

Effectiveness Of Planned Teaching About Knowledge Regarding Antenatal Exercises Among Primigravida Mothers In Selected Hospital.

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ABSTRACT

Introduction: Health is a fundamental human right. It is central to the concept of quality of life. Health and its maintenance is a major social investment and is World-wide social goal. Health is multidimensional. This health may be assessed by such indicators as death rate, infant mortality rate and expectation of life. Ideally, each piece of information should be individually useful and when combined should permit a more complete health profile of individuals and communities. Reproductive health is a universal concern, but is of special importance for women during the reproductive years. In old age of women, general health continues to reflect earlier reproductive life events. During the childbearing years, from conception through postpartum recovery, a woman undergoes extensive changes which frequently necessitate many adaptations, and hormonal changes occur gradually throughout the 9 months of pregnancy, and these are reversed in a matter of weeks during postpartum recovery. Skeletal tissue, muscle and connective tissue, blood volume, cardiac output, body weight, and posture are affected Antenatal exercises prevent the over stretching of muscles (abdominal and pelvic muscles) and strengthen them for preparation of labour and support for loosened joints, and decrease muscles tension that promote relaxation. And also there is decreased risk of developing gestational diabetes and pregnancy induced hypertension (high blood pressure). Side by side there is improved self image and body awareness, circulation, posture and weight control etc.**The present study title:** Effectiveness of planned teaching about knowledge regarding antenatal exercises among primigravida mothers in selected hospital. Objectives of the study to assess the knowledge regarding antenatal exercises among primigravida mothers before planned teaching to evaluate the knowledge regarding antenatal exercises among primigravida mothers after planned teaching to find out the association between the pre test level of knowledge of the primigravida mothers regarding antenatal exercises with their selected demographic variables. **Material and Methods:** In present study, researcher adopted Quasi experimental one group pre-test post-test design was used. The study carried out 30 samples. Ethical clearance was taken. A Non-probability convenient Sampling Technique was used. The significance was calculated by using mean, standard deviation, and calculated 't' value, and association was done by Fisher's exact test with demographic variable. **Result:** The pre-test, 25 (83.33%) primigravida mothers had poor knowledge, 5 (16.67%) primigravida mothers had average knowledge and none of the primigravida mothers had good knowledge on antenatal exercises. The post test, 3 (10%) primigravida mothers had poor knowledge, 17 (56.67%) primigravida mothers had average knowledge and 10 (33.33%) primigravida mothers had good knowledge on antenatal exercises. **Conclusion:** was concluded undoubtedly that the written prepared material by the investigator in the form of planned teaching helped the primigravida mothers to improve their knowledge regarding antenatal exercises.

Keywords: (Assessement, Knowledge, Effectiveness, Planned Teaching, Antenatal Exercise)

INTRODUCTION

Health is a fundamental human right. It is central to the concept of quality of life. Health and its maintenance is a major social investment and is World-wide social goal. Health is multidimensional. This health may be assessed by such indicators as death rate, infant mortality rate and expectation of life. Ideally, each piece of information should be individually useful and when combined should permit a more complete health profile of individuals and communities. Regular physical activity and more specifically regular exercise play an important role to fight against stress. It provides recreation and mental reliability, beside keeping the body physically and mentally fit. Reproductive health is a universal concern, but is of special importance for women during the reproductive years. In old age of women, general health continues to reflect earlier reproductive life events. During the childbearing years, from conception through postpartum recovery, a woman undergoes extensive changes which frequently necessitate many adaptations, and hormonal changes occur gradually throughout the 9 months of pregnancy, and these are reversed in a matter of weeks during postpartum recovery. Skeletal tissue, muscle and connective tissue, blood volume, cardiac output, body weight, and posture are affected. Physiological changes occur in pregnancy to nurture the developing fetus and prepare the mother for labour and delivery. Some of these changes influence normal biochemical values while others may mimic symptoms of medical disease. It is important to differentiate between normal physiological changes and disease pathology. This review highlights the important changes that take place during normal pregnancy. 4 Minor disorders of pregnancy are a series of commonly experienced symptoms related to the effects of pregnancy hormones and the consequences of enlargement of the uterus as the fetus grows during pregnancy. The conditions themselves pose no serious risk to the mother, but they are unpleasant and can affect her enjoyment of the pregnancy overall. Close questioning of the mother is necessary to ascertain that the symptoms are not masking a more serious problem, and a sympathetic and helpful approach with prompt advice and treatment is needed. Antenatal exercises prevent the over stretching of muscles (abdominal and pelvic muscles) and strengthen them for preparation of labour and support for loosened joints, and decrease muscles tension that promote relaxation. And also there is decreased risk of developing gestational diabetes and pregnancy induced

hypertension (high blood pressure). Side by side there is improved self image and body awareness, circulation, posture and weight control etc. Exercise during pregnancy continues to demonstrate marked benefits for mother and fetus. The type, intensity, frequency and duration of the exercises seem to be important determinants of beneficial effects. Maternal benefits include improved cardiovascular function, limited weight gain and fat retention, improved attitude and mental state, easier and less complicated labour, quick recovery and improved fitness. Fetal benefits may include decreased growth of the fat organ, improved stress tolerance, and advanced neurobehavioral maturation. In the absence of medical contraindication, women should be encouraged to maintain their pregnancy activity level.

