

# ASSESSING THE COMPETENCE OF NURSES IN RENDERING POSTPARTUM CARE AND ITS EFFECT ON WOMEN'S SATISFACTION

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## ABSTRACT

**Background:** Competence of maternity nurses affects directly on the quality of health care and women's gratification or satisfaction. Postpartum quality of care is considered a vital part in promoting maternal and neonatal health and symbolizes the process of nursing care. **The aim** of this study is to assess the competence of nurses in rendering postpartum care and its effect on women's satisfaction. **Methodology:** A descriptive exploratory research design was utilized. **Setting:** Three hospitals affiliated to Ministry of Health and Population were selected for their availability of labour and delivery units. Sample: 300 women in reproductive age and all nurses working in Obstetric/Gynecological wards in the previously selected settings. **Tools for data collection:** Data were collected using: An observational check list for nurses and a structured interviewing questionnaire for women. **Results:** The total mean of women's satisfaction was quite high ( $3.90 \pm 0.62$ ), whereas that of orientation and information was  $3.83 \pm 1.00$ , advices provision was  $3.83 \pm 1.8$  and specific nursing care  $1.32 \pm 0.46$ . It is evident that women were less satisfied with the specific postpartum nursing care they received. The study revealed that there was a positive and highly statistically significant correlation between satisfaction of post partum women and competences of rendered nursing care. **Conclusion:** There were a highly statistically significant difference between the competences of rendered nursing care and postpartum women's satisfaction. **Recommendations:** Competence-based nursing care should be provided after the planned birth for mothers in the postpartum unit. Future studies should focus on postpartum mothers' needs of care that reflect on their satisfaction with the services provided.

**Keywords:** Competence, Postpartum care, Women satisfaction

## INTRODUCTION

Maternity nurses must have the knowledge, attitude and competent skills, required to perform their jobs in a competent manner (Freitas *et al.*, 2014). Increasing competition today in the area of maternal health has significantly impact post-natal care development. The major competitive advantage of health care providers is the availability of high-quality postpartum services (Alsaqri, 2016). Dramatic shifts in the healthcare sector demand that all healthcare services, including nursing, be restructured by questioning the quality of medical services (Sise, 2013). Total quality management requires professional knowledge, skills and the understanding of women regarding the type and level of care they have provided (You *et al.*, 2013).

The quality of postnatal healthcare services can be assessed on the basis of women's opinions and happiness (Mercouris *et al.*, 2013). Their satisfaction is the most significant indicator of quality of treatment and is viewed as a product of healthcare services (Abdel Maqsood *et al.*, 2012). The review of literature has shown that women's satisfaction is not only an indicator of future use of nursing care facilities, but also as an important factor in compliance and progress with remediation (Mohammed, 2016). Women's opinions are the best source for telling the providers about the relevant care, which is why this knowledge can be used in preparing and assessing health care (Alsaqri, 2016).

Tsuboi *et al.*, (2014), described female satisfaction as a degree of consistency between the expectations of

women for the desired nursing care and their perception of the care provided. Measuring satisfaction gave critical performance details, thus contributing to complete quality management (Goh *et al.*, 2016).

Measuring women's satisfaction with nursing care could be useful in improving the quality of nursing services by promoting preferences for treatment along with the monitoring women's experiences and perceptions of quality (Tang *et al.*, 2013). If the results are unsatisfactory, women would change their treatment and care facilities (Shinde & Kapurkar, 2014). Females who are more comfortable with their treatment are more likely to follow medically prescribed regimens and therefore add to the positive health effects. More satisfied women are more likely to recommend hospital to their friends and family (Buchanan *et al.*, 2015).

Health-satisfaction surveys are conducted to determine the satisfaction of patients, to know their aspirations, suggestions and feedback, to constantly improve quality in all service times, to examine the impact of socio-demographic and treatment cycles on patient satisfaction. For this purpose, women's satisfaction should be continuously assessed using appropriate, accurate evaluation methods to evaluate the quality of treatment, identify variables that influence care and decide which things should be prioritized and changes in services based on patient response (Tang, *et al.*, 2013; Buchanan *et al.*, 2015).

