



## A quasi experimental study to assess effectiveness of structured teaching programme on knowledge regarding selected antenatal exercises in-terms of relieving minor disorders of pregnancy among primi pregnant mothers

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### Abstract

**Statement:** A study to assess the effectiveness of structured teaching programme on knowledge regarding selected antenatal exercises in-terms of relieving minor disorders of pregnancy among primi pregnant mothers in selected maternity hospitals in selected city.

**Objectives** 1. To assess the existing level of knowledge of primi pregnant mothers regarding Selected antenatal exercises. 2. To assess level of minor disorders among primi pregnant mothers after administering antenatal exercises. 3. To evaluate the effectiveness of structure teaching programme of selected antenatal exercises in relieving minor disorders among primi pregnant mothers. 4. To find out the association between pre-test knowledge score with selected Demographic variables.

**Methodology:** In this research methodology the research approach adopted for this study is Evaluatry approach and for this study Quasi experimental one group pre-test post-test research design was used without control group to assess the knowledge of primi pregnant mothers regarding selected antenatal exercises in-terms of relieving minor disorders. The data collection was done by using descriptive and inferential statistics.

**Results:** There was significant effectiveness of structured teaching programme on knowledge regarding selected antenatal exercises in-terms of relieving minor disorders of pregnancy among primi pregnant mothers and there was no association between knowledge score and the selected demographic variables excepts education, place of residence and occupation.

**Keywords:** assess, effectiveness, structured teaching programme, antenatal exercises, primi pregnant mother

### Introduction

Pregnancy is the period which lasts approximately (10) Lunar months, (9) calendar months, (40) weeks or (280) days. Length of pregnancy is computed from the first day of the last menstrual period until the day of birth. However, conception occur approximately two weeks after the first day of last menstrual period. The anatomical, physiological and biochemical adaptations to pregnancy are profound. These changes that the female body undergoes during pregnancy begin soon after fertilization and continue throughout gestation. These changes occur in response to physiological stimuli provided by the fetus and placenta. These changes may be unpleasant as well as worrying but they are rarely a cause for alarm as most of these changes are usually normal. These so called minor disorders or ailments of pregnancy can be troublesome on a day to day basis. Nevertheless these minor ailments are considerably improved by offering a proper explanation and with simple treatments<sup>5</sup>. Health has been recognized as the greatest wealth from times immemorial. For maintaining health, exercise has been shown to improve health prospect in various ways, reduce body fat and overall weight, reduces blood pressure, and ensures better digestion, respiration and efficient circulation. The midwife has ample opportunities to discuss a healthy lifestyle for pregnancy in-terms of diet,

exercise and personal habits, sometimes the mother will ask for the midwives guidance, it is often helpful to link advice to specific problem which the women is experiencing such as a minor disorders of pregnancy. Common minor disorders during the first trimester include nausea and vomiting and affecting 50% to 75% of pregnant women. Regular physical activity can help improve a woman's health and reduce symptoms associated with pregnancy and delivery. In addition, women who maintain high levels of fitness during pregnancy may more quickly return to their pre- pregnancy health figure and weight after their babies are born. Most pregnant women can benefit from continuing to exercise throughout their pregnancy<sup>1</sup>.

During pregnancy women require special care because, has a benefits not just for expected mothers but also for their growing babies. Antenatal exercise aim to preventing back pain, constipation, heartburn, ankle edema, and improving the circulation, reduced swelling, fatigue, and leg cramps and also decreased maternal weight gain. Exercise help to strengthen the muscles that supports the bladder, uterus and bowels by strengthening these muscles during pregnancy it can develop the ability to relax and control the muscles in preparation for labour and birth<sup>3</sup>.