NEED FOR THE STUDY

Pregnancy is a time when women need to be prepared mentally and physically to meet the challenges of child birth and the transitions to parenthood. A study was conducted in this regard. The main aims of the authors study were to investigate the effects of undertaking a regular exercise programme during and following pregnancy on psychological well being, pregnancy and birth outcomes. Data were collected at 3 points during and following pregnancy using a variety of outcome measures and was analyzed using appropriate statistical testing. Conclusions were drawn indicating that women who participated in regular physical activity tend to have protection against reduction of psychological well being as measured by variety of psychological constructs. Current medical practice recommends that pregnant women should most assuredly engage in some sort of exercise regimen while pregnant. Exercising during pregnancy is good for the mother. Pregnant women who exercise tend to have reduced risk of obesity, gestational diabetes, hypertension, and preeclampsia. Back pain can affect women of child bearing age whether pregnant or not. Approximately 70% of women will report low back pain at some point in their lives. However, during pregnancy alone, the incidence of back pain is reported by 50–80% of women. One-third of pregnant women claim that low back pain is a significant problem. In a study by Stapleton et al. 61.8% of women who reported low back pain during pregnancy claimed the pain was at least moderately severe, 9% claimed they were completely disabled by pain.

OBJECTIVES OF THIS STUDY

To assess the knowledge regarding antenatal exercises among primigravida mothers before planned teaching.
To evaluate the knowledge regarding antenatal exercises among primigravida mothers after planned teaching.
To find out the association between the pre test level of knowledge of the primigravida mothers regarding antenatal exercises with their selected demographic variables.

REVIEW OF LITERATURE

Many studies have been carried out on Epsom salt. Some of the studies carried out to assess the effect of Epsom salt on knee joint pain. Review of the relevant studies was carried out from the textbooks, journals of preventive social medicine, REVIEW OF LITRARE UNDER FOLLOWING HEADING

Review of literature related to effect of antenatal exercises on pregnancy and it's outcome.

A cross-sectional study was conducted on Physical Activity Patterns and Factors Related to Exercise during Pregnancy. Objective was to assess the physical activity levels of pregnant women and to examine the characteristics associated with the practice of exercise and the activities of daily living during pregnancy. A total 1,279 women were recruited within 72 hours postpartum. They were interviewed about their socio-demographic data and obstetric history and were administered self-report questionnaires about exercise and daily physical activities during pregnancy. The results showed that compared to the pre-pregnancy period, the prevalence of physical activity among participants was lower throughout pregnancy (20.1%). The lowest prevalence of exercise was observed in the first (13.6%) and third trimesters (13.4%). Less than half of women received exercise guidance during prenatal care meetings (47.4%). There were no differences in maternal and perinatal outcomes between active and sedentary pregnant women.

A cross-sectional study was conducted on practice and pattern of antenatal and postnatal exercise among Nigerian women. Aim was to assess practice and pattern of antenatal and postnatal exercise among Nigerian women. The total 365 women (189 pregnant women and 179 nursing mothers) from 6 selected hospitals in south-west Nigerian. Data were obtained on socio-demographic and obstetric characteristics, and practice of antenatal and postnatal exercise. Descriptive and inferential statistics were used to analyze data at $P < 0.05$ alpha level. The results showed that a majority of the pregnant women responders were nulliparous (39.2%) while the nursing mother responders were mostly multiparous (54.5%). Antenatal and postnatal exercise practice was 84.7% (160/189) and 79.0% (139/176), respectively. Aerobic (43.5%) and stretching (33.4%) were the most common type of physical exercises. Exercise frequency was mostly 1-2 times per week (40.8%). The study concluded that engagement in antenatal and postnatal exercise among Nigerian pregnant and nursing women was high and mostly based on self-prescription. Education level significantly influenced physical exercise practice among Nigerian women with aerobic and stretching as the predominant exercises in pregnancy and postpartum.

A cross-sectional study was conducted on effect of antenatal exercise on outcome of labor. Objective was to find out effectiveness of antenatal exercise in facilitating normal labor and also other benefits associated with antenatal exercise during pregnancy. Samples were selected using sequential sampling method. The total sample size included 200 females (100 performing antenatal exercise and 100 non exercising females). A semi structured questionnaire was used as study tool for interview. Chi square test was applied for significance association between variable. The results showed that only 36% group B females delivered normally as compared to 74% group A females who delivered normally. In group A only 9% females had urinary incontinence after delivery and 30% females had complain of backache. The study concluded that Females who practiced antenatal exercise had less chance of caesarean section, back ache and urinary incontinence. and stretching (33.4%) were the most common type of physical exercises. Exercise frequency was mostly 1-2

times per week (40.8%). The study concluded that engagement in antenatal and postnatal exercise among Nigerian pregnant and nursing women was high and mostly based on self-prescription. Education level significantly influenced physical exercise practice among Nigerian women with aerobic and stretching as the predominant exercises in pregnancy and postpartum.

Review of literature related to knowledge of antenatal mothers regarding antenatal exercises

A study was conducted on knowledge, attitude, and practice of exercise during pregnancy among antenatal mothers. With an aim to assess the effect of an overall health and antenatal mothers. A total 200 antenatal mothers were included in the study, who filled in the questionnaire. The questionnaire comprised of 25 questions (21 on knowledge, 3 on attitude and 1 on practice). The results showed that the age range of the study group was 18-35 years with a mean age of 25 ± 4.51 years. The majority of the study population were Hindus (81%), had undergone primary education (63%) and were homemakers (74%). The Study concluded that the knowledge of our women on exercise during pregnancy was less than average, and their attitude was favourable. A cross-sectional study was conducted on knowledge regarding antenatal care services, its utilization, and delivery practices in mothers (aged 15-49 years) in a rural area of north India. Objective was to assess the level of knowledge of pregnant women about ANC services and to find out the ANC utilization and factors affecting them. The study was carried out in October-November 2013 in Krishna Nagar village of Miran Sahib Zone of block R.S. Pura. All the mothers (aged 15-49 years) in this village were interviewed using a predesigned, pretested, and semi-open-ended questionnaire. The results showed that 89% of the respondents had registered for ANC, of which 64.5% and 9.9% had registered in the 2nd trimester and 1st trimester. The results revealed that 79.1% of the deliveries were institutional. The study concluded that the maternal literacy remains a key factor in the better utilization of antenatal services.

