Original Article

Knowledge of Nurses regarding Post Cesarean Section care
In Kassala Saudi Specialized Hospital, Sudan2021

Sara Salih Mohammed Salih[1] Abdel Alziem Abd Allah Mohammed Ali[2], Hanadi Mohammed Elhassen Mokhtar[3]

1. Faculty of Medicine and Health Sciences , University of Kassala, Sudan
2. Consultant Obstetrician and Gynecologist Faculty of Medicine and Health Sciences, University of Kassala, Sudan.
3. Assistant Professor in Child Health and Pediatric Nursing ,Faculty of Nursing Science, AL Neelain University

Correspondent author: Sara Salih Mohammed Salih Faculty of Medicine and Health Sciences, University of Kassala, Sudan. *Emai*l: saraomosama@yahoo.com *phone* 0123387860

Abstract

Introduction:- Post-cesarean section nursing care is an important measure to reduce the maternal mortality and morbidity rate and to a give good obstetric outcome.

Methods: This was descriptive hospital based study conducted at Kassala Saudi Specialized Hospital from January2016 to September2016. 43 nurses were enrolled in the study (total coverage) .The data was collected through a structured questionnaire. The data was analyzed using SPSS version 23.

Results: Most of the participants did not expose to training 84%. There was variation in knowledge concerning the different issues related to cesarean section and cesarean section complications,34.9%had poor knowledge regarding types of anaethesia,53.5% had a good knowledge regarding benefits from assessment of uterine involution also 67.4%had a good knowledge about sign ,symptoms of deep venous thrombosis and 79.1% of participant had a poor knowledge regarding advices that should be provided for mother before discharge

Recommendation: The findings of this paper suggest that continuing educational programs about nurse's knowledge regarding post cesarean section care should be established to improved nurse's quality and profession.

Conclusion: nurses have good knowledge regarding post-operative cesarean section care

Keywords: postpartum care, Nurses, Knowledge, post cesarean section

Introduction

Cesarean delivery is a major obstetrical surgical procedure aiming to save the lives of mothers and fetuses. The incidence of cesarean deliveries, both repeat and primary , has risen dramatically over the last few decades with the most common complications that result from cesarean section are postpartum hemorrhage, wound infection , Increase in morbidity and mortality compared vaginal delivery [1,2] .

Women in developing countries are 300 times more likely to die due to childbirth in comparison with those in developed countries [3.] Improving the woman's health and care is

one of the Millennium Development Goals of the United Nations [1.2]

Similar assumption can explain the situation in eastern Sudan which is characterized by high maternal mortality and morbidity, because there is non-availability of anesthetists and obstetricians or even other skilled person in remote and rural area [4].

There is a high maternal mortality and morbidities in the developing countries. More than half a million women die annually as a result of pregnancy and childbirth, the vast majority of these deaths are in the developing countries[5]

Postpartum care of the mother is one of the important roles of nurses and it represents as it monitoring of the mother to detect early signs of complications and provide safe and relevant nursing care . The nurse also is responsible for health care activities in addition to patient safety [6]

After a cesarean birth, the mother is in need of special care because she has undergone major abdominal surgery . Use of a systematic assessment process helps the nurse ensure that the special needs of postpartum patients are met . As with all nursing care , a complete head-to-toe assessment must be completed for the postpartum patient who has unique needs not found in any other nursing environment[7] .

. The Surgical site infection following cesarean section causes physical, psychological and financial burden to the lady, her family and community [8].

further risk assessed ,consider the factors which may indicate that a patient is likely to develop a deep vein thrombosis ,if at least one of these factors is present, the patient may require an anticoagulant medicine such as heparin ,but only if they are not at risk of bleeding [9].

It is critically important to conduct a Venous thromboembolism assessment prior to surgery.The current national guidelines from the Department of Health, the Royal College of Obstetricians and Gynaecologists, Routinely assess all patients for their level of mobility on admission to hospital, all surgical patients, and all medical patients with significantly reduced mobility, should be considered to be potentially at risk of developing Venous thromboembolism, and should be regularly monitored [9].

An online nursing procedures module was developed to provide ready access to training.

Different reports from India showed slow progress to with, in achieving the desired improvement in maternal health. This is because there was inadequate training of the junior staff to provide comprehensive emergency obstetric care, delays in the supply of the equipment and whenever the equipment was provided , it remained unused due to lack of training, motivation and maintenance[6]

The study describes the current situation and the role of nurse in the study area. This information will be useful in designed system which will contribute in making guide line in post-cesarean section nursing care in hospitals [10].

Methods

Study design:-This was a descriptive hospital-based study conducted to evaluate the nurses knowledge regarding post cesarean section care.

Study setting: - Kassala Saudi Specialized Hospital from January 2016 to September 2016. The hospital receives the cases from rural hospitals and all health centers at Kassala state, rate 200 -250 patient/day, A convenient sample size of 43 nurses was selected to act as a source for the data.

