent Variable: Postpartum care given to confined women Dependent Variable: Postpartum self evaluation and postpartum problems. Control Variables: Age, educational status, working condition, income state, social security, number of pregnancy, year of marriage, providing assistance for housework, getting help in infant-care, willingness for pregnancy.

Data analysis

The Statistical Package for Social Sciences 16 software program was used to evaluate data of the study. In the evaluation of the data, percentage was used for examining descriptive characteristics of experimental and the control groups; chi-square was used for comparing experimental and control groups in terms of control variables; arithmetical mean, standard deviation and t test for dependent and independent groups were used for comparing the pretest-posttest mean scores obtained by confined women in the experimental and control groups from the Postpartum Self Evaluation Questionnaire; and chi-square test was used for comparing the nursing diagnoses of the experimental and control groups.

Ethical considerations

Ataturk University Faculty of Health Sciences Ethics Committee's ethical approval, the written permission of the hospital where the study would be conducted, and the verbal consent of the participants were provided before commencing the study. In order to protect rights of confined women in scope of the study, the purpose and the duration of the study and procedures to be carried out during study were explained to them before collecting data of the study, and "Informed Consent" principle was complied.

Ultimate attention was paid to comply to "The Autonomy" principle by stating that the confined women may withdraw from the study at any time, and to "Confidentiality and Protection of the Confidentiality" principle by stating that the personal information will be kept confidential after being shared with the researcher. Specifying that the information obtained and the identity of the respondent will be confidential, *"Disidentitiy and Security"* principle was met (Bayik, 2002).

Results

Table 1 illustrates comparison of the confined women within the scope of study in terms of their descriptive characteristics. When Table is examined, it is found that, 36.4% of the confined women in the experimental group were between the ages of 23-27, 40% were university graduates, and 58.2% were unemployed. 44.6% of those in the control group were between ages of 18-22, 44.6% were high school graduate and 62.5% were unemployed. There was a statistically significant difference between experimental and control groups, and the groups had similar characteristics in terms of control variables (p>0.05, Table 1).

Table 2 illustrates comparison of pretest-posttest mean scores obtained by confined women in the experimental and control groups from PSEQ. When the Table is examined, it is determined that there was no significant difference between experimental and control groups in terms of pretest mean scores of total PSEQ and its sub-scales (p>0.05); there was a statistically significant difference between these groups in terms of posttest mean scores of total PSEQ and all other sub-scales except for "satisfaction for the continuation of life" (p<0.05); and mean scores given by those in the experimental group after the care were positive (Table 2). Considering the comparison of pretest and posttest total score and sub-scale mean scores in the experimental group, the difference was statistically significant (p<0.05) and mean score after the care was lower (Table 2). Considering pretest and posttest mean scores of the control group, the difference between pretest-posttest scores was not statistically significant (p>0.05, Table 2).

In the study, for 6 weeks of the postpartum, 6 interviews were held with the confined women and 35 nursing diagnoses were established in total. 12 of these diagnoses included universal self-care requirements, 17 included developmental self-care requirements and 6 included self-care requirements in health deviations.

Considering the comparison of the diagnoses of confined women in the experimental and control groups identified during last interview (Table 3), the difference among diagnoses of constipation, impaired physical mobility, situational low self-esteem, knowledge deficit (breast feeding), disturbed body image, caregiver role strain, social isolation, changes in comfort-pain (perineum) was statistically insignificant (p>0.05), and the difference among all other diagnoses was statistically significant (p<0.001, p< 0.05).

Discussion

The results of this study, which was conducted to determine the effect of the care provided to confined women giving vaginal birth using Orem's Self Care Model, on post-partum self evaluation, have been discussed in the relevant literature.

This study revealed that there was no significant difference existed between the pretest mean scores of Postpartum Self Evaluation Questionnaire obtained by confined women in the experimental and control group (p>0.05); considering posttest mean scores the difference was significant (p<0.001) (Except for "Satisfaction for the Continuation of Life" sub-scale).