During the postpartum period, the maternity nurses have a central role in providing women emotional and psychological support (Goh *et al.*, 2016). Knowledge is the fundamental competency of midwifery practices. Besides that, psychomotor skills, the ability to make decisions and communicate are important for midwife practices. Competence would be objectively evaluated through a structured evaluation process, using objective standards of professional practice as metrics of quality, to document an acceptable level of performance (WHO, 2011). Consequently, the results of nursing management research should be used as a measure of the contribution of nursing to the maternity care cycle and this could enable the profession to progress in terms of recognition (Freitas *et al.*, 2014; Alsaqri, 2016; Goh *et al.*, 2016).

### **Significance of the study**

Post-delivery time is a crucial transition period for both the mother and the neonate (WHO, 2014). Morbidity and maternal mortality are major problems because mothers are prone to developing complications

such as hemorrhage, which is the leading cause of death or severe sepsis. The first week of the postpartum period therefore needs top-quality care and monitoring (Herculano *et al.*, 2012).

Women's satisfaction and frustration reflect strengths and weaknesses in their decision about the services (Enabor, Nwaeze & Ouwasola, 2013). It is determined by the cost of health care, the actions of workers and contact with the care providers (Singh, Parashar & Lal, 2018). Knowing what skills are and how they can be measured is essential for improving the quality of care (Spector *et al.*, 2012).

In Port-said, there is no information available on the competencies of nurses in general and, in particular postpartum care, therefore this study was carried out to address the following research questions:

1. How competent are nurses in providing postpartum care at selected hospitals in Port-Said City?
2. Are women satisfied about received postpartum care at selected hospitals in Port-Said City?
3. What are the factors associated with competence of nurses in provision of care during postpartum period at selected hospitals in port-Said City?

### **Aim of the study**

The current study aims to assess the competence of nurses in rendering postpartum care and its effect on women's satisfaction.

## **METHODOLOGY**

### **Research design and settings**

**Design:** In this study, a descriptive exploratory research design was used.

**Setting:** Three hospitals affiliated to the Ministry of Health and Population were selected for their availability of labor and delivery units, receiving women coming from different areas all over Port Said City.

**Sample:** The convenience sample of the study was made up of two groups: The first group, 300 women who met the criteria. The second group includes all nurses (50 nurses) who work in Ob/Gyn. unit at the time of the study.

### **Inclusion and exclusion criteria**

Women who received prenatal care and were hospitalized for at least 2 nights at the time of data collection, women who received antenatal care and had intended pregnancy; as well as gave birth by caesarean

section to healthy full term baby, women who were not too confused or ill to complete the questionnaire and agreed to participate in the study were included. Women with previous history of hospital admission were excluded.

Pregnancy intendency, status of receiving prenatal care, and type of birth, were associated with nursing care satisfaction (McLellan & Laidlaw, 2013; Dzomeku *et al.*, 2013; Matejic *et al.*, 2014; Srivastava *et al.*, 2015; Monazea & Al-Attar, 2015).

### Data collection methods and tools

Data collection tools were used with observational check list for nurses for this research. The structured interviewing questionnaire used consisted of three parts:

The first part dealt with socio-demographic and obstetric data. The second part was adapted from Varghese & Rajagopal, (2013), the initial scale was updated by the researchers and used to measure the satisfaction of postnatal women with hospital services using a 4-point Likert scale. This section of the resource consisted of 32 statements regarding women's happiness in three areas.

Care areas were classified as follows: Welcome, Orientation and information (5 statements); Comfort, Communication and Values (14 statements), Specific Postpartum Care (13 statements). The maximum score received by an item was 4 for totally agree (fully satisfied) and the minimum score was one for totally disagree (not satisfied).

The third part was mainly intended to collect data on women's suggestions for improving postpartum nursing quality (women were asked about potential changes required in the hospital to improve the quality of postnatal care).

An observation checklist was developed by the researchers for the nurses, after reviewing the relevant literature and WHO postnatal guidelines. It was used to assess the competence of nurses in practical skills applied to women from admission to postpartum ward to discharge. This checklist composed of 22 steps with three columns; (competent; incompetent; and not done). Competence indicated the care given which was in line with structured care. Incompetence means a lack of certain uniform treatment items. "Not done" means there is absolutely no care given.

