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Awareness of antenatal exercises among pregnant women in tertiary care centers, Mangalore, India

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ABSTRACT

A proper exercise regimen during antenatal care helps the mother have a safe pregnancy and delivery. A physiotherapist trained in maternal health is best suited to prescribe exercises to pregnant women. In this cross sectional study, the participants were recruited from KMC hospitals, Mangalore from December 2014-Febuary 2015.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 Gynaecology were included in our study with the aim to find out their level of awareness about Antenatal Exercises in Pregnancy. A self-administered questionnaire was developed from previous literatures which was reviewed and content validated by subject experts in their respective fields. A sample of Ninety pregnant women who met the study criteria were explained about the study. After obtaining their Informed Consent the antenatal awareness questionnaire were given to pregnant women either Kannada or English depending on their language preference. The questionnaire includes basic demographic data, pregnancy history and question to relate to antenatal classes, different types of exercises prescribed during pregnancy. Data was entered and analyzed using SPSS version 17. Frequencies and percentages were taken out as part of descriptive statistics

Keywords: Antenatal exercises, Pregnancy, Obstetrics and Gynecology.

INTRODUCTION

Physical activity is a very important aspect of good health. Exercise is very important irrespective of age and especially important for pregnant women as it helps them overcome pregnancy related complications and maintain good physical fitness. Exercise during pregnancy not only helps in maintaining musculoskeletal fitness but also helps in controlling weight, maintaining blood glucose, to

cope with various psychological and physical stresses during pregnancy and labour, strengthening muscles for labour and improves blood circulation.[1,2] Kegel's exercise is a commonly followed prenatal exercise used to strengthen pelvic floor muscle which may stretch during delivery, hence prepare for labour. [3,4,5] To cope with emotional stresses and labour pain, breathing techniques and relaxation techniques are also proved to be successful.[6] Ante natal exercise also decreases adipose tissue growth, increases stress tolerance and advances neuro behavioural relaxation in the foetus. [7] Various exercise regimen can be followed to improve overall fitness. ACOG recommends low impact moderate intensity exercise for pregnant women, which can be gradually progressed over a period of time.[8] One of the commonly recommended programme includes aerobic exercise which affects heart rate, circulatory system. A proper exercise regimen during antenatal care helps the mother have a safe pregnancy and delivery. [9] A physiotherapist trained in maternal health is best suited to prescribe exercises to pregnant women. There have been studies in various developed and developing countries to assess awareness of benefit of exercise during pregnancy.[10-13] However there are limited literature to know about awareness of antenatal exercises among pregnant women from India.

METHODOLOGY

The study protocol was approved by Institutional Ethics Committee of Kasturba Medical College, Mangalore, Manipal University, India. In this cross sectional study, the participants were recruited from KMC hospitals, Mangalore from December 2014-Febuary 2015.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 were included in our study with the aim to find out their level of awareness about Antenatal Exercises in Pregnancy. A self-administered questionnaire was developed from previous literatures [11,12] which was reviewed and content validated by subject experts in their respective fields. A sample of Ninety pregnant women who met the study criteria were explained about the study. After obtaining their Informed Consent the antenatal awareness questionnaire were given to pregnant women either Kannada or English depending on their language preference. The questionnaire includes basic demographic data, pregnancy history and question to relate to antenatal classes, different types of exercises prescribed during pregnancy. Data was entered and analyzed using SPSS version 17. Frequencies and percentages were taken out as part of descriptive statistics

RESULTS

The demographic variables in our study are 83% of the respondents were above 25 years of age, 46% had completed graduation/ post-graduation in their education level. Their socio economic status was assessed on the Kuppuswamy scale and it was found that 34% of our respondents are under the upper class and 66% are under upper middle class. 72% samples in our study were multiparous. The results are presented in Table 1. 46% of study participants were aware of antenatal classes and the main source of awareness from family/friends are reported by 48% and followed by 30% attended the antenatal class. Only 20% of them aware of different type of exercises in antenatal care. The results are presented in Table 2. Awareness of Antenatal Exercises among Pregnant Women in Tertiary Care Centers, Mangalore