Moreover, while there was no significant difference between pretest- posttest mean scores in the control group (p>0.05), the difference between pretest-posttest mean score of the experimental group was significant (p<0.001). It was determined that the care given to the confined women during postpartum period increased their self evaluation positively. This result indicates that the "The home care provided to the confined women in accordance with Self Care Model increases their postpartum adaptation" hypothesis was supported. Six interviews were held with the confined women for 6 weeks of the postpartum in the study and 35 nursing diagnoses were established to those in the experimental and control group during the first interview. When the diagnoses established for universal self-care requirements during the last interview in confined women in the experimental and control groups were compared; the difference between the frequency of diagnoses of imbalanced nutrition: more than body requirement, disturbed sleep pattern, fatigue, ineffective health maintenance and loneliness, was statistically significant (p<0.05, p<0.001). The fact that most of the nursing diagnoses in terms of universal self care requirements were recovered shows the effectiveness of the care given in accordance with Orem's Self Care Model.

Table 1. Comparison of Demographics Characteristics Confined Women in Experimental and Control Groups

Characteristics	Experimental Groups (n=55)		Control Groups (n=56)		Total (n=111)		Test and p value
	n	**%**	**n**	**%**	**n**	**%**	
Age group (year)							
18-22 age	17	30.9	25	44.6	42	37.8	X^2=2.74
23-27 age	20	36.4	19	33.9	39	35.2	p> 0.05
≥ 28 age	18	32.7	12	21.4	30	27.0	
Education level							
Primary school	3	5.4	--	--	3	2.7	
Secondary school	15	27.3	9	16.1	24	21.6	X^2=6.99
High school	15	27.3	25	44.6	40	36.0	p> 0.05
University	22	40.0	22	39.3	44	39.6	
Employment condition							X^2=0.21
Employed	23	41.8	21	37.5	44	39.6	p> 0.05
Unemployed	32	58.2	35	62.5	67	60.4	
Income*						12.6	
Low	5	9.1	9	16.1	14	75.7	X^2=3.81
Middle	46	83.6	38	67.9	84	11.7	p> 0.05
High	4	7.3	9	16.1	13		
Social security							X^2=0.15
Yes	43	78.2	51	91.1	94	84.7	p> 0.05
No	12	21.8	5	8.9	17	15.3	
Gravidity							X^2=0.01
Primigravida	30	54.5	30	53.6	60	54.1	p> 0.05
Multigravida	25	45.5	26	46.4	51	45.9	
Married years							
1 year	10	18.2	8	14.3	18	16.2	
2 year	25	45.5	21	37.5	46	41.4	X^2=4.83
3 year	8	14.5	18	32.1	26	23.4	p> 0.05
≥ 4 year	12	21.8	9	16.1	21	18.9	
Receiving support for domestic work							X^2=0.07
Receiving support	42	76.4	44	78.6	86	77.5	p> 0.05
Not receiving support	13	23.6	12	21.4	25	22.5	
Receiving support for baby care							X^2=0.90
Receiving support	40	72.7	45	80.4	85	76.6	p> 0.05
Not receiving support	15	27.3	11	19.6	26	23.4	
Want pregnancy status							
Wanted	55	100.0	56	100.0	111	100.0	--
Unwanted							

* Income is validated according to the Confined Women' own statements.

Table 2. Comparison of Pretest-Posttest Mean Scores Obtained by Confined Women in the Experimental and Control Group from Post-Partum Self Evaluation Questionnaire

