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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Identification of Common High Risk Obstetric Emergencies and its Management Among Staff Nurses of C.H.C. and P.H.C. at Surajpur District

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***Abstract*: Motherhood is a natural phenomenon, but safe motherhood is fraught with many complications related to pregnancy and childbirth. A "high-risk pregnancy" (HRP) is one in which the maternal environment and past or present reproductive performance contribute to a significant risk to fetal wellbeing such as premature birth, small for date infant, full-term with still births or early neonatal deaths. Identification of women at risk for these complicated pregnancies is fundamental to antenatal care. The objectives of the study were to assess the knowledge and effectiveness of structured teaching programme regarding identification of common high risk obstetric emergencies and its management. An experimental one group pre-test post- test research design was used to conduct a study on 60 staff nurses of C.H.C and P.H.C at Surajpur district, Chhattisgarh. In this study non-probability purposive sampling technique was used. Data were collected using a structured knowledge questionnaire. The demographic variables analyzed in the study were age, gender, marital status, religion, educational status, designation, work experience, area of experience, previous information and source of information. Data obtained were tabulated and analyzed in terms of objectives of the study using descriptive and inferential statistics. The result of the study revealed that 60(100%) had excellent knowledge. The overall mean pre test knowledge score was 50.93 with SD 11.87 and in post test, mean score was 82.45 with SD 1.87. There was a significant difference between the pre test and post test knowledge scores of the staff nurses after the structured teaching programme. There was a significant increase in post test knowledge scores at $p<0.05$ level and calculated paired 't' value was 20.01. There was no association between the knowledge and age, sex, marital status, religion, designation, previous knowledge and source of information and association between the knowledge and educational status, work experience and area of experience of staff nurses. The study concluded that educating the staff nurses would be effective in updating the knowledge regarding identification and management of common high risk obstetric emergencies.**

***Keywords*: Effectiveness, knowledge, obstetric emergencies, structured teaching programme, staff nurses.**

1. Introduction

All pregnancies and deliveries are potentially at risk. However, there are certain categories of pregnancies where the mother, the fetus or the neonate is in a state of increased jeopardy. About 20-30% pregnancies belong to this category. To improve obstetric results, this group must be identified and given extra care. Even with adequate

antenatal and intranatal care, this small group is responsible for 70-80% of perinatal mortality and morbidity. In high-income countries, most pregnancies have good outcomes. Obstetric emergencies like eclampsia, severe postpartum haemorrhage, shoulder dystocia and umbilical cord prolapsed, anemia, CPD are fortunately rare obstetric events. These potentially life-threatening emergencies often occur unexpectedly and require immediate action by healthcare professionals and may entail tragic consequences such as death or serious morbidity in women and/or newborns. (National Health Portal 2019 October)

According to WHO in 2005 World Health Report 'Make Every Mother and Child Count,' the major causes of maternal deaths are severe bleeding/hemorrhage (25%), infections (13%), unsafe abortions (13%), eclampsia (12%), obstructed labour (8%), other direct causes (8%) and indirect causes (20%).

The most common obstetric emergencies are prolonged or obstructed labour, postpartum haemorrhage, fetal distress, severe anemia, pregnancy-induced hypertension/ eclampsia and antepartum haemorrhage. Obstetric emergencies are responsible for 70.6% of the maternal mortality and 86% of the perinatal mortality within the period. Maternal and perinatal mortality due to obstetric emergencies can be reduced through the utilization of antenatal care services, making budget for pregnancies and childbirth at family level, adequate funding of social welfare services to assist indigent patients, liberal blood

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donation and regular training of doctors and nurses.

2. Objectives

1) To assess pre test knowledge regarding identification of common high risk obstetric emergencies and its management among staff nurses of C.H.C and P.H.C at Surajpur District.
2) To assess post test knowledge regarding identification of common high risk obstetric emergencies and its management among staff nurses of C.H.C and P.H.C at Surajpur District.
3) To assess effectiveness of structured teaching programme regarding identification and management of common high risk obstetric emergencies among staff nurses of C.H.C and P.H.C at Surajpur District.
4) To find out the association between pre test knowledge score regarding identification of common high risk obstetric emergencies and its management with selected Socio Demographic Variables.

3. Hypothesis

H_0–There is no significant difference between pre-test and post-test knowledge scores regarding the identification of common high risk obstetric emergencies and its management among staff nurse of C.H.C and P.H.C at Surajpur District.

H_1–There is significant difference between pre-test and post-test knowledge scores regarding the identification of common high risk obstetric emergencies and its management among staff nurse of C.H.C and P.H.C at Surajpur District.