### Validity and reliability

For analysis and evaluation a jury consisting of three specialists in obstetric and a gynecological nursing was

ascertained for the validity of the tool. The alpha coefficient of Cronbach was determined to assess the reliability of the established tool by means of its internal consistency. It was evaluated after the tool was developed and applied through a pilot study, which was performed on 10% of women to test the consistency, usability of the tool, and clarity, and to estimate the time required to fill in the tool.

### Field work and Ethical consideration

An official letter was addressed from the Dean of the Faculty of Nursing, Port Said University to the directors of the selected study settings requesting their approval for data collection. Permission was obtained from each research setting, the researchers attended the selected settings (3 hospitals) six days a week) two days were allowed for each hospital over a period of six months from beginning of August 2017 to the end of January 2018 to collect the required data.

The consent of each women and nurse who clarified her intention to participate in the study was obtained verbally. Confidentiality was preserved by using a code number for each of them. They were assured about privacy of data collected by clarifying to them that it will be used only for the purpose of the study. As well, they were informed about voluntary participation and that they are allowed to withdraw from the study at any stage without giving any reason.

### Statistical analysis

Data collected were tabulated and statistically analyzed using the statistical Package for Social Science (SPSS), version 20. Quantitative data were expressed as means  $\pm$ SD and quantitative data were expressed as numbers and percentages. Significance of the findings was regarded when  $P$ -value was  $<0.05$  and highly significant when  $P$ -value  $>0.001$ .

## RESULTS

Table 1 includes socio-demographic characteristics of the sample (mothers). The women's mean age is 29.01 years and the highest percentage (67%) of them were in the 20- 35-years age category. The same table indicates that slightly less than half (48%) of women had primary or secondary school education, while more than three fourths (78%) are housewives, and less than one third (35%) stayed at the hospital 2 days and the length of hospital stay was 3 to 4 days for 40% of the women. As for family income, it was insufficient for 89%.

### 1. Characteristics of the Women

**Table 1: Distribution of the Women according to their Profile (n=300)**

Personal characteristics	No	%
<b>Age (in years)</b>		
Less than 20	24	08.0
20 - < 35	201	67.0
≥ 35	75	25.0
Mean of age	29.01	
<b>Education level</b>		
No formal schooling	30	10.0
Primary / Secondary	144	48.0
University	126	42.0
<b>Job status</b>		
Housewife	234	78.0
Working	66	22.0
<b>Family income</b>		
Sufficient	33	11.0
Insufficient	267	89.0
<b>Period of current hospitalization (in days)</b>		
2 days	105	35.0
3-4 days	120	40.0
>4 days	75	25.0

### 2. Socio-demographic Characteristics of the Nurses

Table 2 displays the nurses' demographic characteristics. Fifty per cent of nurses age ranged between 26 - < 36yrs. As for the educational level, 70 % of them had a nursing diploma. Most of them (82%) had less than five years of experience. The same table indicated that slightly less than two thirds (66%) of nurses did not receive any post-partum training course. The same table denotes 18% of nurses were trained twice.

**Table 2: Socio-demographic Characteristics of the Nurses (n=50)**

Personal characteristics	No	%
<b>Age (in years)</b>		
< 25	24	48.0
26-36	25	50.0
37 +	1	2.0
<b>Education level</b>		
Nursing diploma	35	70.0
Specialty	4	8.0
Baccalaureate	11	22.0
<b>Duration of experience (in years)</b>		
< 5	41	82.0
6-10	6	12.0
> 10	3	6.0
<b>Getting training course in post-partum care</b>		
yes	17	34.0
No	33	66.0
<b>Number of training courses (n=17)</b>		
One	7	14.0
Two	9	18.0
Three	1	2.0

### 3. Women's satisfaction with current postpartum care rendered to them

Considering women's satisfaction with welcome, orientation and information, table 3.1 reveals that out of 300 women more than half (56% and 52%) reported complete satisfaction with the welcome and orientation of their family visiting hours, while 72% and 46% were not satisfied with postnatal ward and bathroom orientation as well as nurses' information management and delivery. Asking the women about whether the staff nurses told them about what was going on, only a few percent (0.5%) reported complete satisfaction.

Table 3 Percentage Distribution of the Women According to their Perception (agreement/ satisfaction) regarding postpartum care rendered to them (n=300).