A cross-sectional study was conducted on awareness of antenatal exercises among pregnant women in tertiary care centers, Mangalore, India. Aim was to find out their level of awareness about antenatal exercises in pregnancy. A total sample was ninety pregnant women in their reproduction age between 18-40 years in any trimester who had visited for antenatal check-up in department of obstetrics and gynecology. The results showed that the participants were aware of antenatal classes and the main source of awareness from family/friends were reported by 48% and followed by 30% attended the antenatal class. Only 20% of them were aware of different type of exercises in antenatal care. The study concluded that awareness about antenatal exercises were inadequate among pregnant women and role of physiotherapy interventions in antenatal care among health professionals

Review of literature related to effectiveness of planned teaching.

An evaluative research approach with pre-experimental study was conducted on effectiveness of planned teaching programme on knowledge regarding postnatal exercises among postnatal mothers admitted in selected hospitals of vadodara. With an objective to find out the existing knowledge regarding postnatal exercises among postnatal mothers, to evaluate the effectiveness of planned teaching programme, to find out the association between the post-test scores with their demographical variables. The sampling technique used was non - probability convenient sampling. The results showed that the post test mean knowledge score is significantly greater than the pre-test mean knowledge score. The T calculated value is 32.855 which is more than the tabulated value of at 0.05 level of significance. The calculated, t^* value is 32.855 which is much higher than the tabulated, $t^* = 2.00$ at 5% level of significance. Also the calculated, p^* value is 0.000 which is ideal for any distribution as compared to acceptable 0.05. This statistically proves the effectiveness of the planned teaching programme in all the areas of postnatal exercise. The study concluded that planned teaching programme was highly effective in improving knowledge of postnatal mothers regarding postnatal exercise

An evaluatory approach with pre-experimental study was conducted on effectiveness of planned teaching programme (PTP) on polycystic ovarian syndrome (PCOS) among adolescent girls in selected high schools at Mangalore. With an objectives to assess the pre-test level of knowledge regarding PCOS among adolescent girls in Selected high schools at Mangalore, to evaluate the effectiveness of Planned Teaching Programme on knowledge regarding Polycystic Ovarian Syndrome among adolescent girls in selected high schools at Mangalore, to find the association between the pre-test knowledge score of adolescent girls and selected variables. The subjects were 100 adolescent girls selected by convenience sampling technique. PTP was administered after the assessment of pre-intervention the knowledge on PCOS. Post intervention knowledge was assessed on the 7 day of the administration of PTP through the same structured knowledge questionnaire. The results showed that the significant difference between the mean pre-test and post-test knowledge score ($t = 7.02$, $p < 0.05$). The significant difference was found in between all the areas. There was no association between 99 the pre-test knowledge score and selected demographic variables. The study concluded that PTP was effective in gaining knowledge of adolescent girls on PCOS. Which was evident in post-test knowledge score.

EXPERIMENTAL SECTION

Material and method:

In present study, researcher adopted Quasi experimental one group pre-test post-test design was used. The study carried out 30 samples. Ethical clearance was taken. A Non-probability convenient Sampling Technique was used. The significance was calculated by using mean, standard deviation, and calculated 't' value, and association was done by Fisher's exact test with demographic variable.

Description of Tool: The tool includes two sections:

Section –A- demographic data

It includes age, educational status, religion, area of residence, previous knowledge, source of information.

Section- B – questionnaire

There are multiple choice questions to assess the knowledge of primigravida mothers regarding antenatal exercises. Total 20 items were selected for the questionnaire. A blue print was prepared.

Level of knowledge	Percentage of marks	Marks
Poor	≤50	≤10
Average	51-75	11-15
Good	> 75	16-20

Plan for Data Analysis:

The analysis was done by using the data of section-A and section-B and presents them in tables, graphs and figures.

For the analysis of demographic data frequencies and percentage was calculated. The significance was calculated by using mean, standard deviation, and calculated 't' value, and association was done by Fisher's exact test with demographic variable.

RESULT AND DISCUSSION

Analysis and interpretation of the data are based on data collected from 30 sample samples .

SECTION I**DATA ON DEMOGRAPHIC VARIABLES OF PRIMIGRAVIDA MOTHERS.**

This section deals with frequency and distribution of demographic variables of primigravida mothers.