H_2–There is significant effectiveness of structured teaching programme regarding the identification of common high risk obstetric emergencies and its management among staff nurses of C.H.C and P.H.C at Surajpur District.

H_3–There is significant association between pretest knowledge scores regarding identification of common high risk obstetric emergencies and its management with selected Socio Demographic Variables of selected staff nurse of C.H.C. and P.H.C at Surajpur District.

4. Material and Methods

The present study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding identification of common high risk obstetric emergencies and its management among 60 staff nurses of C.H.C & P.H.C at Surajpur District, Chhattisgarh by using one group pre test post test experimental design with an evaluative approach. Nonprobability purposive sampling technique was used to select the subjects. Structured knowledge questionnaire was used to collect the data. The tool used in the study consists of two parts: Information on demographic variables of the respondents containing 10 items and Structured knowledge questionnaire of 88 items related to obstetric emergencies such as cephalopelvic disproportion: 17(19.31%), pregnancy induced hypertension: 32(36.36%), anemia :19(21.59) and postpartum haemorrhage: 20(22.72%)

For the 88 items related to identification & management of selected obstetric emergencies, each correct answer was awarded with a score of '1' and a score of '0' was awarded for the wrong answer. The data obtained was analyzed in terms of descriptive and inferential statistics

5. Results & Discussion

Results of the study reveal that majority of staff nurses 60 (100%) gained excellent knowledge after structured teaching programme, thus it is effective in terms of gain knowledge regarding identification of common high risk obstetric emergencies and it's management.

Findings related to socio- demographic variables of staff nurses:

The results of the study showed that maximum, 35(55.3%) of the staff nurses were in the age group of 25-30 years; most of the staff nurses 58(96.7%) were female; majority of 35(58.3%) were unmarried; mostly 48(80%) were Hindu; majority staff nurses 48(80%) were B.Sc. Nurse; most 60(100%) were staff nurse; maximum staff nurses 29(48.3%) were 0-2 years work experience; majority staff nurses 59(98.3%) were PNC, ANC, IPD/OPD, Labor ward all the area of experience; all the staff nurses 60(100%) were having previous information; and maximum staff nurses 43(71.7%) were source of information is training programme.

Findings related to the pre test & post test knowledge score levels of the staff nurses:

Table 1
Frequency and percentage distribution of knowledge scores of the staff nurses regarding identification & management of common high risk obstetric emergencies, (CPD, PIH, Anemia, PPH)

S.No.	Knowledge score	Pre- test		Post test	
		f	%	f	%
1.	Excellent	6	10	60	100
2.	Good	38	68.3	0	0
3.	Average	16	26.7	0	0

Table 1 revealed that in pre-test majority of the subjects 38(68.3%) had good knowledge, 16(26.3%) had average knowledge and 6(10%) had excellent knowledge. In post test majority 60(100%) of them had excellent knowledge.

Fig. 1. Percentage distribution of pretest and posttest knowledge scores of subjects regarding identification & management of common high risk obstetric emergencies among staff nurses

The present study was consistent with the study was conducted by Jayanthi among 120 staff nurses working in Govt. Hospital Women and children, Egmore, Chennai to assess the effectiveness of structured teaching programme on Antepartum

Hemorrhage Results showed that in post-test 80% the respondents had adequate knowledge and 20% of respondents had moderate knowledge. The findings are supported by a study conducted by Pushpamala and Siah among 60 B.Sc. nursing 3rd year nursing students in selected colleges at Tamil Nadu to assess the effectiveness of video assisted teaching program regarding management of selected obstetric emergencies; Results showed that in post-test majority (80%) of the study subjects had good knowledge, 20% of the study subjects had average knowledge and none of the study subjects had poor knowledge.

Findings related to effectiveness of Structured teaching programme in terms of gain in knowledge:

The post test mean value of knowledge was 82.45with SD of 1.87which was higher than the pretest mean value of knowledge 50.93 with SD of 11.87. The mean difference between pre test and post test knowledge was 31.52 and the obtained 't' value was 20.05 which was calculated at 0.05 level of significance. The calculated 't' value was more than the table value (df – 59, 2.0), which was significant at 0.05 level. Hence, the structured teaching programme was found to be effective in improving the knowledge regarding identification & management of common high risk Obstetric emergencies.