**Table 3.1: Welcome, Orientation and Information**

Items	Totally agree/ FS (%)	Mostly Agree/ MS (%)	Mostly disagree/ MnS (%)	Totally disagree/ NS (%)
I was given a warm welcome on admission	56.0	30.0	09.0	05.0
I was oriented to the postnatal ward and bathroom	03.0	05.0	20.0	72.0
I was oriented about visiting hours for my family	52.0	30.0	10.0	08.0
I was informed about informed consent before any procedure	14.0	35.0	24.0	27.0
Staff nurses kept me informed about what was happening (preparation before any procedure)	05.0	24.0	25.0	46.0

FS = Fully Satisfied, MS= Moderately Satisfied, MnS= Minimally Satisfied, NS= Not Satisfied

### 3.2. Women's satisfaction with comfort, communication and values

Slightly less than two thirds (66%) of women felt either fully or moderately satisfied about being safe and secure during hospitalization, and 21.0% were fully satisfied as all questions were answered promptly with positive attitude, while the majority (82%) of women were not satisfied with the staff nurses as they did not dedicate enough time towards the patients. Just 15% of women were fully satisfied with postnatal ward



cleanliness and furniture condition. Findings also revealed that only 22% of women reported to be fully satisfied about having positive memories of their experience in the postpartum period (Table 3.2).

**Table 3.2: Comfort, Communication skills and Values**

Items	Totally Agree/ FS (%)	Mostly Agree/ MS (%)	Mostly Disagree/ MnS (%)	Totally Disagree/ NS (%)
I felt staff nurses have sufficient training to cope with women satisfaction statuses	00.0	10.0	15.0	75.0%
I felt safe and secured during my hospital stay	38.0	28.0	21.0	13.0
There was no noise at night in the ward	05.0	20.0	35.0	40.0
Cleanliness of the ward and furniture condition	15.0	40.0	36.0	09.0
Nurses were calm and approachable	29.0	57.0	10.0	04.0
Nurses communicated in my own language and were free to talk	23.0	40.0	27.0	10.0
Staff nurses treated me with dignity and respect	24.0	42.0	25.0	09.0
Staff nurses talked to me to find my values and preference of care	24.0	42.0	25.0	09.0
Staff nurses devoted enough time to me	03.0	05.0	10.0	82.0
Staff nurses devoted enough time to my husband and relatives	00.0	00.0	8.0	0.92
All my question was answered promptly with positive attitude	21.0	37.0	26.0	16.0
I felt that I handled the situation well	25.0	34.0	31.0	10.0
Essential equipment, supplies and drugs are available.	23.0	25.0	38.0	14.0
I have positive memories from post-partum period	22.0	47.0	18.0	13.0

FS = Fully Satisfied, MS= Moderately Satisfied, MnS= Minimally Satisfied, NS= Not Satisfied

### 3.3. Specific Postpartum Care

Forty percent of studied women were fully satisfied because nurses assisted them in early ambulation; 38% about being informed regarding nutrition, sleep and rest in postpartum period; and 70% were fully satisfied for advices about the importance of day 40 follow up. On the other hand, women were not satisfied about advices on Lochia flow, abnormal neonatal condition, bonding and attachment along with information regarding child immunization were not received (60%, 52%, 90% and 80%, respectively) (Table 3.3).

**Table 3.3: Specific Postpartum Care**

Items	Totally agree/ FS	Mostly Agree/ MS	Mostly disagree/ MnS	Totally disagree/ NS
I was assisted to go to the toilet and personal hygiene	14.0	35.0	24.0	27.0
I was assisted in early ambulation	40.0	20.0	15.0	25.0
I was explained how to take care of minor breast problem in postpartum period	19.0	25.0	19.0	37.0
I was informed regarding nutrition, sleep and rest in postpartum period	38.0	27.0	18.0	17.0
I was told regarding lochia flow	00.0	21.0	19.0	60.0
I was advised about post-natal activity	42.0	22.0	14.0	22.0
I was informed about importance of post-natal follow up	70.0	23.0	15.0	02.0
I was taught about the importance of colostrums/ breast feeding	12.0	30.0	28.0	30.0
I was informed about abnormal neonatal conditions	03.0	05.0	50.0	52.0
I was taught about bonding and attachment	00.0	00.0	10.0	90.0
I was educated about immunization	00.0	08.0	12.0	80.0
I was prepared for discharge	00.0	05.0	20.0	75.0
I was informed about postpartum follow up	48	23	13	16

FS = Fully Satisfied, MS= Moderately Satisfied, MnS= Minimally Satisfied, NS= Not Satisfied

Table 4 reveals that the highest percentage (30%) were fully satisfied regarding furniture-related item and items related to health care provision (22%), and the least for the items related to the services provided (18%).

