"A study to assess the impact of planned Teaching Programme on knowledge regarding Pre-eclampsia among pregnant women at SKIMS maternity Hospital Srinagar Kashmir."

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ABSTRACT

The study was conducted with an aim to improve the knowledge of pregnant women regarding pre-eclampsia, to promote health and to encourage them to establish healthy patterns of behaviour that will influence their health, as the pregnant women are at high risk of morbidity and mortality.

METHODOLOGY

Quantitative research approach with pre-experimental one group pre-test post test research design was used to assess the effectiveness of planned teaching programme regarding pre-eclampsia among pregnant women at SKIMS Maternity Hospital Srinagar. Purposive sampling technique was used for selection of 50 pregnant women from accessible population. The obtained data was analysed by using descriptive and inferential statistics.

RESULTS

The knowledge level of study subjects regarding pre-eclampsia showed that in pre test score, among the total sample (N= 50), majority of subjects (94%) had moderate knowledge, Whereas in post test majority of Subjects (88%) had adequate knowledge, regarding pre-eclampsia.The mean post-test knowledge score (28.76±2.62) was higher than the mean pre-test knowledge score (17.84±3.78). This indicates the effectiveness of planned teaching programme regarding pre-eclampsia among pregnant women.

It was found that there was significant association between pre-test knowledge score with demographic variables i.e., education and occupation **(0.001, 0.03)** and was significant at 0.05 level with p-value<0.005 However there was no was statistically significant association between pre-test knowledge score with their demographic variables like age, monthly income, gravidity **(0.544, 0.189, 0.602** respectively) at level p<0.005.

CONCLUSION

The findings of the study concluded that pregnant women did not possess adequate knowledge regarding pre-eclampsia and. The health education package was found effective in increasing the knowledge of study subjects regarding pre-eclampsia, hence there was need to educate them.

Key words: knowledge, pre-eclampsia, planned teaching programme, pre-test, Post-test.

INTRODUCTION

> *"There is no love like a mother's love,*
> *no stronger bond on earth,*
> *Like the precious bond that comes from God,*
> *to a mother when she gives birth."*

Pregnancy is the most memorable moment in a women's life. Many medical disorders can complicate this memorable moment and the leading one is hypertension.

Hypertension is one of the most common reasons for women to be admitted to the hospital. The amount of attention received by a woman with 'hypertension' depends very much upon what kind of disease it causes and how high the blood pressure (BP) actually is. The most important cause of hypertension in pregnancy is a disease called pre-eclampsia.

Pre-eclampsia is derived from a Greek word 'eklampsia' means sudden flashing. Preeclampsia which is also called toxemia is a problem that occurs in some women during pregnancy. It manifests during the second half of pregnancy. Affecting at least 5% of all pregnancies, it is a rapidly progressive condition characterized by high blood pressure, swelling in the limbs or face, and protein in urine. The high blood pressure can affect the brain, kidney, liver and lungs. If untreated, pre-eclampsia can lead to eclampsia, which is very serious. Pre-eclampsia and eclampsia are the most important causes of death during pregnancy in the UK, USA and Nordic countries.

Pre-eclampsia is a multi-system disorder of unknown etiology characterized by rise in blood pressure to the extent of 140/90 mm Hg or more with proteinuria after 20th week in a previously normotensive and non-proteinuria women.

Pre-eclampsia affects approximately 6-8% of all pregnancies worldwide with onset of symptoms in the late second or third trimester, most commonly after the 32nd week. Some women will experience pre-eclampsia as early as 20 weeks, though this is rare. It is much more common in women who are pregnant for the first time, and its frequency drops significantly in second pregnancies. While change of paternity in a subsequent pregnancy is now thought to lower risk except in those with a family history of hypertensive pregnancy, since increasing maternal age raises risk, it has been difficult to evaluate how significant paternity change actually is and studies are providing conflicting data on this point. Five to 10% of women in their first time pregnancies

develop pre-eclampsia. A woman in this country is very unlikely to die because of it, mainly because they are not recognized early, investigations performed and proper treatment given. There are similar risks for the baby, and a part of the assessment includes ensuring she is well.