n = 30

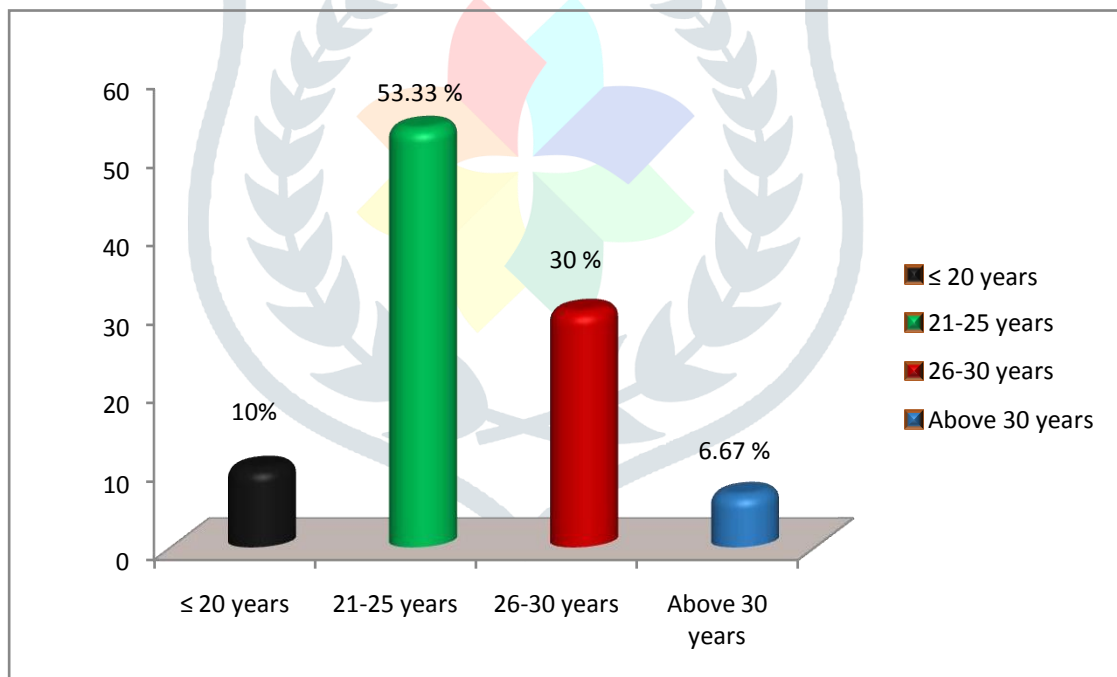


Figure 3: Percentage wise distribution of samples according to their age

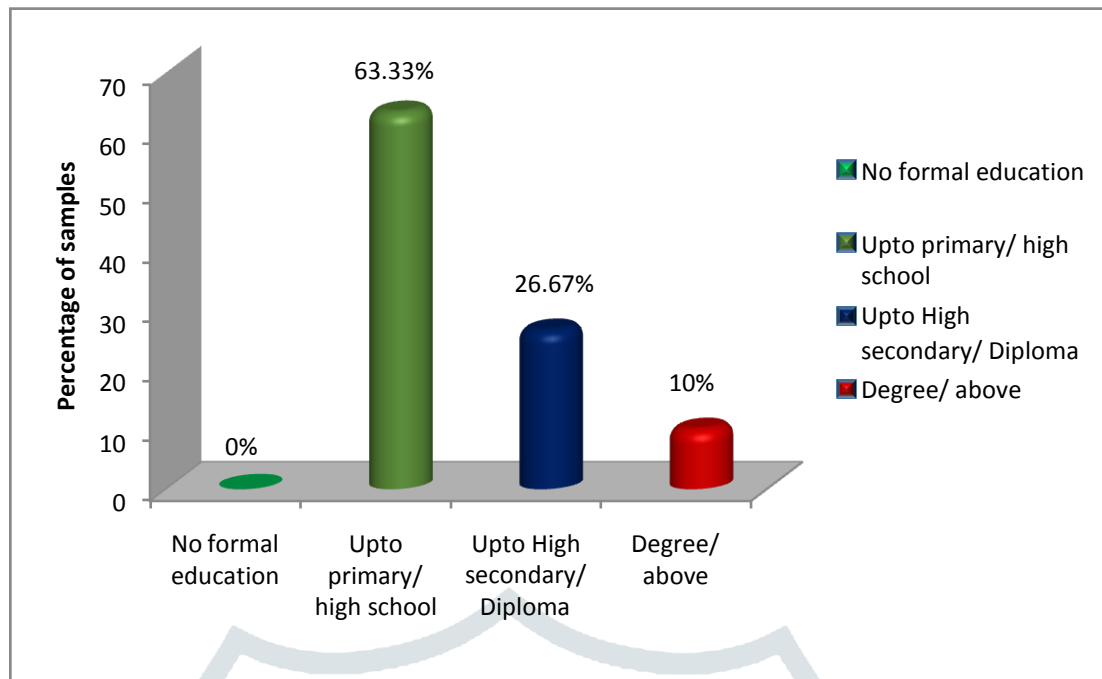


Figure 4: Percentage wise distribution of samples according to their educational status

