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A study to assess the knowledge, attitude and practice of antenatal mothers regarding antenatal exercise, in a selected hospital at selected city

Namrata A Thakare
M.Sc Nursing (Obstetrics & Gynaecological Nursing) ACON, Aurangabad, Maharashtra, India

Abstract
Statement: A Study to assess the knowledge, attitude and practice of antenatal mothers regarding antenatal exercise, in a selected hospital at selected city.
Objectives: To assess the knowledge, attitude and practice of antenatal mothers regarding antenatal exercise. To find the association between knowledge, attitude and practice of antenatal mothers regarding antenatal exercise with their selected demographic variables.
Methodology: Quantitative Research Approach was used with descriptive research design, population was 100 antenatal mothers attending OPD and purposive sampling technique was used for data collection.
Result: In the present study 14% of mothers had poor knowledge, 52% of mothers had average knowledge, and 34% had good knowledge. 1% of mothers had negative attitude, 83% of mothers had neutral attitude and 16% of had positive attitude. 8% of mothers had poor practicing, 70% of mothers had good practicing and 22% had excellent.

Keywords: assess, knowledge, attitude, practice, antenatal mothers, antenatal exercise

Introduction

"Those who do not find time for exercise, will have to find time for illness".

- Earl of Derby

Mothers are women who inhabit or perform the role of bearing some relation to their children, who may or may not be their biological offspring. Thus, dependent on the context, women can be considered mothers by virtue of having given birth, by raising their children, supplying their ovum for fertilization, or some combination. Such conditions provide a way of delineating the concept of motherhood, or the state of being a mother [1].

Pregnancy, also known as gestation, is the time during which one or more offspring develops inside a woman. Pregnancy can occur by sexual intercourse or assisted reproductive technology. Childbirth typically occurs around 40 weeks from the last menstrual period (LMP). This is just over nine months, where each month averages 29½ days. When measured from conception it is about 38 weeks. An embryo is the developing offspring during the first eight weeks following conception, after which, the term *fetus* is used until birth. Symptoms of early pregnancy may include missed periods, tender breasts, nausea and vomiting, hunger, and frequent urination. Pregnancy may be confirmed with a pregnancy test [2].

Maternal physiological changes in pregnancy are the adaptations during pregnancy that a person's body undergoes to accommodate the growing embryo or fetes. These physiologic change are entirely normal, and include cardiovascular (heart and blood vessel), hematologic (blood), metabolic, renal (kidney), posture, and respiratory (breathing) changes. Increases in blood sugar, breathing, and cardiac output are all expected changes that allow a pregnant person's body to facilitate the proper growth and development of the embryo or fetus during the pregnancy. The pregnant person and the placenta also produce many other hormones that have a broad range of effects during the pregnancy [3].

Exercise naturally makes us feel good both mentally and physically. Exercising increases the production of serotonin which makes us feel better emotionally. The more care we take of our bodies means the better they function and this includes during pregnancy and birth. There have been plenty of studies conducted that show that gentle exercising in pregnancy leads to an easier pregnancy and less complications during labour[5]. During pregnancy there are several forms of "safe exercises" that you can do such as: abdominal breathing, Pelvic tilting or rocking, Pelvic floor exercise, Foot and leg exercise, Breathing exercise [6].

Problem Statement

"A Study to assess the knowledge, attitude and practice of antenatal mothers regarding antenatal exercise, in a selected hospital at selected city."

Objectives

The objectives of the study are

1. To assess the knowledge, attitude and practice of antenatal mothers regarding antenatal exercise.
2. To find the association between knowledge, attitude and practice of antenatal mothers regarding antenatal exercise with their selected demographic variables.

Criteria for the Selection of the Sample

Inclusion criteria

Antenatal mothers who are

- only in second trimester
- willing to participate in the study
- able to read and write Marathi and English
- available at the time of data collection

Exclusion criteria

Antenatal mothers who are

- Those who were in high risk pregnancies.
- critically ill at the time of data collection
- in the first trimester and third trimester
- Those who have symptoms of true labour pain like bloody show, pain, dilatation of cervix.

Description of the Tool

Tool is divided into two parts, Section I and Section II.

Section I: Demographic Data Of Antenatal Mothers Regarding Antenatal Exercise.

Section II

Part I: Structured questionnaire to assess knowledge of antenatal exercise among antenatal mothers.

Part II: Three points likert's scale to assess the attitude of antenatal exercise among antenatal mothers.

Part III: Checklist to assess the practice of antenatal exercise among antenatal mothers.