Table 2 revealed that the calculated paired 't' test value (20.01) was higher than the tabulated 't' value (2.0) at 0.05 significance level. The result of the study was consistent to the pre-experimental study Conducted by Danasu R among 30 staff nurses at Sri Manakula Vinayagar Medical College and Hospital. The study findings revealed that out of 30 staff nurses, the mean pre-test score was 42.60 and the post-test mean score was 88.23. The study findings concluded that the training programme on management of selected obstetrical emergencies was effective in improving knowledge among staff nurses. And also supported by the pre-experimental study conducted by Crofts JF among 140 medical graduate's sin Bristol Medical Simulation Centre, England to assess the effectiveness of obstetric emergency training programme. The result of the study showed significant difference between pre-test and posttest. Post-test knowledge score was 23.1 as compared to pre-test score, which was 18.1 ($p<0.001$).

Findings related to the association between the pre test knowledge scores and selected demographic variables:

The association between the pre test knowledge regarding identification of common high risk obstetric emergencies and its management among selected Socio Demographic Variables such as Age (in year), Gender, Marital status, Religion, Educational status, Designation , Work experience, Area of experience, Previous information, Source of information .The association between them was analysed by chi square test.

The obtained chi-square value for all the selected demographic variables such as age of staff nurses $X^2 = 3.76$,df = 9 (CV= 16.92) at $p<0.05$, gender $X^2 = 0.74$, df =3(CV=7.82) at $p<0.05$, marital status $X^2 = 5.82$,df = 9 (CV = 16.92) at<0.05, Religion $X^2 = 2.18$, df = 6 (CV = 12.59) at $p<0.05$ Designation $X^2 = 0$, df =3(CV= 7.82) at $p<0.05$, Previous information $X^2 = 0$, df=3 (CV= 7.82) at $p<0.05$ Source of information $X^2 = 4.45$,df =9 (CV=16.92) at $p< 0.05$ shows there is no significant association between pre test score and demographic variables. In the present study, it was found that there is no significant association between pre-test knowledge level and selected demographic variables like gender and any previous exposure and the findings are supported by a study conducted by Heikham R among the 50 Final Year GNM Students of Selected School of Nursing Belgaum, Karnataka on effectiveness of Planned Teaching Programme (PTP) on Knowledge Regarding Management of Selected Obstetric Emergencies. Findings related to the association between the pre-test knowledge scores of Final year GNM students and selected demographic variables revealed that there was no association between the knowledge level and gender of the Final year GNM students.

And there was significant association between the level of pre test and Educational status $X^2 = 17.9$, df =6 (CV=12.59) at $p<0.05$, Work experience $X^2 = 25.24$, df = 6 (CV=12.59) at $p<0.05$, Area of experience $X^2 = 33.56$,df =9 (CV=16.92) at $p<0.05$ level of highly significant.. The findings are supported by a study conducted by Bhavna Verma (2022) among 60 staff nurses in selected hospitals of Simla District, Himachal Pradesh. Findings revealed that there was association between the knowledge level and sociodemographic variables of work experience of the staff nurses.

6. Implications

The findings of the study have implications for nursing education, nursing research, nursing practice and nursing administration.

In Nursing education - Students should be provided with an opportunity to plan and develop structured teaching programme on high-risk obstetric emergencies and educate the midwifes in hospitals and community settings mainly emphasizing on risk factors of high-risk obstetric emergencies. Students should be given opportunity to attend workshop or conference regarding high-risk obstetrics emergencies, so that they can improve their skills. Students should be provided clinical teaching or bed side teaching with patient so that they learn more by experience. Demonstrate the students to assess the high-risk case like CPD by using abdominal method and abdomino vaginal method, how to assess anemia by testing Hb%, how to check progress of labor by using partograph to manage the case at the time.

Nursing practice - The study implies the importance of structured teaching programme on identification of common high risk obstetric emergencies and its management to the staff nurses specially those who are working in labour room thus reducing complications of high risk obstetric cases. A community nurse has very important role to play in the

Table 2
paired 't'-test to evaluate effectiveness of structured teaching programme

Level of assessment	Mean	Mean %	SD	DF	't'-value	CV	Inference
Pre test	50.93	57.8	11.87	59	t = 20.01, p<0.05	2	significant
Post test	82.45	93.69	1.87				

preventive and rehabilitative aspects. She can conduct home visit and educate them regarding high-risk obstetric emergencies by this way early identification of high risk and prompt treatment can be done. Arrange the clinical teaching programme for the periphery nurses weekly, so they can clarify their doubts. Nurses can provide health education about high risk obstetric emergencies to the ANC mothers and encourage them for proper ANC visit and checkup. Nurses can train the ASHA as well as MITANIN about high risk obstetric emergencies so they can encourage the pregnant women for ANC checkup, which helps to early identification of high risk cases, timely referral and proper management on time. Thus reduces the perinatal morbidity and mortality.