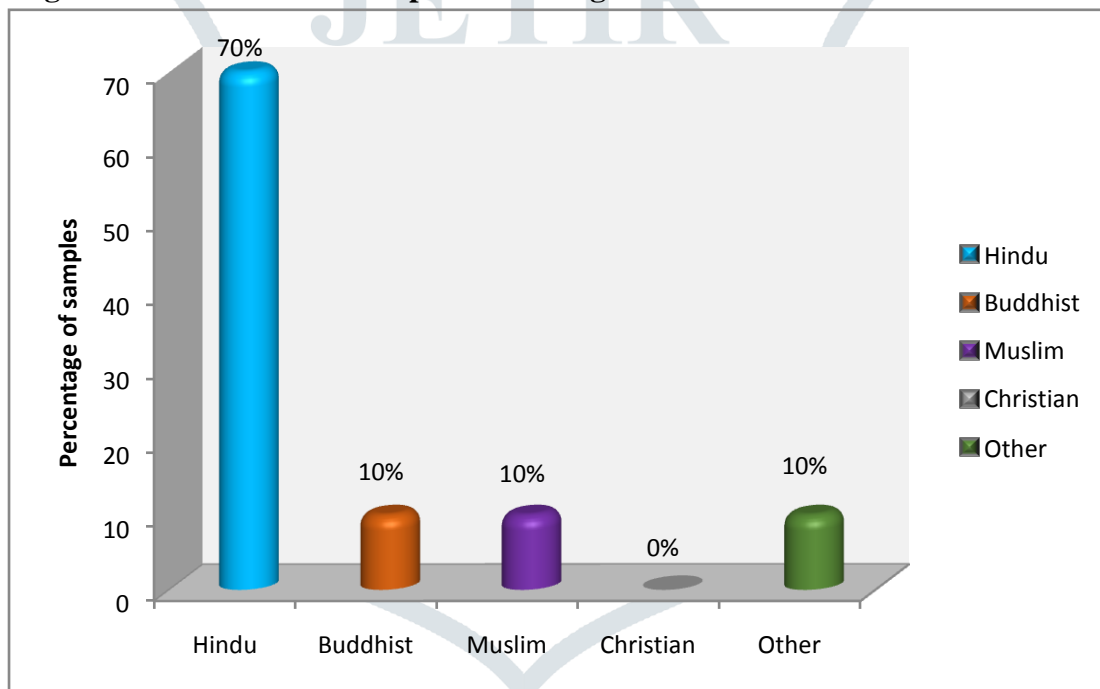


Figure 5: Percentage wise distribution of samples according to their religion

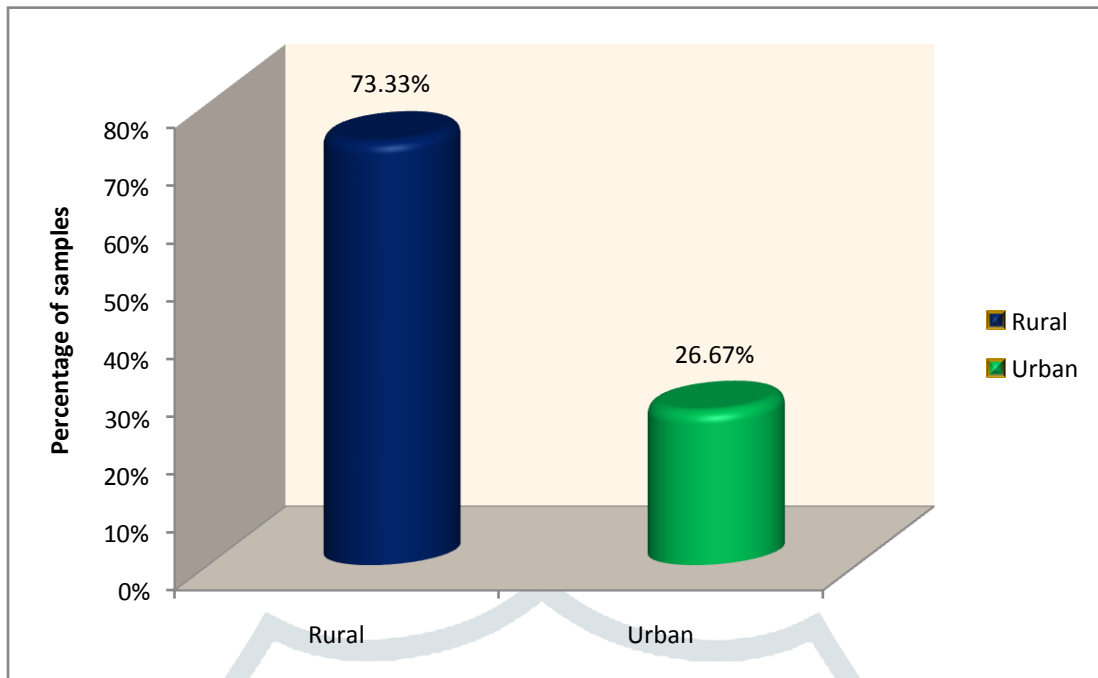


Figure 6: Percentage wise distribution of samples according to their area of residence

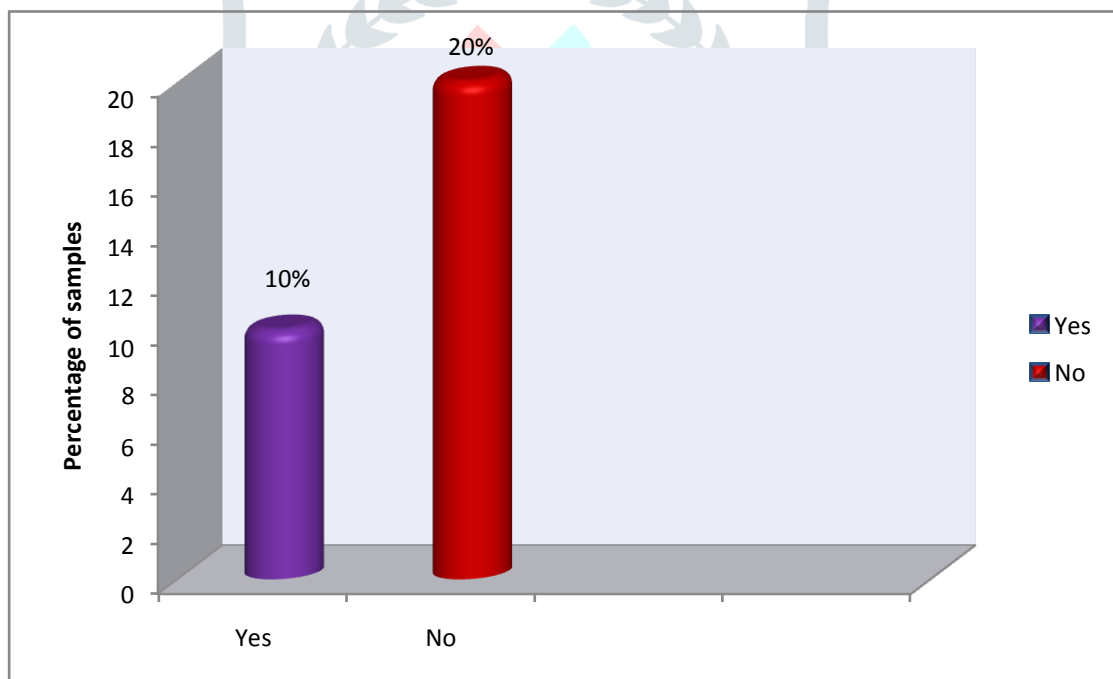


Figure 7: Percentage wise distribution of samples according to their previous knowledge of antenatal exercises