Result

Section-I

Frequency and Percentages of Demographic Variables of Antenatal Mothers.

Table 1

Characteristics	Frequency	Percentage
Age		
18-22 years	34	34 %
23-27years	44	44 %
28-32years	18	18 %
> 30years	05	05%
Gravida		
Prime gravid	52	52 %
Multi gravid	48	48%
Weeks of gestation		
13-16 weeks	11	11%
17-20 weeks	33	33%
21-23 weeks	33	33%
24-28 weeks	23	23%
Religion		
Hindu	85	85%
Muslim	06	06%
Christian	00	00%
Others	09	09%
Education		
Primary	22	22 %
Secondary	46	46 %
Graduation	25	25 %
Post-graduation	07	07 %
Occupation		
House wife	85	85 %
Service	11	11%
Business	04	04 %
Any other	00	00 %
Monthly income of family		
< 2000/-	20	20 %
2001/- to 6000/-	46	46%
6001/- to 10,000/-	19	19 %
> 10,000/-	15	15 %
Type of family		
Nuclear family	51	51 %
Joint family	49	49%
Domicile		
Rural	25	25 %
Urban	75	75%
Source of information		
Parents and family	79	79 %
Friends	01	01%
Printed aids	12	12 %
Mass media	08	08 %

Section II

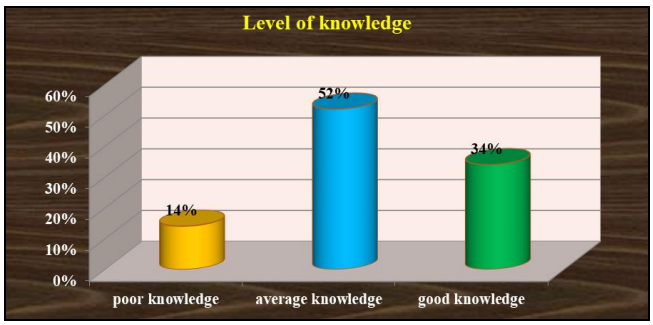

Fig 1: Frequency and Percentage Distribution of Knowledge Level of Antenatal Mother Regarding Antenatal Exercise

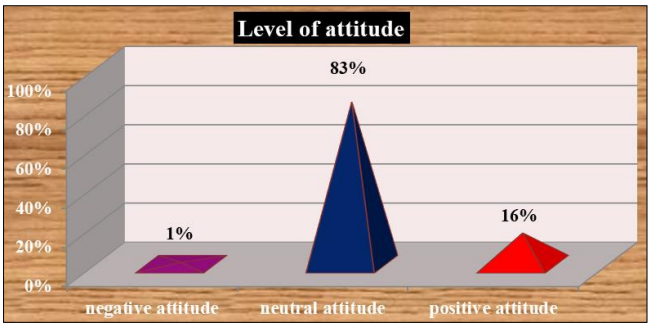

Fig 2: Frequency and Percentage Distribution of Attitude level of Antenatal Mother Regarding Antenatal Exercise

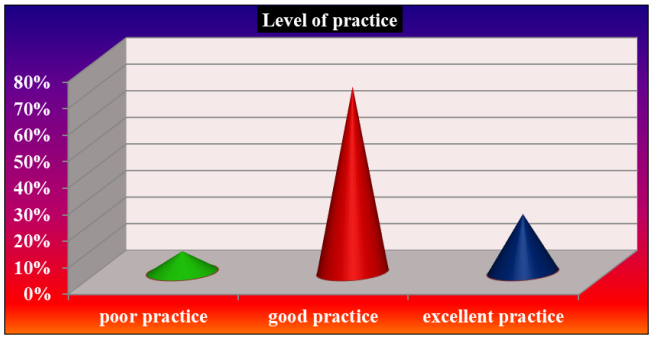

Fig 3: Frequency and percentage distribution of practice level of antenatal mother regarding antenatal exercise

Section III: Mean, standard deviation of knowledge, practice and attitude of antenatal mother regarding antenatal exercise. N=100

Table 2

Aspects	Maximum Statement	Maximum Score	Mean	Standard Deviation
Knowledge	20	20	11.49	3.74
Attitude	20	60	43.79	4.32
Practice	20	20	10.65	3.59

Section IV: Association of knowledge, attitude, Practice score with their selected demographic variable of antenatal mother regarding antenatal exercise.