**Table 4: Percent Distribution of the Study Women According to their Satisfaction Related to provided Services; Health Care Providers and Furniture Condition.**

Satisfaction	Fully Satisfied %	Moderately Satisfied %	Minimally Satisfied %	Not Satisfied %
Items related to the provided services	18.0	30.0	14.0	38.0
Items related to health care providers	22.0	30.0	26.0	22.0
Items related to the furniture condition	30.0	20.0	15.0	35.0

Table 5 exhibits women suggestions on how postpartum care services can be improved, the majority (80%) of them suggested increasing the number of health care providers (staff), and 73% reported providing appropriate and enough postpartum advices. As well, less than half percent of them (46% and 48%) of women suggested providing more neonatal care (i.e. baby bath) and improving hospital environmental sanitation respectively.

**Table 5: Percent Distribution of the Studied Women according to their Suggestions for Improving Post-Partum Care at the Hospitals**

Suggestions for improvement	%
Conduct postpartum care follow-up (home visits)	25.0
Engage women in their care (decision-making)	30.0
Attention must be paid to the emotional and economic conditions.	43.0
Provide more new natal care (baby bath)	46.0
Improve hospital environmental sanitation	48.0
Increase the number of health care providers (staff)	80.0
Provide appropriate and enough postnatal information (advices)	73.0
<b>Recommended areas of information (73.0 %) *</b>	
Genital care	70.0
Breast care	45.0
Cord care	73.0
Maternal-baby attachment and breast feeding	20.0
Family planning	66.0
Potential danger signs of postpartum	47.0

\*Recommended areas of information are not Mutually exclusive

Table 6 presents distribution of nurses according to their competencies in postpartum care. It shows that 61% of nurses were competent in checking regularly vital signs. Regarding postpartum breast and nipple inspection for engorgement, perineum examination and Lochia detection, and varicose vein legs were not done by (70%, 60%, and 72% respectively) nurses. While 42%, 57% and 21% of nurses were competent in encouraging women to move early, to drink hot fluid and in taking complete history in the postpartum period respectively. About the steps to prevent infection in the postpartum period, the same table reveals that 75% of nurses were competent in applying infection control measures (wearing gloves, hand hygiene, not recapping needles and others).

**Table 6: Percentage Distribution of Nurses According their Competencies in Post Partum Care**

Items	Performance		Not done %
	Competent %	Incompetent %	
<b>Postpartum nursing care</b>			
Taking complete history	37.0	46.0	17.0
Explain any procedure to the women	03.0	20.0	77.0
Check vital signs regularly	61.0	30.0	09.0
Examination of breasts and nipple for engorgement/ cracked	10.0	20.0	70.0
Examination of perineum and observe Lochia	20.0	20.0	60.0
Assess uterus	02.0	04.0	94.0
Examination of the legs for varicose vein	06.0	22.0	72.0
Encourage the women to mobilize as soon as appropriate following birth	42.0	22.0	36.0
Give support to women during initiation and continuation of breast feeding	03.0	26.0	71.0
Encourage mothers to drink hot fluid	57.0	26.0	17.0
Assess baby within one hour of delivery	13.0	36.0	51.0
<b>Apply infection control measures</b>			
Follow infection control measures	75.0	15.0	10.0
<b>Postpartum advices on</b>			
Signs and symptoms of potential life threatening	04.0	37.0	59.0
Importance of perineal hygiene, frequent changing of sanitary pads	00.0	00.0	100.0
Maternal nutrition	38.0	45.0	17.0
Return to fertility and sexual activity	00.0	10.0	90.0
Family planning	33.0	40.0	27.0
Exclusive breast feeding	00.0	00.0	100.0
Essential newborn care and cord care	03.0	54.0	43.0
Counseling on newborn danger signs	37.0	19.0	44.0
Immunization	22.0	34	44.0
Growth monitoring	00.0	00.0	100.0

With respect to postpartum advices, table 6 also shows that more than one-third (38%, 33% and 37%) of nurses were competent in offering appropriate and sufficient health advices on maternal nutrition, family planning and infant danger signs, while most of nurses (90%) did not provide health advices on returning to fertility and sexual activity and all of them on tracking baby growth monitoring. Also, 59% and 43% of nurses

were not competent as they did not teach the women about potential life-threatening signs, essential newborn care, and cord care respectively.