		Pretest $\overline{X} \pm$ SD	Posttest $\overline{X} \pm$ SD	t	p
SUB-SCALES	**The Quality of the Relationship Between Partners**				
	Experimental Group	45.10±1.95	32.90±2.95	30.839	**<0.001**
	Control Group	44.73±1.76	44.08±1.74	4.238	>0.05
	t	1.069	-24.214		
	p	>0.05	**<0.001**		
	The View of the Partners Regarding Participating to Infant-Care				
	Experimental Group	42.01±1.19	31.72±2.32	30.903	**<0.001**
	Control Group	42.32±1.36	41.46±1.61	5.573	>0.05
	t	-1.246	-25.540		
	p	>0.05	**<0.001**		
	The Satisfaction for the Birth Experience				
	Experimental Group	39.09±1.15	28.41±2.45	29.299	**<0.001**
	Control Group	39.42±1.07	38.12±1.36	7.468	>0.05
	t	-1.591	-25.695		
	p	>0.05	**<0.001**		
	Satisfaction for the Continuation of Life				
	Experimental Group	38.21±1.64	37.56±1.96	3.559	**<0.001**
	Control Group	38.55±1.34	38.05±1.48	4.625	>0.05
	t	-1.178	-1.483		
	p	>0.05	>0.05		
	Trusting the Power in Coping with Motherhood Duties				
	Experimental Group	53.16±2.05	39.18±3.01	34.180	**<0.001**
	Control Group	53.51±1.85	52.66±2.09	4.602	>0.05
	t	-0.953	-27.297		
	p	>0.05	**<0.001**		
	Satisfaction for The Motherhood and Neonatal Care				
	Experimental Group	49.25±2.22	39.09±3.36	17.590	**<0.001**
	Control Group	48.80±2.34	48.28±2.34	4.791	>0.05
	t	1.038	-16.674		
	p	>0.05	**<0.001**		
	Support of the Family and the Friends for Motherhood				
	Experimental Group	45.40±1.95	38.10±2.01	26.352	**<0.001**
	Control Group	44.76±1.45	45.71±1.52	-3.725	>0.05
	t	1.934	-22.460		
	p	>0.05	**<0.001**		
Total PSEQ	Experimental Group	311.44±6.31	252.91±10.69	43.057	**<0.001**
	Control Group	310.80±6.57	308.39±7.64	3.337	>0.05
	t	0.517	-31.489		
	p	>0.05	**<0.001**		

Table 3. Comparison of Nursing Diagnosis in last meetings in the Experimental and Control Group

Requirements	NURSING DIAGNOSIS	Experimental Group				Control Group				p*
		Yes		No		Yes		No		
		n	%	n	%	n	%	n	%	
UNİVERSAL SELF-CARE	Imbalanced nutrition: less than body requirement	-	-	55	100	-	-	56	100	-
	Imbalanced nutrition: more than body requirement	-	-	55	100	12	21.4	44	78.6	**<0.001**
	Self-care deficit (Bathing)	-	-	55	100	-	-	56	100	-
	Self-care deficit (Hygiene)	-	-	55	100	-	-	56	100	-
	Disturbed sleep pattern	4	7.3	51	92.7	41	73.2	15	26.8	**<0.001**
	Fatigue	2	3.6	53	96.4	41	73.2	15	26.8	**<0.001**
	Constipation	1	1.8	54	98.2	-	-	56	100	>0.05
	Urinary retention	-	-	55	100	-	-	56	100	-
	Deficient fluid volume	-	-	55	100	-	-	56	100	-
	Ineffective health maintenance	-	-	55	100	12	21.4	44	78.6	**<0.001**
	İmpaired physical mobility	-	-	55	100	1	1.8	55	98.2	>0.05
	Loneliness	-	-	55	100	6	10.7	50	89.3	**<0.05**
DEVELOPMENTAL SELF-CARE	Situational low self-esteem	1	1.8	54	98.2	6	10.7	50	89.3	>0.05
	Knowledge deficit (Nutrition)	-	-	55	100	7	12.5	49	87.5	**<0.05**
	Knowledge deficit (Hygiene)	-	-	55	100	12	21.4	44	78.6	**<0.001**
	Knowledge deficit (Breast feding)	-	-	55	100	5	8.9	51	91.1	>0.05
	Knowledge deficit (Family planning)	-	-	55	100	45	80.4	11	19.6	**0.001**
	Disturbed body image	9	16.4	46	83.6	6	10.7	50	89.3	>0.05
	Risk for infection	-	-	55	100	7	12.5	49	87.5	**<0.05**
	Risk for transmitting infection	-	-	55	100	7	12.5	49	87.5	**<0.05**
	Ineffective breast feding	-	-	55	100	11	19.6	45	80.4	**<0.001**
	Interruption of breast-feeding	-	-	55	100	56	100	-	-	**<0.001**
	İmpaired skin integrity	-	-	55	100	7	12.5	49	87.5	**<0.05**
	Ineffective therapeutic regimen management	-	-	55	100	-	-	56	100	-
	Change the role of parental	-	-	55	100	-	-	56	100	-
	Interruption family processes	-	-	55	100	-	-	56	100	-
	Caregiver role strain	3	5.5	52	94.5	6	10.7	50	89.3	>0.05
	Risk for ineffective parenthood	-	-	55	100	-	-	56	100	-
	İmpaired home maintenance	2	3.6	53	96.4	10	17.9	46	82.1	**<0.05**
HEALTH DEVİATİON SELF-CARE	Social isolation	-	-	55	100	3	5.4	53	94.6	>0.05
	Changes in comfort-Pain (Perineum)	3	5.5	52	94.5	6	10.7	50	89.3	>0.05
	Changes in comfort-Pain (Breast)	2	3.6	53	96.4	25	44.6	31	55.4	**<0.001**
	Changes in comfort-Pain (Hemorrhoids)	1	1.8	54	98.2	6	10.7	50	89.3	>0.05
	İnfection (Urinary system)	-	-	55	100	7	12.5	49	87.5	<0.05
	Stress incontinence (Urinary)	-	-	55	100	-	-	56	100	-