Symptoms of pre-eclampsia can include: Swelling of the hands and face/eyes (edema), sudden weight gain over 1-2 days, more than 2 pounds a week. The severe forms of pre-eclampsia are often associated with complications such as hemolysis, elevated liver enzymes and low platelet count (HELLP) syndrome, placenta abruption, and eclampsia, which are life-threatening for mother and fetus.

Early recognition and prompt treatment of preeclampsia are essential during prenatal care. However, antenatal mothers with preeclampsia should acquire the essential knowledge about complications and follow -up care. Nevertheless, the public health perspectives on early and regular prenatal care found a lack of knowledge regarding preeclampsia among antenatal mothers.

Management of mild pre eclampsia can be done by rest, diet, sedatives, diuretics and antihypertensive. Severe pre eclampsia can be managed with either induction of labor or caesarean section.

A study conducted among Orang Asli women in Nigeria Sembilan, Malaysia showed that the level of their knowledge regarding the importance of early antenatal care and complications of hypertension to fetus growth was poor.

Knowledge is a vital element to enable pregnant mothers to be aware of their obstetric health status and the importance of appropriate antenatal care.

STATEMENT OF THE RESEARCH PROBLEM

"A study to assess the impact of Planned Teaching Programme on knowledge regarding Pre-eclampsia among pregnant women at SKIMS Maternity Hospital Srinagar Kashmir."

OBJECTIVES OF THE STUDY

1.   To assess the pre-test knowledge score among pregnant women regarding pre- eclampsia at SKIMS Maternity Hospital Srinagar Kashmir.

2.   To assess the post-test knowledge score among pregnant women regarding pre-eclampsia at SKIMS Maternity Hospital Srinagar Kashmir.

3.   To compare the pre-test and post-test knowledge scores among pregnant women regarding pre-eclampsia at SKIMS Maternity Hospital Srinagar Kashmir.

4   To find the association between pre-test knowledge score with their selected demographic variables (age, occupation, educational level, monthly income and gravidity).

.RESEARCH HYPOTHESES

H$_1$:- There is significant increase in the mean post-test knowledge score as compared to the mean pre-test knowledge score among pregnant women regarding pre-eclampsia at 0.05 level of significance.

H$_2$:- There is significant association between pre-test knowledge scores of pregnant women with selected demographic variables (age, occupation, education level, monthly income and gravidity).

DELIMITATIONS OF THE STUDY

The study is limited for

I. A period of 6 weeks.

II. Selected maternity hospital SKIMS Srinagar Kashmir.

OPERATIONAL DEFINITION

1. **Knowledge: -** In this study, it refers to the items related to pre-eclampsia assessed by structured interview schedule.

2. **Pre-eclampsia:-** In this study, it refers to high blood pressure equal to or exceeding 140/90 mmHg and/ or edema and /or proteinuria.

3. **Pregnant women:-** In this study, it refers to the pregnant women under study with hypertension with gestational period of ≤ 20 weeks till term and who are admitted in ward of Maternity Hospital SKIMS Srinagar Kashmir.

4. **Planned teaching programme:-** In this study, it refers to a systematically developed instructional programme designed for pregnant women under study to provide information regarding pre-eclampsia on meaning, risk factors, signs and symptoms,

REVIEW OF LITERATURE

The literature review that was undertaken for the purpose of conducting this study has been presented under the following headings:

1. Literature related to incidence and prevalence of pre-eclampsia.
2. Literature related to risk factors of pre-eclampsia.
3. Literature related to effect of pre-eclampsia on pregnancy outcome.
4. Literature related to knowledge of the pregnant women regarding pre-eclampsia.
5. Literature related to impact of planned teaching programme regarding pre-eclampsia.