Nursing Research - Further research and studies must be done to provide accurate information regarding high-risk obstetrics emergencies. Evidence based practice for rendering quality care for the pregnant women with high risk. A comparative study can be done to assess the knowledge on identification of common high risk obstetric emergencies and its management among staff nurses of district hospital and peripheral hospitals. An experimental study to assess effectiveness of video assisted teaching programme on knowledge and practice regarding identification and management of common high risk obstetric emergencies among midwifes working in periphery hospitals.

Nursing Administration - Designing and implementing, programs for high-risk obstetric emergencies to bring changes in awakening pregnancy health problems. A periodic supervision and evaluation of the programmes by the nursing administrator. Maintaining record and report of each individual of antenatal mothers with high-risk pregnancy in hospital. Designing and coordinating the complimentary therapy like exercise and yoga with multidisciplinary team in hospital. The findings of the study can be used to prepare written protocols with regard to care of pregnant women to prevent high risk emergencies and screen out to manage effectively.

7. Conclusion

Based on the findings of the study it can be concluded that structured teaching programme was effective in improving the level of knowledge of the staff nurses working in periphery health center (C.H.C &P.H.C). It is recommended that though there was improvement in the knowledge of staff nurses, more training programmes, in service education on obstetrical emergencies, specifically on cephalopelvic disproportion would be beneficial for the nurses as the mean knowledge score in the present study was the lowest in pretest as well as posttest.

References

[1] Adele. Pillitteri. (2007), Maternal and Child Health Nursing'. Lippincott Williams and Wilkins, 5th ed, 426-432.

[2] Anand E. Padubidri. V. (2007) Textbook of Obstetrics'. BI Publications. New Delhi, 1st ed, 179-188.

[3] Basvanthapa. B.T. (2003), Nursing Research'. Jaypee Brothers. New Delhi, 1st ed, 126, 132,215-216.

[4] Benett and Brown. (2001), 'Myles 'Text book for Midwives' Philadelphia: Churchill Livingstone, 13th ed, 129-130.

[5] Black J.M (1997), 'Clinical management for continuity of care' W.B. Saunders. Elsevier, 2nd ed, 215-218.

[6] Blair K.K, Hayes S.J, Barbara K. (2006), Professional Nursing Practice' New Jersy: Prentice Hall, 5th ed, 124-126.

[7] Blackburn. Susan. T, (2003), Maternal and fetal and neonatal physiology' Saunders. Elsevier, 2nd ed, 215-218.

[8] Burn N, grooves. (1987), 'The practice of Nursing Research', Philadelphia W.B Saunders, 5th ed, 146.

[9] Carmines, E.G and Zeller, R.A (1996), Reliability and Validity Assessment' Sage Publications,1st ed, 134-135.

[10] Chakravarti. Daftar, (2005), 'Manual of Obstetrics' New Delhi; Elsevier's; 2nd ed, 100-110.

[11] Cuningham Gary. F, (2005) Williams Obstetrics' New Delhi: Mc Graw Hill, 22nd ed, 173-179.

[12] Dutta D.C, (2002), 'Text book of Obstetrics' Calcutta: New Central, 4th ed, 235- 240.

[13] 13. Daftary. N. Shirish, (2006), 'Clinical cases in Obstetrics' Haryana: Elsevier; 1st ed, 42-48.

[14] Dawn.C.S. (2004), 'Neonatology and Reproductive and Child Health Education, Calcutta: Dawn books, 16th ed, 138-149.

[15] Drake. Patricia. J, (2007), 'Maternal and Newborn Health'. Jones and Barlett, 1st ed, 287-289.

[16] Fawcett. J. and Downs, F. (1992) 'The relationship of theory and research' Philadelphia: F.A. Davis company, 2nd ed; 106-157.

[17] Fowler, J.K (1984), 'Survey Research Methods: Applied Social Science Research Method Series' (Vol-1); New Delhi; Sage Publications, 3rd ed, 88 - 95.

[18] Fowler, W.H (1983), Introductory Maternity and Paediatric Nursing' Lippincott Williams and Wilkins 1st ed, New Delhi; Sage Publications, 3rd ed, 88-95.

[19] Hatfield. N, Klossner. N.J. (2006), 'Introductory Maternity and Pediatrics Nursing' Lippincott Williams and Wilkins, 1st ed, 420-428.

[20] Indrani. T.K (2003), 'Text book of Midwifery' New delhi: Jaypee Brothers, 1st ed, 122-134.

[21] Jacob. Annamma. (2005), 'A Comprehensive Textbook of Midwifery' Haryana: Jaypee Brothers, 1st ed, 295-305.

[22] Kerlinger N.F. (1973), 'Function of Behavior Research in Nursing' New York: Halt International, 146-148.