Table 7 presents the relation between quality of postpartum care and nurses' profile (selected variables). It indicates that there were no statistically significant differences between nurses' profile (age, years of experience in obstetric and gynecological units & training courses) and postpartum care rendered, applying infection control measures and post-partum advices.

**Table 7: Relation Between Quality of Postpartum Care and Nurses' Profile (selected variables)**

Items	Rendered Postpartum Ng. care	Apply infection control measures	Postpartum advices
Age (years) Mean ± SD P=	4.84±0.21 0.777	4.80±0.31 0.316	1.98±1.8 0.617
Years of experience (in Ob/Gyn. units) Mean±SD P=	4.85±0.21 0.467	4.80±.31 0.453	1.97±0.17 0.801
Training courses Mean±SD P=	4.85±0.21 0.187	3.62±0.32 0.989	1.97±0.17 0.855

Table 8 indicates a fairly high overall total mean of female satisfaction (3.90±0.62), whereas the highest mean (4.10±0.46) was for comfort, communication skills and values, followed by advices provision (3.83±1.8), then welcome, orientation and information (3.80±1.00) and the least pleased was for specific nursing care (1.32±0.46).

**Table 8: Mean Satisfaction According to the Different Areas of Nursing Care**

Areas of Nursing Care	Mean ± SD
Orientation and information	3.80±1.00
Comfort, communication skills and value	4.10±0.46
Advices provision	3.83±1.8
Specific nursing care	1.32±0.46
Total women satisfaction	3.90±0.62

Table 9 indicates a positive and highly significant correlation between post partum women's satisfaction and competence of nursing care rendered ( $P < 0.001$ ).

**Table 9: Correlation Between Competences of Rendered Nursing Care and Postpartum Women Satisfaction**

Women's satisfaction	Competence of nursing care rendered	
	r	p-value
	0.334	0.001*

## DISCUSSION

The relevant research has shown that both the mother and the child will have certain health concerns during the immediate postpartum period as most maternal and newborn deaths occur during this period. Thus, it is a crucial time in life as these must be carefully treated with high quality of care. Sensibly, women's satisfaction is an important indicator of maternity health care quality and in medical and nursing literature for that it has received great attention.

With regard to women's socio-demographic characteristics, the results of this study revealed that the highest percentage of women's age ranged between 20- <35 years representing two thirds with a mean age of 29.01. As for education, more than two fifths of them were university graduates, while a minority representing one tenth had no formal schooling. This is presumed because the proportion of university education is rising in Port Said city and the studied women in reproductive age.

Upon childbirth, women need to live in health care facilities for long enough to receive adequate treatment. In the current study, about two fifths of women, the duration of hospital stay was 3 to 4 days. This finding disagreed with that of a study conducted in Canada by Campbell *et al.* (2016), while this is longer in a study conducted by Lomoro *et al.*, (2002), which reported that the average hospitalization time for those born by caesarean birth was six days. Such variations could be due to the characteristics of the facility, the provider and/or the characteristics of the participants. Nonetheless, the World Health Organization suggests that all women stay in healthcare centre at least 24 hours postpartum (WHO, 2013). The researchers believe that, despite this suggestion, women leave or are made to leave facilities quickly in many settings before essential postpartum checks can take place. Additionally, Brown *et al.*, (2004) reported that prolonged stay may increase exposure to adverse environment facilities, with increased the risk of nosocomial infections, sleep disturbance, or poor support for infant feeding that may reduce parental involvement, or family bonding.

Concerning satisfaction of the women with rendered postnatal services: With regard to the first domain of women's satisfaction with treatment given (welcome orientation and information) in the present study; it was evident that more than half of women expressed their full satisfaction with the worm welcome on admission and orientation about their family visiting hours. However, less than three-quarters were not satisfied with postnatal

ward and bathroom orientation. In addition, when asked if the staff nurses told them about what was going on i.e. preparation before any procedure, only a minority of women expressed full satisfaction.