RESEARCH METHODOLOGY

"Methodology is a way to solve research problem .It may be understood as a science of studying how research is done scientifically."

STUDY POPULATION

Population is an entire group of people, objects or events which have at least one characteristic in common and must be defined specifically and unambiguously.

Target population:

In the present study, the target population was all pregnant women with pre-eclampsia attending Maternity Hospital SKIMS Soura.

Accessible population: The accessible population for the present study is pregnant women admitted in antenatal ward of SKIMS Maternity Hospital Srinagar Kashmir.

SAMPLE AND SAMPLING TECHNIQUE

SAMPLE

The present study was conducted on 50 pregnant women admitted in antenatal ward of Maternity Hospital SKIMS Srinagar Kashmir who were available during the period of data collection. The sample in this study consisted of pregnant women with pre-eclampsia between ≥20 weeks.

SAMPLING TECHNIQUE

The sample was selected by using purposive sampling technique from the selected hospital. In this technique, sample was chosen by choice not by chance. Among all pregnant women, researcher only selected those pregnant women who were having pre-eclampsia and whose gestational age was ≥ 20 weeks.

VARIABLES OF THE STUDY:

The present study aimed to assess the effectiveness of planned teaching programme on Knowledge regarding pre-eclampsia among pregnant women at SKIMS Maternity Hospital .

Dependent variable:

The dependent variable of the present study was Knowledge regarding pre-eclampsia among pregnant women.

Independent variable:

The independent variable of the present study is planned teaching programme of Knowledge regarding pre-eclampsia among pregnant women.

Demographic variable:

Demographic variables selected for this study were age in years, occupation, educational level, monthly income and gravidity.

CRITERIA FOR SELECTION OF SAMPLE:

A criterion for selection of sample was based on cost, practical concern, design and the people's ability to participate in the study. The present study has mainly two criteria: inclusion and exclusion criteria.

Inclusion Criteria:

- Pregnant women with 20 weeks of gestation or more.
- Who were hypertensive.
- Willing to participate for the study.
- Available at the time of data collection.
- Who were admitted in SKIMS Maternity Hospital.

.**Exclusive Criteria:** Pregnant women

- Whose gestation age is less than 20 weeks.
- Who were with normal gestation or with other co morbid factors.
- Not willing to participate for the study.
- Not available at the time of data collection.
- Who were attending OPD of SKIMS Maternity Hospital

VARIABLES OF THE STUDY

Independent variables

In this study is planned teaching programme on pre-eclampsia among pregnant women.

Dependent variables

In this study is the knowledge gained by pregnant women on pre-eclampsia.

Demographic variables

In this study are pregnant women's age, occupation, educational level, monthly income and gravid of the mother.

RELIABILITY OF THE TOOL

Reliability means that the investigator consistently comes up with same measure when used on repeated occasions.

To establish reliability, the tool was administered on two different occasions to 3 pregnant women other than the subjects. The reliability of the tool was established by testing the stability and internal consistency. The test re-test method was used to test the reliability of the tool. Scores obtained at two different occasions were compared and calculated by using Karl Pearson's correlation reliability coefficient. The coefficient of reliability of knowledge was 'r' **0.87**. Hence the tool was found to be statistically significant and reliable.

METHOD OF DATA COLLECTION:-

Data collection is the gathering of information needed to address a research problem. Prior to data collection, permission was obtained from the medical superintendent (Annexure III), nursing superintendent (Annexure V), HOD Maternity Hospital (Annexure IV), staff of IPD and pregnant women for conducting the study. Purposive sampling technique was used to select accessible population. Prior to data collection the investigator introduced herself and explained the purpose of the study and informed consent was obtained from pregnant women (Annexure XI AND XII). The pregnant women were assured about the anonymity and confidentiality of the information provided by them. Following procedure was adopted to collect data:

The steps used in the data collection were as:
1. On day 1st, the researcher went to SKIMS Maternity Hospital Srinagar. The researcher introduced herself and explained the purpose of the study to the subjects.
2. The pre-test assessment was done by using structured interview schedule to assess the knowledge of pregnant women regarding pre-eclampsia. After collecting data regarding demographic variables. It took 30 minutes per subject.
3. The planned teaching programme was given in face to face form with the help of flip books. (ANNEXURE XIX)
4. The time taken in administering planned teaching programme was 40-50 minutes.
5. On the 4th day, post-test of subjects was conducted using the same tool.
6. 3 or 4 subjects were selected per day and same schedule was used for data collection period.

RESULTS

SECTION 1:

This section deals with the distribution of study subjects according to their demographic variables. The data obtained on the demographic variables included age, occupation, education level, monthly income and gravidity.

TABLE 1: Distribution of Study Subjects according to their age.

n =50

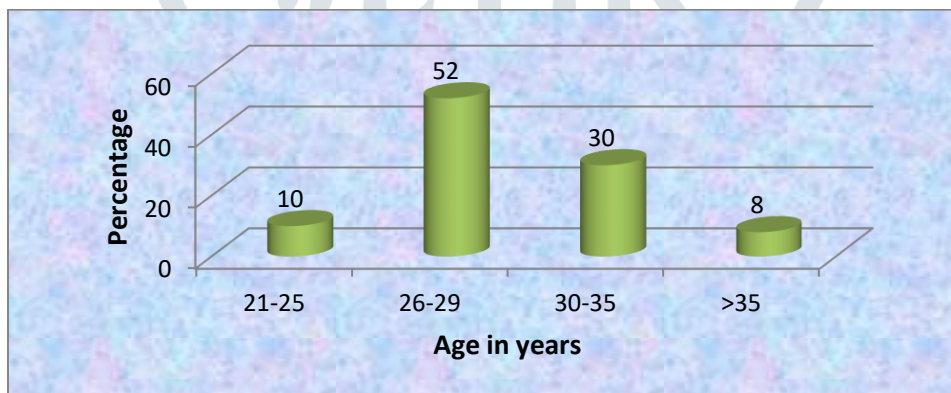| Age in years	Frequency	Percentage
21-25	5	10
26-29	**26**	**52**
30-35	15	30
>35	4	8
Total	50	100

Figure 1 Bar Graph Showing Distribution of Subjects according to their Age.

The data presented in Table 1 and Fig. 1 indicates majority of study subjects 52% belonged to age group of 26-29 years, whereas 30% belonged to the age group of 30-35 years,10% belonged to the age group of 21-25 years, and only 8% belonged to the age group of >35years.

Table 2: Distribution of Study Subjects according to their education level

n=50

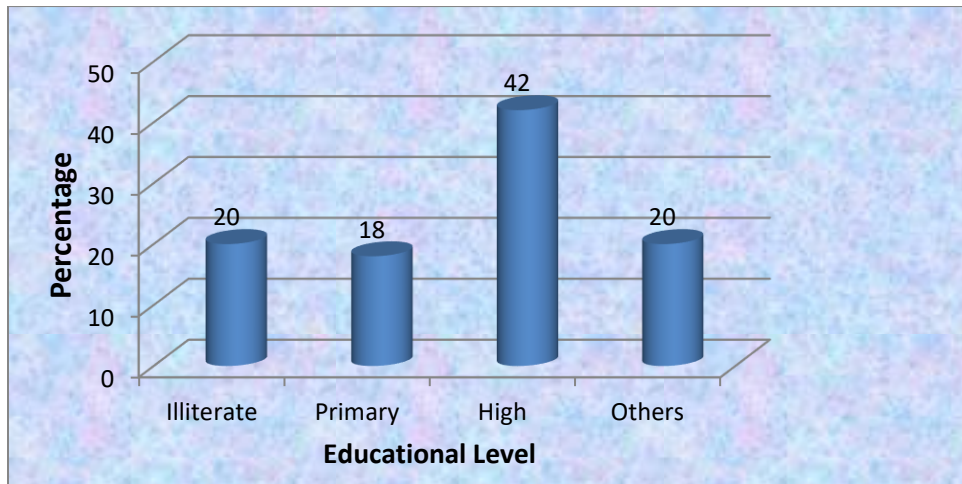| Educational Status	Frequency	Percentage
Illiterate	10	20
Primary	9	18
High School	**21**	**42**
Others	10	20
Total	50	100

