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Research Article

EFFECT OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE IN RELATION TO PREVENTION OF COMPLICATIONS AMONG HIGH RISK ANTENATAL MOTHERS

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A R T I C L E I N F O

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A B S T R A C T

Introduction and objectives: Pregnancy is a happy time for most women. While most expectant mothers experience an average pregnancy, there are certain dangers associated with this condition which can result in health complications for both mother and baby. A change during pregnancy is common, sometimes the natural change that happen during pregnancy can cause certain complications. Knowledge of prevention of complications of high risk pregnancy are strategies aimed at enhancing the utilization of antenatal care and prevention of complications by early detection. Taking this as paramount importance to design effective strategy, the objective of this evaluative study was to assess the effectiveness of Planned Teaching Programme on Knowledge in Relation to Prevention of Complications among High risk antenatal mothers in selected hospital, Nalbari, Assam. The study further aim at estimating whether there is any association between the pre-existing knowledge and certain demographic variables. Methods and **Materials:** The study was conducted by adopting a pre-experimental one group pre -test post –test design. Sixty high risk antenatal mothers who fulfilled the inclusive criteria were selected by purposive sampling technique. A structured questionnaire was distributed to the mothers to assess the pre- test level of knowledge on prevention of complications of high-risk pregnancy among high-risk antenatal mothers and collected demographic characteristics followed by conducted a planned teaching programme. A post test was conducted to assess the level of knowledge with the same questionnaire provided in pre-test. Descriptive and inferential statistics were used for the analysis and interpretation of the data collected. Results and Analysis: The study showed that in the pre-test, out of 60 respondents, highest 47 (78.33%) had moderate knowledge, 10 (16.67%) had inadequate knowledge, and only 3 (5%) had adequate knowledge. In post-test, out of 60 respondents, highest 54 (90%) had adequate knowledge 6 (10%) had moderate knowledge, and none of them had inadequate knowledge on preventions of complications of high risk pregnancy. The obtained mean of post-test knowledge score (24.97) was apparently higher than the mean of pre-test knowledge score (13.62). The median of post-test score (26) was found to be higher than the median of pre-test (13). The paired 't' value analysis showed that the calculated 't' value (20.59) is higher than the tabulated value (df 59) at 0.05 level of significance. The p-value equals 0.00, i.e. p-value is less than 0.05 which is the level of significance. Hence, the research hypothesis is accepted indicating the gain in knowledge is not by chance and the Planned Teaching Programme on Prevention of Complications of High Risk Pregnancy among high risk antenatal mothers was effective in terms of gain knowledge.
Conclusion: On the basis of the findings of the present study, the investigator had come to conclusion that Nursing personnel must have holistic knowledge regarding different aspects of high risk pregnancy among antenatal mothers. Nurses play a vital role in the teaching aspects of high risk pregnancy. The present study had been supported by a series of other studies which confirmed that the knowledge on high risk pregnancy among antenatal mothers is important to get healthy baby and healthy mother. On the basis of the findings of the present study, the investigator had come to the conclusion that Planned Teaching Programme on Prevention of complications of high risk pregnancy was found to be effective and an useful means of educating the high risk antenatal mothers to improve their knowledge.

INTRODUCTION

Maternal health remains a staggering challenge, particularly in the developing world. Globally, a woman dies from complications in childbirth every minute. A change during pregnancy is common; sometimes the natural changes that happen during pregnancy can cause certain complications. A high risk pregnancy refers to anything that puts the mother, fetus, or neonate at increased risk for morbidity or mortality during pregnancy or childbirth. Hypertensive disorder of pregnancy seem to be one of the major causes of maternal morbidity and mortality leading to 10-15% of maternal deaths. Improvement in maternal health was a major goal in Millennium Declaration and India was a signatory. Under Millennium Development Goals (MDGs), the MDG 5 target was to reduce maternal mortality ratio (MMR) by three quarters between 1990 and 2015. SDG goal 3.1 states to reduce the global maternal mortality ratio to less than 70 per 100 000 live births by 2030[4].The purpose of this research was to explore existing knowledge about prevention of complications of high risk during pregnancy among high risk antenatal mothers designing an educational program.