* Chi-square test.

It is thought that the reason for the diagnosis **Disturbed Sleep Pattern** out of diagnoses which could not be recovered, was high number of visits and confined women's not receiving enough support for the daily houseworks and infant care. In Nazik's (2009) study, conducted on 63 women giving vaginal birth, the diagnosis " Disturbed Sleep Pattern " was included into the unrecovered diagnoses. Also certain studies concluded that women in postpartum period had sleep disorders (Doganer, 2005; Guner, 2007; Gungor et al., 2004).

It is thought that **Fatigue** diagnosis could not be recovered due to the lack of individuals to help confined women for their domestic responsibilities and infant care. In the Nazik's (2009) study, fatigue diagnosis was also included in unrecovered diagnoses. In the Rychnovsky and Hunter's (2009) study, the sleep disorders of women in postpartum period increased the fatigue. Similarly, also in Doganer's (2005), Guner's (2007) and Gungor et al., (2004) studies, the fatigue is listed in the problems experienced by confined women.

Constipation diagnosis could not be recovered in one of the confined women. On the other hand, in his study Doganer (2005) founded that confined women had constipation complaint in the postpartum period.

At the last interview held with confined women in the experimental and control groups, when the diagnoses given in terms of developmental self care requirements were compared, the difference between most of the diagnoses was statistically significant ($p<0.05$, $p<0.001$). In the experimental group, 13 diagnoses out of 17 those identified at the first interview, were completely recovered. Recovering most of the nursing diagnoses in terms of developmental self care requirements shows the efficiency of care given in accordance with Orem's self care model.

One of the unrecovered diagnoses, **Situational Low Self- Esteem,** is considered not to be recovered, due to hormonal fluctuations, physical and social changes, fatigue and lack of individuals to help the domestic responsibilities and infant care. Insufficient support to them at this period might adversely affect their physical and mental health. Similarly, Najman et al., (2000)'s study revealed that women at postpartum period might have low self respect.

Disturbed Body Image diagnosis is considered not to be recovered due to reasons such as not being able to lose early the weights gained during pregnancy and the change of the interest of the husband from wife to the baby. In Doganer's (2005) and Gungor et al., (2004) studies, confined women expressed that they experienced negative body image.

Caregiver Role Strain and **Impaired Home Maintenance** diagnosis is considered to be unrecovered due to lack of individuals to help the domestic responsibilities and infant care. Also in the studies of Doganer'in (2005), Guner (2007) and Gungor et al., (2004), the confined women had difficulties in self-care and infant care. In the study conducted by Logsdon and Koniak-Griffin (2005), they stated that providing sufficient support to the mothers during the postpartum period, when both physical and psychological changes are experienced intensively, has a positive effect on the mothers' physical and mental health.

At the last interview held with confined women in the experimental and control groups, when diagnoses regarding self care requirements in health deviations were compared, the difference between most of diagnoses was statistically significant ($p<0.001$). The recovery of most of the nursing diagnoses for self-care requirements in health deviations shows the effectiveness of the care provided in accordance with Orem's self care model.

Changes in Comfort–Pain (Perineum) diagnosis could not be recovered at 3 confined women only. This may be associated with the fact that this was the women's first delivery and their pain perception was different.

