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A study to assess the effectiveness of structured teaching programme on identification of high risk pregnancy among Auxiliary Nurse Midwives (ANMs) working at selected hospital, Chinnakakani, Guntur District, Andhra Pradesh

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Abstract
Background of the study: A high-risk pregnancy is one of greater risk to the mother or her fetus than an uncomplicated pregnancy. Pregnancy places additional physical and emotional stress on a woman"s body. Health problems that occur before a woman becomes pregnant or during pregnancy may also increase the likelihood for a high-risk pregnancy. High-risk complications occur in only6 percent to 8 percent of all pregnancies. These complications can be serious and require special care to ensure the best possible outcome.
Objective: To assess the level of knowledge on identification of high risk pregnancy among auxiliary nurse midwives working at selected hospital.
Material and method: Pre experimental design with one group pre-test and post- test was selected to achieve the objectives of the study. Convenient sampling technique was used to select the sample. Data were collected from 60 ANMs by using structured questionnaire. Analysis of data was done by using frequency and percentage distribution, mean, standard deviation, paired" test and chi-square value findings.
Results: The mean post-test knowledge scores of ANMs were significantly higher than post-test. Structured teaching programme was found effective in improving the knowledge of ANMs with computed "t" value as 11.532 which was statistically significant at $p < 0.005$ level which clearly shows H1 rejected null hypotheses hence research hypotheses is retained. No significant relationship were found between the age ($x^2 = 23.8$), monthly income ($x^2 = 2.83$), residential area ($x^2 = 2.45$), area of working ($x^2 = 14.4$), source of information ($x^2 = 5.18$), total working experience ($x^2 = 31.1$), previous knowledge regarding maternal and child health programme ($x^2 = 31.1$) had not shown any significant association with pre -test knowledge scores on high risk pregnancy. Only four significant age, area of working source of information, previous knowledge. Hence H2 were failed to reject the null hypotheses.
Conclusion: Majority of ANMs had inadequate knowledge on high risk pregnancy in pre-test. ANMs had adequate knowledge in post-test. Structured teaching programme was found to be effective in increasing the knowledge of ANMs on high risk pregnancy. There was no association between post-test knowledge scores with age, monthly income, residential area, area working, source of information, total working experience, previous knowledge regarding maternal and child health programme on high risk pregnancy.

Keywords: Assess, effectiveness, structured teaching programme, high risk pregnancy selected ANMs at hospital at chinakakani

Introduction
Pregnancy is a long, 10-month journey," the normal pregnancy usually lasts about 40 weeks, counting from the first day of the last menstrual period, a pregnant person, feeling a new life developing inside the body is an amazing experience, even though, they may not always feel the best during all the stages of pregnancy. A high-risk pregnancy is one of greater risk to the mother or her fetus than an uncomplicated pregnancy. Pregnancy places additional physical and emotional stress on a woman's body. Health problems that occur before a woman becomes pregnant or during pregnancy may also increase the likelihood for a high-risk pregnancy [1]. High-risk complications occur in only 6 percent to 8 percent of all pregnancies.

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These complications can be serious and require special care to ensure the best possible outcome [2]. A pregnancy may be deemed high risk due to a variety of factors, such as pre-existing medical conditions, multiple births, previously abnormal pregnancies or health issues that develop during pregnancy. Routine screening tests, such as blood tests or ultrasound exams, along with diagnostic tests, such as amniocentesis or chorionic villus sampling (CVS), will help identify whether a pregnancy is high risk. These screenings are used to determine the presence of a number of health problems as well as test for certain genetic conditions. Women dealing with high risk pregnancy must schedule more frequent visits with their doctor and manage their lifestyle to ensure proper prenatal care.

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 [7].

Under the Sustainable Development Goal (SDG), the global target is to end all preventable maternal deaths and reduce the Maternal Mortality Ratio (MMR) to70 by 2030.