Table 3: Association between Knowledge Score and Selected Demographic Variables of Antenatal Mother Regarding Antenatal Exercise. N=100

Sr. No.	Demographic variables	Level of knowledge						x^2 value	p Value
		Poor		Average		Good			
		F	%	F	%	F	%		
1.	Age								
	a. 18-22 yrs	04	04 %	16	16 %	14	14 %	163.77	<0.00001 (S)
	b. 23-27yrs	05	05 %	25	25 %	14	14 %		
	c. 28-32yrs	03	03 %	10	10 %	05	05 %		
	d. > 30yrs	02	02 %	01	01 %	01	01 %		
2.	Gravid								
	a. Primi gravid	08	08 %	23	23 %	20	20 %	62.8	<0.00001 (S)
	b. Multi gravid	06	06 %	29	29 %	14	14 %		
3.	Weeks of gestation								
	a. 13-16 weeks	04	04 %	04	04 %	03	03 %	3010.38	<0.00001 (S)
	b. 17-20 weeks	03	03 %	15	15 %	14	14 %		
	c. 21-23 weeks	03	03 %	20	20 %	11	11 %		
	d. 24-28 weeks	04	04 %	13	13 %	06	06 %		
4.	Religion								
	a. Hindu	11	11 %	46	46 %	28	28 %	3010.37	<0.00001 (S)
	b. Muslim	02	02 %	00	00 %	03	03 %		
	c. Christian	00	00 %	00	00 %	00	00 %		
	d. Others	01	01 %	06	06 %	03	03 %		
5.	Education								
	a. Primary	03	03 %	12	12 %	08	08 %	76.57	<0.00001 (S)
	b. Secondary	07	07 %	25	25 %	15	15 %		
	c. Graduation	02	02 %	11	11 %	11	11 %		
	d. Post-graduation	02	02 %	03	03 %	01	01 %		
6.	Occupation								
	a. House wife	10	10 %	44	44 %	32	32 %	3896.87	<0.00001 (S)
	b. Service	02	02 %	07	07 %	02	02 %		
	c. Business	01	01 %	01	01 %	01	01 %		
	d. Any other	00	00 %	00	00 %	00	00 %		
7.	Monthly income of family								

	a. < 2000/-	02	02 %	08	08 %	10	10 %	66.57	<0.00001 (S)
	b. 2001/- to 6000/-	05	05 %	23	23 %	18	18 %		
	c. 6001/to10,000/-	03	03 %	11	11 %	05	05 %		
	d. >10,000/-	04	04 %	10	10 %	01	01 %		
8.	Type of family								
	a. Nuclear family	06	06 %	26	26 %	20	20 %	73.11	<0.00001 (S)
	b. Joint family	08	08 %	26	26 %	14	14 %		
9.	Domicile								
	a. Rural	06	06 %	16	16 %	02	02 %	124.59	<0.00001 (S)
	b. Urban	09	09 %	35	35 %	32	32 %		
10.	Source of information								
	a. Parents & family	10	10 %	46	46 %	24	24 %	15540.05	<0.00001 (S)
	b. Friends	00	00 %	00	00 %	01	01 %		
	c. Printed aids	03	03 %	05	05 %	03	03 %		
	d. Mass media	01	01 %	01	01 %	06	06 %		

Above table shows that in age x^2 value is 163. 77, in gravida x^2 value is 62.8, in weeks of gestation x^2 value is 3010.38, in religion x^2 value is 3010.37, in education x^2 value is 76.57, in occupation x^2 value is 3896.87, in monthly income of family x^2 value is 66.57, in type of family x^2 value is 73.11, in domicile x^2 value is 124.59, in source of information x^2 value is 15540.05. So, in relation with knowledge level age, gravid, weeks of gestation, religion, education, occupation, monthly income of family, type of family, domicile and source of information are found as significant at 0.05 level.

Part-B: Association between attitude score and selected demographic variables of antenatal mother regarding antenatal exercise.