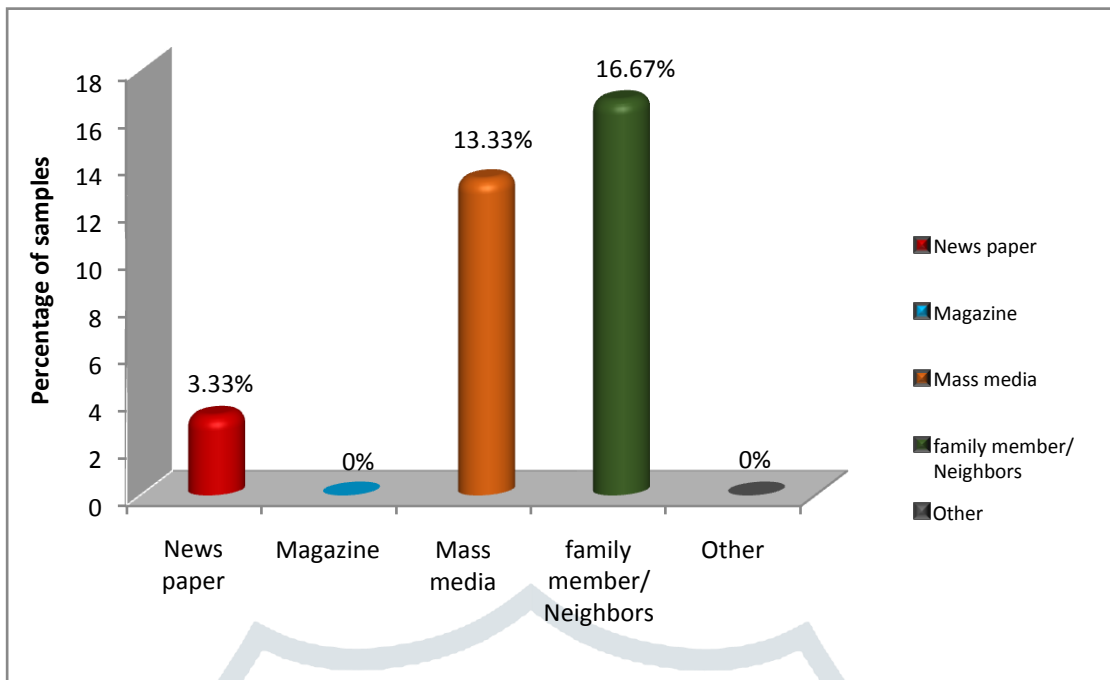


Figure 8: Percentage wise distribution of samples according to their source of information

SECTION II

This section deals with the level of pre test knowledge of primigravida mothers regarding antenatal exercises. The level of knowledge was divided under following heading poor, average and good.

n = 30

Sr. No.	Level of knowledge	Pre test	
		Frequency (n)	Percentage (%)
1	Poor (≤ 10)	25	83.33%
2	Average (11-15)	5	16.67%
3	Good (16-20)	0	0%

The table 3 reveals that during pre-test, 25 (83.33%) primigravida mothers had poor knowledge, 5 (16.67%) primigravida mothers had average knowledge and none of the primigravida mothers had good knowledge on antenatal exercises.

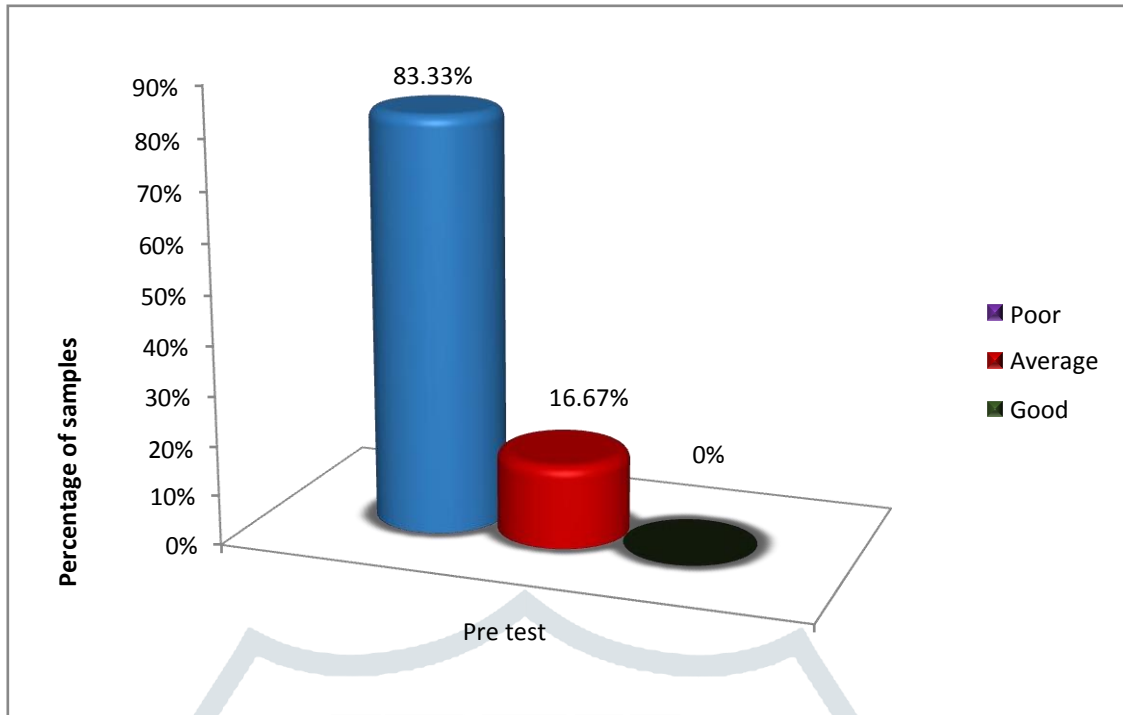


Figure 9: Percentage wise distribution of samples according to their level of knowledge before planned teaching

SECTION III (A)

n = 30

Sr. No.	Level of knowledge	Post test	
		Frequency (n)	Percentage (%)
1	Poor (≤ 10)	3	10%
2	Average (11-15)	17	56.67%
3	Good (16-20)	10	33.33%

The above table 4 reveals that during post test, 3 (10%) primigravida mothers had poor knowledge, 17 (56.67%) primigravida mothers had average knowledge and 10 (33.33%) primigravida mothers had good knowledge on antenatal exercises.