Need for the study
Women form the center of the family and their health is of the prime importance to the well-being of the whole family. Women's health is of cardinal importance to the health of the society.10 Motherhood is a natural Phenomenon, but safe motherhood is fraught with many complications related to of pregnancy and childbirth. Pregnancy is the physiological process of a developing fetus with in the maternal body.11 According to WHO, risk approach for MCH care is to identify high risk cases from a large group of antenatal mothers. These are during pregnancy as elderly primi (≥ 30 Years) short statured primi ≤140 cm, threatened abortion and ante partum haemorrhage, malpresentations, preeclampsia and eclampsia, anemia, elderly grand multipara, twins and hydramnios previous stillbirth, intrauterine death, manual removal of placenta, prolonged pregnancy, history of previous caesarean section and instrumental delivery, pregnancy associated with medical diseases; during labour are premature rupture of membranes, prolonged labour, hand feet or cord prolapsed, placenta retained more than half an hour, postpartum hemorrhage, puerperal fever and sepsis [12]. If we desire to improve our obstetric results, the high risk case should be identified and given proper antenatal, intranatal and neonatal care by the health care providers. So, all the health care personnel should be competent enough to handle such type of cases. Hence, here the researcher took interest do the study among ANMs to assess the knowledge regarding identification of high risk pregnancy also to educate them by providing information structured teaching programme.

Objectives of the Study
1. To assess the level of knowledge on identification of high risk pregnancy among auxiliary nurse midwives working at selected hospital.
2. To plan and implement the structured teaching programme on identification of high risk pregnancy among auxiliary nurse midwives working at selected hospital.
3. To evaluate the effectiveness of structured teaching programme by comparing pre and post-test knowledge scores regarding identification of high risk pregnancy among auxiliary nurse midwives working at selected hospital.
4. To find out the association between pre-test knowledge on identification of high risk pregnancy among auxiliary nurse midwives working at selected hospital with their selected demographical variables.

Hypotheses
H1: There will be significant difference between pre and post-test knowledge scores of ANMs with regard to identification of high risk pregnancy.

H2: Significant association will be there between knowledge on identification of high risk pregnancy among ANMs with their selected demographic variables.

Materials and Methods
Research approach
A quantitative research approach was adopted to Assess The Effectiveness Of Structured Teaching Programme On Identification Of High Risk Pregnancy Among (A NMs) Working at NRI General Hospital, Chinakakani, Guntur District, Andhra Pradesh.

Research design
The pre-experimental design (one group pretest and posttest design).

Setting of the study
The study will be Hospital, Chinakakani, Guntur. Conducted in the NRI General.

Assessable population
The accessible population ANMs working at the NRI General Hospital, Chinakakani, Guntur district, Andhra Pradesh.

Sample
60 ANMs was taken as a sample.

Sample Technique
The present study purposive sampling technique.

Data analysis
The data collected from the objects was grouped and analyzed by using statistical measures in terms of objectives. Plan for data analysis are as follows:
- The collected data was coded and transformed into master sheet for statistical analysis.
- Frequency and percentage distribution was used to find the demographic variables and item wise analysis.
- Mean, standard deviation, t- test was used to analyze the pretest and post test scores of knowledge items of questionnaire among ANMs.
- Frequency and percentage distribution was used to assess the pretest and posttest knowledge items questionnaire among ANMs.
- Chi – square test was used to find out the association between post test scores of knowledge with selected variables.

Result
Section I
Frequency and Percentage Distribution of ANMs By Their Age, Monthly Income, Residential Area, Area of Working, Source of Information, Total Working Experience, Previous Knowledge Regarding Programmes On High Risk Pregnancy.

Table 1: Frequency and Percentage Distribution of ANMs

S. No	Variable	F	(%)
1.	**Age**		
	a. 20-25 years	00	00
	b. 26-30 years	01	1.66
	c. 31-35 years	09	15
	d. 35 years above	50	83.33
2.	**Monthly income**		
	a. Rs.5,000-10,000	24	40
	b. Rs.11,000 – 20,000	36	60
	c. Rs.21,000-30,000	00	00
	d. Rs.30,000 and above	00	00
3.	**Residential area**		
	a. Rural	32	53.33
	b. Suburban	10	16.66
	c. Urban	18	30
4.	**Area of working**		
	a. Medical ward	29	46.66
	b. Surgical ward	17	28.33
	c. OBG ward	14	23.33
5.	**Source of information regarding**		
	high risk pregnancy		
	a. Colleagues	11	18.33
	b. Mass media	7	11.66
	c. Conferences and workshop	8	13.33
	d. Newspaper and articles	34	56.66
6.	**Total working experience in years**		
	a. Less than or equal to 1 year	00	00
	b. 2-3 years	00	00
	c. 3-4 years	00	00
	d. More than or equal to 5 years	60	100
7.	**Previous knowledge regarding state**		
	and central programmes		
	a. Yes	60	100
	b. No	00	00

Section 2
Frequency and Percentage are computed for Item Wise Analysis identification on High Risk Pregnancy among ANMs.