Objective

- To assess the pre- test level of knowledge regarding prevention of complications among high risk antenatal mothers.
- To assess the post- test level of knowledge regarding prevention of complications among high risk antenatal mothers.
- To evaluate the effectiveness of the planned teaching programme on level of knowledge regarding prevention of complications among highrisk antenatal mothers.
- To find out the association between the pre- test level of knowledge regarding prevention of complications among high risk antenatal mothers with selected demographic variables.

REVIEW OF LITERATURE

Review of literature related to high risk of pregnancy ThatalA, LuksomG P, Narwat Y (2020)[17] conducted a study on Fetomaternal outcome in elderly primigravida. The study was cross sectional, conducted in Regional Institute of Medical Sciences, Imphal, Manipur over a period of one and half year. Elderly primigravida admitted at term in hospital were studied for fetomaternal outcome. The result showed that 17890 deliveryduring the study period, 280 were elderly primigravida giving an incidence of 1.8%. Based on inclusion criteria, 166 were enrolled in study. Maternal compilation seen were, Oligohydraminos 6.02%, Gestational hypertension 3.01%, Breech presentation 6.03%, PROM 4.2%, Placenta Praevia 2.4%, Gestational diabetes mellitus 0.6% and Twin gestation 2.4%. Caesarean rate was 67.5% of which 62.5% was done for cephalopelvic disproportion. 5.3% baby was low birth weight. The study concluded that fetomaternal complication in Elderly

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Primigravida was increased, with adequate antenatal care, early recognition of complication and timely intervention, optimum outcome can be expected and the rate of Caesarean section which was of concern and needs to be further assessed.

Review of literature related to effect of planned teaching programme

DaynaAJ A, Chaudhary V(2020)31 conducted a studyon evaluate the effectiveness of structured teaching programme on knowledge regarding antenatal care among primigravida mothers in selected villages of Mehsana district. A quantitative approach using preexperimental one group pre-test post-test design. 60 Primigravida mothers were selected by using Non-Probability Convenient sampling technique in Mehsana District. Structured teachingprogramme was given to the primigravida mothers after pre-test. Self Structured Questionnaire was used to assess the level of Knowledge regarding Antenatal acre among Primigravida mothers. Result showed that the post- test mean score (11.33) was higher than the mean pre-test knowledge score (5.71). Chi-square test to associate with the level of knowledge and selected demographic variable. The study concluded that Structured Teaching Programme was effective in increase knowledge regarding Antenatal care among Primigravida Mothers.

Research Methodology

Research approach: Quantitative research approach

Research design: Pre-experimental research design

Setting of the study: Nalbari Maternity Hospital, Nalbari, Assam.

Sample: High risk antenatal mothers who are in 20 weeks of gestation to term, between 18 to 40years of age diagnosed with PIH, anemia, elderly primipara.

Sample size: 60

Sample technique: Purposive sampling technique

Tools: Structured Questionnaire

Section I Description of high-risk antenatal mothers according to their demographic characteristics

n=60

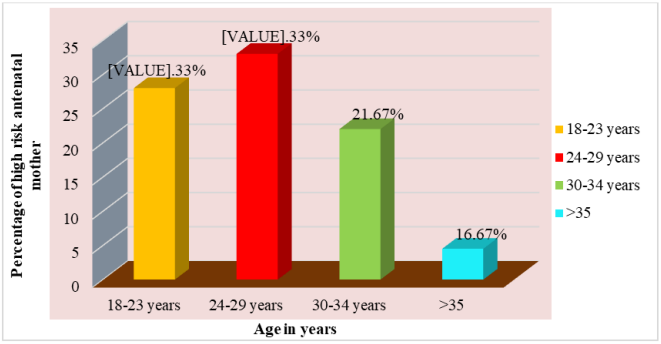

Fig no 1 Bar diagram representing percentage distribution of high risk antenatal mothers according to their age