Figure 2: Bar Graph Showing Distribution of Study subjects according to Educational Level

The data Presented in Table 2 and Fig. 2 indicate majority of study subjects (42%) belonged to the highly educated group; 20% belonged to the illiterate group, 18% belonged to the primary group,   and 20% belonged to the others.

Table 3: Distribution of Study Subjects according to their monthly income

n =50

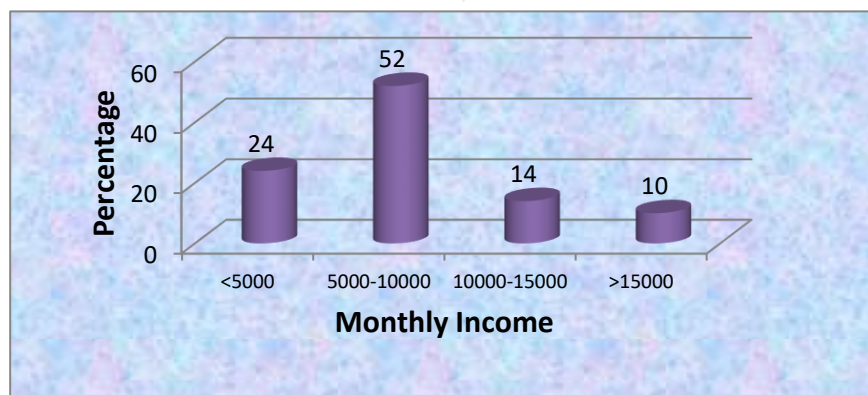| Monthly Income in Rupees	Frequency	Percentage
<5000	12	24
5000-10000	**26**	**52**
10000-15000	7	14
>15000	5	10
Total	50	100

Figure 3 Bar Graph showing distribution of study subjects according to monthly income.

The data Presented in Table 3 and Fig. 3 indicates the distribution of study subjects according to monthly income,52% belonged to monthly income between 5000-10000; 24% belonged to the <5000; 14% belonged to those who have monthly income between 10000-15000 and 10% belonged to those who have monthly income >15000.

Table 4: Distribution of Study Subjects according to their gravidity

n=50

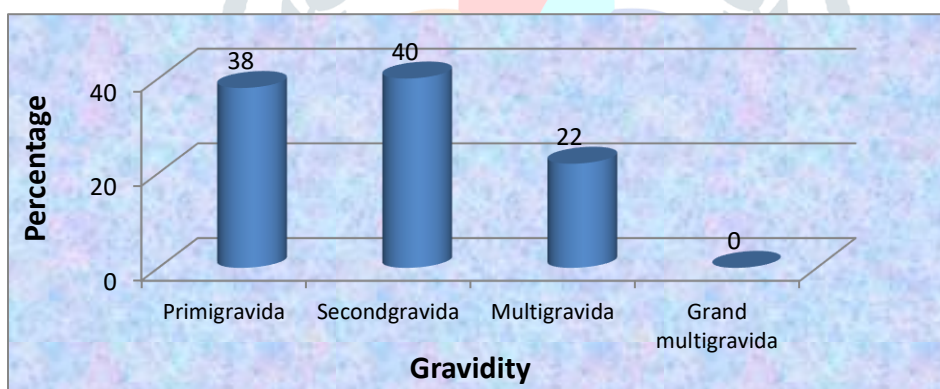| Gravidity	Frequency	Percentage
Primigravida	19	38
Secondgravida	**20**	**40**
Multigravida	11	22
Grand multigravida	0	0
Total	50	100

Figure 4: Bar Graph Showing Distribution of subjects According to Gravidity

The data presented in Table 4 and Fig. 4 indicates majority of study subjects were either Primigravida 38% or secondgravida 40%.There were 22% multigravida. None of the subjects were grand multigravida.

