

Dependent Care: Applying Orem Self-Care Theory

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Abstract: **Background:** Self-care is a new trend in health care that is highly important in promotion of health, prevention and control of diseases, and can be utilized as a cost-effective strategy for individualized patient education in postpartum and includes activities performed by the individual for the maintenance and promotion of her health and well-being. **The purpose of the study** is to assess the effect of introducing self-care to postpartum primiparous woman on dependent care the dependent care: applying orem self -care Theory. **Method:** A quasi-experimental research design was utilized. **Sample:** A convenience sample of 100 postpartum women. **Setting:** The study was conducted at the postpartum unit at Menoufia University Hospital and Shebin El-kom Teaching Hospital at Shebin El-kom. **Instruments:** An interviewing questionnaire and Orem's Self-Care Guidelines Checklist were used. **Results:** The dependent care given by Orem self-care prevent problem related to primiparous postpartum. **Conclusion:** the care provided using Orem's self-care model during the postpartum period recovered or prevented the postpartum problems. **Recommendations:** Training sessions to the primiparous women about how to apply Orem self -care to improve their sleep quality and dependent care for their neonates.

Keywords: *Orem self-care, Dependent care*

INTRODUCTION

Dependent care is care performed by another such as a family member must be learned and deliberately performed for life, human functioning, and well-being (Kim & Dee, 2019). According to Orem (2001), describe dependent care as nursing systems theory refers to "a series of actions a nurse takes to meet the patient's self-care requisites". Although the nursing system is developed by the nurse, it is designed to be a collaborative effort between the nurse, patient, and support system and must be based upon the needs and abilities of the patient (Fawcett ,2013). Self-care is a new trend in health care that is highly important in promotion of health, prevention and control of diseases, and can be utilized as a cost-effective strategy for individualized patient education in postpartum and includes activities performed by the

individual for the maintenance and promotion of her health and well-being (Ghiasvand, 2017). The postpartum period is a physiologically, emotionally and socially critical period for women and families, as most maternal deaths and health problems occur in this period. These problems are not necessarily resolved in the first year after childbirth, and can lead to functional limitations. Despite the postpartum care programs in place, significant complications and even death still occur in mothers after childbirth (Woolhouse, 2017). The main health challenge of the 21st century is to improve quality of life and thereby health, which can be accomplished through the empowerment of the society for having a greater control over their personal health and ultimately for improving it.

Significance of the study

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. 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. 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 (Apaey, 2020). Based on reviewing literature; there are limited studies that the dependent care: applying Orem self-care theory on Postpartum Primiparous. So the researcher tried to fill in such gap of knowledge by conducting this study.

Purpose of the study

The purpose of the study is to study is to the effect of introducing self-care to postpartum primiparous woman on sleep quality and dependent care

Hypotheses of the Study

The dependent care of primiparous woman doing postpartum will significantly improve after introducing self – care.

Method

Research Design:

Quasi-experimental research design was used in this study.

Settings:

The study was conducted at the postpartum unit at two different settings at Menoufia University Hospital and Shebin El-kom Teaching Hospital.

Sampling:

Type of the sample:

A convenience sample of 100 postpartum women participated in the present study.

Inclusion criteria of the sample:

- Women who were primiparous.
- Women who had normal labor.
- Women who breastfed their newborns.
- Women who were free from any other psychological disease.

Exclusion criteria of the sample:

- Women who had chronic disease.
- Women who's their newborns have congenital anomalies.

Sample Size:

Based on the previous studies that examined the same outcomes and found significant differences, the average sample size was 100 to achieve 80% power to detect this difference with significant level of 5%. So, a convenience sample of 100 women will be recruited in the study.

The formula to calculate the sample size is:

$$n = \frac{Nz^2 p(1 - p)}{Ne^2 + z^2 p(1 - p)}$$

Data collection instruments:

1. A structured Interviewing questionnaire:

That was developed by the researcher for obtaining complete data concerning sleep quality and self-care of postpartum women. It included three parts:

Part I: Sociodemographic data: It included age, educational level, occupation, telephone number and marital status.

Part II: Past medical & surgical history: It referred to any chronic disease and surgery to the women

Part III: Data about current pregnancy: It included the course of present pregnancy and gestational age per weeks.

