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Research article

A study to assess the effect of planned health teaching regarding antenatal exercises among antenatal mothers attending antenatal clinic in selected hospitals Pimpri, Pune City.

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Abstract

Aim: The study was to assess effectiveness of planned teaching regarding antenatal exercises among antenatal mothers. **Material and methods:** Purposive sampling method was used to select 100 antenatal mothers. A structured questionnaire was prepared for assessing the knowledge of the antenatal mothers. The tool consisted of three sections. Section- I included items seeking information on demographic profile, Section- II includes overall knowledge regarding antenatal exercises and Section-III included items to assess knowledge of antenatal mothers regarding selected antenatal exercises. The reliability coefficient was calculated with the help of 'rational equivalence' method and the value is equal to 0.89. As the value of (r_{11}) in this study is 0.89, so the test is reliable. The chi-square test is implemented in study. **Results:** Section-I shown that characteristics of samples, most of the samples (59%) were in the age group of 21–25 yrs and very few (2%) were in the age group of 30–35yrs. Majority of the antenatal mothers (50%) were secondary and very few (3%) were post graduate. Most of the samples (54%) were in service and very few (3%) were into business. Most of the samples (48%) were having monthly income in Rs. 5,000 – 10,000 and very few (1%) below Rs. 5000. Most of the samples (44%) were P_1, 39% were Primigravida and very few (4%) were P_3. Almost same percentage of the mothers belongs to both nuclear as well as joint family. Results of section-II shows that most (64%) of the samples knew about the antenatal exercises that are during pregnancy but very few (11%) knew how to perform the antenatal exercises and (14%) knew about the benefits of antenatal exercises. After the planned teaching there is significant improvement in the knowledge. During pregnancy 38% samples had backache and 35% samples had leg cramps. Results of section-III shows that 44% mothers knew the information of antenatal exercises. Advantages of antenatal exercises knew by 45.5% mothers. The types of antenatal exercises knew by 42.5% mothers. The precautions to be taken during antenatal exercises knew by 42.5% mothers. The finding shows that the mean knowledge scores about antenatal exercises obtained from mothers in pretest was 4.43 and in post-test 16.98. **Conclusion:** The planned teaching regarding antenatal exercises is effective.

Key words: Antenatal exercises antenatal mothers

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1. Introduction

Pregnancy is a time of undergoing tremendous physical and emotional changes yet the most wonderful experience of life. Along with the mixed emotions of joy and anxiety, mothers also start worrying about their weight and posture. In our health conscious society there has been a surge of interest in physical fitness and exercise programs. Aware of the difficulties produced by the changing body, frustrated in their attempts to have an active life style, and motivated to be physically fit for vaginal delivery, women have extended this pursuit of exercise in pregnancy. In most communities exercise classes are readily offered by fitness centers and child birth educators. Exercise physiology is a new field that explores the effects of exercises on pregnancy and the foetus. [1]

A study compared exercising with non exercising women and found that women who exercise had significantly higher self esteem and lower rating for physical discomfort than those from the non exercising group. The study findings point to the importance of exercise during pregnancy. Strain on weak abdominal and lower back muscles because of the weight of the uterus may lead to lord sis and backache. Instruct women to recognize posture changes to use low heel,

comfortable shoes and to strengthen lower back muscles with exercise. Teach proper alignment for standing, stooping and lifting. A few women have a serious problem with backache or with pain radiating along the nerve to the leg. Sacroiliac joint strain is common. There is tenderness over the posterior aspect of the joint. Exercise to strengthen the lower back is basic in improving the status giving warmth to the affected area and physical therapy may be advised. [2]

A study stated that the midwives' role in preparing women for birth. The art and the joy of midwifery lies in the skills of the midwife who recognizes the individuality of each woman believes in her and works with her towards the same goal: her 'best possible birth'. How best can midwives help prepare women for birth? Do antenatal classes provide women with the information and knowledge they need to help them feel in control of their labour? The potential of antenatal classes in reducing fear, creating confidence, and promoting understanding and freedom of choice for women. When these processes are transferred to the labour ward, the woman feels more in control. She may find it easier to ask questions and state her wishes, thereby increasing her potential for an improved physical and emotional labour outcome. [3]

