Evaluate Knowledge & Practice of Nurses Regarding Care of Women with Cesarean Section

Fatma Sayed Mosaad*, Kamilia Ragb Abo Shabana**, Sabah Metwaly Mohamad**

* M.Sc in Obstetrics and Gynecology- Ain Shams University
** Professor of Maternity Neonatal Health Nursing
** Professor of Maternity Neonatal Health Nursing
Faculty of Nursing- Ain Shams University

Abstract

Background: Nurses had play a multidisplinary role as a direct care provider who must provide competent nursing care based upon evidence base research finding for women undergoing cesarean section. **Aim:** evaluate knowledge & practice of nurses regarding care of women with cesarean section **Study Design:** descriptive design. **Setting:** the study was conducted at 6 inpatient units' at maternity hospital Ain shams University. **Sampling:** purposive sample included 38 nurses. **Tools of data collection:** were structured interviewing questionnaire sheet & observational checklist. **Results:** the study finding revealed that 68.4% had poor knowledge and 57.9% had poor practice regarding care of cesarean section. **Conclusion:** there were more than two third of study sample had incorrect knowledge related to cesarean section and slightly more than half of them had incorrect practice. **Recommendations** provide periodic in service – training program regarding cesarean section care.

 Key wards: cesarean section, nurses' knowledge, practical skills.

Introduction:

Cesarean section (CS) is an important lifesaving operation when vaginal delivery might pose a risk to a mother or baby. However, if not medically indicated or if performed under suboptimal conditions, CS can cause maternal and fetal complications, including death. According to the World Health Organization (2015), at the population level, CS rates higher than 10 percent are not associated with reductions in maternal and newborn mortality rates.

In Egypt, the past decade has witnessed a sharp increase in the prevalence of CS with the most recent Egypt Demographic and Health Survey *(EDHS)* documenting a CS rate of 52 percent, which suggested that cesarean delivery might be overused or used for inappropriate indications *(Avery, 2018)*.

Additionally Accepted medical reasons for performing a CS included: failure of labor to progress, pelvic abnormalities, problems with the placenta, multiple gestation pregnancy, active herpes simplex, non-reassuring fetal heart rate, mal presentation of the fetus, and any serious medical condition that requires emergency treatment .If a CS is performed for any other reason, then it is considered none medically indicated and thus avoidable *(Torloni, 2018)*.

Nurses should provide competent nursing care during early (immediate) postpartum period. This critical time requires nurses to be open-mindedness and patient. This skill set requires that nurses should perceive that the first 2 hours after CS are of significant concern. Thus, they should provide competent care to postpartum women taking into considerations their beliefs, experiences and environment and respecting their human rights and dignity. Thus, the nurse should focus on supporting, protecting, advocating and empowering women during this time *(Kyle, 2017)*.

Nurses had play a multidisplinary role as a direct care provider who must provide competent nursing care based upon evidence base research finding for women undergoing CS, as health educator and counselor must correct women misconceptions & believes

related to CS also prevent un health women behavior as FGM & eating health nutrients during post natal care as well as exercise, encourage utilization of family planning services while nurses as administrator must design & implement protocols & guidelines for women undergoing CS as well as formulate evaluation system for those women while nurses as a researcher must participate in data collection for implementing evidenced based research *(Ponsane, 2017).*

Justification of the study:

It was estimated by Ain shams maternity university hospital statistical that cesarean section was 6488 cases among births that had been conducted *(Statistic Office Maternity Hospital, 2018).*

Cesarean section was a nursing concern because nurses had played a multidispnary role as a direct care provider who assess patient needs and implement competent patient care according to patient priorities of need while nurse as a manager follow hospitals roles and regulations to monitor nurses compliance with competent care provided with cesarean section as provide safety & comfort measures, infection control measures.

Furthermore, nursing as a researcher must utilize advanced and best evidence research findings as a base while providing her patient competent care with cesarean section. This consequently was reflected upon reducing maternal fetal neonatal mortality, morbidity.

Aim of the Study:

The current study aimed to evaluate knowledge & practice of nurses regarding care of women with CS.

Research question: what are the level of nurses' knowledge & practice regarding care of women with cesarean section?

Subjects and Methods
I. Technical design

The technical design for this study included research design, research setting, and subjects of the study and tools of data collection.

Study design, setting & sampling:

Design: A descriptive study design was used to evaluate nurses' knowledge, practices regarding care of women with CS.

Setting: The study conducted at six departments (inpatient) at the rooms devoted for cesarean birth care at in Ain shams university maternal hospital. **sample:** convenience sample of 38 nurses attended at inpatient units at ain shams university maternity hospital for 12 months were included in the study according to the following criteria**:** Different age group, different nursing education, Nurses who provide direct patient care for women with cesarean section.