2. Orem's Self-Care Guidelines

Checklist:

It was developed by the researcher based on Orem's Self Care Model in line with the literature (Orem, 2001;).

It contains questions about:

Part I: self-care practices to meet postpartum woman's universal requisites such as: nutrition, elimination, rest and sleep ...etc

Part II: Self-care practices to meet postpartum woman's developmental requisites model such as self-esteem, disturbed body image, risk for infection ...etc.

Part III: Self-care practices to meet postpartum woman's health deviation requisites. This include all minor discomforts of postpartum period such as stress incontinence, changes in comfort-pain (perineum), changes in comfort-pain (breast) ,.... etc.

Each question is rated on a three points Likert scale as follows:

Scoring system

Scoring questions	Score
Complete self-dependent	3
Partial dependent	2
Fully dependent	1

*Higher scores denote good self-care

Validity of the instruments:-

The validity of the instrument was ascertained by three experts (one expert from the Faculty of Nursing Maternal & Newborn health nursing and two experts from the Faculty of Medicine, Obstetrics &Gynecology department) who judged the instruments for content and internal validity. They were also asked to judge the items for completeness and clarity. Suggestions were given and modifications were made.

Reliability of the instruments:-

Test – retest reliability was used by the researcher for testing the internal consistency of the instrument. It was done through the administration of the same instrument to the same participants under similar conditions. Scores from repeated testing were compared to test consistency of the results over time.

Ethical Considerations

Approaches to ensure the ethical issues were considered in the study. Confidentiality was achieved by the use of locked sheets with the names of participants replaced by numbers. All participants were informed that the information they provided during the study would be kept confidential and used only for statistical purposes. After finishing the study, the findings would be presented as a group data with no personal participant's information remained.

Pilot study

A pilot study was conducted to ensure the applicability of the instruments, the feasibility of the study and estimate the time needed for collecting the data. It was conducted on 10% of the total sample (10). Based on pilot study results, the researcher rephrased some questions and sentences then set the final fieldwork schedule. Sample of pilot study was excluded from the main

sample size. The results of pilot study helped in refining the interviewing questionnaire and setting the final schedule. On the basis of pilot study results, the necessary modifications were made accordingly, so that the pilot was not included in the study sample.

Study field work:

The current study was carried out in four phases: a preparatory phase, an interviewing phase, an implementation phase and an evaluation phase.

1- The preparatory phase:

An extensive review related to the study was conducted including electronic dissertation, available books and articles. A review of literature to formulate knowledge base relevant to the study area was also done. A written permission from the institutional authority of the two hospitals was obtained before conducting the study. Preparation and testing of all instruments regarding validity and reliability. Pilot study was obtained and the necessary modifications were made.

2- The Interviewing phase:

The researcher collected the data from the postpartum women through an interviewing questionnaire.

An interview:

The data were collected over a period of 6 months from the beginning of January, 2020 to the end of June, 2020 in Menoufia University Hospital and Shebin El-kom Teaching Hospital. It took two days per week in Menoufia University Hospital (Monday and Wednesday) from 10 Am to 2 Pm (1) women per day and two days per week in Shebin El-Kom Teaching Hospital (Sunday and Tuesday) from 10 Am to 2 pm (1) women per day to the availability of the postpartum women who met the inclusion criteria. This protocol was followed till the needed sample size was reached.

▪ **Step I:** During the initial visit, the researcher introduced herself and explained the purpose of the research. After taking verbal informed agreement from the postpartum women who met the inclusion criteria. Each postpartum woman was interviewed to collect the data related to socio-demographic status, past medical, surgical history and current pregnancy data. The interview took around 15-20 minutes to be completed for each participant. The researcher faced the women and asked the questions in Arabic language and recorded the answers in the special tool.

▪ **Step II:** the researcher collected the data related to the sleep quality and orem self-care questionnaire at home after one month of delivery. The interview took around 15-20 minutes to be completed for each participant. The researcher faced the women and asked the questions in Arabic and recorded the answers in the special tool.

▪ **Step III:** The researcher knew the deficit knowledge and practices for each woman according to data collection tool. Objectives of the guide booklet were set according to the needs of the study women and review of related literature. Content of booklet was planned to be provided to the study women individually.