Percentage wise distribution of high risk antenatal mothers according to the age group reveals that the highest percentage (33.33%) of them were in the age group 24-29 years,28.33% were in the age group 18-23 years, 21.67% of them were 30-34 years and 16.67% were in the age group >35 years. (Fig. 4.1.1)

n=60

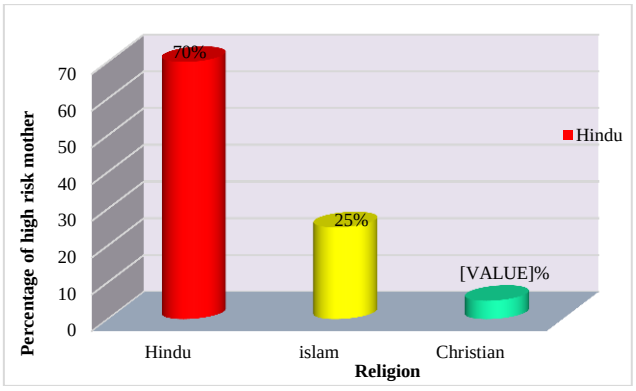

Fig.no.2 Cylindrical diagram representing percentage distribution of high risk antenatal mothers according to their religion

Percentage wise distribution of high risk antenatal mothers according to their religion reveals that the highest percentage (70%) were belongs to Hindu religion, 25% were belongs to Islam, and only5% belongs to Christian religion and no one belongs to other religion.(Fig.no.4.1.2)

n=60

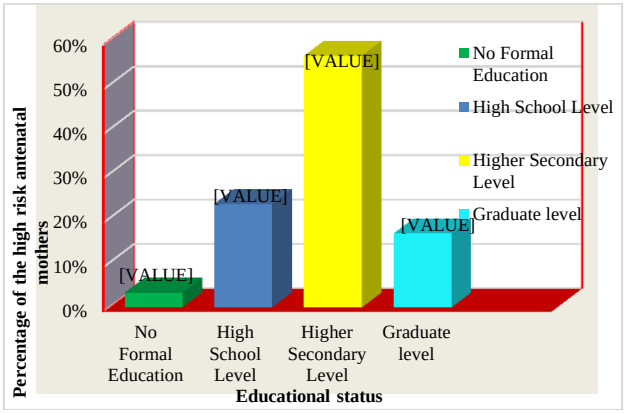

Fig.no 3 Bar diagram representing percentage distribution of high risk antenatal mothers respondents according to their educational status

Percentage wise distribution of the high risk antenatal mothers according to educational status reveals that the highest percentage (57%) was in Higher secondary level, 23% in High school level, 17% in Graduate level and only 3% had no formal education (Fig.no.4.1.3).

n=60

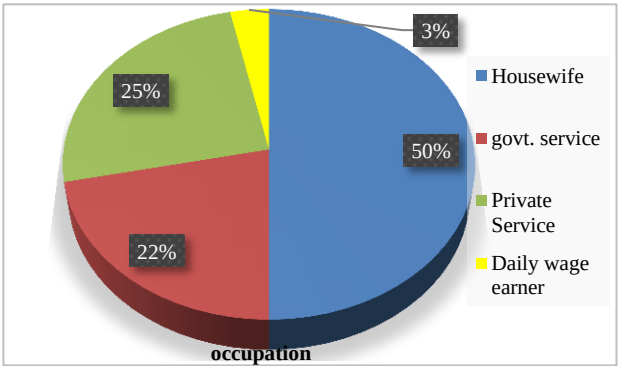

Fig no 4 Pie diagram representing percentage distribution of high risk antenatal mothers according to their occupation

Percentage wise distribution of high risk antenatal mothers according to their occupation reveals that highest percentage (50%) of them were house wives, 25% were worked in private service,22% were worked in govt. service, and only 3% were daily wage earner (Fig.no.4.1.4).

n=60

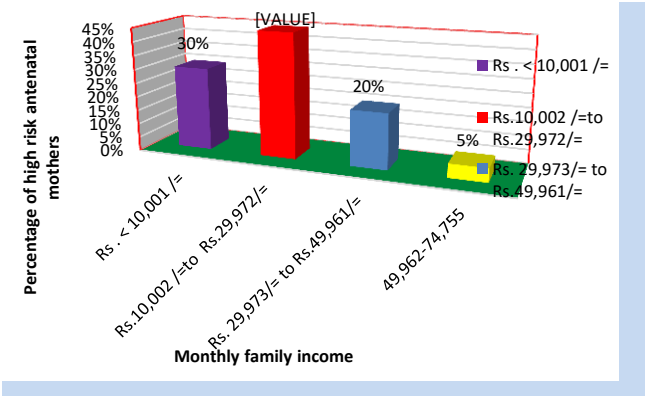

Fig.no 5 Bar diagram representing percentage distribution of high risk antenatal mothers according to their monthly family income

