"A Study To Assess The Effect Of Hands On Training On Knowledge And Skill Regarding Screening Of High-Risk Pregnancy Among The Nurses Of Selected Maternity Unit In Urban Area."

Ms. Sunita Jagannath Dhole.

Staff nurse

Abstract

Background:

Maternal Mortality Ratio (MMR) of India for the period 2016-18, as per the latest report of the national Sample Registration system (SRS) data is 113/100,000 live births. Total estimated annual maternal deaths declined from 33800 maternal deaths in 2016 to 26437 deaths in 2018. The Government of India has been focusing on initiatives to improve maternal health indicators. Thus, the screening of high-risk pregnancy is a best strategy to improve knowledge and skill among nurses working in maternity unit to reduce MMR and maternal morbidity. Aim of the study is "A study to assess the effect of hands on training on Knowledge and Skill regarding Screening of High-Risk Pregnancy among the Nurses of selected Maternity unit in urban area."

Materials and Method:

A pre-experimental study method was undertaken where 60 nurses working in selected maternity unit in urban area were recruited as sample by non-probability convenient sampling method. Using knowledge questionnaire for knowledge 25 questions and skill 156 by observation checklist. After collection of data, it analysed using both descriptive and inferential statistics to describe and show the association between the variables

Result:

The 't in the pre-test the mean of the knowledge score obtained by the Nurses was 16.56 and in the post test it rise to 21.30. The knowledge score of the Nurses shows marked improvement after giving Hands on training. It is evident that the calculated 't' value is greater than the table value of 't' (2.05) at 0.05 level. This indicates that Hands on training is effective in improving the knowledge of the Nurses. Hence H0 is rejected and H1 is accepted. There is a significant improvement in scores from pre to post test at 5 % level i.e., p

Conclusion:

The high-risk pregnancy increases the burden of maternal morbidity and mortality, to reduce the MMR early detection and screening of High-Risk Pregnancy is one of the strategies. This study finding highlights that the Hands-on Training improves the knowledge and skill regarding Screening of High-Risk Pregnancy among the nurses. Thus, hands on training regarding high-risk pregnancy is effective method to improve knowledge and skill. The competent nurses by doing the early detection and Screening of High-Risk Pregnancy achieve the Sustainable Developmental Goal MMR

Key word: High-Risk Pregnancy, Nurses, Maternity unit.

Introduction

Women are strong pillars of any vibrant society motherhood is an event of joy and celebration for every family. Women go through many changes during each stage of pregnancy. Many of the pregnancy symptoms they have and the changes they deal with are common to all healthy pregnancies. The stages of embryonic and fetal development also follow a common pattern. Still, pregnancy can be confusing and sometimes mysterious! It is normal to wonder what happens during each stage of the pregnancy. Pregnancy and childbirth are normal events in the life of a woman.

A moment of unimaginable joy is what a mother feels when a new born is placed on her arms – a joy every mother should have the right to experience. But for many pregnant women in India this memory will never come to be, the moment of birth is often frightening. Maternal mortality is considered a key health indicator and the direct causes of maternal deaths are well known and largely preventable and treatable. The major complications that account for nearly two-thirds of all maternal deaths is severe bleeding (mostly bleeding after childbirth), infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), complications from delivery and unsafe abortions.

The Government of India has been focusing on initiatives to improve maternal health indicators. Much progress has been made in ending preventable maternal deaths in the past two decades: Globally the number of women and girls who die each year due to issues related to pregnancy and childbirth has dropped considerably, from 451,000 in 2000 to 295,000 in 2017, a 38 per cent decrease.[1]

Background of the study:

UNICEF (2020) Maternal Mortality Ratio (MMR) of India for the period 2016-18, as per the latest report of the national Sample Registration system (SRS) data is 113/100,000 live births, declining by 17 points, from 130/ 100,000 live births in 2014- 16. mothers saved annually in 2018 as compared to 2016. Total estimated annual maternal deaths declined from 33800 maternal deaths in 2016 to 26437 deaths in 2018. Pregnancy-

related complications are the number one cause of death among girls between 15 and 19 years of age. Because adolescent girls are still growing themselves, they are at greater risk of complications if they become pregnant. All women need access to antenatal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth. All births should be assisted by skilled health professionals, as timely management and treatment can make the difference between life and death for both the mother and the baby. The Government of India has been focusing on initiatives to improve maternal health indicators. Much progress has been made in ending preventable maternal deaths in the past two decades: Globally the number of women and girls who die each year due to issues related to pregnancy and 4 childbirths has dropped considerably, from 451,000 in 2000 to 295,000 in 2017, a 38 per cent decrease. UNICEF works with the Ministry of Health and Family Welfare (MOHFW), Ministry of Women and Child Development (MWCD), NITI Aayog and state governments to support planning, budgeting, policy formulation, capacity building, monitoring, and demand generation. It supports the capacities of health managers and supervisors at district and block-level to plan, implement, monitor, and supervise effective maternal health care services. To achieve the global goal of improving maternal health and to save women's lives we need to do more to reach those who are most at risk, such as women in rural areas, urban slums, poorer households, adolescent mothers, women from minorities and tribal, Scheduled Caste and Scheduled Tribe.