▪ **Step IV:** the booklet was developed by the researcher and reviewed by supervisors. It included three chapters to provide the postpartum women with the needed information. The first chapter included information about overview of the postpartum period. The second chapter included information about physiological changes during the postpartum period, examination after delivery, self-care guidelines during

the postpartum period, health care of newborn and self-care guidelines to deal with the newborn. The third chapter included information about the problems which the women suffer from during the postpartum period, and the problems which the women suffer from to deal with the newborn.

Initial assessment:

The researcher assessed the results to establish their nursing diagnoses. Afterwards, nursing interventions were applied in accordance with the identified diagnoses.

The implementation phase:

It started immediately after the assessment phase. 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 researcher provided the instructions to the postpartum women about postpartum self-care using the teaching sessions. Two teaching sessions were implemented for the postpartum women. One session about overview regarding the postpartum period and self-care during the postpartum period and one for the measures to deal with the newborn. The another session about Self-care to deal with the newborn.

The evaluation phase:

In this phase, the evaluation occurred during the first two weeks after the intervention (post-test) and after three months (follow-up test). The postpartum women completed the post-test and follow-up test to assess their knowledge regarding the self-care during the postpartum period.

Statistical Analysis:

Upon completion of the data collection, each answer sheet was coded and scored. The researcher coded the data into coding sheet so that data could be prepared for computer use. Data were statistically analyzed using SPSS statistical package version 22 on IBM compatible computer. Test of significance was used and level of significance is $p < 0.05$. Statistical presentation and analysis of the present study were carried out.

Data was tabulated using the

following:

Quantitative data were expressed as mean and standard deviation ($x \pm SD$) and analyzed by applying student t-test for comparison of two groups of normally distributed variables.

Qualitative data were expressed as number and percentage (No. and %) and analyzed by applying chi-square test.

- **Arithmetic mean** was used as an average describing central tendency of observation.
- **Standard deviation (SD)** was used as a measure of dispersion of the results around the mean.
- **The chi-square test** is the most commonly used methods for comparing frequencies or proportions, (Fisher and Yates, 2008).

Significance of the results:

For all the statistical tests done, the threshold of significance is fixed at the 5% level (p value), as follows:-

- Non-significant difference if $p>0.05$
- Significant difference if $p<0.05$
- Highly significant difference if $p<0.001$

Results

Table (1): shows distribution of the study participants according to their socio-demographic characteristics. According to age, 11% of the study participants their age less than 18 years, 60% their age from 18 to 30 years, and 29% their age more than 30 years. Regarding level of education, 30% of the study participants read and write, 44% of them had secondary level of education /diplome and 26% had university. In relation to occupation, 29% of the study participants were working and 71% of them were housewives. Lastly, more than half of the study participants lived in rural (61%) and 39% of them lived in urban.

Table (2): shows distribution of the study participants according to their medical & surgical history. Regarding their medical history, 100.0% of the study participants didn't have medical history and didn't take any medications regularly. In relation to their surgical history, 61% of the study participants had past surgical history while 31.1% of them had appendectomy and 68.9% had tonsillectomy.

Table(3): shows distribution of the study participants according to their obstetric history. The majority of the study participants (94%) followed up during their pregnancy, (19%) went to the hospital, (40%) at private clinic, and (35%) at MCH. Regarding course of pregnancy, 93% of the study participants had pregnancy without complications while 7% of them had pregnancy with complications, the pregnancy with complications was hypertension (100%). In relation to complaining from abortion, 29% of the study participants complained from

abortion, 58.6% for one time, and 41.4% for 2 times. There were 63% of the study participants their gestational age was 37-40 weeks, and 37% was more than 40 weeks. 69% of the study participants had good health status of the newborn, and 31% of them had excellent health status of the newborn.