Tools of data collection:
It was included of two tools:

I. Structured interviewing Arabic Questionnaire it was designed by the researchers after reviewing the advanced related literature *(McColgan, 2011)*. It was included 37 multiple choice question. It was included two parts:

Part 1: it was designed to evaluate nurses' demographic characteristics (age, educational level…) question (1: 6) questions

Part 2: it was designed to evaluate nurses knowledge regarding care of mothers with cesarean section as (definition, indications, types, complications as well as nurses roles for mother undergoing cesarean section) (7: 37) questions.

❖ **Knowledge scoring system:**
Each question scored as 2 for correct knowledge and scored 1 for incorrect knowledge. The total knowledge score was calculated as the following:

More or equal than 60% correct knowledge while less than 60% was consider incorrect knowledge.

II. An Observational checklist It was adopted from **(Adel, 2013)** and modified by the researcher to evaluate nurses practices while

providing nursing care for mothers undergoing cesarean section which included the following ;

Part 1: it was designed to evaluate nursing practical skill pre caesarean section.

Part 2: to evaluate immediate nursing practical skills within 2 hours post caesarean section

Part 3: it was designed to evaluate nurses' practical skills during daily routine care for mothers with caesarean section.

❖ **Practices Scoring system:**

Each item in the observational checklist scored as 2 for correct practice items and 1 for incorrect.

The total practices correct score consider as the following: more or equal than 60% correct practice while less than 60% was consider incorrect practice.

Validity and reliability:

The tools were tested for content validity by three specialized university faculty professor according to their comments modifications were considered . Reliability done by Cronbach's Alpha coefficient test (for first tool was 0.799) (for second tool was 0.802).

Ethical considerations:

The study did not touch nurses' dignity, culture, religious and ethical issues.

The researcher explained the aim of the study to the participants.

▪ The researcher obtained written consent from each participant.

▪ After statistical analysis all tools of data collection will be burned to maintain confidentiality of the study.

▪ Each participant has the right to be excluded from the study at any phase.

▪ During implementation human rights will be kept for nurses.

▪ Data collection was for research only and it burned after data analysis.

II. Operational Design:

The study was conducted through three phases: The preparatory phase, the implementation phase, and the evaluation phase.

Phase1 (Preparatory phase):

The researcher had reviewed advanced international & national related literature then designed tools of data collection, finally conduct pilot study.

Pilot study:

A pilot study carried out on 4 nurses and was excluded from the main study sample. Its aim was to evaluate the content predictability, clarity, validity and reliability of the tools of the study. It also helped in the estimation of the time needed to fill in the forms. According to the statistical analysis modifications were considered. Modifications included rephrasing of some questions sequences, and reduce numbers of questions from 105 to 96 questions, after refinement and modifications; the final form of the tool was utilized.

Phase 2 (The implementation phase):

Fieldwork:

The data was collected through a 6 months from September 2018 till March 2019.

The researcher visited the previously mentioned setting three times per week started from 9 am-3 pm. The researcher reviewed hospital registration book and selected 4 nurses per day according to their attendance in the inpatient departments.

At the beginning of the interview the researcher introduced herself to each nurse and great them, then the aim of the study was explained to participants, then the oral consent was obtained.

The researcher started to fill the interviewing questionnaire to assess nurse's general characteristics then the nurse knowledge regarding cesarean section (care of it, it took about 20-25 minutes to fill the questionnaire by using tool I.

Then, the researcher evaluated the nurse practice toward care of mothers with cesarean

section. By using tool II applied to assess nurses' care to mother's with cesarean section (pre- immediate /daily routine). After the completion of the interviewing questionnaire was statistical analysis

Each day 4 nurses were interviewed then their practices were evaluated while they provided care for mothers with cesarean birth.

All days of feasts /public holidays were excluded.

III. Administrative Design
An official approval obtained from the Maternal &Neonatal Health Nursing department counsels & the Scientific Research Ethical Committee that approved by the Faculty of Nursing, Ain Shams University Counsel. Also a letter containing the title and aim of the study directed to the director of Ain Shams Maternity University Hospital to obtain his approval for data collection.

IV. Statistical Design:
The collected data coded, organized, analyzed and tabulated using computer. Presentation of data in to tables and graphs carried out according to the types of variable

The statistical analysis of data was done by using excel program and the statistical package for social science (SPSS) program version 12. First part of data was a descriptive one which was revised, coded, tabulated and statistically analyzed using the proportion and percentage, the arithmetic mean X and standard deviation (SD). The second part was analytical statistics to test statistical significant difference between two or more groups. For qualitative data, Chi square test X^2 and p-value were used to test associations among the variables. The Friedman test is a non-parametric statistical test developed by Milton Friedman; it is used to detect differences in treatments across multiple test attempts. The correlation coefficient is a statistical measure of the strength of the relationship between the relative movements of two variables.