[23] Klossner. Jayne. N. (2006), 'Introductory Maternity Nursing' Lippincott Williams and Wilkins, 1st ed, 413-418.

[24] Litleton. Lynaa. Y. (2005), 'Maternity Nursing Care' Thompson Delmar Learning, 1st ed, 356-360.

[25] Lowdermilk. Perry. (2003), 'Study Guide To Maternity Nursing' Mosby, 6th ed, 38-88.

[26] Mahajan. B K. (2006), Methods in Biostastistics' New Delhi: Jaypee Brothers,6th ed, 69-75.

[27] Masten. Yondell. (2001), 'Obstetrics Nursing Outline' New Delhi: Jaypee Brothers, 2nd ed, 69-75.

[28] Menonand Mudaliar. (2001), 'Clinical Obstetrics' Chennai: Orient Longman, 9th ed, 137-138.

[29] Multani. A. (2007), 'Obstetrics and Gynecology' Hyderabad: Paras, 1st ed, 84-94.

[30] Ahmad M Masood I Usman Minhas M. Noman ul Haq N, (2016) A Prevalence Study on Gestational Hypertension and Associated Complications in Pregnant Women,

[31] Andrea Dall'Asta, Giuseppe Rizzo (2021), 480 Intrapartum sonographic features of cephalopelvic disproportion in non-occiput posterior fetuses: prospective multicenter study, AJOG, vol. 224(2).

[32] Anita S. (2018) Knowledge of antenatal women regarding pregnancy induced hypertension, Indian Cont.

[33] Aruaye Afeye Obada, Abubakar Aliyu., (2021) Pregnancy Induced Hypertension in Kabo Local Government Area of Kano State, Nigeria, vol. 39(4), pp. 31458-31466

[34] Asma Nigar, Ausaf Ahmad (2020), Prevalence of anemia in pregnancy at booking: a retrospective study at a tertiary care centre in Lucknow India, 20204815, 9(11), 4585-4589

[35] Asoke Kumar Goswami (2021), Pregnancy induced hypertension and fetal outcome among patients with PIH, vol. 16(4), 676-680.

[36] 7. Assefa Philipos Kare and Amelo Bolka Gujo, (2021), Anemia among Pregnant Women Attending Ante Natal Care Clinic in Adare General Hospital, Southern Ethiopia, SAGE journals.

[37] A. Swapna Kumari (2021), "Assess the Effectiveness of structured teaching programme on obstetric emergencies," International Journal of Creative Research Thoughts, IJCRT.

[38] Babore GO, Aregago TG, Ermolo TL, Nunemo MH, Habebo TT (2021) Determinants of pregnancy-induced hypertension on maternal and foetal

outcomes in Hossana town administration, Hadiya zone, Southern Ethiopia: Unmatched case-control study. PLoS ONE 16(5): e0250548.

[39] Bazirete O, Nzayirambaho M, Umubyeyi A, Karangwa I, Evans M (2022) Risk factors for postpartum haemorrhage in the Northern Province of Rwanda: A control study. PLoS ONE 17(2): e0263731.

[40] Dipali Prasad et al, (2018), Review of obstetrical emergencies and fetal out come in a tertiary care centre.

[41] Heikham GC, Raddi SA (2021) "Effectiveness of PTP on knowledge regarding management of obstetrical emergencies." International Journal of Science and Research.

[42] Nekkanti, Ankita C; Hazra, Darpanarayan; George, Reshma M; Yalamanchili, Sruthi3; Kumari, Pushpalata2; Samuel, Santosh T. M.B.B.S, MD (Obstetrics and Gynaecology); Abhilash, Kundavaram P. P., Pregnancy-related emergencies: Profile and outcome. Journal of Family Medicine and Primary Care 9(9): pp. 4618-4622, September 2020.

[43] Priyanka Chaudhary (2021), "To assess the knowledge of labor room staff nurse regarding obstetric emergency management by the use of planned teaching programme." Wesleyan Journal of Research," Vol. 14, No. 1.

[44] Sinmayee Kumari Devi (2015), "To assess the knowledge of staff nurses regarding obstetric emergencies". International Journal of Education and Research".

[45] Ameh CA, Mdegela M, White S, van den Broek N. The effectiveness of training in emergency obstetric care: a systematic literature review. Health Policy Plan. 2019 May 1;34(4):257-270.

[46] Høgh S, Thellesen L, Bergholt T, Rom AL, Johansen M, Sorensen JL. How often will midwives and obstetricians experience obstetric emergencies or high-risk deliveries: a national cross-sectional study. BMJ Open. 2021 Nov 10;11(11):e050790.