The reason behind why **Changes in Comfort-Pain (Breast)** diagnosis could not be recovered is considered to be derived from engorgement of the confined women's breasts due to milk collection causing stress and pain. In parallel to the study result, breast problems were also included in physical problems in the study of Gungor et al., (2004). **Changes in Comfort-Pain (Hemorrhoids)** diagnosis could not be recovered only in one confined woman. Likewise, Nazik's (2009) study also identified change in comfort (pain-hemorrhoid) diagnosis among unrecovered diagnoses. As a result of the care provided to women in postpartum period based on Orem's self care model, it is determined that confined women had less difficulties in postpartum period. This result shows that "The home care provided to the confined women in accordance with Self Care Model reduces or prevents the problems observed during postpartum period" hypothesis is accepted. Similarly, in the Apay's (2011), Kilic's (2005), Koc's (2005) and Nazik's (2009) studies which were conducted by using the model, the care provided in the postpartum period was found to reduce/prevent the postpartum

complications. The care results of the studies conducted by using the model were more effective and systematic. Moreover, in the Atici and Gozum's (2001), De la Rosa et al., (2009), Wager et al., (2004) studies, in which the model was not used, postpartum home visits had a positive effect on maternal and infant health. But, even though the results of those studies were positive, they recovered less problems and had less systematic.

Conclusions

As a result of care given using Orem's Self Care Model in order to recover the diagnoses made in the postpartum period, most of the diagnoses determined in postpartum period were recovered and the adaptation of the confined women to postpartum period increased. The data of this study proves that Orem's self care model is an efficient care model for the women giving vaginal birth. In line with these results, providing the care by using Orem's self care model can be recommended to confined women giving normal birth.

Declaration of Conflicting Interests: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Alligood M.R, & Tomey A.M. (2002). Nursing Theory Utilization & Application. Philadelphia: Mosby-Year Book.

Apay E.S. (2011). Evaluation of the care given to mothers giving birth by caesarean section according to Roy's model. Unpublished doctoral thesis, Atatürk Üniversity, Erzurum. Turkey (in Turkish).

Atici I., & Gozum S. (2001). Health education on postpartum anxiety and postpartum problems and its impact on the maternity early discharge. Journal of Hacettepe University School of Nursing, 8(2), 77-90 (in Turkish).

Balcombe J. (1992). Postnatal depression how can the distress be alleviated. *Nursing Times*, 19(1), 29-33.

Bashiri A., Smolin A., Sheiner E., Zelingher J., & Mazor M. (2003). Maternal rehospitalization after singleton term vaginal delivery. *J Matern Fetal Neonatal Med*, 14(5), 344-348.

Bayik A. (2002). Ethics in nursing research. In I. Erefe (Ed.), Nursing Research, Policy, Process and Methods (pp. 27-48). İstanbul: Ofset Baskı (in Turkish).

Buyukkayaci Duman N., & Karataş N. (2011). Early discharge to home health care services of mothers after a Cesarean section and the effects of self-care. Journal of Health Science, 20(1), 54-67 (in Turkish).

Cengiz C., & Kimya Y. (2001). The postpartum period. In M.S. Beksac (Ed.), Maternal-fetal medicine & perinatology (pp. 777-786). Ankara: Kozan Ofset. (in Turkish).

De la Rosa I.A., Perry J., & Johnson V. (2009). Benefits of increased home-visitation services: exploring a case management model. Fam Community Health, 32(1), 58-75.

Decherney H.A., & Nathan L. (2003). *Current obstetric & gynecologic diagnosis & treatment*. Newyork, USA.

Doganer *G. (2005).* Identifying problems for themselves and for the care of the newborn in postpartum women who delivered vaginally Unpublished master's thesis, University of the Republic, Sivas. Turkey. (in Turkish).

Guler K. (1998). An epidemiological study on factors affecting prenatal care. Nursing Bulletin An epidemiological study on factors affecting prenatal care. Nursing Bulletin, 3,12. (in Turkish).

Guner T. (2007). Comparison of the problems experienced by adolescent mothers who gave vaginal birth and those who followed cesarean delivery during the postpartum period regarding their care and the care of their baby of. Unpublished master's thesis, University of the Republic,Sivas. Turkey. (in Turkish).

Gungor I., Gokyildiz S., & Nahcivan N.Ö. (2004). Views and problems experienced in the early postpartum period of a group of women who had cesarean section for giving birth. Istanbul University, Florence Nightingale School of Nursing *HYO Journal,* 13(53), 185-197. (in Turkish).