These findings correspond to those stated by Alidosti, Tahmasebi & Raeisi, (2013) in Iran, which showed that women's satisfaction with the welcome was strong. As well Rudman *et al.*, (2008), research found that more than half of the women interviewed were disappointed with the inadequacy of nurses training because they had not been aware of the procedural. Most of the clients were not greatly pleased with employee behavior. These findings require further investigation to identify challenges of nurses face in gaining the skills required for patient's orientation. Postpartum women, generally, need appropriate guidance and knowledge about the type of care they receive and the postpartum programs. It allows them to be friendly and look for early publicity. In that respect, Takacs *et al.*, (2015) indicated that, in order to improve satisfaction with maternity care in hospitals, the key efforts should be directed mainly to assisting midwives in providing information to workers working in maternity care as trust has been gained and converted into higher satisfaction scores.

Regarding the second domain of women's satisfaction with treatment provided (comfort, communication skills and values); if a supportive caregiver attitude has been established, then client finds the hospital safe enough for future use as clarified by Lamadah & El-Nagger, (2014). The present study had shown that slightly less percentage of patient felt either fully or moderately satisfied about being safe and secure in contact with the nurses and health provision during hospital stay. Otherwise, the study indicated that two fifths of women were not satisfied with the services at night in the ward and the majority of them were not satisfied about staff nurses' not devoting enough time to the patients. This finding was inconsistent with an earlier study conducted by Elgazzar & Hashem (2018) on Egyptian women who found that slightly more than two-thirds of the women surveyed were pleased with the contact from nurses.

In this context, results of the current study revealed that all respondents indicated that if the nurses treated them with dignity and respect then interpersonal relationships with their caregivers were good (politeness, compassion, empathy, safety and security provision), they would be pleased with their treatment even if other factors had not been addressed. From this context, a study was conducted at the health centers affiliated to Tehran

University of Medical Sciences (Iran) by Mirzaei *et al.*, (2016), which evaluated the level of patient satisfaction with the verbal and non-verbal communication skills of midwives. The study reported that nearly half of the studied mothers were moderately satisfied with the communication skills of midwives. The current study findings disagreed with those of previous study conducted by Mohammed (2016) at Jordan that found than less percent (13%) of women were satisfied with interpersonal communication. These differences in findings may be due to women's perception and expectations.

As regards the third area of women's satisfaction with rendered care (specific post partum care), i.e. women's satisfaction with basic postpartum treatment. Results of the current study revealed that more than half of the mothers received postnatal care, while most of them were not taught about bonding and attachment as well as the majority of women were not educated about child immunization. In disagreement, Mohammed (2016), who examined maternal satisfaction regarding quality of nursing care during labor and delivery in Sulaimani Teaching Hospital, reported that women were satisfied with their care during labor and delivery. However, Lamadah & El-Nagger (2014) reported that most mothers were not happy with the postpartum treatment and discharge plan guidance. The reasons of the research finding may differ for several factors: firstly, the birth of a healthy baby may offset negative experiences; secondly, the timing of evaluation, exhaustion and postpartum pain may cause women not to be focused on nursing care and, finally, hospitalized postpartum mothers may be hesitant to question the services they have been provided as providers were still involved.

The findings of this study showed that near two fifths of postnatal mothers were not satisfied with postnatal services, such as guidance on postnatal self-care practices; restriction and attachment; teaching on abnormal neonatal conditions and infant immunization. About three-quarters of women also reported that they were not prepared for discharge and absolutely not satisfied or pleased. The findings of the current study are in agreement with those of Takacs *et al.*, (2015), who discovered that in the Czech Republic hospitals, mothers were unhappy with postpartum hospital education due to lack of time and the amount of information needed to prepare new mothers and their families was not sufficient for the treatment of newborn children at home. These differences in outcomes can be linked to women's brief hospital stay in Port-Said City



after birth which negatively affects the nurse's role in addressing effectively the learning needs of a new mother. Stays of less than 24 hours in the last few years have been encouraged in some settings as mentioned by Ware (2015) and Campbell *et al.*, (2016). In Egypt, after giving vaginal birth, the average woman remaining in the hospital is half a day.