A study explained that Pregnancy is a period of enormous physio-pathological and psychosocial adaptation in a woman's life. Although it is usually a time of joy and anticipation, many women experience some degree of anxiety, concern and fear regarding their own health and that of their babies, as well as the approaching labour. Worry about social, financial, occupational and relationship issues can often add to their stress levels which increases the possibility of pregnancy complications. However while mild to moderate stress facilitates successful adjustment to these demands, a significant increase in the levels of stress hormones may compromise the health of both mother and foetus. Complementary therapies are becoming increasingly popular with expectant mothers and are gradually being integrated into conventional maternity care, primarily by midwives. However, there is a debate about whether these therapies simply provide a form of relaxation for pregnant women with psychological stress or whether they could or should be used more constructively to deal with physio-pathological stress. They consider the physiological effects of certain complementary therapies in reducing the impact of stress in pregnancy. [4]

A study stated that one of the functions of yoga is to bring about a balance between the body, mind and spirit. During pregnancy one should aim to be as physically healthy and emotionally well balanced as possible. Practicing yoga will bring confidence; balance and harmony to mother's life ad can have a dramatic effect on mother's overall wellbeing and attitude. [5]

From the time a foetus is fully formed it experiences all the mother's emotions. Although these emotions are not consciously registered by the baby, the hormones that produce joy or sorrow, sadness or happiness, wash over the foetus. Yoga is based on a combination of techniques which have a subtle effect on the entire person, influencing the body, the intellect and the emotions. In the west, yoga is most often practiced as a system of mental and physical exercise, and induced relaxation which can be undertaken by anyone, regardless of their beliefs. [6]

A study was examined to assess the effect of structured antepartum exercise programme on pregnancy and labour outcome in primiparas. The labour and delivery outcomes were compared for 50 low risk primiparas in the experimental group who participated in structured antepartum exercise programme and 50 in control group. The study reported that those who exercised had significantly shorter first and second stage of labour (mean length, 7.55 & 1.33 hours respectively. P less than 0.01).The exercising primiparas were also less likely to require oxytocin augmentation of labour and more likely to have spontaneous vaginal deliveries. [7]

Aim of the study:

The study was aimed to assess the effect of planned health teaching regarding antenatal exercises among antenatal mothers attending antenatal clinic in selected Hospitals Pimpri, Pune City.

2. Research methodology :

Study design: Exploratory study (Pretest, Posttest design) was used.

Setting of the study: Study was conducted at antenatal clinic in selected hospitals, Pimpri, Pune City.

Sample size: The data was collected from 100 antenatal mothers attending antenatal clinics.

Sampling technique: Purposive sampling method was utilized for selecting the samples.

Validity: Content validity of tool and planned teaching content by consultation with experts

Reliability: Test– Retest method was used for reliability assessment.

Pilot study: The Pilot study was conducted in Bhosari hospital on selected 10 antenatal mothers, to assess feasibility of the study and to decide the plan for data analysis. Pilot study indicates that tool is feasible and practicable.

Data collection instrument: The instrument used for data collection consists of two sections.

Section I: Demographic data (age, education, occupation, monthly income, parity, type of family)

Section II: Structured knowledge questionnaire on following broad aspects
- Information of antenatal exercises
- Advantages of antenatal exercises
- Types of antenatal exercises
- Precautions to be taken during antenatal exercises

Data collection procedure: Ethical clearance from university and formal permission from the concerned authority was obtained.

The following schedule was followed for data collection:

On the first day the investigator approached the subjects, informed regarding the objectives of the study and obtained the consent after assuring the subjects about the confidentiality of the data. The investigator herself administered a self structured questionnaire. Health teaching along with demonstration of exercises has given and subjects were called for follow up on the 7th day. On 7th day re-demonstration and post test was taken from follow up subjects. The duration of data collection for each sample was 20-25 minutes.

3. Results

Table No 1: Demographic description of samples by frequency and percentage

SN	Sample characteristics	Frequency	%
1.	Age of mother (years)		
	15-20	9	9
	21-25	59	59
	26-30	30	30
	31-35	2	2
2.	Education		
	Secondary	50	50
	Higher secondary	20	20
	Graduate	27	27
	Post graduate	3	3
3.	Occupation		
	Working	57	57
	Non working	43	43
4.	Monthly income (in thousands)		
	1 to 5	1	1
	6 to 10	48	48
	11 to 15	43	43
	16 to 20	8	8
5.	Parity		
	P0	39	39
	P1	44	44
	P2	13	13
	P3	4	4
6.	Family type		
	Nuclear	57	57
	Joint	43	43

Table 1 show that most of the samples (59%) were in the age group of 21 to 25 years. Majority of the antenatal mothers (50%) were taken secondary education. In samples (57%) were working and 43% were having monthly income in Rs. 5,000-10,000/-and 39% samples were primi gravid as well as 57% belongs to nuclear family.