Percentage wise distribution of high risk antenatal mothers according to their monthly family income reveals that highest percentage (45%) of them belongs to income group under Rs.10,002 /-to Rs.29,972/-,30%of them were in the income group of below Rs. < 10,001 /- , 20% of them were in the income group Rs. 29,973/- to Rs.49,961/- and only 5% of them were belonged to the income group of Rs. 49,962/- to Rs.74,755/- (Fig. no.4.1.5).

n=60

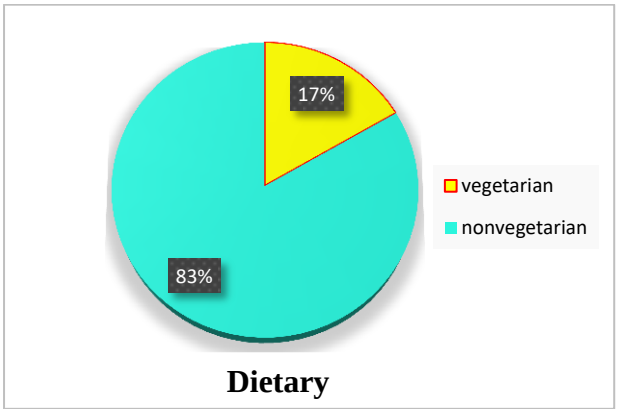

Fig.no 6 Pie diagram representing percentage distribution of high risk antenatal mothers according to their dietary pattern

Percentage wise distribution of high risk antenatal mothers according to their dietary pattern it reveals that the highest percentage (83%) of them were non-vegetarian and only 17% of them were vegetarian. (Fig.no.4.1.6).

n=60

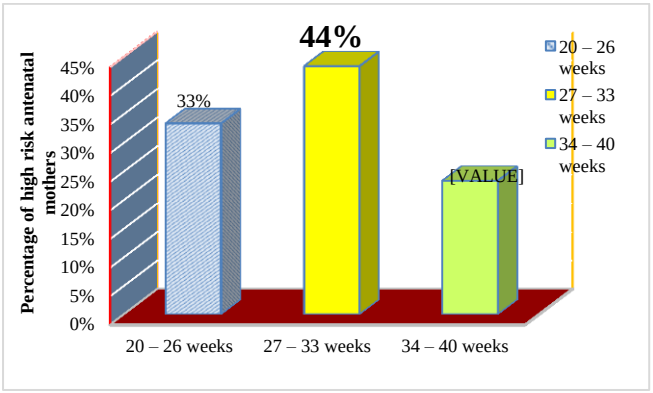

Fig.no 7 Bar diagram representing percentage distribution of high risk antenatal mothers according to their gestational weeks of pregnancy

Percentage wise distribution of high risk antenatal mothers according to their gestational weeks of pregnancy reveals that highest percentage (44%) of them were in 27-33 weeks of gestation, 33% of them were 20-26 weeks of gestation, and 23.%of them were 34-40 weeks of gestation(Fig.no.4.1.7).

n=60

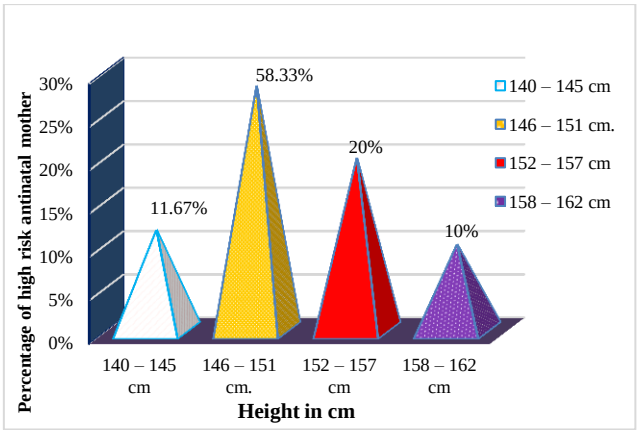

Fig.no:8 Pyramid diagram representing percentage distribution of high risk antenatal mothers according to their height in cm