Table (4): shows sleep quality pattern among the study participants who are applying Pittsburgh sleep quality questionnaire (sufficiency domain). There were highly statistical significant differences regarding sleep quality pattern among the study participants who are applying Pittsburgh sleep quality questionnaire (sufficiency domain) ($P<0.001$)

Table(5): shows distribution of the study participants according to Orem's self-care guidelines before, during the first two weeks after the intervention and after three months of the intervention. There were highly statistical significant differences regarding Orem's self-care guidelines checklist among the study participants before (pre), during the first two weeks after the intervention (post-test) and after three months of the intervention (follow-up test) ($P<0.001$). On the other hand, there were no significant differences among the study participants regarding Orem's self-care guidelines checklist before (pre), during the first two weeks after the intervention (post-test) and after three months of the intervention (follow-up test) as regards to breathing problems, nutritional difficulties and elimination ($P>0.05$)

Table (6): shows distribution of the study participants according to the universal self-care requisites before, during the first two weeks and after three months of the intervention. There were significant differences regarding the universal self-care requisites before, during the first two weeks and after

three months of the intervention ($P<0.01$).

Table (7): shows distribution of the study participants according to the developmental self-care requests before, during the first two weeks and after three months of the intervention. There were highly statistically significant differences regarding the developmental self-care requests before, during the first two weeks and after three months of the intervention ($P<0.01$).

Table (8): shows distribution of the study participants according to the health deviation self-care before, during the first two weeks and after three

months of the intervention. There were highly significant differences regarding the health deviation self-care before, during the first two weeks and after three months of the intervention ($P<0.01$).

Table (9): shows distribution of the study participants according to Orem's self-care guidelines before, during the first two weeks and after three months of the intervention. There were highly significant differences regarding Orem's self-care guidelines before, during the first two weeks and after three months of the intervention ($P<0.01$).

Table (1): Distribution of the Study Participants According to their Socio-demographic Characteristics (N=100).

Items	The Study Participants	
	No	%
Age		
• <18	11	11.0%
• 18-30	60	60.0%
• >30	29	29.0%
Level of education		
• Read and write	30	30.0%
• Secondary level of education /diplome	44	44.0%
• University	26	26.0%
Occupation		
• Working	29	29.0%
• House wife	71	71.0%
Residence		
• Rural	61	61.0%
• Urban	39	39.0%

Table (2): Medical and Surgical History of the Studied Group (N=100).

Items	The Study Participants	
	No	%
Medical history		
- No	100	100.0%
Do you take any medications regularly		
- No	100	100.0%
Past surgical history		
-Yes	61	61.0%
- No	39	39.0%
If yes, what is it ? (61.0%)		
-Appendectomy	19	31.1%
-Tonsillectomy	42	68.9%

Table (3): Obstetrics History regarding Studied Group (N=100).

Items	The Study Participants	
	No	%
Do you have follow up during this pregnancy?		
- Yes	94	94.0%
- No	6	6.0%
If yes, where is it ? (94)		
- Hospital	19	20.2 %
- Private clinic	40	42.6 %
- MCH	35	37. 2 %
Course of pregnancy		
- Pregnancy without complications	93	93.0%
- Pregnancy with complications	7	7.0%
If pregnancy with complications, what they are?		
- Hypertension	7	7.0%
Did you complain from abortion?		
- Yes	29	29.0%
- No	71	71.0%
If yes, number of abortion?		
- 1.	17	58.6%
- 2.	12	41.4%
Gestational age		
- 37-40 weeks	63	63.0%
- >40weeks	37	37.0%
Health status of the newborn		
- Good (Apgar score 8)	69	69.0%
- Excellent (Apgar score > 8)	31	31.0%

Table (4): Sleep Quality Pattern among the Study Participants who are Applying Pittsburgh Sleep Quality questionnaire (Sufficiency Domain) (N=100).

Items	No	%	X ²	P.value
The Pittsburgh Sleep Quality Index				
- 9 Pm	4	4.0%	222.168	0.001
- 11 Pm	63	63.0%		
- Others	33	33.0%		
How long have you usually taken to fall asleep each night (minutes)?				
- <15 minutes	4	4.0%	282.353	0.001
- 15-30 minutes	30	30.0%		
- > 30 minutes	66	66.0%		
What time have you usually waken up in the morning?				
- 6 Am	58	58.0%	113.047	0.001
- 9 Am	0	0.0%		
- Others	42	42.0%		
Did you sleep during the day time?				
- Yes	67	67.0%	70.124	0.001
- No	33	33.0%		
If yes, how many hours did you sleep during the day time?				
- One hour	67	67.0%	69.671	0.001
- Two hours	33	33.0%		

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Table (5): Distribution of the Study Participants who according to Orem's Self-Care Guidelines before, during the first two weeks after the intervention and after three months of the intervention(N=100).