Herbert P. (1998). Support of first- time mothers in three months after birth. *Nursing Times*, 90(24), 36-37.

Hodnett E. (1996). Nursing support of the laboring woman. Journal of Obstetric, Gynecologic and Neonatal Nursing, 25(3), 257-264.

Kilic A. (2005). Dorothy Orem's self-care model of nursing care to be applied to women who had cesarean section. Unpublished doctoral thesis, Gulhane Military Medical Academy Ankara. Turkey. (in Turkish).

Koc G. (2005). Examination of the effectiveness of home care service model developed for postpartum mothers discharged early. Unpublished doctoral thesis, Hacettepe University, Ankara. Turkey. (in Turkish).

Lederman R.P., Raff, B.S., & Carroll, P. (1981). Perinatal Parental Behavior: Nursing Research and Implications for Newborn Health, March of Dimes Birth Defects Foundation, Birth Defect: Orginal Article Series, Newyork, 17(6), 200-231.

Lichtenstein B., Brumfield, C., Cliver, S., Chapman, V., Lenze, D., & Davis, V. (2004). Giving birth, going home: Influences on when low-income women leave hospital. *Health*, 8(1), 81-100.

Logsdon M.C., & Koniak-Griffin, D. (2005). Social support in postpartum adolescents: guidelines for nursing assessments and interventions. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 34(6), 761-768.

Maera E., Kotagal, U.R., & Atherton, H.D. (2004). Impact of early discharge legislation and early follow-up visits on infant outcomes. *Pediatrics*, 113(6), 1619-1630.

Moore J.B., & Pichler, V.H. (2000). Measurement of Orem's basic conditioning factors: A review of published research. *Nursing Science Quarterly,* 13(2), 137-142.

Moran F., Holt, V., & Martin, D. (1997). What do women want to know after childbirth? *Birth*, 24(1), 52-57.

Najman J.M., Andersen, M.J., Bor, W., O'Callaghan, M.J., & Williams, G.M. (2000). Postnatal depression - myth and reality: Maternal depression before and after the birth of a child. *Soc Psychiatry Psychiatr Epidemiol*, 35(1), 19-27.

National Maternal Mortality Study. (2005). Hacettepe University Institute of Population Studies, ICON-INSTITUT Public Sector GmbH and BNB Consultancy, T.R. Ministry of Health Maternal and Infant Health and Family Planning General Directorate and European Commission Turkish Delegation. Ankara, Turkey.

Nazik E. (2009). Self-care model: effect of care applied by using the postpartum complication prevention and remedies Unpublished doctoral thesis, Atatürk University, Erzurum. Turkey. (in Turkish).

O'Connor K., Mowat D.L., Scott H.M., Carr P.A., Dorland J.L., & Young K.F. (2003). A randomized trial of two public health nurse follow-up programs after early obstetrical discharge: an examination of breastfeeding rates, maternal confidence and utilization .

and costs of health services. *Canadian J Public Health*, 94(2), 98-103.

Orem D.E. (2001). *Nursing Concepts of Practice*. St Louis: Mosby Year Book.

Ozkan S., & Sevil Ü. (2007). Doğum sonrası fonksiyonel durum envanterinin geçerlilik güvenilirlik çalışması. *TSK Koruyucu Hekimlik Bülteni*, 6(3), 199-208. (in Turkish).

Ruchala P.L. (2000). Teaching new mothers: priorities of nurses and postpartum women. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 29(3), 265-273.

Rychnovsky J., & Hunter L.P. (2009). The relationship between sleep characteristics and fatigue in healthy postpartum women. *WHI,* 19(1), 38-44.

Simmons L. (2009). Dorthea Orem's self care theory as related to nursing practice in hemodialysis. *Nephrol Nurs J*, 36(4), 419-21.

Tascı K.D., & Mete S. (2007). Validity and reliability of postpartum self-rating scales. Journal of Ataturk University School of Nursing,10(2), 20-29. (in Turkish).

Tomey A.M., & Alligood M.R. (2006). *Theory application*. USA: Mosby-Year Book.

Wager K.A., Lee F.W., Bradford W.D., Jones W., & Kilpatrick A.O. (2004). Qualitative evaluation of South Carolina's postpartum/infant home visit program. *Public Health Nurs*, 21(6), 541-546