Percentage wise distribution of the high risk antenatal mothers according to their height in centimeter reveals that highest percentage(58.33%) of them were between 146-151 cm ,20% of them werebetween152-157 cm ,11.67% of them were between 140-145 cm, and 10% of them were between 158-162 cm (Fig.no.4.1.8)

n=60

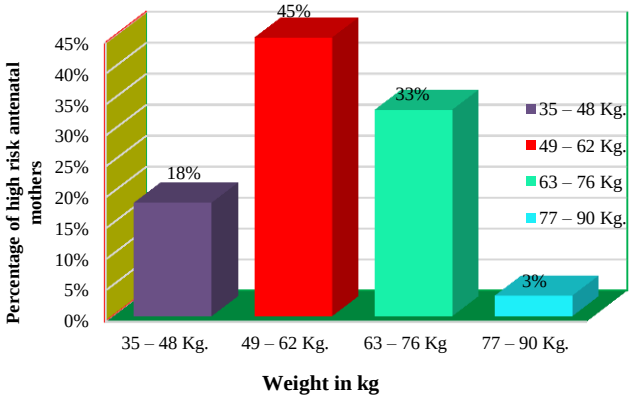

Fig.no 9 Bar diagram representing percentage distribution of high risk antenatal mothers according to their weight in kg.

Percentage wise distribution of high risk antenatal mothers according to their weight in kg reveals that highest percentage(45%) of them were within 49- 62kg., 33.34% of them were within 63-76 kg,18.33% of them were within 35-48 kg., and 3.33% of them were within 77-90kg.(Fig.no.4.1.9).

Section II: Assessment of pre-test level of knowledge of high risk antenatal mothers regarding prevention of complications of high risk pregnancy.

Table no.1 Description of mothers according to their level of knowledge in pre-test in terms of frequency and percentage (n=60)

Level of knowledge	Pre test	
	Frequency	Percentage
Inadequate	10	16.67
Moderate	47	78.33
Adequate	3	5
Total	**60**	**100**

In pre-test knowledge score of high risk antenatal mothers reveals that highest percentage78.33% of them had moderate knowledge,16.67% of them had inadequate knowledge, and only 5% of them had adequate knowledge regarding prevention of complications of high risk pregnancy.

Table no.2 Mean, median and standard deviation of Pre-test knowledge score of high risk antenatal mothers

(n=60)

Knowledge score	Mean	Median	SD
Pre-test	13.62	13	3.68

The mean percentage of pre-test knowledge scores of high risk antenatal mothers regarding prevention of complications of high risk pregnancy was 13.62. The median of pre-test score was 13. The standard deviation of pre-test was 3.68. (Table no.4.2.2)

Section III: **Assessment of post-test level of knowledge of high risk antenatal mothers regarding prevention of complications of high risk pregnancy**.

Table 3 Description of mothers according to their level of knowledge in Post-test in terms of frequency and percentage (n=60)

Level of knowledge	Post test	
	Frequency	Percentage
Moderate	6	10
Adequate	54	90
Inadequate	0	0

In post-test knowledge score of high risk antenatal mothers reveals that highest percentage 90% had adequate knowledge and 10% of them had moderate knowledge regarding prevention of complications of high risk pregnancy.

Table no.4 Mean, median and standard deviation of Post-test knowledge score

n=60

Knowledge score	Mean	Median	SD
Post-test	24.97	26	3.31

The mean percentage of post-test knowledge scores of high risk antenatal mothers regarding prevention of complications of high risk pregnancy was 24.97. The median of post-test knowledge score was 26. The standard deviation of post-test was 3.31.

Section IV: Effect of Planned Teaching Programme on high risk antenatal mothers regarding prevention of complications of high risk pregnancy.

Table no.5 Distribution of statistical value of pre- test and post- test knowledge scores

n=60

Level of knowledge	Pre test		Post test	
	Frequency	Percentage (%)	Frequency	Percentage(%)
Inadequate	10	16.67	0	0
Moderate	47	78.33	6	10
Adequate	3	5	54	90

Compaco Comparison about the level of knowledge on pre-test and post-test scores of high risk antenatal mothers regarding prevention of complications of high risk pregnancy shows that during pre-test highest percentage(78.33%) had moderate knowledge, 16.67% had inadequate knowledge and only 5% had adequate knowledge. However, during post-test the 90% had adequate knowledge, 10% had moderate knowledge and no one had inadequate knowledge in post- test.