The population of this study include all nurses and nurses midwives working in Kassala town hospitals during the three shift of the study period..

Tools of the data collection

Data was collected via structured questionnaire for nurse's knowledge it includes three sections: Section one concerned with demographic data , section two deal with questions about knowledge of cesarean section, section three, structured questions designed to obtain nurses knowledge

Data collection:-A pilot study was carried before implementing the tools on semi area (nurses and nurses in New-Halfa teaching hospital. To test applicability of the tools of data collection, and to estimate the time required for filling the required forms.

1. Data was collected by the questionnaire that was distributed to participant and each one of them is allowed sufficient time to fill it, which was fulfilled by researcher herself and assisted by trained colleagues, the participant filled the questionnaire in front of the researcher, the analysis of data was done by computer using Statistical Package for Social Science (SPSS) software version 23 and the results were expressed in tables, correlation between some variable of the study was T test was used for quantitative variables for research questions.

, the level of significance selected for this study was P value equal to or less than **0.05** was considered statistically significant

Ethical approval:-An Approval taken from Faculty of Nursing Science – Al Neelain University ,Ethical permission from ministry of health – Kassala state and Kassala Saudi Specialized Hospital.

Inform written consent from participant in the study, the aim of the study was explained to the Participant and informed that all the collected information will be confidential and will be used only for the purpose of the study.

Results

Table 1: **Demographic characteristic of participants**

Age		
Years	Frequency	Percentage
20-30	11	25.3%
31-40	13	30.2%
41-50	15	34.9%
51-70	4	9.3%
Total 43 43 100%		
Qualification		
Nursing school	8	18.6%
Diploma in nursing	12	27.9%
Diploma in nursing and midwifery	23	53.5%
		Total 43 100%
Experience in postnatal word		
less than one year	5	11.6%
1-3 years	8	18,6%
4-6 years	3	7%
More than 6 years	27	62%
Pervious training course regarding post cesarean section care		
Yes	5	11.6%
No	38	88.4%

Table 2: Knowledge of the participants about cesarean section

	Level of Knowledge		
	Good	Fair	Poor
Benefits from assessment of uterine involution	53.5%	30.2%	16.3%
Assessment of lochia	46.5%	23.3%	30.2%
Common complications of cesarean section	60.5%	16.3%	23.3%
Preventive measurement from wound infection	83.7%	9.3%	7%
Preventive measure to DVT	39.5%	41.9%	18.6%
Advices should be provided for mother before discharge	14%	7%	79.1%

Table 3: Knowledge of participant about post cesarean section care

Item Knowledge	Level of knowledge		
	good	fair	poor
Definition of C/S	25.6%	46.5%	27.6 %
Indication of scheduled C/S	55.8%	25.6%	18.6%
Indication of emergencyc/s	69.8%	18.6%	11.6%
Type of anaethesis	14%	51.2%	34.9%

Table (4): knowledge of the participants' about post cesarean section care in relation to years of experience: (n=43).

Items Knowledge	Level of knowledge	Experience in postnatal ward				P.V
		Less than on year	*1 – 3 year*	*4 – 6 year*	*More than 6 years*	
Uterine assessment	knowledgeable	11,6 %	14%	2,3%	53,5%	,103
	unknowledgeable	0 %	4,1%	4,7%	9,3%	
Prevention from wound infection	knowledgeable	9 ,3%	18,6 %	2,3%	58,1 %	,013
	unknowledgeable	2,3 %	0 %	4,7 %	4,9%	
Factors can decrease the puerperal infection	knowledgeable	2 ,3%	11,6 %	2,3 %	39,5%	,270
	unknowledgeable	9,3 %	7%	4,7%	23,3 %	
Nursing care that should be provide in postnatal ward	knowledgeable	7 %	9,4 %	2,3%	44,2 %	,502
	unknowledgeable	4,7%	9,3%	4,7 %	18,6 %	
Preventive measure from Deep veinous thrombosis	knowledgeable	9,3 %	18,6%	4,7%	51,2 %	,504
	unknowledgeable	2 ,3%	0 %	2,3%	11,6 %	
Advices that provided for mother before discharge	knowledgeable	2,3 %	9,3%	2 ,3%	16,3%	,576
	unknowledgeable	9,3%	9,3%	4,7%	46,5%	

Discussion

This study was show 62.8%of the participant had experience in postnatal word more than 6 years. Most of them 88.4%have not attended any training course before despite the fact that providing training courses for medical staff are very useful and effective for the improvement of knowledge regarding prevention from infection (15), sufficient staffing and their education, together with access to adequate and appropriate supplies play a corner stone in patient care. (16).

The study clarified that there was good knowledge regarding definition of cesarean section (25.6%) , indication of emergency cesarean section (69.8%)and poor knowledge about type of anesthesia that used was poor (34.9%).