Significance of results was:
- Non-significant if p-value > 0.05.
- Significant if p-value < 0.05.
- Highly significant if p-value < 0.001.

Limitations of the study:
1) Some of nurses refuse to participate due to work overload.
2) The researcher had to visit the same ward several times and wait long time to complete data collection because nurses were too busy.
3) Postpone interviewing questioner due to absence of nurses.

Results:
Table (1): shows that (47.4%) among the studied sample their age ≥40 year. (76.3%) among the studied sample residing in urban areas. (68.4%) among the studied sample had diploma education. Also, (39.5%) among the studied sample their years of experience ranged between15-20 year. Moreover, (78.9%) among the studied sample didn't attended training courses about care of women with cesarean section.

Table (2): shows that 57.9% and 52.6% of the studied sample had incorrect knowledge regarding to complications & reasons for cesarean section respectively.

Figure (1): This shows that the most source of knowledge among the studied sample was the work experience.

Figure (2): This shows that 76.3% among the studied sample had incorrect knowledge about nursing care for caesarian section.

Figure (3): This shows that 63.2% among the studied sample had incorrect practical skills pre caesarean section.

Figure (4): This shows that 65.8% among the studied sample had incorrect practical skills within 2 hours post caesarean section.

Figure (5): This shows that 63.2% among the studied sample had incorrect

practical skills during daily routine care for mothers with caesarean section.

Figure (6): This shows that 57.9% among the studied sample had incorrect practical skills about nursing care for caesarean section.

Table (3): shows that there was highly statistically significant relation between total knowledge about nursing care for caesarean section of the studied sample and their years of experience at ($P = < 0.01$). Also, there was statistically significant relation between total knowledge about nursing care for caesarean section of the studied sample and age and education level at ($p = < 0.05$). While, there was statistically insignificant relation between total

knowledge about nursing care for caesarean section of the studied sample and residence, training courses at ($p = > 0.05$).

Table (4): shows that there was highly statistically significant relation between total practice about nursing care for caesarean section of the studied sample and their age, years of experience at ($P = < 0.01$). Also, there was statistically significant relation between total practice about nursing care for caesarean section of the studied sample and education level at ($p = < 0.05$). While, there was statistically insignificant relation between total practice about nursing care for caesarean section of the studied sample and residence, training courses at ($p = > 0.05$).

Table (1): Frequency distribution among the studied sample according to their general characteristics (n=38).

Items		No	%
Age (Year)			
20-<30		9	23.7
30-<40		11	28.9
≥40		18	47.4
$\overline{x}$ S.D	40.5 ± 8.75		
Area of Residence			
Rural		9	23.7
Urban		29	76.3
Educational level			
Diploma		26	68.4
Bachelor degree		9	23.7
Master degree		3	7.9
Years of Experience			
<5		9	23.7
5-<15		14	36.8
15-20		15	39.5
x S.D	16.4 ± 5.05		
Attending training program on the care of women under cesarean section.			
Yes		8	21.1
No		30	78.9

Table (2): Frequency distribution among to studied sample correct / in correct knowledge related to CS (n=38).

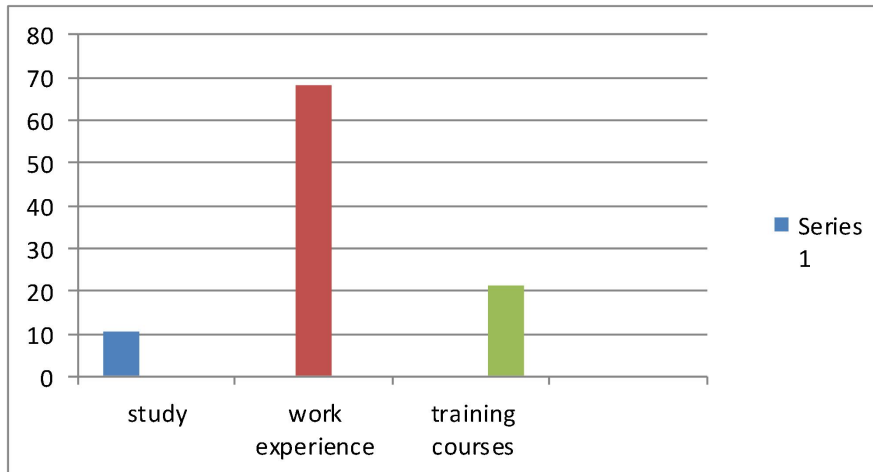| items	No	%
Definition of CS		
Correct	17	44.7
Incorrect	21	55.3
Reasons for CS.		
Correct	18	47.4
Incorrect	20	52.6
Complications of CS		
Correct	16	42.1
Incorrect	22	57.9