SECTION 2:

(I) Assessment of pre-test and post-test knowledge score of study subjects regarding pre-eclampsia.

This section deals with the analysis and interpretation of data obtained from 50 study subjects on their pre and post-test on knowledge score regarding pre-eclampsia.

Table 5: Distribution of pre-test knowledge score of study subjects on knowledge regarding pre-eclampsia.
n=50

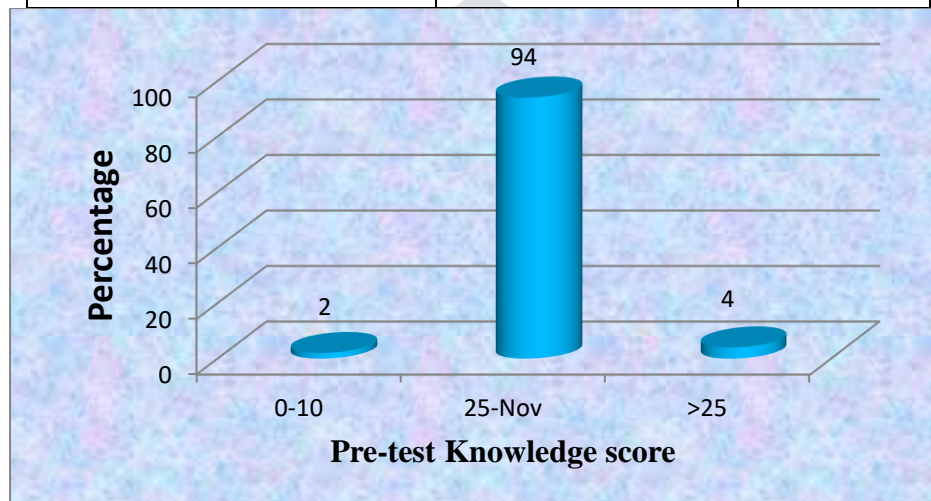| Knowledge Score	Pre-test Knowledge Score	
	Frequency	Percentage
Inadequate Knowledge(0-10)	1	2
Moderate Knowledge(11-25)	**47**	**94**
Adequate Knowledge(≥ 25)	2	4
Total	50	100

Figure 5: Bar graph showing pre- test knowledge score of study subjects on knowledge regarding pre-eclampsia.

The data presented in Table 5 and Fig. 5 reveals that in pre-test knowledge score, majority of subjects 94% had moderate knowledge, whereas few subjects 4% had adequate knowledge and 2% had inadequate knowledge.

Table 6: Distribution of post - test knowledge score of study subjects on knowledge regarding pre-eclampsia after implementation of planned teaching programme.