Pregnancy is a time of many physiological changes the pregnant women feel discomforts and limited daily activities

by giving antenatal exercise the minor disorders can be minimised. Minor disorders are present in every antenatal women but in small and large amount minor disorder do not require a hospitalization it can be maintained by daily exercise. A specific exercise and posture can help the pregnant women to adopt the physiological changes in her body during the childbearing year. They will help to ease the minor aches and pain during pregnancy and may also help to prevent longer term post- partum problems. In addition, coping skills such as relaxation, positioning and breathing awareness will provide the mother<sup>6</sup> The antenatal exercise are mainly performed in antenatal visits so antenatal visits are important components of antenatal care more flexible approach to both the timing of antenatal visits and place of consultation has been incorporated into midwifery practices in more recent year low risk pregnant women to compare the acceptability and effectiveness of a reduced antenatal visits schedule of 6-7 routine visits with the traditional 13 routine visits. The results show there is no difference in clinical outcomes between two groups, but twice as many women in the reduced visits group are dissatisfied with the frequency of attendance compared with women who received full range of visits. Both groups felt that the gaps in their care were too long with women in the reduced visits group feeling less remembered from one visit to next visit<sup>6</sup>

The main purpose of antenatal exercise is to Identified high-risk cases from large group of antenatal mothers and providing appropriate care for all mothers. The high-risk cases are elderly primi, malpresentation, antepartum haemorrhage, threatened abortion and preeclampsia and eclampsia, anaemia twins, hydramnios previous stillbirth, intra-uterine death, kidney disease, diabetes, T.B, liver diseases, and the previous caesarean section, obesity and any off the medical disease in the pregnancy for example, hypertension and cardiac disease etc. The complication of antenatal exercise is symphysis pubis dis function, diastalsis recti, painful perineum, incontinence of urine, and backache<sup>6</sup>.

### Problem statement

“A study to assess the effectiveness of structured teaching programme on knowledge regarding selected antenatal exercises in-terms of relieving minor disorders of pregnancy among primi pregnant mothers in selected maternity hospitals in selected city.”

### Objectives

1. To assess the existing level of knowledge of primi pregnant mothers regarding Selected antenatal exercises.
2. To assess level of minor disorders among primi pregnant mothers after administering antenatal exercises.
3. To evaluate the effectiveness of structure teaching programme of selected antenatal exercises in- terms of relieving minor disorders of pregnancy among primi pregnant mothers.
4. To find out the association between pre-test knowledge

score with selected Demographic variables.

### Materials and methods

In this research methodology research approach adopted for this study is evaluatry approach, and for this study quasi experimental one group pre-test post -test research design was used without control group to assess the knowledge regarding selected antenatal exercise. the data collection done by using Non- probability purposive sampling technique and 100 samples were selected from selected maternity hospital in selected city. the collected data was tabulated in the master sheet and analysed by using descriptive and inferential statistics.

### Criteria for sample selection inclusion criteria

Primi pregnant mothers included in the study:

Those who are;

1. Able to read, write and understand Marathi, English.
2. Attending regular antenatal check-up
3. Interested in study.

### Exclusion criteria

Primi pregnant mothers excluded from the study, those who are;

1. Undergone from selected antenatal exercise training.
2. Not willing to participate in the study.
3. Not available at the time of data collection.
4. Those who have any medical complication.

### Description of the tool

The tool consists of two sections;

#### Section I

Demographic variables such as age in years of mother, educational status, religion, type of family, monthly income of family, place of residence, occupation. Section II

A structured knowledge questionnaires was prepared consisting of 30 multiple choice questions on selected antenatal exercises in terms of relieving minor disorders of pregnancy. Each items has 4 options with one most appropriate answer. The maximum score for the correct response to each items was one and for the wrong answer the score is zero. Thus for 30 items the maximum obtainable score was 30.

### Result

The collected information was organized, tabulated, analysed and interpreted using descriptive and inferential statistics. The analysis and interpretation of data of this study are based on data collected through structured teaching programme on knowledge regarding selected antenatal exercises in-terms of relieving minor disorders of pregnancy among primi pregnant mothers in selected maternity hospitals in selected city.”

**Section 1:** Frequency and Distribution of demographic variables of primi pregnant mothers.

**Table 1:** Frequency and Distribution of demographic variables of primi pregnant mothers according to sample characteristics.