Fig (1): Frequency distribution among the studied sample source of knowledge regarding caesarean section (n=38).
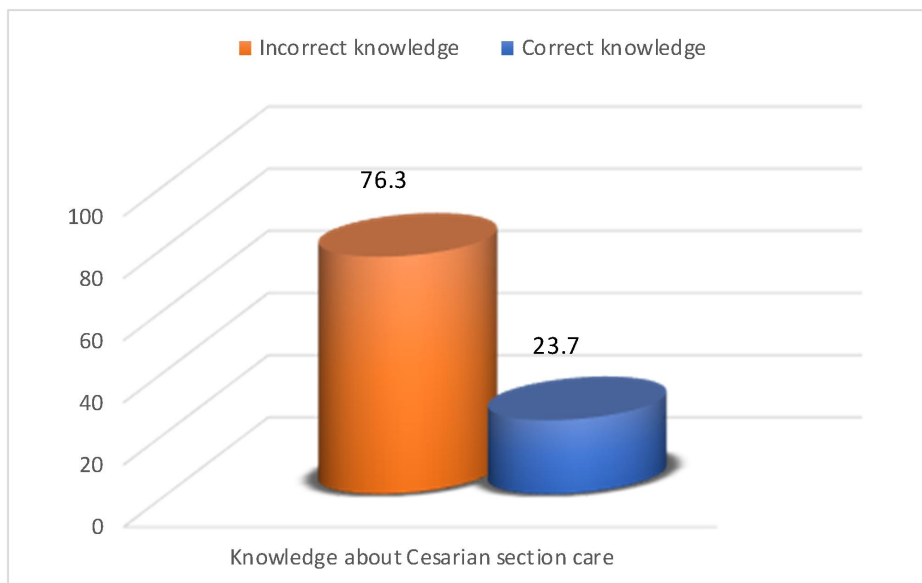

Fig (2): Frequency distribution among the studied sample regarding to their total correct/in correct knowledge about nursing care for caesarean section (n=38).
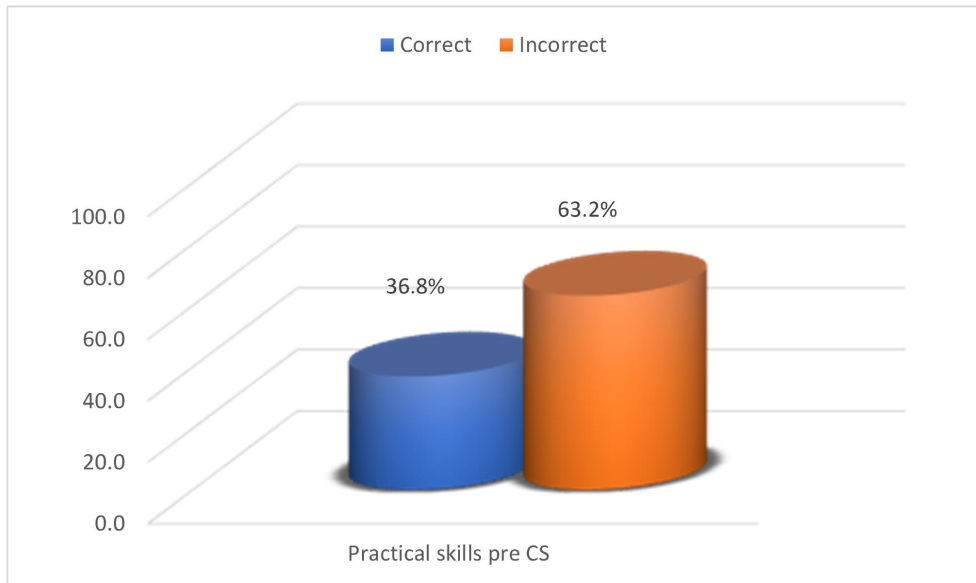
Fig (3): Frequency distribution among the studied sample regarding to their total correct/incorrect practical skills pre caesarean section (n=38).
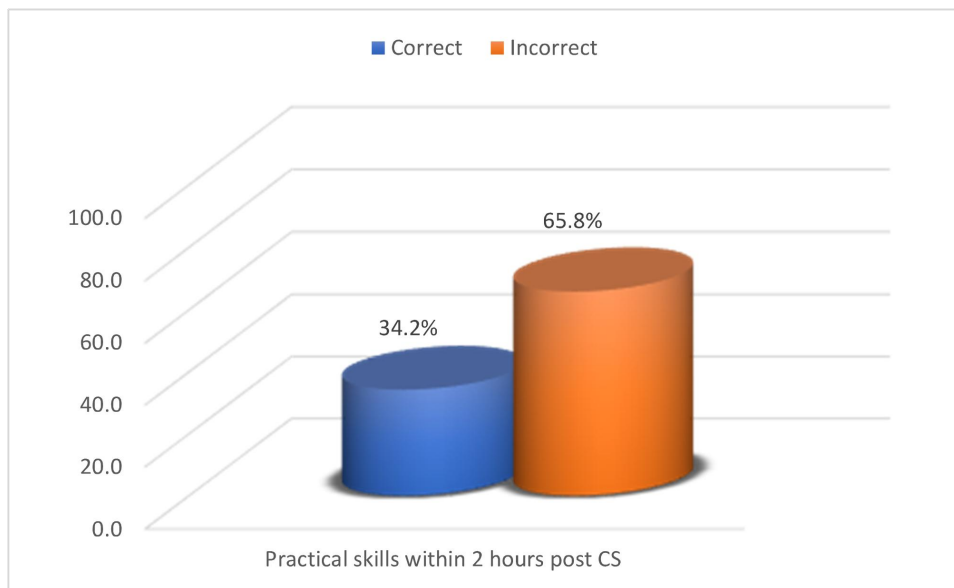