n=50

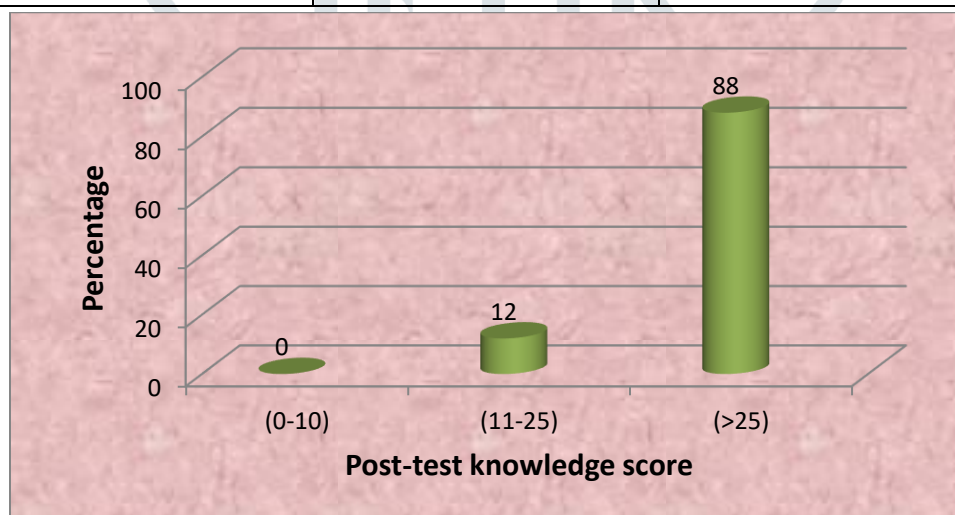| Knowledge Score	Post-Test Knowledge Score	
	Frequency	Percentage
Inadequate Knowledge (0-10)	0	0
Moderate Knowledge (11-25)	6	12
Adequate Knowledge (≥ 25)	**44**	**88**
Total	50	100

Figure 6: Bar Graph showing Post- test knowledge score of study subjects on knowledge regarding pre-eclampsia.

The data in the table 6 and fig. 6 shows distribution of study subjects in relation to their post-test knowledge scores. The data indicates majority of them belonged to 88% of subjects had adequate knowledge, 12% had moderate knowledge and while none of the subjects had inadequate knowledge regarding pre-eclampsia.

 (II) Comparison between pre-test and post-test knowledge scores of study subjects regarding pre-eclampsia.

This section deals with the comparison of the pre-test and post-test knowledge scores of 50 study subjects regarding pre-eclampsia.

To compare the results, following null hypothesis was formulated:

H_{01}: There is no significant increase in mean post-test knowledge score as compared to mean pre-test knowledge score among pregnant women regarding pre-eclampsia.

Table 7: Comparison of pre & post test knowledge scores of study subjects regarding pre-eclampsia:

n=50

	Pre-test		Post-test	
Knowledge Score	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Inadequate Knowledge (0-10)	*1*	*2*	*0*	*0*
Moderate Knowledge (11-25)	*47*	**94**	*6*	*12*
Adequate Knowledge (≥25)	*2*	*4*	*44*	**88**
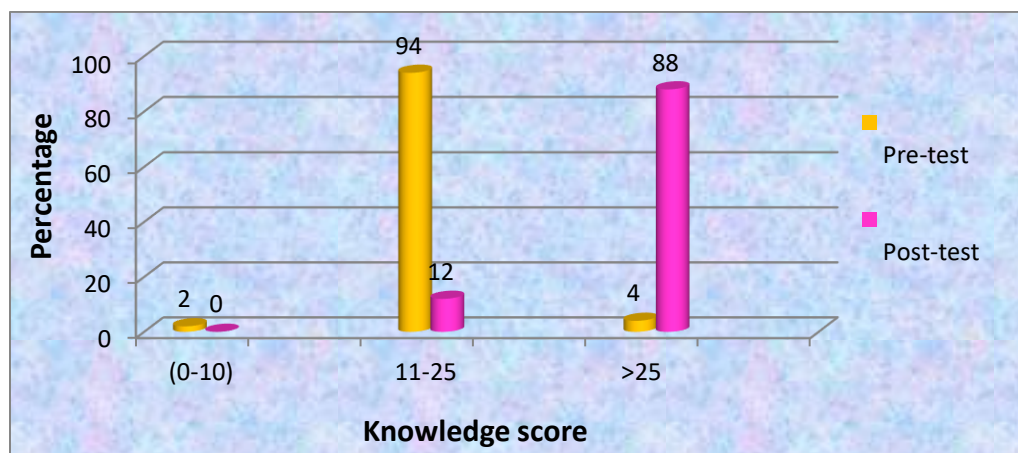
Figure 7: Bar graph showing comparison of pre-test and post-test knowledge score of study subjects.