Table No 2: Category wise distribution of knowledge score about antenatal exercise.

Sn	Areas	Pretest score percentage	Posttest score percentage
1	Information of antenatal exercises	44	97
2	Advantages of antenatal exercises	45.5	95
3	Types of antenatal exercises	42.5	98
4	Precautions during antenatal exercises	42.5	92

Table 2 shows that 44% mothers knew about antenatal exercises, 45.5% about advantages of antenatal exercises, 42.5% were knew about types of antenatal exercises and 42.5% mothers had information regarding precautions to be taken during antenatal exercises.

Fig No 1: Pie diagram showing mean knowledge score in the pre-test and post-test

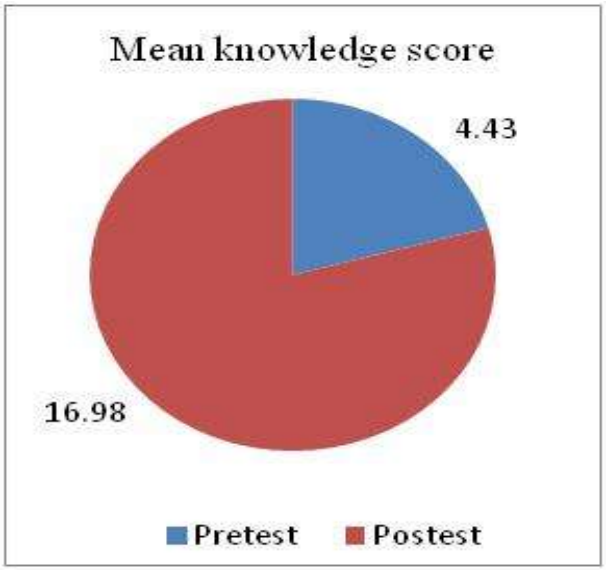

Figure: 1 show that the mean knowledge scores about antenatal exercises obtained from mothers in pretest was 4.43 and in post test 16.98 this difference was statistically highly significant at 0.01% level with 'Z' value of – 46.51%.

Table no 3: Relationship between knowledge score and selected demographic characteristics.

Sn	Demographic characteristics	Chi square	Degrees of freedom	Table vale
	Age of mother (years)			
	15-20	12.37	3	7.82
	21-25			
	26-30			
	31-35			
	Education			
	Secondary	80.08	3	7.82
	Higher secondary			
	Graduate			
	Post graduate			
	Occupation			
	Working	21.83	2	5.99
	Non working			
	Monthly income (in thousands)			
	1 to 5	28.99	3	7.82
	6 to 10			
	11 to 15			
	16 to 20			
	Parity			
	P0	17.51	3	7.8
	P1			
	P2			
	P3			

Table No.3 shows that statistical analysis shows significant association between personal characteristics except type of family. If calculated value of Chi-square > table value then we reject the independence of attributes under consideration at 0.05% level of significance. It is noted that knowledge score is associated with the personal characteristics i.e. age, education, occupation, income, parity, but is not associated with the type of family which the mothers belongs.

Major findings of study

Findings related to demographic description

Findings of Section-I shown that characteristics of samples, most of the samples, most of the samples (59%) were in the age group of 21-25 yrs and very few (2%) were in the age group of 30-35 yrs. Majority of the antenatal mothers (50%) were secondary and very few (3%) were post graduate. Most of the samples (54%) were in service and very few (3%) were into business. Most of the samples (48%) were having monthly income in Rs. 5,000- 10,000 and very few (1%) below Rs. 5000. Most of the samples (44%) were $P_{1,}$ 39% were primigravida and very few (4%) were $P_{3.}$ Almost same percentage of the mothers belongs to both nuclear as well as joint family.

Analysis of the data related to overall knowledge of antenatal mothers regarding antenatal exercises

Finding of Section-II shows that most (64%) of the samples knew about the antenatal exercises that are during pregnancy but very few (11%) knew how to perform the antenatal exercises and (14%) knew about the benefits of the antenatal exercises. After the planned teaching there is significant improvement in the knowledge. During pregnancy 38% samples had backache and 35% samples had leg cramps.

Analysis of knowledge scores in pre & post test

Finding of Section-III shows that 44% mothers knew the information of antenatal exercises. Advantages of antenatal exercises knew by 45.5% mothers. The type of antenatal exercises knew by 42.5% mothers. The precautions to be taken during antenatal exercises knew by 42.5% mothers. After the planned teaching there is significant change in the pre test knowledge.