Sr. No.	Characteristics	Categories	Percentage	Frequency
1	Age group	18-21	42	42.0
		22-25	40	40.0
		26-30	13	13.0
		>30	5	5.0
2	Education	Up to SSC	16	16.0
		Up to HSC	42	42.0
		Graduation	32	32.0
		Post-Graduation	10	10.0
3	Religion	Hindu	51	51.0
		Muslim	12	12.0
		Budhistha	23	23.0
		Any other	14	14.0
4	Type of family	Nuclear	47	47.0
		Joint	28	28.0
		Extended family	25	25.0
5	Monthly income of family	Below to 10000	11	11.0
		11000 to 15000	33	33.0
		16000 to 20000	41	41.0
		Above 20000	15	15.0
6	Place of residence	Urban	70	70.0
		Rural	30	30.0
7	Occupation	Housewife	48	48.0
		Government sector	7	7.0
		Private sector	26	26.0
		Other	19	19.0

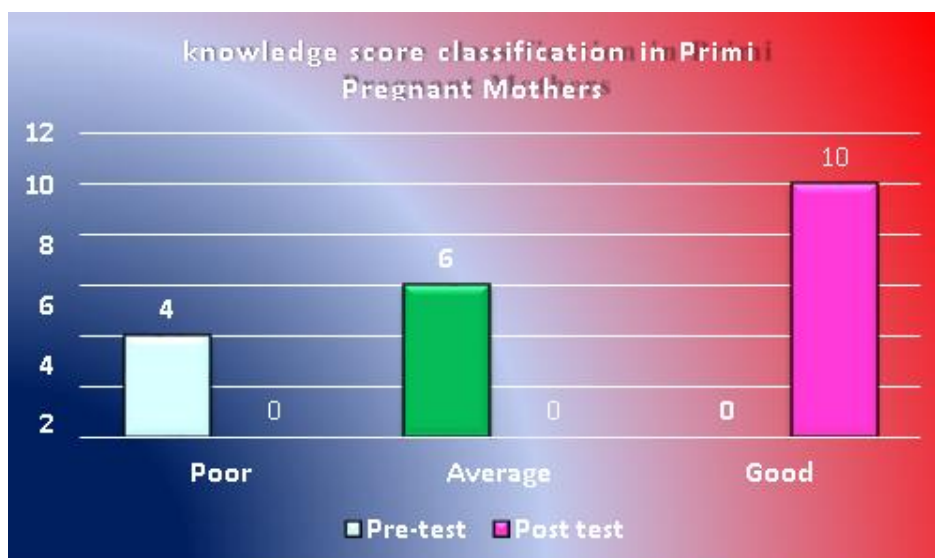
Table no.1 shows that majority of primi pregnant mothers 42(42.0%) belong to the age group 18-21 years. In concern with education 16(16.0%) of them were completed their higher secondary education. It shows that the 51(51.0%) mothers belong to Hindu. In regards with the type of family were majority exists in nuclear: 47(47.0%). In regards to the monthly income of family 41(41.0%) had the monthly income of family between RS. 16000 to 20000/-. It reveals that among the primi pregnant mothers majority 70(70.0) of

primi pregnant mothers were residing in urban community. In regards with occupation, 48(48.0) of samples were housewife. Knowledge on selected antenatal exercise in-terms of relieving minor disorders of pregnancy in primi pregnant mothers in pre-test and post-test.

**Section 2:** Distribution of knowledge score classification in Primi Pregnant Mothers in Pre and post-test.

**Table 2:** Percentage distribution of knowledge score classification in Primi Pregnant Mothers in Pre and post test

Knowledge Score classification	Pre-test	Post-test	Chi-square value	P - value
Poor (0-10)	26(26.0%)	00	200.12	P <0.0001 S
Average (11-20)	74(74.0%)	00		
Good (21-30)	00	100(100.0%)		
Total	100	100		



**Fig 1:** Percentage distribution of knowledge score classification in Primi Pregnant Mothers in Pre and post test

Table No.2 and Figure No. 1 shows that in pre-test 26(26%) of respondent had poor knowledge and 74(74%) respondent had average knowledge and none of the primi pregnant mother had good knowledge regarding selected antenatal exercise in terms of relieving minor disorders of pregnancy before structured teaching programme. In posttest 100(100%) of respondent had good knowledge after

structured teaching programme.

**Section 3:** Evaluation the effectiveness of structured teaching programme on knowledge regarding selected antenatal exercise in-terms of relieving minor disorders of pregnancy by comparing pre-test and post-test.