Table 2: Category wise item analysis of pre- test scores of ANMs with identification of high risk pregnancy.

S. No	Aspect	State Ments	Max Score	Range of Score	Knowledge	
					Mean	SD
1.	Introduction	5	5	1-5	206	0.997
2.	Definition	1	1	0-1	20	0.475
3.	Incidence	1	1	0-1	19	0.469
4.	Causes	4	4	0-3	78	0.743
5.	Symptoms	2	2	0-2	45	0.750
6.	Screening	6	6	0-6	154	1.169
7.	Complication	7	7	0-5	171	1.161
8.	Management	4	4	0-5	118	0.956
9.	Prevention	1	1	0-1	33	0.501
10.	MCH programmers	3	3	0-3	50	0.692

Table 3: Category wise item analysis of post- test scores of ANMs with identification of high risk pregnancy

S. No	Aspect	State Ments	Max Score	Range of Score	Knowledge	
					Mean	SD
1.	Introduction	5	5	1-5	287	0.584
2.	Definition	1	1	0-1	55	0.278
3.	Incidence	1	1	0-1	58	0.181
4.	Causes	4	4	0-4	181	0.947

5.	Symptoms	2	2	0-2	87	0.648
6.	Screening	6	6	0-5	259	0.853
7.	Complication	7	7	2-7	329	1.346
8.	Management	4	4	0-4	211	0.724
9.	Prevention	1	1	0-1	50	0.375
10.	MCH programmers	3	3	0-3	118	0.449

Table 4: Frequency and percentage distribution based on their knowledge level of ANMs with identification of high risk pregnancy both in pre test and post test.

S. No	Level of knowledge	Range of Score	Pre-Test		Post Test	
			f	%	f	%
1.	Inadequate Knowledge (<50%)	26-34	45	75	00	00
2.	Moderate Knowledge (51- 75%)	18-25	14	23.33	6	10
3.	Adequate Knowledge (>76)	0-17	0	1.66	54	90

Section-IV

Table 5: Mean, Standard Deviation and Paired "t"-Test Value of Pre Test and Post Test Knowledge Scores among ANMs with Identification of High Risk Pregnancy.

n= 60

Variable	Maximum Score	Pre – test			Post – test			"t" value
		Range of score	Mean	SD	Range of score	Mean	SD	
Knowledge	34	11-26	15.5	2.789	21-33	28.65	8.96	11.532*

Section-V

Table 6: Association between pre test knowledge score and the variable of ANMs with identification of high risk pregnancy.

S. No	Variable	Knowledge			Chi- Square (x^2)	Table Value (P=0.05)	Degree of freedom
		Poor	Good	Excellent			
1	Age	2	0	0			
		0	0	1			
		1	2	5	23.8*	12.59	6
		2	12	35			
2	Monthly income	0	3	21	2.83NS	5.99	2
		1	10	36			
		1	0	0			
		0	0	0			
3	Residential area	1	9	22	2.45NS	9.49	4
		0	1	9			
		0	4	14			
4	Area of working	0	3	25	14.4*	9.49	4
		0	2	15			
		1	8	6			
5	Source of information	0	1	10	5.18NS	12.59	6
		0	3	4			
		0	2	6			
		1	8	25			
6	Total working experience	0	0	0	31.1*	5.99	2
		0	0	0			
		0	0	0			
		1	14	45			
7	Previous knowledge regarding MCH programme	1	14	45	31.1*	5.99	2
		0	0	0			

Note: "NS" denotes that value is Non-significant at 0.05 level. "*"denotes that value is significant at 0.05 level.

Discussion

This study was conducted with the objective to assess the effectiveness of structured teaching programme among with nurses with regard to identification of high risk pregnancy.

The sample selected for the study was 60 ANMs, the subjects chosen by non-probability sampling technique. Data were collected using structured questionnaire. The collected data was entered into master sheet. The present study was pre experimental one group pretest design.