Fig (4): Frequency distribution among the studied sample regarding to their total correct/incorrect practical skills within 2 hours post caesarean section (n=38).
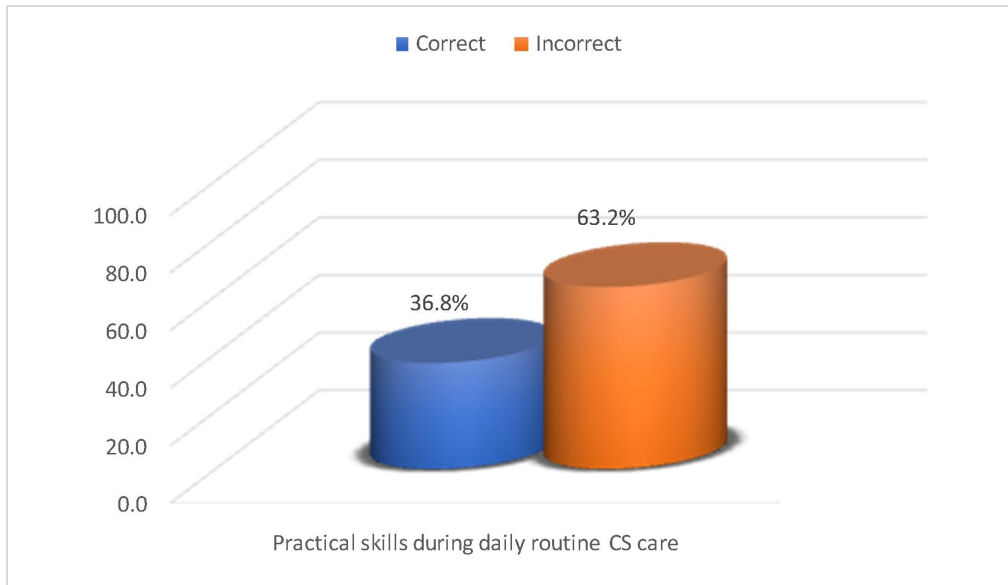
Fig (5): Frequency distribution among the studied sample regarding to their total correct/ incorrect practical skills during daily routine care for mothers with caesarean section (n=38).
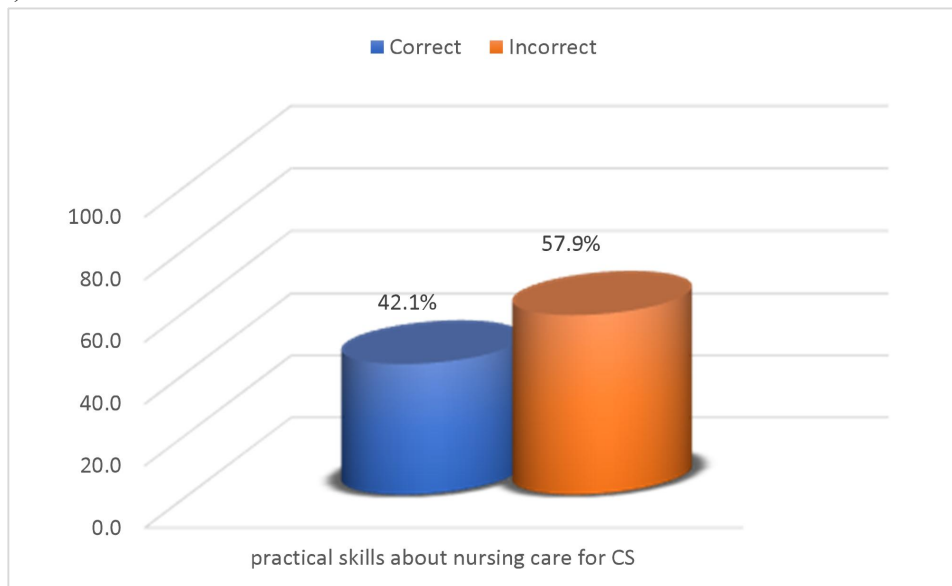

Fig (6): Frequency distribution among the studied sample regarding to their total correct/incorrect practical skills about nursing care for caesarean section (n=38).