Items	The Study Participants						X ²	P.value		
	Pre		Post		Follow up					
	No	%	No	%	No	%				
Breathing problems										
- Yes	59	59.0%	38	38.0%	28	28.0%	5.234	0.073		
- No	41	41.0%	62	62.0%	72	72.0%				
Fluids intake and output problems										
- Yes	100	100.0%	81	81.0%	66	66.0%	39.921	0.001		
- No	0	0.0%	19	19.0%	34	34.0%				
Nutritional difficulties										
- Yes	71	71.0%	42	42.0%	28	28.0%	5.518	0.063		
- No	29	29.0%	58	58.0%	72	72.0%				
Have you noticed problems with your skin?										
- Yes	92	92.0%	55	55.0%	43	43.0%	56.182	0.001		
- No	8	8.0%	45	45.0%	57	57.0%				
Elimination										
- Yes	71	71.0%	34	34.0%	19	19.0%	5.874	0.053		
- No	29	29.0%	66	66.0%	81	81.0%				
Do you have any problems with bowel elimination?										
- Yes	100	100.0%	100	100.0%	100	100.0%	-	-		
Activity & rest problems										
- Yes	96	96.0%	80	80.0%	73	73.0%	24.127	0.001		
- No	4	4.0%	20	20.0%	27	27.0%				
Do you experience any of the following complaints during the exercise?										
- Yes	92	92.0%	72	72.0%	58	58.0%	30.353	0.001		
- No	8	8.0%	28	28.0%	42	42.0%				
Social problems										
- Yes	71	71.0%	42	42.0%	28	28.0%	5.518	0.003		
- No	29	29.0%	58	58.0%	72	72.0%				
Dangerous suffering										
- Yes	71	100.0%	54	54.0%	45	45.0%	58.889	0.001		
- No	29	29.0%	46	46.0%	55	55.0%				
Normalcy										
- Yes	100	100.0%	27	27.0%	42	42.0%	51.158	0.001		
- No	0	0.0%	73	73.0%	58	58.0%				
Adjustment for the motherhood										
- Yes	0	0.0%	82	82.0%	66	66.0%	40.385	0.001		
- No	100	100.0%	18	18.0%	34	34.0%				
Health deviation self-care requisites										
- Yes	71	71.0%	28	28.0%	42	42.0%	5.518	0.003		
- No	29	29.0%	72	72.0%	58	58.0%				
Do you have any discomforts with the perineal area?										
- Yes	100	100.0%	72	72.0%	58	58.0%	51.130	0.001		
- No	0	0.0%	28	28.0%	42	42.0%				
Do you aware how to do perineal care?										
- Yes	0	0.0%	82	82.0%	85	85.0%	18.999	0.001		
- No	100	100.0%	18	18.0%	15	15.0%				
Do you aware how to do breast care?										
- Yes	0	0.0%	82	82.0%	85	85.0%	18.999	0.001		
- No	100	100.0%	18	18.0%	15	15.0%				

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Table (6): Distribution of the Study Participants according to the Universal Self-Care Requisites before, during the first two weeks and after three months of the intervention(N=100).