In the present study, regarding women's satisfaction with postpartum treatment, about half of women were either fully satisfied or moderately satisfied with the services provided, and slightly more than fifth were not satisfied with the health care providers. The actual study results were in line with Varghese & Rajagopal (2013) who measured the level of maternal satisfaction with the care services received in the postpartum unit and stated that half of the mothers surveyed were satisfied with the quality of the postpartum education and training. The study assessed maternal satisfaction with respect to six sides of satisfaction with the organization of the health center's human resources, equipment and supplies, overall satisfaction with care services, satisfaction with the level of comfort during hospitalization, overall satisfaction with the health workers' care services and mother preferences in this regard. Mohammed (2016), who carried out a study also denoted that the origins of client frustration with postpartum treatment include hospital setting characteristics as non-availability of support and material resources, such as facilities, and financial issues.

Incongruent with the previous results, several studies as that of Nikpour *et al.*, (2007) who measured the degree of maternal satisfaction with the standard of prenatal care services showed that 91.7% of mothers were pleased with the postpartum services provided. Similarly, Kojuri *et al.*, (2005), conducted a study on women, and found that 87.2 % of the participants were satisfied with the quality of postnatal treatment. Inevitably, insufficient and poor-quality treatment will have a negative effect on the health outcomes and happiness of mothers.

Furthermore, lack of information or support within facilities for women can reduce maternal confidence or cause problems with breastfeeding, postpartum depression or care dissatisfaction as mentioned in a study carried out by Ware (2015). During the hospital stay, information about self-care and newborn care given to new mothers can minimize concerns and boost satisfaction with increase in levels of confidence (Takaas *et al.*, 2015).

In accordance with the current study findings, Okonufua *et al.*, (2017) surveyed eight secondary and tertiary hospitals in Nigeria and confirmed that many of the mothers were or were not at all satisfied with the quality of antenatal, intrapartum and postnatal. The importance of implementing a discharge plan was studied by Lamadah & El-Nagger (2014). Mothers' satisfaction regarding quality of postpartum nursing care and a discharge teaching plan showed improved satisfaction in postpartum care. Previous study done by Kebalepile (2001) showed that the key obstacles are understaffing and insufficient financing of health facilities at the township and village level. With regard to the relationship between the competence of rendered aftercare and the profile of the nurses under study as age, years of experience in Obstetrics and gynaecology training courses, no statistically significant relationship were detected between the profile of the nurses (studied variables) and the postpartum care provided. On the contrary, Abd El Fattah, Negawa, & El Dein, (2009) found that there is a relationship between the expertise of nurses and their practice of immediate postpartum. Over half of nurses have strong knowledge and practice in preparing delivery supplies, delivering immediate neonatal care, assisting women in providing safety and comfort, rest, sleep, exercise, nutrition and health education.

Post-natal advices and knowledge continue to be a critical process and unique step among new mother's and her baby's life. In this study nurses in these advice areas were incompetent or are not aware of the information related to return of fertility, sexual activity, baby growth monitoring, as well as instruction of the women about symptoms of potential life threaten and essential newborn care along with cord care respectively.

A very recent study carried out by Wickramasinghe, Gunathunga & Hemachandra, (2019) stated that, patient satisfaction is correlated with rendered nursing care. Regarding the correlation between the competences of postpartum rendered nursing care and level of satisfaction, the current study findings showed that, there was a positive and highly statistically significant difference between the competence of rendered nursing care and postpartum women's satisfaction. Consistent with the results of the current study, similar previous studies, showed a strong positive relationship between nursing care and patient satisfaction (Azizi-Fini *et al.*, 2012; Akhtari-Zavare *et al.*, 2010). However, no statistically significant relationship exists between the competencies of the nurses and the satisfaction of the

patients. The discrepancies in previous and current results could be attributed to differences in areas of study, as well as the time of the studies.

## CONCLUSION

According to the results of this study, there was a statistically significant difference between the competences of rendered nursing care and postpartum women's satisfaction. Furthermore, competence-based

nursing care should be provided after the cesarean birth for mothers in the postpartum unit to provide appropriate nursing care.

## RECOMMENDATIONS

Future studies may focus on how postpartum mothers see the care they receive and the type of care they need to improve their satisfaction with the services they are provided.

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