Need of the Study

WHO (2019) Maternal mortality in India is the maternal death of a woman in India during pregnancy or after pregnancy, including post abortion or post-birth periods? Maternal mortality refers to deaths due to complications from pregnancy or childbirth. From 2000 to 2017, the global maternal mortality ratio declined by 38 per cent – from 342 deaths to 211 deaths per 100,000 live births, according to UN inter-agency estimates. This translates into an average annual rate of reduction of 2.9 per cent. While substantive, this is less than half the 6.4 per cent annual rate needed to achieve the Sustainable Development global goal of 70 maternal deaths per 100,000 live births. There has been significant progress since 2000. Between 2000 and 2017, South Asia achieved the greatest overall percentage reduction in MMR, with a reduction of 59 per cent (from 395 to 163 maternal deaths per 100,000 live births). Sub-Saharan Africa achieved a substantial reduction of 39 per cent of maternal mortality during this period.

Aim of The Study

"A study to assess the effect of hands on training on Knowledge and Skill regarding screening of High-Risk Pregnancy among the Nurses of selected Maternity unit in

urban area"

Objectives:

Primary Objectives:

To Assess effect of hands on training on knowledge and skill regarding screening of High-risk   pregnancy among the nurses of selected maternity unit in urban areas.

Secondary Objectives:

1) To assess existing knowledge and skill regarding screening of High-risk pregnancy among the nurses of selected maternity unit in urban areas.

2) To find out association between knowledge and skill with selected demographic variable of nurses in selected maternity unit in urban area

Hypothesis

Primary hypotheses:

H_0: There will be no significant difference between pretest and post-test knowledge and skill regarding screening of High-Risk Pregnancy among the Nurses of selected Maternity unit in urban area at 0.05 level 20

H_1: There will be a significant difference between pretest and post-test knowledge and skill regarding Screening of High-Risk Pregnancy among the Nurses of selected Maternity unit in urban area at 0.05level.

Secondary hypotheses:

H_{01}: There will be no significant association between the knowledge and skill scores with selected demographic variables among the nurses of selected maternity until in urban area.at 0.05 level

H_{02}: There will be a significant association between the knowledge and skill scores with selected demographic urban area at 0.05 level.

Material and Methods: A pre-experimental study method was undertaken where 60 nurses working in selected maternity unit in urban area were recruited as sample by non-probability convenient sampling method. Using

knowledge questionnaire for knowledge 25 questions and skill 156 by observation checklist. After collection of data, it analysed using both descriptive and inferential statistics to describe and show the association between the variables.

Data Collection

a. Approval from the research committee member and written permission from the head of institution to conduct the research.

b. Explain the purpose of the research to the samples.

c. Obtained informed written consent from samples.

d. Assess the effect of hands on training on Knowledge and Skill regarding Screening of High-Risk Pregnancy among the Nurses of selected Maternity unit in urban area.

Ethical review

This study was reviewed and approved by the Ethics Committee of the college. All participants signed informed consent. The authors promise that there will be no academic misconduct such as plagiarism, data fabrication, falsification, and repeated publication.

Statistical analysis: The data were computerized and verified using the SPSS (statistical package for social science) version 16.0 to perform tabulation and statistical analysis. Qualitative variables were described in frequency and percentages, while quantitative variables were described by mean and standard deviation.

Results: The data was analysed and presented in the following sections:

Section I	:	Description of the Nurses according to their demographic Variables
Section II	:	Assessment of knowledge of Nurses regarding Screening of High-Risk Pregnancy
Section III	:	Assessment of the skill of Nurses regarding Screening of High-Risk Pregnancy
Section IV	:	To evaluate the effect of Hands on training regarding Screening of High-Risk Pregnancy
Section V	:	Level of knowledge and Skill of subject's pre and post test
Section VI	:	To correlate knowledge and skill score of nurses regarding Screening of High-Risk Pregnancy
Section VII	:	To associate knowledge and skill of Nurses with demographic variables
Section VIII	:	Hypothesis testing

Table (I): Socio-demographic characteristics of the studied group

Table No: II

Assessment of Knowledge score of Nurses regarding Screening of High-Risk Pregnancy before giving Hands on training.