Items	The Study Participants						X ²	P.value		
	Pre		Post		Follow up					
	No	%	No	%	No	%				
Breathing problems:-										
- Fully dependent	19	19.0%	0	0.0%	0	0.0%	189.000	0.001		
- Partial	40	40.0%	0	0.0%	0	0.0%				
- complete self-dependent	0	0.0%	38	38.0%	28	28.0%				
Fluids overload:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	99.195	0.001		
- Partial	49	49.0%	0	0.0%	0	0.0%				
- complete self-dependent	47	47.0%	81	81.0%	66	66.0%				
Fluids deficit:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	99.195	0.001		
- Partial	49	49.0%	0	0.0%	0	0.0%				
- complete self-dependent	47	47.0%	81	81.0%	66	66.0%				
Difficult of chewing or swallowing:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	184.014	0.001		
- Partial	63	63.0%	0	0.0%	0	0.0%				
- complete self-dependent										
Difficult of digestion										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	201.000	0.001		
- Partial	67	67.0%	0	0.0%	0	0.0%				
- complete self-dependent	0	0.0%	42	42.0%	28	28.0%				
Malnutrition:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	201.000	0.001		
- Partial	67	67.0%	0	0.0%	0	0.0%				
- complete self-dependent	0	0.0%	42	42.0%	28	28.0%				
Skin problems:-										
- Partial	45	45.0%	0	0.0%	0	0.0%	62.811	0.001		
- complete self-dependent	47	47.0%	55	55.0%	43	43.0%				
-										
Urinary retention:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	218.000	0.001		
- Partial	67	67.0%	0	0.0%	0	0.0%				
- complete self-dependent	0	0.0%	34	34.0%	19	19.0%				
Diarrhea:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	200.000	0.001		
- Partial	71	71.0%	0	0.0%	0	0.0%				
- complete self-dependent	25	25.0%	100	100.0%	100	100.0%				
Constipation:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	300.000	0.001		
- Partial	96	96.0%	0	0.0%	0	0.0%				
- complete self-dependent	0	0.0%	100	100.0%	100	100.0%				
Insomnia:-										
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	42.858	0.001		
- Partial	19	19.0%	0	0.0%	0	0.0%				
- complete self-dependent	73	73.0%	90	90.0%	73	73.0%				
Deep sleep:-										
- Partial	59	59.0%	0	0.0%	0	0.0%	129.729	0.001		
- complete self-dependent	37	37.0%	90	90.0%	73	73.0%				
-										
Postpartum fatigue:-										
- Partial	88	88.0%	0	0.0%	0	0.0%	226.309	0.001		
- complete self-dependent	8	8.0%	90	90.0%	73	73.0%				
-										

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Chest pain or palpitation:-								
- Fully dependent	34	34.0%	0	0.0%	0	0.0%	152.198	0.001
- Partial	29	29.0%	0	0.0%	0	0.0%		
- complete self-dependent	29	29.0%	72	72.0%	58	58.0%		
Leg or muscles pain:-								
- Fully dependent	33	33.0%	0	0.0%	0	0.0%	255.012	0.001
- Partial	59	59.0%	0	0.0%	0	0.0%		
- complete self-dependent	0	0.0%	72	72.0%	58	58.0%		
Daily activities:-								
- Fully dependent	53	53.0%	0	0.0%	0	0.0%	255.012	0.001
- Partial	39	39.0%	0	0.0%	0	0.0%		
- complete self-dependent	0	0.0%	72	72.0%	58	58.0%		
To overcome social problems:-								
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	263.012	0.001
- Partial	96	96.0%	0	0.0%	0	0.0%		
- complete self-dependent	0	0.0%	72	72.0%	58	58.0%		
To overcome dangerous:-								
- Fully dependent	51	51.0%	0	0.0%	0	0.0%	148.440	0.001
- Partial	19	19.0%	0	0.0%	0	0.0%		
- complete self-dependent	30	30.0%	54	54.0%	45	45.0%		
Normalcy:-								
- Fully dependent	4	4.0%	0	0.0%	0	0.0%	163.118	0.001
- Partial	67	67.0%	0	0.0%	0	0.0%		
- complete self-dependent	29	29.0%	42	42.0%	27	27.0%		

Table (7): Distribution of the Study Participants according to the Developmental self –care requests before, during the first two weeks and after three months of the intervention(N=100).

Items	Pre		Post		Follow up		χ^2	P.value
	No	%	No	%	No	%		
Coping to the mother								
- No	0	0.0%	18	18.0%	34	34.0%	115.678	0.001
- Fully dependent	4	4.0%	0	0.0%	0	0.0%		
- Partial	67	67.0%	10	10.0%	8	8.0%		
- complete self-dependent	29	29.0%	72	72.0%	58	58.0%		

Table (8): Distribution of the Study Participants according to the Health deviation self-care before, during the first two weeks and after three months of the intervention(N=100).