Table 4

N=100

Sr. No	Demographic variables	Level of attitude						x^2 value	P Value
		Negative		Neutral		Positive			
		F	%	F	%	F	%		
1.	Age								
	a. 18-22 yrs	00	00 %	28	28 %	06	06 %	2057.23	<0.00001 (S)
	b. 23-27yrs	01	01 %	35	35 %	07	07 %		
	c. 28-32yrs	00	00 %	16	16 %	02	02 %		
	d. > 30yrs	00	00 %	04	04 %	01	01 %		
2.	Gravid								
	a. Primi gravid	00	00 %	41	41 %	09	09 %	3490.14	<0.00001 (S)
	b. Multi gravid	01	01 %	42	42 %	07	07 %		
3.	Weeks of gestation								
	a. 13-16 weeks	00	00 %	20	20 %	01	01 %	1280.94	<0.00001 (S)
	b. 17-20 weeks	00	00 %	31	31 %	02	02 %		
	c. 21-23 weeks	01	01 %	27	27 %	05	05 %		
	d. 24-28 weeks	00	00 %	05	05 %	08	08 %		
4.	Religion								
	a. Hindu	01	01 %	70	70 %	14	14 %	97947.97	<0.00001 (S)
	b. Muslim	00	00 %	05	05 %	00	00 %		
	c. Christian	00	00 %	00	00 %	00	00 %		
	d. Others	00	00 %	08	08 %	02	02 %		
5.	Education								
	a. Primary	00	00 %	21	21 %	02	02 %	1050.49	<0.00001 (S)
	b. Secondary	00	00 %	42	42 %	04	04 %		
	c. Graduation	01	01 %	17	17 %	07	07 %		
	d. Post graduation	00	00 %	03	03 %	03	03 %		
6.	Occupation								
	a. House wife	00	00 %	71	71 %	03	03 %	45926.125	<0.00001 (S)
	b. Service	01	01 %	08	08 %	02	02 %		
	c. Business	00	00 %	04	04 %	10	10 %		
	d. Any other	00	00 %	00	00 %	01	01 %		
7.	Monthly income of family								
	a. < 2000/-	00	00 %	17	17 %	03	03 %	754.43	<0.00001 (S)
	b. 2001/- to 6000/-	01	01 %	39	39 %	06	06 %		
	c. 6001/to10,000/-	00	00 %	16	16 %	03	03 %		
	d. >10,000/-	00	00 %	11	11 %	04	04 %		
8.	Type of family								
	a. Nuclear family	01	01 %	47	47 %	04	04 %	4678.8	<0.00001 (S)
	b. Joint family	00	00 %	36	36 %	12	12 %		
9.	Domicile								
	a. Rural	00	00 %	20	20 %	05	05 %	1436.70	<0.00001 (S)

	b. Urban	01	01 %	63	63 %	11	11 %		
10.	Source of information								
	a. Parents & family	01	01 %	64	64 %	14	14 %	411183.29	<0.00001 (S)
	b. Friends	00	00 %	01	01 %	00	00 %		
	c. Printed aids	00	00 %	10	10 %	02	02 %		
	d. Mass media	00	00 %	08	08 %	00	00 %		
S- Significant NS- Not Significant									

Above table shows that in age x^2 value is 2057, in gravida x^2 value is 3490.14, in weeks of gestation x^2 value is 1280.94, in religion x^2 value is 97947.97, in education x^2 value is 1050.49, in occupation x^2 value is 45926.125, in monthly income of family x^2 value is 754.43, in type of family x^2 value is 4678.8, in domicile x^2 value is 1436.70, in source of information x^2 value is 411183.29. So, in relation with attitude level age, gravid, weeks of gestation, religion, education, occupation, monthly income of family, type of family, domicile and source of information are found as significant at 0.05 level.

Part-C: Association between practice score and selected demographic variables of antenatal mother regarding antenatal exercise.