Table no.6 Comparison of Mean, Median Mode and SD of Pre-test and Post-test knowledge score of high risk antenatal mothers on prevention of complications of high risk pregnancy

n=60

Knowledge score	Mean	Median	Mode	SD
Pre test	13.61	13	12	3.67
Post test	24.96	26	27	3.31

Comparison of mean post-test knowledge score 24.96 were apparently higher than the mean pre-test knowledge score 13.61. The median of post-test score 26 was found to be higher than the median of pre-test score 13. The standard deviation of pre-test was 3.67 and the standard deviation of post-test was found 3.31 which indicated the post-test knowledge scores were less dispersed than pre-test knowledge scores. Thus, it can be concluded that the post-test knowledge scores were apparently higher than the pre-test knowledge scores, which seems to denote that there was an increased in the post-test knowledge scores after administration of Planned Teaching Programme.

Table 7 Scores Mean, Mean difference, standard deviation, standard deviation difference (SD_D), 't' value of pre-test and post-test knowledge score.

n=60

Knowledge	Mean	Mean difference	SD	SD_D	df	t	p value	Remarks
Pre test	13.62		3.68	0.36	59	20.59	1.28	S
Post test	24.97	11.35	3.31					

(at 0.05 level of significance)

The mean post-test knowledge score was 24.97 of the high risk antenatal mothers was significantly higher than their pre-test mean knowledge score 13.62. the standard deviation of post-test was 3.31 and pre-test standard deviation was 3.68, standard deviation difference was 0.36 and thepaired't' value was 20.59. The p-value equals 0.00, i.e. p-value is less than 0.05 which is the level of significance. It can be interpreted that the gain in knowledge is not by chance and the Structured Teaching Programme on Prevention of Complications of High Risk Pregnancy among high risk antenatal mothers. Hence, the research hypothesis H_1 can be accepted.

Section V: Association between the pre-test knowledge levels of the high risk antenatal mothers on Prevention of Complications of High Risk Pregnancy with selected demographic variables

This section presents the findings on the association between the pre-test knowledge levels of the high risk mothers on prevention of complications of high risk pregnancy with selected demographic variables. To find the association between pre-test knowledge with selected variables, the research hypothesis was as:

H_2: There is significant association between the pre-test level of knowledge in relation to prevention of complications among high risk mothers and selected demographic variables such as age, religion, occupation, monthly family income, dietary pattern, height of the mother in cm, weight of the mother in kg.

Table no 8 Association between pre-test level of knowledge with selected demographic variables f high risk antenatal mothers

Demographic variables	Knowledge Score			Total	Obtained Chi Square value (χ^2)	df	Table value	P value	Remarks
Age	Inadequate	Moderate	Adequate						
18-23 years	2	14	1	17					
24-29 years	3	15	0	20					NS
30-34 years	5	8	0	13	8.96	6	12.59	0.18	
>35	0	10	0	10					
Religion									
Hindu	10	29	3	42					
Islam	0	15	0	15					NS
Christian	0	3	0	3	0.16	4	9.49	0.41	
Others	0	0	0	0					
Educational qualificaton									
Noformal education	0	2	0	2					
High School	4	10	0	14					NS
Higher sec	4	27	3	34	4.59	6	12.59	0.60	
Graduate	2	8	0	10					
Occupation									
House wife	3	26	1	30					
Private service	5	8	0	13					
Govt. service	2	11	2	15	8.84	6	12.59	0.18	NS
Daily wage	0	2	0	2					
Monthly family income									
<Rs.10,001/=	3	14	1	18					
Rs.10,002-Rs. 29,972	4	21	2	27					
Rs.29,973-Rs. 49,961	3	9	0	12	2.33	6	12.59	0.89	NS
Rs.49,962-Rs.74,755	0	3	0	3					
Dietary pattern									
Vegetarian	2	7	1	10	0.79	2	5.99	0.67	NS
Non veg	8	40	2	50					
Height in cm.									
140-145 cm	0	7	0	7					
146-151 cm	7	26	2	35					
152-157 cm	2	9	1	12	2.88	6	12.59	0.82	NS
158-162 cm	1	5	0	6					
Weights in kg									
35-48 kg	2	7	2	11					
49-62 kg	6	21	0	27					
63-76 kg	2	17	1	20	7.19	6	12.59	0.30	NS
77-90 kg	0	2	0	2					