Items	Pre		Post		Follow up		χ^2	P.value
	No	%	No	%	No	%		
Personal hygiene								
• Fully dependent	12	12.0%	0	0.0%	0	0.0%	118.684	0.001
• Partial	29	29.0%	0	0.0%	0	0.0%		
• Supportive-educative	30	30.0%	72	72.0%	58	58.0%		
Perineal discomforts								
• Fully dependent	4	4.0%	0	0.0%	0	0.0%	133.516	0.001
• Partial	67	67.0%	0	0.0%	0	0.0%		
• Supportive-educative	29	29.0%	72	72.0%	58	58.0%		
Perineal care								
• Fully dependent	4	4.0%	0	0.0%	0	0.0%	161.521	0.001
• Partial	67	67.0%	0	0.0%	0	0.0%		
• Supportive-educative	29	29.0%	82	82.0%	85	85.0%		
Breast care								
• Fully dependent	4	4.0%	0	0.0%	0	0.0%	92.810	0.001
• Partial	42	42.0%	0	0.0%	0	0.0%		
• Supportive-educative	54	54.0%	82	82.0%	85	85.0%		

Table (9): Distribution of the Study Participants according to Orem's self-care guidelines before, during the first two weeks and after three months of the intervention(N=100).

Items	Pre	Post	Follow up	F.test	P.value
Self-Care Requisites	33.96 ± 10.92	36.9 ± 6.23	35.4 ± 5.18	3.5	0.03
Developmental self-care requests	3.14 ± 0.56	3.16 ± 0.54	3.85 ± 0.9	18.5	0.001
Health deviation self-care Requisites	7.86 ± 2.3	8.1 ± 2.1	8.6 ± 1.1	3.79	0.024

Discussion

The findings of the current study are discussed in the following sequence: Sociodemographic characteristics of the studied groups, pittsburgh sleep quality index, orem's self-care guidelines checklist, correlation between sleep quality and orem's self-care guidelines and correlation between sleep quality and dependent care.

Sociodemographic characteristics of the studied groups

The present study showed that the majority of the study women their age ranged between 18-30 years. This may reflect that women in the study were childbearing age. This may be rationalized as the majority of women were married at this age which is considered as middle reproductive.

These findings are agreed with Okyay, (2018) who investigated the effect of physical activity level at the postpartum period on the quality of life and depression level in Malatya, Turkey. Also, this finding was in line with Çapik, et al., (2015) who investigated the Effect of the Care Given Using Orem's Self-Care Model on the Postpartum Self- Evaluation.

Regarding education, half of the study women had secondary level of education while the minority of them had university level. This may be rationalized as most women are from rural areas where according to culture rules, the girls looked forward to getting married more than learning and completing the school. This was supported by Khatun, et al., (2018) who investigated the relationships among postpartum fatigue, depressive mood,

self-care agency, and self-care action of first-time mothers in Bangladesh.

In contrast, Creti et al., (2018) in Canada who conducted a study about 'Sleep during the postpartum period, characteristics of first-time and healthy mothers' and their findings revealed that the majority of women had completed postsecondary education.

In contrast, Yousef, (2019) in Egypt who investigated "The Relationship between Sleep Quality, Physical Activity and Postpartum Mood". Their findings revealed that the majority of women were read and write.

Regarding occupation, the most of the study women were housewives because they were not find the job. The findings were supported by the study of Iranpour, (2016) in Iran, who conducted a study about the association between sleep quality and postpartum mood. The findings revealed that women were housewives as they did not know about Orem self-care in the postpartum period and relationship between Orem self-care, sleep quality and dependent care in the postpartum period. Also, they were supported by a study conducted by Kheirabadi, et al., (2016) who revealed that the working mothers had not enough knowledge to deal with the postpartum period.

Regarding the medical and surgical history, all of them in the present study had not medical history and most of them had not surgical history. These findings are supported by Christian et al., (2019) who investigated that sleep quality across pregnancy and postpartum: effects of parity and race.

Regarding the pregnancy follow up, the most women in the current study followed up during pregnancy for antenatal care due to increase the health needs that arise during pregnancy. All literature emphasized the importance of antenatal education and care to avoid any complications during pregnancy, labor and postpartum period. This result was rationalized as there is more concern and interest from Ministry of Health about the importance of antenatal care as a strategic plan to improve the women health. This current finding was confirmed by Nash, (2014) in America and Hildingsson, et al., (2016) in Sweden whose findings revealed that women had access to the healthcare professional using medical assistance having private health insurance and antenatal follow up.