Table 5

N=100

Sr. No.	Demographic variables	Level of practice						x^2 value	p Value
		Poor		Good		Excellent			
		F	%	F	%	F	%		
1.	Age								
	a. 18-22 yrs	00	00 %	27	27 %	07	07 %	317.027	<0.00001 (S)
	b. 23-27yrs	06	06 %	30	30 %	07	07 %		
	c. 28-32yrs	02	02 %	10	10 %	06	06 %		
	d. > 30yrs	00	00 %	03	03 %	02	02 %		
2.	Gravid								
	a. Primi gravid	03	03 %	40	40 %	10	10 %	422.34	<0.00001 (S)
	b. Multi gravid	05	05 %	30	30 %	12	12 %		
3.	Weeks of gestation								
	a. 13-16 weeks	01	01 %	08	08 %	02	02 %	152.58	<0.00001 (S)
	b. 17-20 weeks	00	00 %	31	31 %	02	02 %		
	c. 21-23 weeks	06	06 %	17	17 %	10	10 %		
	d. 24-28 weeks	01	01 %	14	14 %	08	08 %		
4.	Religion								
	a. Hindu	07	07 %	58	58 %	20	20 %	8349.34	<0.00001 (S)
	b. Muslim	00	00 %	04	04 %	01	01 %		
	c. Christian	00	00 %	00	00 %	00	00 %		
	d. Others	01	01 %	08	08 %	01	01 %		
5.	Education								
	a. Primary	02	02 %	18	18 %	03	03 %	18167.51	<0.00001 (S)
	b. Secondary	03	03 %	29	29 %	11	11 %		
	c. Graduation	03	03 %	18	18 %	07	07 %		
	d. Post-graduation	00	00 %	05	05 %	01	S		
6.	Occupation								
	a. House wife	04	04 %	64	64 %	15	15 %	4656.19	<0.00001 (S)
	b. Service	02	02 %	04	04 %	05	05 %		
	c. Business	00	00 %	02	02 %	02	02 %		
	d. Any other	02	02 %	00	00 %	00	00 %		
7.	Monthly income of family								
	a. < 2000/-	00	00 %	20	20 %	01	01 %	162.63	<0.00001 (S)
	b. 2001/- to 6000/-	06	06 %	32	32 %	07	07 %		
	c. 6001/to10,000/-	01	01 %	12	12 %	06	06 %		
	d. >10,000/-	01	01 %	06	06 %	08	08 %		
8.	Type of family								
	a. Nuclear family	04	04 %	40	40 %	08	08 %	420.611	<0.00001 (S)
	b. Joint family	04	04 %	30	30 %	14	14%		
9.	Domicile								
	a. Rural	01	01 %	13	13 %	12	12 %	512.01	<0.00001 (S)
	b. Urban	07	07 %	57	57 %	10	10 %		
10.	Source of information								
	a. Parents & family	04	04 %	56	56 %	18	18 %	19867.38	<0.00001 (S)

	b. Friends	00	00 %	02	02 %	00	00 %		
	c. Printed aids	03	03 %	05	05 %	04	04 %		
	d. Mass media	01	01 %	07	07 %	00	00 %		
S- Significant NS- Not Significant									

Above table shows that in age x^2 value is 317.027, in gravida x^2 value is 422.34, in weeks of gestation x^2 value is 152.58, in religion x^2 value is 8349.34, in education x^2 value is 18167.51, in occupation x^2 value is 4656.19, in monthly income of family x^2 value is 162.63, in type of family x^2 value is 420.611, in domicile x^2 value is 512.01, in source of information x^2 value is 19867.38. So, in relation with practice level age, gravid, weeks of gestation, religion, education, occupation, monthly income of family, type of family, domicile and source of information are found as significant at 0.05 level.

Implication

The findings of the study have implications not only related to the field of nursing but also other allied areas. in obstetrics team nurse plays a vital role in the provision of antenatal care. The nurse in the obstetric knows that antenatal exercise is vital for upcoming child. Antenatal exercise is very easy and simple for the antenatal mothers to safe and easy child birth.

More studies can be conducted in the area of obstetrics for antenatal mothers to identify the knowledge, attitude, practice and various other techniques of antenatal exercise should be explain and demonstrate to the antenatal mothers for safe and easy child birth; therefore this study has an important implication in:

1. Nursing practice
2. Nursing education
3. Nursing administration
4. Nursing research

Nursing practice

Nurses should enhance their professional knowledge the findings of the study can be used to bring about awareness among the staff nurse regarding the importance of health education to antenatal mother regarding antenatal exercise, and also they can use there knowledge for their professional enhancement and can give best possible care to the antenatal mother.

Nursing education

Student must be enlisted and supervised to give health education to antenatal mothers in hospital and community setup. Student must conduct mass educational programmed in the community using different audio visual aids to create awareness regarding importance of antenatal exercise and to develop a positive attitude towards antenatal exercise.

Nursing administration

Nursing administration can be able to take the initiative in improving health information through different effective teaching methods regarding antenatal exercise through proper nursing administration nurses can organize various in-service educational programmed to upgrade the knowledge and promote the awareness regarding importance of antenatal exercise during antenatal periods so that they and implement that knowledge in hospital and community set up for caring the antenatal mother and should develop awareness among antenatal mother regarding antenatal l exercise.

Nursing research

This study finding can be effectively utilized by the emerging researchers. It can be utilized by nurse researchers in the future to conduct extensive studies to assert the knowledge practice and attitude regarding in community and clinical setting will find the opportunity to teach and improve the knowledge of antenatal mother.

Recommendation

1. Replication of the study could be done with a larger sample to validate and generalize the finding.
2. The same study can be conducted to determine the effectiveness of structured teaching program or video assisted teaching.
3. A comparative study can be conducted with rural and urban areas.
4. The study can be carried out in a different setting with different areas and hospital.

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