Table (3): Relation between general characteristics data of the studied sample and their total knowledge about nursing care for caesarean section.

Items		Total knowledge about nursing care for caesarean section				X2	P-Value
		Correct (n=32)		Incorrect (n=6)			
		No	%	No	%		
Age (year)	20-<30	9	28.1	0	0.0	7.917	.019*
	30-<40	11	34.4	0	0.0		
	≥40	12	37.5	6	100		
Residence	Rural	8	25	1	16.7	2.211	.137
	Urban	24	75	5	83.3		
Education level	Diploma	20	62.5	6	100	9.58	.031*
	Bachelor degree	9	28.1	0	0.0		
	Master degree	3	9.4	0	0.0		
Years of Experience	<5	9	28.1	0	0.0	10.92	.004**
	5-<15	14	43.8	0	0.0		
	15-20	9	28.1	6	100		
Training courses.	Yes	8	25	0	0.0	1.230	0.168
	No	24	75	6	100		

*significant at p ‹ 0.05.   **highly significant at p ‹ 0.01.

Table (4): Relation between general characteristics of the studied sample and their total practice about nursing care for caesarean section.

Items		Total practice about nursing care for caesarean section				X2	P-Value
		Correct (n=30)		Incorrect (n=8)			
		No	%	No	%		
Age (year)	20-<30	9	30	0	0.0	11.25	.004**
	30-<40	11	36.7	0	0.0		
	≥40	10	33.3	8	100		
Residence	Rural	9	30	0	0.0	3.14	.076
	Urban	21	70	8	100		
Education level	Diploma	18	60	8	100	8.08	.031*
	Bachelor degree	9	30	0	0.0		
	Master degree	3	10	0	0.0		
Years of Experience	<5	9	30	0	0.0	15.53	.000**
	5-<15	14	46.7	0	0.0		
	15-20	7	23.3	8	100		
Attending training courses.	Yes	8	26.7	0	0.0	2.70	0.100
	No	22	73.3	8	100		

*significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Discussion:

Cesarean section care is very important to mother to prevent occurrence of serious complications such as postpartum hemorrhage, infections. This period is used to make sure the mother is stable and to educate her care of her baby. Mothers are encouraged to ambulate and to eat a regular diet.

The World Health Organization *(Aschalw, 2016)* describes the postnatal period as the most critical and the most neglected phase in the lives of the mothers and their babies; most maternal and/or newborn deaths

occur during the postnatal period so, it is vital to provide the nurses with a full knowledge and training for the management of this period. C-section arguably functions as a barrier to universal coverage with necessary health services. 'Excess' CS can therefore have important negative consequences for health equity both within and across countries.

Regarding general characteristics of the studied sample, the results of the current study revealed that more than one third among the studied sample their age ≥40 year. Regarding the age of the current study is higher than the group studied by **(Elbnedari H, 2021),** who documented in her study, which was carried out in Al-Azhar university hospital, and El Zarka Central Hospital in Damietta Governorate which reveals that half of the studied nurses were in the age group of (20-30)years old. While this finding is similar to **(Kaur et al., 2014)** who found that the majority of the subjects were in the age group of 26-30 years. These differences may be due to the difference between general characteristics of the sample & setting.

Regarding to education & years of experience the findings of the present study revealed that More than two third among the studied sample had diploma education. Also, more than one third among the studied sample their years of experience ranged between15-20 year .this finding disagree with **(Hashem , 2012)** who found that less than two thirds had Bachelor science of nursing and forty percent of the subjects had experience of 6-10 years. These differences may be due to the difference between general characteristics of the sample & setting.

Nurses' should be knowledgeable and highly skillful in providing nursing care according to mothers' needs and problems to save their lives, regarding training courses the results of the present study revealed that more than two third among the studied sample didn't attend training courses for the care of mothers under cesarean section. This was agree with **(Hassan et al., 2016),** mentioned that, almost all the studied sample didn't attend any in-service

training program about the quality of postpartum nursing care. This result agrees with a study conducted by**, (Betran, 2016)** who found that all of the studied sample didn't receive any training courses specialized in obstetrics.

This finding was dissimilar to **(Belal et al., 2016)** who found that more than half of the studied sample attended training courses about postpartum nursing care this may be related to the different characteristics of the study subjects.

Regarding source of knowledge the finding of this study revealed that more than two third among the studied sample had their knowledge about cesarean section care from their work experience this finding was dissimilar to other study was conducted at Obstetrics and Gynecology Teaching Hospital, Gezira State Sudan aimed at assessing nurses' knowledge regarding routine postpartum care at Obstetrics and Gynecology Teaching Hospital during the period of the study from January to March 2017showed that less than one third of the study sample their source of knowledge regarding routine postpartum care from mass-media less than one third of them their source from colleagues, less than one third from training program less than one third from books and references and more than one third from university. This may be due to the difference in facilities of hospital, knowledge and practices of nursing staff.

