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Awareness and Knowledge of Antenatal Exercises Among Pregnant Women Attending Antenatal Clinic – An Institutional Study

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Abstract

Background: The role of physiotherapy in obstetrics during the antenatal and postnatal period is important. The antenatal exercise plays a very important role to maintain a good physical fitness and helps to overcome pregnancy related complications. The purpose of the study was to explore the level of awareness and knowledge of antenatal exercises among pregnant women attending antenatal clinic in a medical college hospital.

Methods: A cross-sectional study was conducted among 123 pregnant women who had visited the department of Obstetrics and Gynecology. The participants who met the inclusion criteria were explained about the study and an informed consent was obtained from them. A self-administered questionnaire was administered by the physiotherapist and the data was collected and summarized using descriptive statistics.

Result: Out of 123 pregnant women, only 41% were aware about the role of exercises during pregnancy. 81% of the respondents exhibited an inadequate level of awareness and knowledge about the type of antenatal exercises. Twenty two percentage were aware about the different types of exercises possible during pregnancy. More than half of the participants were not sure that exercise during pregnancy could reduce pregnancy related complications.

Conclusion: The level of awareness and knowledge of antenatal exercise among pregnant women is inadequate and more educational programs should be conducted to create awareness about the importance of exercises during pregnancy.

Keywords: Antenatal exercise, Awareness, Knowledge, Physiotherapy, Pregnancy

Introduction

Pregnancy is a time of great happiness and fulfillment. However, both the woman and the developing child during pregnancy are at a risk of facing various health problems. Thus it is important that all pregnant females should be observed by skilled care providers.[1] Literature shows that pregnant women are less active during pregnancy or in other words pregnancy leads to a decrease in physical activity.[2] Physical fitness is an important criteria to overcome the changes which are taking place in their body during the pregnancy period. Thirty minutes of moderate physical activity during pregnancy is proved to reduce the risk of adverse maternal, fetal, and neonatal outcomes.[3]

Physical therapy promotes the health and well-being by emphasizing the importance of physical activity and exercise in all the individuals including pregnant women.[4] The main focus of antenatal care is to achieve, at the end of the pregnancy, a healthy mother and a healthy baby. After conception and throughout the pregnancy proper antenatal care

should be given.[5] Physical performance of women tend to reduce after delivery compared to pre-pregnancy which can negatively affect their quality of life. The role of physiotherapy in obstetrics during the antenatal and postnatal period is important.[6]The antenatal exercise plays a very important role to maintain a good physical fitness and help to overcome pregnancy related complications. In addition those performing antenatal exercises is shown to have quicker delivery during labour.[7]

In 90's, The American College of Obstetricians and Gynecologists has recommended the exercise during pregnancy to be an integral part of antenatal care.[7]Antenatal physiotherapy interventions include exercises like aerobic exercises, pelvic floor exercises, abdominal exercises, relaxation exercises, postural education and back pain management.[6] Exercises done on a daily basis help to lower the risk of many pregnancy related complications like pre-eclampsia, gestational diabetes etc. It also helps in preventing urinary incontinence during pregnancy and postpartum period.[8] Exercising pregnant women has observed a lesser size in diastases rectus abdominis than in non-exercising pregnant women.[9] In addition, excessive gestational weight gain could be brought under control by following a regular exercise regime.[10]

There was no such evidence that the exercises prescribed during antenatal period increase the risk of preterm birth or reduced the mean gestational age at birth.[8] Hence, a proper assessment of attitude and knowledge about the various exercises in pregnancy, may help to determine whether or not a woman will participate in exercise during antenatal and postnatal period.[11] Moreover, the reference to antenatal physiotherapy sessions is also found to be minimal.[6]

The exercise prescription during pregnancy should be based on a standard protocol considering frequency, intensity, type, and duration of exercises. A thorough evaluation and examination of pregnant females before the commencement of antenatal exercises would reduce the risk of harmful effects.[7]

The awareness and knowledge of antenatal physiotherapy exercises among pregnant women is shown to be less in developing countries.[12, 13, 14] A very few literature is available in this field in South India. Hence, the aim of this study was to find the awareness and knowledge of antenatal exercises among the pregnant women attending the antenatal clinic in a medical college hospital.

Materials And Methods:

The study was conducted among 123 pregnant women attending antenatal clinic in a medical college hospital in Dakshina Kannada, India. Prior to the participation, the participants were explained about the study and an informed consent was taken from them. The subjects were assessed for inclusion and exclusion criteria and those who fulfilled the criteria were included in the study. Approval was taken from University Ethical Committee prior to the commencement of the study. The entire study was carried out within a span of 6 months.