Category	Maximum score	Mean	Standard deviation	Mean percentage
Concept High Risk Pregnancy	05	3.03	1.07	60.60
History Collection in High-Risk Pregnancy	04	2.95	0.96	73.75
Obstetric Examination in High-Risk Pregnancy	09	6.13	1.64	68.11

SN	Demographic Variable	Frequency	Percentage (%)
1	**Age**		
a	< 25 years	00	00
b	26 - 35	28	46.70
c	36 - 45	27	45.00
e	> 46	05	08.30
2	**Professional Qualification**		
a	GNM Nursing	43	71.70
b	Basic B. Sc. Nursing	09	15.00
c	P.B.B. Sc. Nursing	08	13.30
d	M. Sc. Nursing & above	00	00.00
4	**Year of experience in maternity unit**		
a	Less than 5 years	10	16.70
b	5– 9 Years	30	50.00
c	10 – 14 Years	07	11.70
d	More than 15 years	13	21.70
5	**Undergone any Skill training**		
a	Yes	06	10.00
b	No	54	90.00
6	**Duration of training**		
a	< 3 months	03	50.00
b	3 to 6 months	01	16.67
c	6 to 12 months	01	16.67
d	>12 months	01	16.66

Investigation In High-Risk Pregnancy	07	4.45	1.35	63.57
Total (Overall)	20	16.56	2.82	66.24

The above table 2depicts that the result of area wise pre-test knowledge score regarding Screening of High-Risk Pregnancy among Nurses. In pre-test highest knowledge level regarding Screening of High-Risk Pregnancy in History Collection in High-Risk Pregnancy i.e., 2.95 (73.75%) and the overall knowledge level was 16.56 (66.24 %). whereas the lowest mean score is 3.03 which was 60.60 % of the total score was observed on the area of "Concept High Risk Pregnancy." For the remaining area i.e., "Obstetric Examination in High-Risk Pregnancy" mean score is 6.13 which was 68.11 % and in area of Investigation in High-Risk Pregnancy mean score was 4.45 which was 63.57.

Table No: III

Assessment of Knowledge score of Nurses regarding Screening of High-Risk Pregnancy after giving Hands on training. n = 60

Category	Maximum score	Mean	Standard deviation	Mean percentage
Concept High Risk Pregnancy	05	3.71	0.78	74.20
History Collection in High-Risk Pregnancy	04	3.80	0.54	95.00
Obstetric Examination in High-Risk Pregnancy	09	7.86	1.14	87.33
Investigation In High-Risk Pregnancy	07	5.91	1.07	84.43
Total (Overall)	24	21.30	1.88	85.20

The above table 3 depicts that the result of area wise posttest knowledge score regarding Screening of High-Risk Pregnancy among Nurses. In posttest highest knowledge level regarding Screening of High-Risk Pregnancy in History Collection in High-Risk Pregnancy i.e., 3.80 (95 %) and the overall knowledge level was 21.30 (85.20%). whereas the lowest mean score was 3.71 which was 74.20 % of the total score was observed on the area of "Concept High Risk Pregnancy." For the remaining area i.e., "Obstetric Examination in High-Risk Pregnancy" mean score was 7.86 which was 87.33 % and in area of Investigation in High-Risk Pregnancy mean score was 5.91 which was 84.43%.

Table: IV

Significance of knowledge score regarding Screening of High-Risk Pregnancy of Nurses before and after Hands on training. n=60

Overall	Maximum score	Mean	Standard deviation	Mean percentage	t- value	p-value
Pre-Test	20	16.56	2.82	66.24	14.33	0.000 S, p<0.05
Post Test	24	21.30	1.88	85.20		

(S = Significant at 0.05 level of significance)

The above table 4.9 depicts that in the pretest the mean of the knowledge score obtained by the Nurses was 16.56 and in the post test it rise to 21.30. The knowledge score of the Nurses shows marked improvement after giving Hands on training. From the above

table, it is evident that the calculated 't' value is greater than the table value of 't' (2.05) at 0.05 level. This indicates that Hands on training is effective in improving the knowledge of the Nurses. **Hence H0 is rejected and H1 is accepted.**

Conclusion:

The high-risk pregnancy increases the burden of maternal morbidity and mortality, to reduce the MMR early detection and screening of High-Risk Pregnancy is one of the strategies. This study finding highlights that the Hands-on Training improves the knowledge and skill regarding Screening of High-Risk Pregnancy among the nurses. The competent nurses by doing the early detection and Screening of High-Risk Pregnancy achieve the Sustainable Development al Goal MMR <12 by 2030.