The study was found revealed the participant had a good knowledge (53.5%) about benefits of assessment of uterine involution and (46.5%) had a good knowledge about lochia color ,amount and duration assist the nurse to differentiate between normal lochia and postpartum hemorrhage (8) .

Our study show that the participant had a good knowledge regarding common complication of cesarean section (60.5%) , (41,9%) of the participant had a fair knowledge about preventive measures of Deep venous thrombosis , which can decrease the mortality and morbidity rate (17).

The study was show that the participant had a good knowledge about Preventive measurement from wound infection83.7%this knowledge can assist the nurse to good assessment during dressing and help to early identification of wound infection and provide good care which can decrease the mortality rate[15] , The rate of hospital acquired infections

is affected by administrative and financial factor where support was limited and that is inevitably results in limited funds and resource available to deal with training program. There are insufficient supplies wards(trays for dressing and other nursing skills , surgical gloves, safety box in ward and the patient bed , the sinks are not available in ward just available nursing office , over-crowded ward and there is a lower nurse-to-patient ratio compared to international hospitals[12]

The study show that the nurses have a poor knowledge about advice that must be given for mother before discharge (79.1%) . This advice increase the awareness of the mother regarding post-partum care about herself to prevent from post- partum complication that can lead to decrease the incidence of maternal mortality and morbidity rate . . In my opinion this percentage indicates that may increase in post-partum complications due to lack of scientific of mother information regarding postpartum care.

Sufficient staffing and their education, together with access to adequate and appropriate supplies play a corner stone in reducing hospital acquired infection. (11).

In relation our study showed that there was no relation in the knowledge of the participants' about post cesarean section care versus years of experience.

This is an indication to hospital administrator to establish continuous professional development activities for nurses to improve their knowledge and quality of care (10).

Acknowledgment

References

1. Alan H. DeCherney Lauren Nathan ,Ashley S RomanNeri Laufer (20018) Current Diagnosis & Treatment Obstetrics & Gynecology , MC grow company , USA, page 1120..

2. Diaa M. EI-Mowafi, (2002)Obstetrics Simplified USA page 14

3. Ali AA, Khojali A, Okud A, Adam GK, Adam I (2011) Maternal-near miss in rural hospital in Sudan. BMC Pregnancy Childbirth 11: 48

4. Ali AA, Adam I (2011) Lack of antenatal care, education and high maternal mortality in Kassala hospital, eastern Sudan during 2005-2009. J Matern Fetal Neonatal Med 24: 1077-1078.].

5. Samantha (2008) Obstetrics and Gynecology, 6th EditionLippincott Williams & Wilkins USA page 450

6. Patricia A. Wieland Ladewig, Marcia L.,Michele R. Davidson,- Contemporary Maternal–Newborn Nursing Caren 2014 USA page 672

7. EugeneJKongnyuy ,Grace Malva , Nynke van denBroek woman halth essue naegeria – Malawi Jan-Feb 2009;19(1):14-20

8. Effectiveness of training programme on nurses, knowledge and practices regarding partogram - Banha February 2020. Project ,maternal and new born health ,Asmaa Mansour2008-2020 ResearchGate GmbH. All rights reserved.

9. (http://scholarsresearchlibrary.com/archive.html)28- India RMedico-legal Update, July-September 2020, Vol.20, No. 3 hospital previous study.

10. AAA Ali , A Okud ,A Khojali , I Adam high incidence in of obstetric complications in Kassala Hospital ,Eastern Sudan ,Journal of obstetric and gynecology 32(2) 148-149 ,2012

11. Susan L. and Shelton M. Hisley (2009) Maternal-Child Nursing Care by F. A. Davis Company .USA page 471-50.

12. Pittet D, Allegranzi B, Storr J, Bagheri Nejad S, Dziekan G, Leotsakos A, Donaldson L.Infection control as a major World Health Organization priority for developing countries. J Hosp Infect. 2008 Apr;68(4):285-92.

13. Lindsay E Nicolle. Catheter associated urinary tract infections. Antimicrob Resist Infect Control. 2014; 3: 23.

14. https://www.researchgate.net/publication /262764879, Maternal Health Care in Developing Countries Abdel Aziem A. Ali*Department of Obstetrics and Gynecology, Kassala University, Sudan

15. EugeneJ Kongnyuy ,Grace Malva , Nynke van denBroek woman halth essue naegeria – Malawi Jan-Feb 2009;19(1):14-20

16. Lindsay E Nicolle. Catheter associated urinary tract infections. Antimicrobial Resist Infect Control. 2014; 3: 23.

17. The Royal College of Obstetricians and Gynaecologist- Department of health

18. shaymaa Kadhim Jasim , 2017,post-cesarean section, international journal of science ,volume 6 issue 7 , Do1:10.21275 - page 1864 -186

19. Asmaa Mansour 2020, Effectiveness of training programme on nurses, knowledge and practices regarding partogram - Banha February 2020. Project ,maternal and new born health , Research Gate GmbH. All rights reserved.