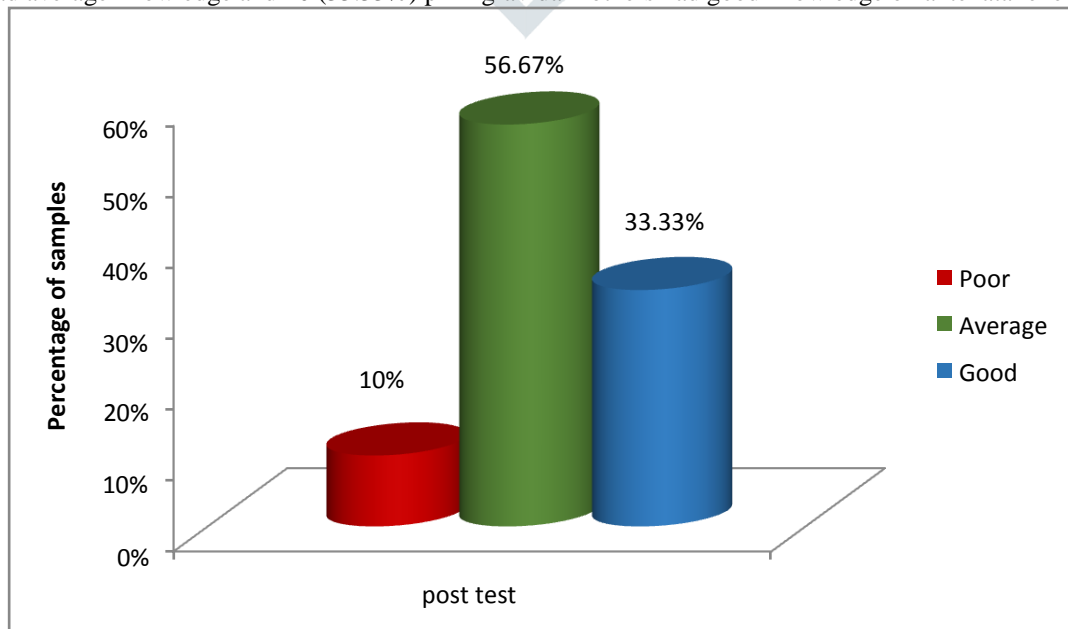


Figure 10: Percentage wise distribution of samples according to their level of knowledge after planned teaching

SECTION III (B)

n = 30

Sr. No.	Test	Mean	Standard deviation (S.D)	Mean of differences in score (M.D)	„t“ value
1	Pre test	8.2	2.41	5.93	26.80*
2	Post test	14.13	2.75		

*significant at P < 0.05 level

The mean difference in pre-test and post test score was 5.93. The calculated „t“ value was 26.80. Which was found to be significant at p<0.05 level. This indicated that the planned teaching was effective to improving knowledge of antenatal exercises among primigravida mothers.

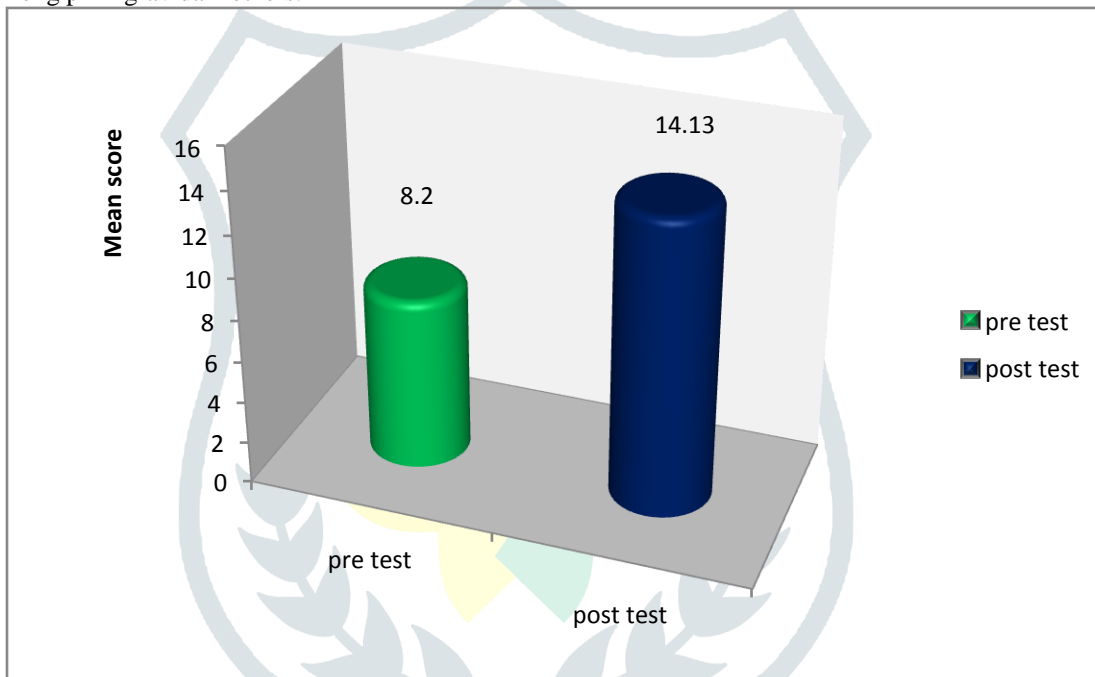


Figure 11: Comparison of mean value of knowledge score regarding antenatal exercises among primigravida mothers before and after planned teaching