Describing the findings according to Orem self-care

This finding indicates that "The home care provided to the confined women with Self Care Model was supported". The present study revealed that the total mean scores of universal self-care requisites (breathing pattern problems, fluids intake and output problems, nutritional difficulties, elimination problems, sleeping pattern problems, social problems, hazards exposure and normalcy) of the study women. This study showed that the total mean scores of women's universal self-care requisites improved immediately after implementation of the self-care model on post and follow up tests than on pretest. This finding comes in agreement with Khatun, et al., (2018) who investigated 'the relationships among the postpartum fatigue, depressive mood, self-care Agency, and self-care Action of First-time Mothers in Bangladesh'.

Concerning breathing pattern problems, the present study showed that the postpartum women's breathing

problems reduced on post and follow up tests than on pretest. This finding came in line with Khatun, et al., (2018) who investigated that the relationships among postpartum fatigue, depressive mood, self-care Agency, and self-care Action of First-time Mothers in Bangladesh.

Regarding fluids intake and output problems, the current study showed that the postpartum women's fluids intake and output problems reduced on post and follow up tests than on pretest. This finding was supported Apay, (2020) who conducted a study about evaluation of the care given to mothers giving birth by caesarean section according to Roy's model.

Regarding the sleep pattern the current study showed that postpartum women's disturbed sleep pattern reduced on post and follow up tests than on pretest. This finding was supported by Nazik and Eryilmaz (2020) who 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, 2015; Guner, 2017).

Regarding fatigue, the current study showed that the postpartum women's fatigue reduced on post and follow up tests than on pretest. This finding was supported Song, et al., (2015) who conducted a study about empirical test of an explanatory theory of postpartum fatigue in Korea.

Regarding constipation, the current study showed that the postpartum women's constipation reduced on post and follow up tests than on pretest. This finding was supported by Doganer, (2015) who founded that confined women had constipation complaint in the postpartum period.

Regarding urinary retention, the current study showed that the postpartum women's urinary retention reduced on

post and follow up tests than on pretest. This finding was supported by Nazik and Eryilmaz (2020) who conducted the study about the prevention and reduction of postpartum complications: Orem's model.

The total mean scores of developmental self-care requirements (coping of mother) improved immediately after implementation of the self-care model on post and follow up tests than on pretest. This finding came in agreement with Kim & Dee, (2019) who conducted a study about feelings, self-care, and infant care reported by Korean women at risk for postpartum depression.

This finding came in agreement with Barkin and Wisner, (2019) who conducted a study about the role of maternal self-care in new motherhood.

The total mean scores of health deviation self-care (personal hygiene, perineal discomforts, perineal care and breast care) improved immediately after implementation of the self-care model on post and follow up tests than pretest. This finding came in agreement with Khatun, et al., (2018) who investigated that the relationships among the postpartum fatigue, depressive mood, self-care Agency, and self-care Action of First-time Mothers in Bangladesh.

Regarding the personal hygiene, the current study showed that postpartum women's personal hygiene reduced on post and follow up tests than on pretest. This finding was supported by Chamangasht, et al., (2021) who investigated that efficacy of an early self-care based education program on the self-evaluation of primiparous postpartum mothers.

Regarding breast care, the current study showed that the postpartum women's breast care reduced on post and follow up tests than on pretest. This finding was supported by Chamangasht, et al., (2021) who investigated that efficacy of

an early self-care based education program on the self-evaluation of primiparous postpartum mothers.

Regarding the perineal care, the current study showed that the postpartum women's perineal care reduced on post and follow up tests than on pretest. This finding was supported by Özdemir, (2018) who investigated that determination of the life quality and self-care ability of the mothers in the post-partum period

Regarding the perineal discomforts, the current study showed that the postpartum women's perineal discomforts reduced on post and follow up tests than on pretest. This finding was supported by Lamberman, et al., (2020) who investigated the maternal self-care in the early postpartum period. The total mean scores of dependent care improved immediately after implementation of the self-care model on post and follow up tests than on pretest. This finding came in agreement with D'haenens, et al., (2019) who conducted the study about the effects of continuity of care on the health of mother and child in the postnatal period.

Conclusion:

The care provided using Orem's self-care model during the postpartum period recovered or prevented the postpartum problems.

Recommendations:

- Training sessions to the primiparous women about how to apply Orem self -care to improve their dependent care for their neonates
- Educational program to maternity nurses to apply orem self-care among postpartum women

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