Demographic variables

The variable for the present study are age, monthly income, area of working, source of information, total working experience, previous knowledge of programmes on identification of high risk pregnancy. In the present study majority of ANMs (83.33%) are having ANMs in the age group of 35 years above, monthly income in (60%), residential area (53.33%), area of working (46.66%), source of information (56.66%), total working experience (100%) in this study.

Effectiveness of structured teaching programme on knowledge regarding identification of high risk pregnancy among auxiliary nurses midwives in community health centre, Sarojoni Nagar at Lacknow. Al in their study also reported that majority of ANMs 27.5% in age group of 31-35 years, monthly income (50%), residential area (50%), area of working (50%),source of information (25%), total working experience (40%) in the study (2020) [35].

Knowledge
In the present study 90% ANMs are having in adequate knowledge. Effect of live demonstration on practices of ANM regarding identification and management of mothers for puerperal infection during postnatal period reported that 85.7 % ANMs had in adequate knowledge about identification of high risk pregnancy [18].

Structured Teaching Programme
The present study indicate that 75% ANMs had inadequate knowledge in pretest before intervention and 90% ANMs has adequate knowledge in posttest after intervention. In the similar way a study to assess the effectiveness of self-instructional module to assess the knowledge regarding identification and management of high risk pregnancy among the ANM student in selected nursing school also found that 31% ANM student's had poor knowledge before intervention and 49% had good knowledge after intervention, hence identification and management of high risk pregnancy [41].

Mean, Standard Deviation, Paired „t" – Test
For the present study the mean, standard deviation in post-test (mean=28.65; s.d= 8.96) is higher than the pre-test (mean = 15.5; s.d= 2.789), paired t- test value is 11.532 statistically significant at $p< 1.5$ level of significance.
Effectiveness of structured teaching programme on knowledge regarding identification of high risk pregnancy among auxiliary nurses midwives in community health centre, Sarojoni Nagar at Lacknow also reported that the mean, standard deviation in post test (x^2=29.08; S.D 3.944) is higher than the pre-test (x^2=20.40; S.D=5.037) and paired „t" value is 11.12 statistically significant at $p< 0.001$ level of significant [32].

Implications of the Study
The investigator has drawn the implications on the following aspects such as nursing service, nursing education, nursing administration and nursing research.

Nursing Service
- ANMs must be educated by ANMs educators to update their knowledge on high risk pregnancy.
- Practice skills must be improved to ANMs by providing demonstrator about high risk pregnancy.
- ANMs administrator should provide ANMs to visit public and private high risk pregnancy conditions and learn about high risk pregnancy management.

Nursing Education
Nursing education plays a prominent role in enhancing the knowledge and competence of a nurse both in theoretical and practical aspect. In the present study, the nurse educator gives importance to upholding the value of nursing education to improve the knowledge of ANMs with

identification of high risk pregnancy.
- Nurse educator needs to emphasize more importance on meaning, complication, management and prevention, and maternal and child health programme of identification of high risk pregnancy.
- Nurse educator must give prominence on the ANMs" role in Educate and advance the knowledge of ANMs.
- Nurse educators must initiate and conduct health education programmes on knowledge on identification of high risk pregnancy.

Nursing Administration
Nursing administration is a management sector in the health care settings.
- A nurse administrator must take initiative in organizing health education programmes on knowledge on identification of high risk pregnancy.
- Nurse administration should support the nurse administrator in conducting health education programmes.
- Adequate and appropriate teaching aids must be prepared and made available.
- Nurse administrator can also organize health programmes on identification of high risk pregnancy.

Nursing Research
Nursing research is the testing of knowledge that can be used to guide nursing practice.
- Nurse researcher can further carry out a study on the ways to improve the knowledge on identification of high risk pregnancy.
- Nurse researcher must take interest in assessing the ongoing successive researches on identification of high risk pregnancy.

Limitations
The present Study limited to ANMs. ANMs who are
- Study in NRI general hospital
- Willing to participate in the study
- available at the time of the data collection

Recommendations
The following recommendations are made for future research, based on the study findings.
- A similar study can be taken up in different setting on a large sample.
- A comparative study can be taken up to assess the knowledge between government and private hospital ANMs on high risk pregnancy.
- A study can be conducted to assess practical knowledge among ANMs with identification of high risk pregnancy.
- A study can be conducted to assess the knowledge of ANMs about identification of high risk pregnancy.

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