SECTION IV

n = 30

Sr. No.	Demographic variables	Number of samples						Chi square (χ^2)
		Poor		Average		Good		
		F	%	F	%	F	%	
1	Age in years							
	a. ≤ 20	3	10	0	0	0	0	$\chi^2 = 7.21^{NS}$ df = 3
	b. 21-25	15	50	1	3.33	0	0	
	c. 26-30	5	16.67	4	13.33	0	0	
	d. above 30	2	6.67	0	0	0	0	
2	Educational status							
	a. No formal education	0	0	0	0	0	0	

	b. Upto primary/ high school	19	63.33	0	0	0	0	$\chi^2 = 10.79^*$ df = 2	
	c. Upto High secondary/ Diploma	4	13.33	4	13.33	0	0		
	d. Degree/ above	2	6.67	1	3.33	0	0		
3	Religion								
	a. Hindu	17	56.67	4	13.33	0	0	$\chi^2 = 1.88^{NS}$ df = 3	
	b. Buddhist	2	6.67	1	3.33	0	0		
	c. Muslim	3	10	0	0	0	0		
	d. Christian	0	0	0	0	0	0		
	e. Other	3	10	0	0	0	0		
4	Area of residence								
	a. Rural	22	73.33	0	0	0	0	$\chi^2 = 16.51^*$ df = 1	
	b. Urban	3	10	5	16.67	0	0		

Majority of Primigravida mothers who belonged to age group of 21-25 years, 15 of them were having poor knowledge, 1 of them was having average knowledge and none of them were having good knowledge. In education educated upto primary/ high school, 19 of them were having poor knowledge and none of them were having average or good knowledge, belonged to religion of Hindu, 17 of them were having poor knowledge, 4 of them were having average knowledge and none of them were having good knowledge, belonged to rural area of residence, 22 of them were having poor knowledge, none of them were having average and good knowledge. Thus, the null hypothesis (H_0) i.e. "There is no significant difference in knowledge of antenatal exercises among primigravida mothers after planned teaching measured at $p < 0.05$ level of significance" is rejected and the research hypothesis (H_1), "There is a significance difference in knowledge of antenatal exercises regarding primigravida mothers after planned teaching measured at $p < 0.05$ level of significance", is accepted.

Discussion

The present study was designed to assess Effectiveness of planned teaching about knowledge regarding antenatal exercises among primigravida mothers in selected hospital. researcher adopted Quasi experimental one group pre-test post-test design was used. The study carried out 30 samples. Ethical clearance was taken. A Non-probability convenient Sampling Technique was used. The significance was calculated by using mean, standard deviation, and calculated 't' value, and association was done by Fisher's exact test with demographic variable

A study was conducted on efficacy of antenatal exercises on maternal and neonatal outcomes in elderly primigravida. With an aim to examine the efficacy of antenatal exercises on maternal and neonatal outcomes in elderly primigravida. The total sixty elderly primigravida women (age range: 35-40 years) at 14 weeks gestation were divided randomly into two equal groups (A and B). Group A performed antenatal exercises for 6 months, whereas group B continued their lifestyle after receiving specific advice for each trimester. The results showed that group A showed a statistically significant difference in the intensity of labor pain when cervical dilatation was between 7 and 8 cm ($p = 0.000$), duration of first stage of labor ($p = 0.026$), and neonates APGAR scores at the first and the fifth minute of life ($p = 0.000$) compared with group B. The study concluded that antenatal exercises are very effective in decreasing adverse effects and labor complications in elderly primigravida and their neonates.

Conclusion

After the detailed analysis, this study leads to the following conclusion Planned teaching on antenatal exercises was found to be effective in improving the knowledge of primigravida mothers.

An association was found between educational status and area of residence. Rests of the demographic variables did not show any association with the knowledge score. Hence, based on the above findings, it was concluded undoubtedly that the written prepared material by the investigator in the form of planned teaching helped the primigravida mothers to improve their knowledge regarding antenatal exercises.

IMPLICATIONS

The findings of the study have implication in nursing service, nursing education, nursing administration, nursing research.

Implication For Nursing Service

The content of the planned teaching will help the Nursing personnel in all areas like hospital as well as community area and clinics for teaching the mothers for antenatal exercises which is suitable to them. The findings will help the nursing personnel to estimate the effectiveness of planned teaching. The content of planned teaching will help the nursing personnel to know different types, benefits which will help to explain the mothers while giving health education.

Implication For Nursing Education

The nurse educator can use the planned teaching to teach the student to improve their knowledge towards antenatal exercise. The institutes of nursing education should play an active role in conducting education programmes, workshop and continuing education programmes to educate nursing personnel of the hospital regarding antenatal exercises. The result of the study can be used by nursing teachers and students as information.

Implication For Nursing Administration

The findings of the study reveal the need to conduct an education programme for the primigravida mothers. This can also bring about awareness among primigravida mothers regarding antenatal exercises. Nurse administrator can prepare a new protocol. The hospital administration should provide education to primigravida mothers on special care with the help of experts.

Implication For Nursing Research

Research should be conducted to effectiveness of planned teaching about knowledge regarding antenatal exercises among primigravida mothers. So that we can develop health education packages related to antenatal exercises. The result of the study contributes to the body of knowledge of nursing care. Future investigators can use the findings and the methodology as reference material.

LIMITATIONS

The study was limited only to primigravida mothers, who are attending antenatal OPD in the selected hospital.

Data collection period was limited for 3 weeks.

The sample size was limited to 30 subjects.

Sample was small therefore the result cannot be generalized in the same field.

RECOMMENDATIONS

Comparative studies can be done in large sample between two different hospitals to evaluate the knowledge level of primigravida mothers regarding antenatal exercises.

Self instructional modules can be prepared related to antenatal exercises and find out its effectiveness.

Similar studies can be replicated with control groups and on a larger population.

Surveys to assess the knowledge, belief and practices can be undertaken.

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