The data represented in table 9 and fig. 10 depicts that in pre-test knowledge score, majority of subjects 94% had moderate knowledge, 4% had adequate knowledge and 2% had inadequate knowledge. Whereas in post-test, 88% of subjects had adequate knowledge, 12% had moderate knowledge and none of the subjects had inadequate knowledge regarding pre-eclampsia. This shows that subjects had gained knowledge regarding pre-eclampsia which is evident from post test knowledge scores.

Table8: Mean, Std Deviation and Mean Difference of pre-test and post- test knowledge score:

n=50

PRE & POST TEST KNOWLEDGE				
	Mean	**Std. Deviation**	**Mean Difference**	**P-VALUE**
PRE -TEST KNOWLEDGE	17.84	3.781588	10.92	P<0.005
POST- TEST KNOWLEDGE	28.76	2.615183		

From the table 8 it is evident that the mean difference between the pre-test and post-test knowledge score was 10.92 which was found to be significant at the level of p<0.05.

Therefore the researcher rejected the null hypotheses H_{01} and accepted the research hypothesis H_1 i.e. there is significant increase in mean post-test knowledge score as compared to mean pre-test knowledge score among pregnant women regarding pre-eclampsia. Hence it can be concluded that there is highly significant increase in mean post-test knowledge score then pre-test knowledge score. Thus the teaching programme was effective in terms of gain in knowledge among study subjects regarding pre-eclampsia in all aspects.

Table 8: Association between pre –test knowledge scores of study subjects regarding pre-eclampsia with selected demographic variables.

ASSOCIATION OF PRE-TEST KNOWLEDGE SCORE				
DEMOGRAPHIC VARIABLE	**MEAN±SD**	**95% CI**		**P-VALUE**
		Lower bound	**Upper bound**	
AGE				
21-25	16.6±1.34	15.86	18.72	0.544 (N.S)
26-29	18.58±4.43			
30-35	17.27±3.39			
>35	16.75±1.70			
OCCUPATION				
HOUSE WIVES	17.84±3.78	16.76	18.91	P<0.001(S)*
EDUCATIONAL Level				
Illiterate	15.90±2.92	16.82	18.95	0.03(S)*
Primary	17.33±2.82			
High	17.62±4.12			
Others	20.70±3.26			
MONTHLY INCOME				
<5000	17.75±2.76	17.35	19.89	0.189 (N.S)
5000-10000	17.00±3.62			
10000-15000	19.14±4.84			
>15000	20.60±4.45			
GRAVIDITY				
Primigravida	17.21±3.86	16.69	18.95	0.602 (N.S)
Secondgravida	18.45±4.01			
Multigravida	17.82±3.31			

*S: Significant at 0.05 levels   *N.S: not significant at 0.05 levels

Therefore the researcher rejected the null hypotheses H_{03} and accepted the research hypothesis H_3 i.e. there is significant association between mean pre-test knowledge of pregnant women with selected demographic variables i.e. age, occupation, education level, monthly income and gravidity.

CONCLUSION

The following conclusion was drawn on the basis of the findings of the study:

1. Pre-test findings showed that the pregnant women did not possess adequate knowledge regarding Pre-eclampsia thus this vulnerable group needs to be educated.

2. Planned teaching programme was effective in improving the knowledge regarding pre-eclampsia, hence there is need to conduct education programmes to abreast knowledge of pregnant women.

3. Significant association between the demographic variables like occupation and education level was found with the pre-test knowledge which indicates that probably these variables occupation and education enhances their knowledge regarding pre-eclampsia.

4. However there was no significant association between pre-test knowledge score with their demographic variables like age, monthly income, gravidity which indicates that these variables have no effect on pregnant women knowledge with pre-eclampsia.

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