Table 1 Demographic Characteristic of the Respondents

Variables	N (%)
Age	
<25 years	15 (17)
25 and above	75 (83)
Education level	
	21 (23)
High School Certificate	
Intermediate / Post high school diploma	28 (31)
Graduate / Post graduate	41 (46)

Occupation	
Unemployed	23 (26)
Clinical / Shop owner / Farmer	27 (29)
Semi profession	08 (09)
Profession	32 (36)
Socio economic status	
Upper	31 (34)
Upper Middle	59 (66)
Parity	
Primi parous	25 (28)
Multiparous	65 (72)

Table 2 Awareness of Antenatal Classes and Exercises among Respondents

Variables		**N (%)**
Awareness of antenatal classes	Yes	41 (46)
	No	49 (54)
If yes how	Family /Friends	20 (48)
	Media	07 (17)
	Health care centers	02 (05)
	Attended the Antenatal class	12 (30)
Are you Aware Of these Exercise in Antenatal care		
Aerobics	Yes	8 (09)
	No	63 (70)
	Not Sure	19 (21)
Back Care Exercises	Yes	18 (20)
	No	52 (58)
	Not Sure	20 (23)
Abdominal Exercises	Yes	19 (21)
	No	52 (58)
	Not Sure	19 (22)
Pelvic Muscle Exercises	Yes	12 (13)
	No	58 (65)
	Not Sure	20 (22)
Relaxation with breathing Exercises	Yes	19 (21)
	No	55

		(61)
	Not Sure	16
		(18)
Muscle strengthening/ Balance Exercises	Yes	17
		(19)
	No	55
		(61)
	Not Sure	18
		(20)
Are you Referred to Physiotherapy for antenatal exercises during present pregnancy	Yes	12
		(13)
	No	78
		(87)
	Back care exercise	06
If yes, what Exercises were prescribed	Pelvic exercise	03
	Relaxation	03

DISCUSSION

Antenatal care is an essential pillar of safe motherhood .To the best our knowledge this study is the first of this kind to know the level of awareness of antenatal exercises among pregnant women from India. In our study only 46% of respondents are aware of Antenatal classes. Among the main source of information about antenatal exercises 48% was from Family /Friends whereas 30% attended the Antenatal Class and 17% from Social media. A recent study from Sarfaraz et.al from Pakistan reported that 83.7% of pregnant women were aware of antenatal exercises, 42% attended the antenatal class and main source of information was from health care centers (48.8%).Though in our study the 50% participants were graduates and also upper middle class only 5% of the participants reported that health care centers were the source of information for Antenatal Exercise. When the respondents were asked about the different type of exercises in antenatal care only 9% were aware of the aerobic exercises, 21% for back care, 21% for abdominal exercises, 13% for pelvic floor exercises, breathing and relaxation techniques and 19% for muscle strengthening and balance training exercise which states that our pregnant women were the poor knowledge about the antenatal exercises during pregnancy. A recent study from Mbada EC et.al had reported that where 59% were aware about aerobic exercises, 70% for pelvic floor exercise, 97% for muscle strengthening exercises, 56% for abdominal exercises, and 97% for back care exercises. Our study finding shows that participants were poor awareness about of the role of different exercises and benefits for antenatal care. Physical therapy plays a major role in antenatal care however in our study only 13% of respondents were referred for physiotherapy during antenatal care mainly for back care exercises. Performing all or combination of different exercises under the supervision of a Physical therapist results in various benefits. Hence there is a need to incorporate Physiotherapy during routine antenatal care.

LIMITATIONS

The outcome of this study is limited in its generalizability and needs to be validated in other settings. The Study also limited to two months period. Our community is a multilingual community (Malayalam, Tulu, Konkani) however we limited our samples those who know either English or Kannada and also upper socioeconomic class of the society.

CONCLUSION

The important findings that emerge from this study in Mangalore that awareness about antenatal exercises are inadequate among pregnant women and role of physiotherapy interventions in antenatal care among health professionals. These can be achieved through awareness campaigns, physiotherapy health education, and interaction with the health professional.

CONFLICT OF INTERESTS

The authors declare that they have no conflict of interests regarding the publication of this paper.

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