4. Discussion

Relationship between knowledge regarding antenatal exercises and selected variables

The main aim of this study was to assess effectiveness of planned teaching regarding antenatal exercises among antenatal mothers. The finding suggests that knowledge scores about pelvic floor exercises obtained from mothers in pretest was 20% and in post test 83%. It is noted that there is a significant association between knowledge score with the personal characteristics age, education, occupation, income, parity but is not associated with the type of family to which the mothers belongs.

A study on women's knowledge, practices, and intentions regarding correct pelvic floor exercises. Researcher demonstrated the efficacy of pelvic floor exercises (PFXs) for the prevention and treatment of female urinary incontinence (FUT). There was some evidence about the finding, due to a lack of knowledge about how to perform pelvic floor exercises (PFXs) correctly and misconceptions about the required frequency and duration of PFXs regimens. The finding suggests that, despite good knowledge of the required frequency of PFXs, few women practice them regularly over their lifetime, many apparently perceiving PFXs as relevant only to the childbirth years. Implications for health professionals in addressing these gaps in women's knowledge and practices were discussed. [8]

This study was to assess effectiveness of planned teaching regarding antenatal exercises among antenatal mothers. The finding suggests that after demonstration and planned teaching about antenatal exercises there is significant change in knowledge scores obtained from

mothers. It is noted that there is a significant association between knowledge score with the personal characteristics age, education, occupation, income, parity but it is not associated with the type of family to which the mothers belongs.[9]

In this study investigator found that the planned teaching on antenatal exercises found to be effective in increasing the knowledge in antenatal mothers. The samples had a highly significant gain in knowledge after the planned teaching program. Age group of 21-25 years showed a gain in knowledge in all the content areas of planned teaching. Primipara mothers interested to gain in knowledge in all areas of planned teaching.

The conclusion was drawn from the findings of the study that planned teaching on antenatal exercises found to be effective in increasing the knowledge in antenatal mothers. The samples had a highly significant gain in knowledge after the planned teaching program. Age group of 21-25 years showed a gain in knowledge in all the content areas of planned teaching. Primipara mothers interested to gain in knowledge in all areas of planned teaching. The planned teaching on antenatal exercises found to be effective in enhancing the knowledge in antenatal mothers. Planned teaching in the form of demonstration of antenatal exercises is an effective method of educating the antenatal mothers.

Recommendations

1. A comparative study can be done between Rural & Urban antenatal mothers regarding antenatal exercises.
2. A study can be conducted to assess the knowledge, attitude and practices of antenatal mothers regarding antenatal exercises.
3. A study may be conducted to evaluate the effectiveness of planned health teaching versus other method of health teaching on the similar problem.
4. A similar study can be done on a larger sample as very few nursing studies have been conducted in India for assessing knowledge of antenatal mothers regarding antenatal exercises.
5. A study can be done on association between various demographic variables, which were significant on larger samples.
6. A similar study may be replicated on larger samples; thereby findings can be generalized for a large population.

Implications

Nursing practice:

Nurses need to be equipped with advanced knowledge to become involved in providing necessary services to the antenatal mothers through education programmers in order to motivate and encourage them to take self actions and follow good practices. Nurses through their own training acquire a positive attitude and should themselves with a sound based of knowledge, which can be used in clinical practice.

Nursing education:

Now a day much importance is given to awareness and promotion of health than the curative aspects. As the needs of society are continuously changing newer components must be incorporated in the nursing curriculum. Nursing education must emphasize on preventive aspect. The basic training of nurses in India includes teaching of certain units related to pregnancy and labour outcome should update as a part of the course in obstetric nursing.

Nursing administration:

In the event of ever changing knowledge explosion, technological and ever-growing challenges of obstetric nursing, the administration has a responsibility to provide nurses with substantial continuing education opportunities. This will enable the nurses in updating their knowledge, acquiring special skills and administrating high quality care by deputing them for in-service education programmers, special courses, workshops, and conferences can be arranged and attended by nursing staff. Necessary administrative support should be provided for the development of such educational materials. Nursing personnel should be motivated to devote their time for development of educational material such as posters, pamphlets, planned teaching and booklets on antenatal exercises.

Nursing research:

Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and a body of knowledge. Another research has been added to the nursing literature. Very few studies have been done on a similar basis. The research design, findings and the tool can be used as avenues for further research.

Conclusion:

The samples had a highly significant gain in knowledge after planned teaching. Hence, the planned teaching program with demonstration of antenatal exercises is an effective method for educating the antenatal mothers. In each hospital antenatal clinic antenatal mother should be aware about antenatal exercises and to practice during antenatal period.

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