**Table 3:** Comparison of Mean knowledge score of Regarding Structured Teaching Programme on Knowledge Regarding Selected Antenatal Exercises In-Terms Of Relieving Minor Disorders of pregnancy among Primi Pregnant Mothers in pre & Post Test [paired t-test]

	N	Mean ±SD	Mean Difference	t-value	p-value
Pre-test	100	11.36±0.95	15.77	87.48	P<0.0001 S
Post Test			100		27.13±0.97

Table 3: Comparison of Mean knowledge score of Regarding Structured Teaching Programme on Knowledge Regarding Selected Antenatal Exercises In-Terms of

Relieving Minor Disorders of pregnancy among Primi Pregnant Mothers in pre & Post Test [paired t-test]

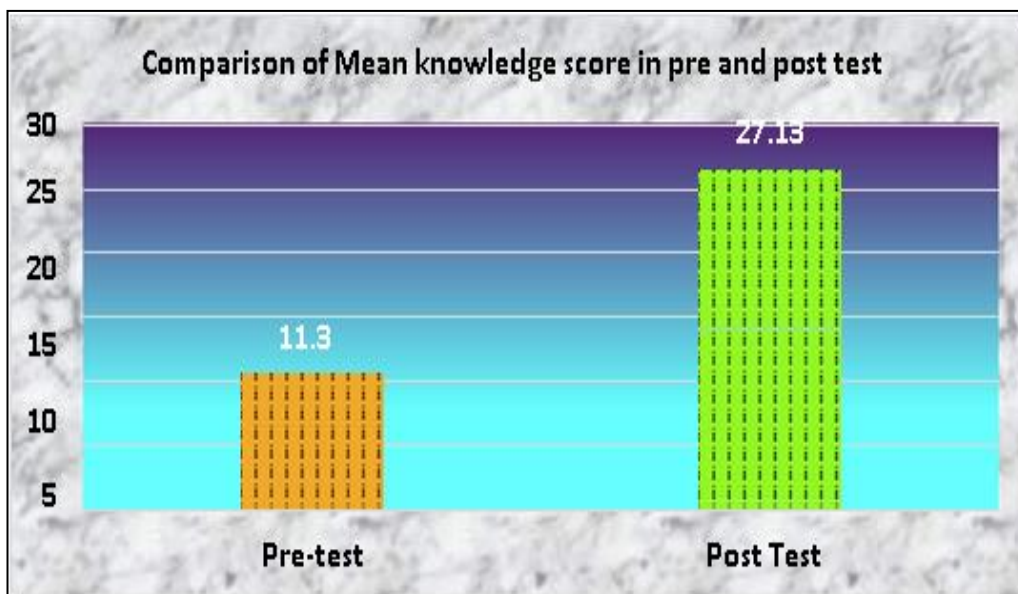


Fig 2

Table No.3 and Figure no 2 reveals that there is a significant difference between the pretest and post- test knowledge level on selected antenatal exercise in terms of relieving minor disorders of pregnancy in relation to structured teaching programme among primi pregnant mothers. The table statistically shows the mean difference 15.77 with the t value of 87.48 at 0.05 level of significance. The observed

mean post-test knowledge score 27.13(SD-0.97) was higher than the mean pre-test knowledge score 11.36(SD0.95). It was inferred that there was significant difference in knowledge score after Structured teaching programme.

**Section 4:** To associate pre-test knowledge score with selected demographic variables.

**Table 4:** To associate pre-test knowledge score with selected demographic variables.

Sr. No.	Demographic variables	Level of knowledge						Calculated X2 value	Level of significance
		Poor		Average		Good			
		F	%	F	%	F	%		
1	Age of mother in years								
	a. 18-21 years	10	10%	32	32%	00	00%	5.70	P=0.127NS
	b. 22-25 years	12	12%	28	28%	00	00%		
	c. 26-30 years	1	1%	12	12%	00	00%		
	d. >30 years	3	3%	2	2%	00	00%		
2	Education								
	a. Up to SSC	10	10%	6	6%	00	00%	17.2	P=0.001S
	b. Up to HSC	12	12%	30	30%	00	00%		
	c. Graduation	3	3%	29	29%	00	00%		
	d. Post-graduation	1	1%	9	9%	00	00%		
3	Religion								
	a. Hindu	14	14%	37	37%	00	00%	1.32	P=0.732NS
	b. Muslim	4	4%	8	8%	00	00%		