Regarding to total knowledge score of the studied sample the current study finding revealed that slightly more than three quarter of them had incorrect knowledge regarding cesarean section. This result was consistent with **(Hassan, 2016)** found that staff nurses didn't have enough knowledge regarding cesarean section care. On the same line with **(Moustafa, 2013)** add that the majority of nurses had incorrect knowledge regarding care of women with CS. Moreover the study of **(Hashem, 2012)** reported that nurses were not knowledgeable enough to provide high level of care to women. This Lack of knowledge of the studied sample may be due to the fact that, maternity nurses did not receive the needed information or may be in

need for refreshment in-service training program. Also, they are facing many difficulties in the area of mothers care, because most of health care settings are lacking standardized care guidelines.

This finding is in disagree with *(Aschalew, 2016)* who illustrated that about half of the study sample had good knowledge about CS care. This finding also is in congruent with *(Shinde, 2015)* who found that less than half of the staff nurses had knowledge regarding CS care. These finding are consistent with other study by *(Hashem, 2012)* who also found inadequate knowledge of nurses in post CS management.

Regarding to total practice score of the studied sample the current study finding revealed that slightly more than two third of them had incorrect practice regarding cesarean section. This poor practice might be due to lack of knowledge, and shortage in the number of nurses, shortage of necessary equipment and supplies while the finding is dissimilar to *(Simbar et al., 2017)* who study (assessment of quality of care in postpartum wards) which their study demonstrated that the quality of care was poor among (12.95%) of nurses regarding many of domains of postpartum care.

Moreover, working nurses didn't have the privilege of continuing educational program which can highly increase their knowledge and improve their skills. Lack of continuous supervision and annual evaluation of their performance, lack of motivation, absence of job specification plus shortage in staffing all lead to overlapping when it comes to providing some items of care and neglecting the others.

In addition, early discharge after delivery decreases the time needed to provide the instructions and advices necessary for parturient mothers. Last but not least, it cannot be ignored that working nurses are overloaded with administrative duties beside their duties as health care providers.

Regarding to The correlation between the total knowledge and general characteristics data among the studied sample regarding

cesarean section care in the present study revealed that, there was highly statistically significant relation between nurses' total knowledge score and between their years of experience because they were more involved and more responsible for provide care for mothers with cesarean section.

Also, there was statistically significant relation between knowledge about nursing care for cesarean section of the studied sample and age and education level. This study finding is compatible with the finding of *Ibrahim (2016)* who disclosed a positive statistically significant correlation between nurses' total knowledge score and their educational level.

Also, the current study findings were disagreed with *(Jaber, 2011)* who reported that there was no significant difference between general characteristics and nurse knowledge. This contrary between both studies may be due to differentiation of nurses' general characteristics.

The present finding is in consistent with *(Abdel-Menim et al., 2016)* who found positive statistically significant correlation between the studied sample's knowledge score and their educational level. Also the present finding is in harmony with *Abd Elfattah and zein, (2012)* which was a statistically significant relation between nurses' knowledge & their ages & years of experience. This means that nurses' level of knowledge is better with old ages and years of experience. Obvious improvements of total nurses' knowledge as well as performance scores were documented with significant statistically differences regarding postpartum care.

The correlation between the total practice and general characteristics data among the studied sample regarding post cesarean section care, the present study revealed that, there was also highly statistically significant relation between nurses' total practice score about nursing care for caesarean section of the studied sample and their age, years of experience. Also, there was statistically significant relation between total practice about

nursing care for caesarean section of the studied sample and their education level.

The present finding is agree with *(Ibrahim, 2016)* which was a statistically significant relation between nurses' practice & their ages & years of experience. This means that nurses' level of practices is better with old ages and years of experience. Obvious improvements of total nurses' practice as well as performance scores were documented with significant statistically differences regarding postpartum care.

These current findings weren't coincided with findings reported by *(Jaber and abas, 2011)* who indicated that there was no significant difference in practice between nurses with their general characteristics (age, years of experience) but there was a highly significant difference with nurses' practical skills and different qualifications only.

The findings of present study had pointed out our attention toward the importance of implementing in-service training in enhancing studied sample knowledge and practice among women undergoing cesarean section.

Conclusion:

The present study finding concluded as the following:

There were more than two third of study sample had incorrect knowledge related to cesarean section and slightly more than half of them had incorrect practice.

Recommendations

The finding of this study projected the following recommendations:
- Periodic refreshing courses for nurses regarding caesarean section care.
- Dissemination of the present study research findings to all maternity health services all over Cairo.
- In-service training program should be done periodically for nurses regarding caesarean section.