Suggestions and Recommendations

Nursing Implication

The findings of the study had implications in different dimensions of mental health nursing, nursing profession, (i.e.) Nursing Practice, Nursing Education, Nursing Administration and Nursing Research. Many steps could be taken to strengthen the findings of the study which was bounded by the dimensions of nursing professions.

Nursing Services:

1. Nurses must educate by organizing hands on training and by individual educational programs.

2. Nurses must develop knowledge and skill regarding. screening of high-risk pregnancy

3. To use hands on training to supplement verbal information, increase knowledge and satisfaction among the nurses

Nursing Education: - Nurse educator must pay more attention to the training of screening of high-risk pregnancy so that they can impart appropriate knowledge to the community and helps to reduce the maternal morbidity and mortality.

1. More emphasis must be placed on the regular and periodical teaching sessions on knowledge and skill regarding screening of high-risk pregnancy

2. Student nurses can be motivated to organize hands on training to enhance the knowledge of nurses regarding screening of high-risk pregnancy.

3. Encourage the student nurses to participate actively in awareness of screening of high-risk pregnancy in an awareness campaign.

4. Education is the key to the development of excellent nursing knowledge. With changing health care trends, nursing education must emphasize primary health care approach focusing on the screening of high-risk pregnancy as the needs of society, as well as profession, are continuously changing newer components must be incorporated into the nursing curriculum.

5. Nursing education must emphasize education to nurses, students regarding screening of high-risk pregnancy.

Nursing Administration: -

1. Nurse administrative must plan and organize training program for nurses on screening of high-risk pregnancy.

2. Nurse administrative must organize educational programs on screening of high-risk pregnancy.

3. Necessary administrative suppose must be provided to conduct hands on training program on screening of high-risk pregnancy at primary health centre, village-level & other community areas with appropriate A.V aids, mass media, posters, and role-play etc.

4. The nurse administrators have a responsibility to provide nurses with substantive education programs. This will enable them to update their knowledge and acquire special skills in ANC care at hospital & home.

Recommendations

The researcher recommends the following studies

1. A similar study can be conducted on a larger sample.

2. A similar study may be replicated with a control group.

3. A comparative study may be undertaken to assess the knowledge of screening of high-risk pregnancy among the nurses.

4. A similar study can be undertaken among the health personal.

5. A study can be conducted to assess the attitudes of screening of high-risk pregnancy among the nurses.

References:

1) World Health Organization, UNICEF, United Nations Population Fund and The World Bank, Trends in Maternal Mortality: 2000 to 2017 WHO, Geneva, 2019.

2) D.c. Dutta. "Textbook of Obstetrics" 7th edition, New central book agency (P) Ltd (2011) page no- 630.

3) UNICEF Health Programme Results 2020: Key highlights 06/28/2021 unicef.org/documents/https://www.unicef.org/india/what-we-do/maternal-health.

4) Yadav A, Prakash A, Sharma C, Saha MK, Yadav S, Baghel J, Kamath A. Maternal Mortality in the Remote Islands of India—Unravelling the Conundrum. Journal of Family Medicine and Primary Care. 2022 Feb;11(2):733.

5) WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division Maternal mortality: Levels and trends 2000 to 2017. Publication date: 2019.Number of pages: 104.

6) MacDorman MF, DeClercq E, Cabral H, Morton C. Recent Increases in the U.S. Maternal Mortality Rate: Disentangling Trends from Measurement Issues. Obstetric Gynecol. 2016 Sep;128(3):447-455.

7) Lagendijk, J., Vos, A.A., Bertens, L.C.M. et al. Antenatal non-medical risk assessment and care pathways to improve pregnancy outcomes: a cluster randomised controlled trial. Eur J Epidemiol 33, 579–589 (2018).

8) A Data World Health Organization, UNICEF, United Nations Population Fund and The World Bank, Trends in Maternal Mortality: 2000 to 2017 WHO, Geneva, 2019

9) Ekka AR, Jogi SR. Classification of maternal mortality by ICD-MM: a retrospective study from a tertiary care hospital of Chhattisgarh. International Journal of Reproduction, Contraception, Obstetrics and Gynaecology. 2021 Feb 1;10(2):492-7.

10) Vaghela, N. STUDY OF PREGNANCY OUTCOME IN VARIOUS HIGH-RISK PREGNANCIES IN TERTIARY CARE HOSPITAL. International Journal of Medical and Biomedical Studies, (2019). 3(12), 38-42.