Pregnant women in any trimester, who knows to read and write in Kannada or English and who were willing to participate were included in the study. Pregnant women who are not giving consent to participate in the study were excluded from the study.

After collecting the baseline data, a self-administered questionnaire was given to all the participants, either in English or Kannada depending on their language preference. The questionnaire was developed from previous studies and it was reviewed and content validated by the subject experts in their respective fields. The questionnaire consisted of 3 sections. Section I consisted questions related to the personal and socio-demographic details of the participants. Section II consisted of questions related to the awareness of antenatal exercises. Section III dealt with the questions related to the knowledge of the participants about the antenatal exercises.

The data was collected and summarized using the descriptive statistics of mean, standard deviation and frequency distribution. The obtained data was analysed using descriptive statistical tests. P value less than 0.05 was considered as statistically significant.

Results:

A total of 123 pregnant women were recruited and all the data were included in the analysis

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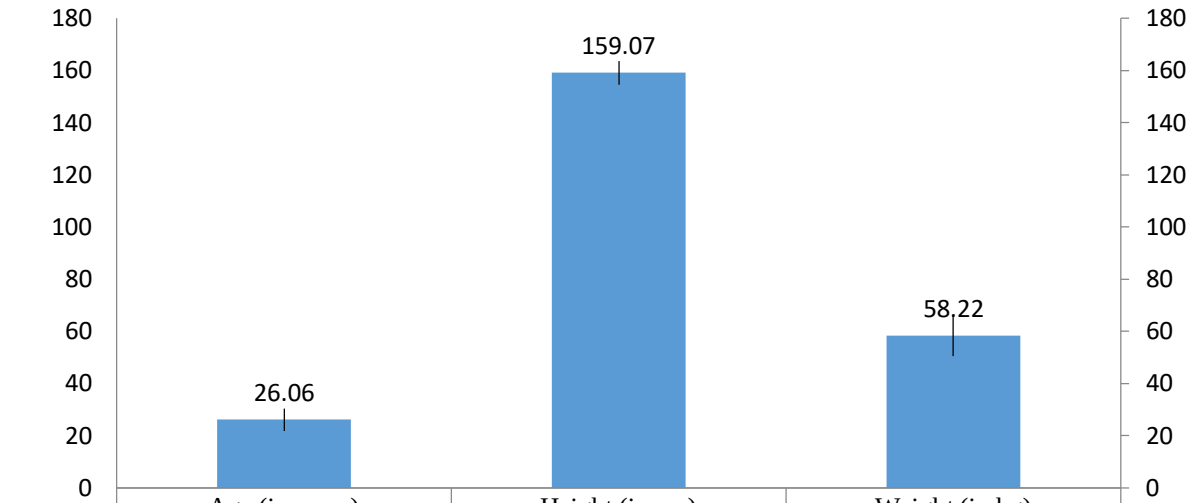
Graph 1: Demographic Details Of The Respondents



	Age (in years)	Height (in cm)	Weight (in kg)
Mean	26.06	159.07	58.22
Upper	30.3	163.5	66.04
Lower	21.79	154.6	50.4

The graph 1 describes the demographic characteristics of the respondents. The mean age of the participants was 26 years. The mean height and weight of the respondents were 159cm and 58kg respectively.

Table 1: Details of Awareness of the Respondents

Variables	Options	Frequency	Percentage
Have you come across the term physiotherapy in gynecology?	Yes	19	15.4
	No	104	84.6
Are you aware of the role of exercises in antenatal care?	No	72	58.5
	Yes	51	41.5
Are you aware that there are different types of exercises during pregnancy?	No	101	82.1
	Yes	22	17.9
Are you aware that exercises are different for the three trimesters?	No	115	93.5
	Yes	8	6.5
Are you aware about any contra-indications of exercises during pregnancy?	No	114	92.7
	Yes	9	7.3

Table 1 shows the awareness of the respondents about the antenatal exercises.

Table 2: Details of Knowledge of the Respondents

Variables	Options	Frequency	Percentage
Exercise during pregnancy may help to make the	Agree	63	51.2

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delivery at ease	Disagree	7	5.7
	Not sure	53	43.1
Exercise during pregnancy may reduce the chance of Caesarean section	Agree	44	35.8
	Disagree	12	9.8
	Not sure	67	54.5
Exercise during pregnancy may help in the early postnatal recovery	Agree	41	33.3
	Disagree	10	8.1
	Not sure	72	58.5
Do you know what the precautions to be taken while doing exercises are?	No	119	96.7
	Yes	4	3.3
Do you know the warning signs for the termination of exercises	No	119	96.7
	Yes	4	3.3

Table 2 shows the knowledge of the respondents about the antenatal exercises.