References:

Aschalew, Z. (2016): Knowledge, attitude and practice of postnatal mothers care at governmental health centers. Addis Ababa, Ethiopia, Master Thesis; 34.

Abd Elfattah, N. and Zein El-Dein, N. (2012): Assessment of quality of nursing care provided immediately after birth at university hospital. Life Science Journal; 9(4): 2115-124.

Betrán, A.P., Torloni, M.R., Zhang, J.J., Gülmezoglu, A.M. (2016): WHO statement on caesarean section rates. BJOG; 123: 667–70.

Bandidpanicha, P., Ponsane, N., Luangkwan, S. (2017): The development of nursing care system for prevention postpartum hemorrhage. Med J Sisaket Surin Buriram Hosp; 32(2):131-44.

Belal, G., Gaheen, M., Mohamed, F. (2016): The educational needs among obstetrical and gynecological nurses in El-Gharbia Governorate *Journal of Nursing Education and Practice;* ISSN 1925-4040 E-ISSN 1925-4059 Received: October 5, 2016, Accepted: November 29, 2016 Online Published: December 21, 2015, DOI: 10.5430/ jnep. v6n4p84 URL:http://dx.doi.org/ 10.5430/jnep.v6n4p84.

Edwards, Z. and McColgan, K. (2011): Elective Caesarean Section: A Case Study. Journal of Perioperative Practice, 21, 60-63.

Gurol-Urganci, I., Bou-Antoun, S., Lim, C.P., Cromwell, D.A., Mahmood, T.A., Templeton, A., van der Meulen, J.H. (2013): "Impact of Caesarean section on subsequent fertility: a systematic review and meta-analysis ."Human Reproduction. 28(7): 1943-1952.

Hashem, S. (2012): Assessing the quality of immediate postpartum nursing care provided to mothers after cesarean section in Tanta city. Master thesis; 99-106.

Hassan, M., El-Seman, A., Taha, N., Mohammed, N. (2016): Re-Audit of

immediate normal postpartum nursing care at woman's health university hospital. Assiut, Egypt. Journal of Nursing and Health Science,; 5(1): 52-65.

Elbnedari. H, A. (2021): Gynecological examination educational guideline for maternity nurses and its reflection on women satisfactions Port Said Scientific Journal of Nursing; 8: 2.

Ibrahim, H. and Abdel-Menim, S. (2016): Improving maternity nurses' performance regarding prevention and control of postpartum hemorrhage. International Journal of Novel Research in Health Care and Nursing; 3(3):101-15.

Jaber, A. and Abbas, M. (2011): Assessment of licensed indigenous midwives' knowledge concerning prevention and management of postpartum hemorrhage in Baghdad city. Iraqi National Journal of Nursing Specialties; 24(2):1-12.

Kaur, N., Kaur, S., Saha, P.K. (2014): Skill development of nurses in managing the fourth stage of labor. Nursing and Midwifery Research Journal; 10 (1): 16-25.

Mohamed H., Enggar N., Lamadah S. (2012): Mothers perspective regarding the quality of postpartum nursing care in Ain Shams Maternity Hospital-Cairo, Egypt Journal of American Science; 8 (2).

Molina, G., Weiser, T.G., Lipsitz, S.R., Esquivel, M.M., Uribe-Leitz, T., Azad, T., Shah, N., Semrau, K., Berry, W.R., Gawande, A.A., Haynes, A.B. (2015): "Relationship Between Cesarean Delivery Rate and Maternal and Neonatal Mortality. JAMA. 341(21): 2263-70.

Moustafa M., Mohamed S., Tosson M. (2013): Ideal nursing care relationship between Assiut University Hospital and King Fahd Gizan Hospital among post cesarean section care, AAMJ, Vol. 11, N. 2, April, 2013.

Ricci, S., Kyle, T. and Carman, S. (2017): Maternity and pediatric nursing.3rd ed., New York, Wolters and Kluwer Com; 524-557.

Sandall, J., Tribe, R.M., Avery, L., et al. (2018): Short-term and long-term effects of caesarean section on the health of women and children. Lancet; 392: 1349–57.

Say, L., Chou, D., Gemmill, A., et al. (2014): Global causes of maternal death: a WHO systematic analysis. Lancet Global Health; 2(6):e323-333.

Simbar, M., Dibazari, Z.A., Saeidi, J.A., Majd, H.A. (2017): Assessment of quality of care in postpartum wards of Shaheed Beheshti medical science university hospitals International Journal of Health Care; 18(5):336-39.

Shinde, S. (2015): Knowledge staff nurses in immediate care of newborn baby and their implications. Ethiopia, Bulletin Pharmaceutical Research; 5(3): 108-11.

Yeniel, A.O. and Petri, E. (2014): Pregnancy, childbirth, and sexual function: perceptions and facts. International Urogynecology Journal; 1:25.