(at 0.05 level of significance) NS-Non significant

CONCLUSION

From the study it is observe that, the distribution of pre-test knowledge of the high risk antenatal mothers showed that among 10 high risk antenatal mothers 6(60%) have inadequate knowledge, 4(40%) have moderate knowledge, and no one had adequate knowledge regarding prevention of complication of high risk pregnancy. The distribution of post-test knowledge of the high risk antenatal mothers showed that among 10 high risk antenatal mothers, 10 (100%) had adequate knowledge and none of them had inadequate and moderate knowledge. The mean post-test knowledge score (24.1) of the high risk antenatal mothers was significantly higher than their pre-test mean knowledge score (11.6). The calculated 't' value (5.0462) was higher than the tabulated value (1.833). The standard deviation of pre-test was 3.7178 and the standard deviation of post-test is 2.4244.

Thus, it can be concluded that the post-test knowledge scores were apparently higher than the pre-test knowledge scores, which seems to denote that there were increased in the post-test knowledge scores after administering of Planned Teaching Programme. It has been observed from the present study, the mean percentage of post-test knowledge score (24.96) of the high risk antenatal mothers was significantly higher than their pre-test mean knowledge score (13.61). The calculated't' value (20.59) was higher than the tabulated value (df 59) at 0.05 level of significance. Since p-value is approximately equals 0, i.e. *p*-value is less than 0.05 which is the level of significance, thus it can be interpreted that the Planned Teaching Programme on Prevention of Complications of High Risk Pregnancy among high risk antenatal mothers was an effective teaching strategy as revealed by statistical results.

References

1. C Sarganthy. Effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers. 2011-12; Last Modified: 24 Nov 2017. Available from: http://repository-tnmgrmu.ac.in/id/eprint/3995
2. PonnoseR, KarkiS. Effectiveness of planned teaching programme on knowledge about high risk pregnancy among muslim women in selected ward,bhairahawa,Nepal.AJNER.2015;5(3):323-326Availablefrom:www.indianjournal.com
3. Kaur G, Kaur R, Sharma S.A quasi experimental study to assess the effectiveness of structured teaching programme on knowledge regarding postnatal complications among high risk antenatal mothers attending antenatal outpatient department at selected hospitals of jalandhar, punjab.IJANM.2015;3(4):329-333.Available from: www.indianjournals.com
4. WHO. Maternal Mortility. Who.net [internet]. Cited this article on: 19 september 2019. Availaible from: www.who.net.
5. Vinoba J, Sridevi R, Ruba A.A Descriptive Study to Assess the Knowledge on Pregnancy Induced Hypertension among Antenatal Mothers Attending OG OPD at VMMCH, Karaikal.IJRR.2018;5(12):23-25. Available from: www.ijrrjournal.com
6. Macrotrends. India MMR 2000-2020. Microtrends.net [internet].Updated year: September 2020. Available from: www.microtrends.net
7. Majella G M, Gokul S, *et.al*. A longitudinal study on high risk pregnancy and its outcome among antenatal women attending rural primary health centre in Punducherry, South India. JEHP.2019; 77(4); 402-409. Available from: www.jehpjehp.com
8. Sinha D, Shruvastava S. Prevalence of anemia during pregnancy and its association with adverse perinatal outcome in Madhya Pradesh, India. IJRCOG. 2019; 8(3): 845-848. Available from: www.rjrcog.org
9. Pegul B and Gaur B P S.Elderly primipara and a comparative analysis of their pregnancy outcome with younger primipara.IJRMS.2018;6 (11):3478-3481. Available from: www.msjonline.org
10. Lal MN, Siddiqui MI. Effectiveness of structured teaching programme on knowledge regarding identification of high risk pregnancies among auxiliary nurse midwives (ANMs') in Community Health Centre, Sarojini Nagar at Lucknow. International Journal of Nursing Education and Research. 2020 Nov 16;8(4):454-62.Available on: https://ijneronline.com

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