Discussion:

Exercise has become a fundamental element of our life and it is a crucial part of antenatal care. It is very important as women lessen their activity during pregnancy with a misconception that increased activity would pose a threat to the fetus and may lead to any complications.[2] Exercise during antenatal period has got greater benefits like it improves the physical fitness of the pregnant women, minimize the impairments associated with pregnancy, reduces the risk of caesarean section etc.[15,17,20,22]

The purpose of the present study was to find out the level of awareness and knowledge of the antenatal exercises among pregnant women attending antenatal clinic in a medical college hospital. A total of 123 pregnant females of any trimester were included in the study. This study has shown that 41.5% of respondents were aware of antenatal exercises.

Family is found to be the major source of information to the participants about the antenatal exercises. This result goes in line with the study done by Nayak R et al which reported that 46% of pregnant women were aware of antenatal exercise and the main source of information was from family and friends.[13]Other source of information included health care centers, media and others.

Twenty two percentage were aware about the different types of exercises possible during pregnancy. Out of this, majority (11.4%) had the knowledge of relaxation or breathing exercises, followed by 9.8% had the knowledge of back care, 7.3% of aerobic exercises and abdominal exercise and 5.7% of pelvic floor exercise.

The present study results report that only 5% of the participants were referred for antenatal exercises by the doctors. Out of the referred women, majority (66%) found the exercises interesting and helpful for them. Relaxation exercises and walking were the suggested exercises. The low referral rate of patients for antenatal exercises could be due to the lack of awareness among the doctors about the benefits of antenatal exercises as well as the specific type of exercises (aerobic exercises, back care, abdominal exercise, pelvic floor exercise etc.) It would be recommended that creating awareness among the doctors regarding the antenatal exercise could result in a better referral. The doctors have got a first-hand role in building the confidence among the pregnant females in performing antenatal exercises.

With regard to the effect of antenatal exercises, 53% of the participants were not sure that exercise during pregnancy could reduce pregnancy related complications. Meanwhile 44% agreed that exercise during pregnancy could reduce pregnancy related complications. However 49% of the participants believed that exercise during pregnancy may help to reduce excessive weight gain during pregnancy. A study done by Toosi M and Akbarzadeh M has

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reported that the women who had taken part in exercise interventions during pregnancy had low pain intensity and less duration of the first stage of labor. Present study showed that 51% of the participants agreed that exercise during pregnancy may help to make the delivery at ease. Whereas 6% of the participants disagreed to this. Despite that 55% were not sure that antenatal exercises would reduce the risk of Caesarian section. These results are consistent with the earlier studies.[13,14]

When asked about the effect on the postnatal recovery, 33% agreed that performing antenatal exercise would speed up the postnatal recovery. An earlier literature has reported that there was a significant improvement in the physical fitness by performing aerobic exercises for 45-60 minutes for 4 days a week till the delivery. Meanwhile, 58% were not sure about this and 8% disagreed to this statement. Only 3-5% of the respondents had the knowledge about the frequency, duration, precautions to be taken before doing exercise and the warning signs to terminate the exercise.

So the present study revealed that the level of awareness and knowledge about the antenatal exercises among pregnant females is poor when the importance of antenatal exercise is considered. Their information regarding the specificity of exercises is inconsistent. It is to be noted that this is not influenced by the socio-demographic characteristics of the participants. In this study, 50% of the population has completed only primary education and 81% were house wives. This could be a reason for the low level of awareness among the pregnant females. So this study results underscore the need for having collaboration with the doctors to refer as well as emphasize the importance of performing the antenatal exercises.

The study has some limitations. The present study results cannot be generalized to the entire population as the samples were taken only from the antenatal clinic of a medical college hospital. Moreover, the samples were restricted to those who know only English and Kannada.

The authors recommend to conduct more educational and awareness programs about the importance of antenatal exercises among the general population. A future study could be conducted among the doctors about the awareness of inclusion of exercises in the antenatal care.

Conclusion:

The level of awareness and knowledge of antenatal exercise among pregnant women is inadequate and more educational programs should be conducted to create awareness about the importance of exercises during pregnancy.

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