	c. Budhista	4	4%	19	19%	00	00%			
	d. Any other	4	4%	10	10%	00	00%			
4	Type of family									
	a. Nuclear	14	14%	33	33%	00	00%	0.706	P=0.702NS	
	b. Joint	6	6%	22	22%	00	00%			
	c. Extended family	6	6%	19	19%	00	00%			
5	Monthly income of the Family									
	a. Below to 10000	3	3%	8	8%	00	00%	0.537	P=0.911NS	
	b. 11000 to 15000	8	8%	25	25%	00	00%			
	c. 16000 to 20000	10	10%	31	31%	00	00%			
	d. Above 20000	5	5%	10	10%	00	00%			
6	Place of residence									
	a. Urban	9	9%	61	61%	00	00%	20.9	P=<0.0001 S	
	b. Rural	17	17%	13	13%	00	00%			
7	Occupation									
	a. Housewife	20	20%	28	28%	00	00%	12.2	P=0.007S	
	b. Government sector	1	1%	6	6%	00	00%			
	c. Private sector	2	2%	24	24%	00	00%			
	d. Other	3	3%	16	16%	00	00%			
S:-Significant NS:-Not significant										

Table no 4; reveals that there is no association between pre-test knowledge score with selected demographic variables such as age of mother in year, religion, type of family, monthly income of family which was not significant except education, place of residence, occupation.

The obtained chi - square value 5.70(p<0.05) 0.127, 17.2(p<0.05) 0.001, 1.32(p<0.05) 0.732. 0.706(p<0.05) 0.702, 0.537(p<0.05) 0.911, 20.9(p<0.05) 0.0001, 12.2(p<0.05) 0.007.

Therefore the null hypothesis (H02) is accepted and research hypothesis (H2) was rejected.

**Implication**

The result of this study have implications on nursing practice, nursing education, administration, and nursing research.

**Nursing practice**

The finding of the study will help investigator to know the level of knowledge related to selected antenatal exercise in-terms of relieving minor disorders of pregnancy. The primi pregnant mother will apply this knowledge effectively during the management of selected antenatal exercise in terms of relieving minor disorders of pregnancy. This study helps to increase the knowledge of primi pregnant mothers regarding selected antenatal exercise in terms of relieving minor disorders of pregnancy.

**Nursing education**

Finding of the study have implication for nursing education too. The nurse educator should use a various different teaching strategies to educate student nurse in enhancing knowledge and skill in health care service. The practice can be reemphasized for student by making them to attend, Seminar Conference Workshop During clinical student get opportunity to care for primi pregnant mother during the management of selected antenatal exercise in terms of relieving minor disorders of pregnancy problems of primi pregnant mother so this knowledge will make them confident to provide care for primi pregnant mother and their family to educate them and their family. 94

**Nursing administration**

Nurse administrator can develop their own hospital policy

of management of selected antenatal exercise in terms of relieving minor disorders of pregnancy. Nursing administration can be able to take the initiative in improving health information through various effective teaching methods regarding selected antenatal exercise in terms of relieving minor disorders of pregnancy through proper and effective nursing administration. nurses can organize various inservice educational programmes to update the knowledge and promote the awareness regarding importance of selected antenatal exercise in terms of relieving minor disorders of pregnancy. During antenatal periods they implement that knowledge in hospital and community set up for caring the primi pregnant mothers and should develop awareness among primi pregnant mothers regarding selected antenatal exercise in terms of relieving minor disorders of pregnancy.

**Nursing research**

Nursing research is a research that provides evidence used to support nursing practices. India needed more research studies to identify the minor disorders and their complications among primi pregnant mother. The findings of this study helps to prepare the study in different gravida group mothers. The research should be continued to find new technologies to relieve problems related to pregnancy in early stage of pregnancy.

**Recommendations for future study**

Based on the findings of the study the following recommendations are made; The study can be replicated using a large number of sample to make it more reliable. A comparative study can be done between primi pregnant mother and multi gravida mother. A similar study can be conducted on knowledge, attitude and beliefs of antenatal exercises in relieving the minor disorders. The study can be done by comparing primi pregnant mothers from different areas of the community.

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