Original Research

Survey on Awareness of Antenatal Physiotherapy among Women from Rural and Urban Populations of Maharashtra

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Abstract

Background: Antenatal physiotherapy is very essential for maternal and fetal health. Adequate knowledge and awareness in pregnant women plays an important role to promote its practice.

Objective: The aim of this study was to assess the awareness of antenatal physiotherapy among pregnant women in rural and urban population of Maharashtra.

Study design: Survey or descriptive cross-sectional study

Methods: A descriptive cross-sectional study was conducted using a self generated questionnaire which included questions related to awareness of antenatal physiotherapy among 500 pregnant women in any trimester attending regular antenatal checkups in primary health centers and private maternity clinic in rural and urban populations of Maharashtra.

Results: The 406 women included 208 (51%) rural women and 198 (49%) urban women with a mean age of was 23.5 (±3.39) and 26 (±2.59) respectively. Educational level influenced the awareness of physiotherapy positively.

Conclusion: The study concludes that the awareness of antenatal physiotherapy and rate of referral was found to be greater in urban women. Hence the study would like to highlight the need to create greater awareness of antenatal physiotherapy at all levels of health care systems.

Keywords: Antenatal Physiotherapy; Rural; Urban; Awareness; Women.

Introduction

Physiotherapy in Obstetrical and Gynecological Health is a fairly neglected area in India. This fact prevails even though the profession has grown very fast and has established in many other specialties related to health. Self-neglect is documented to be very common among Indian Women, especially those hailing from lower socioeconomic strata. Further the male partner or the in-laws are decision makers in availing medical facilities for women if needed. In many Indian rural/tribal areas, pregnancy is considered normal physiology hence does not require any medical health care. Pregnancy, labor, and postnatal status are not pathological but being highly vulnerable; prevention is needed during all the

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three stages. Each labour can be a unique experience. Owing to the alteration in the physiological function of gastrointestinal, cardiovascular, psychosomatic system in addition to musculoskeletal function, and taking into account, the need of preparation of breasts for lactation after child birth; the antenatal care program is generally formulated to address all such issues encountered during pregnancy. Physio-therapeutic antenatal program specifically focuses on the care of abdominal capsule, mother's education and exercises which include joint protection methods, specific breathing techniques, specific flexibility exercises, lumbar core stability and pelvic floor muscle exercises.[1]

Antenatal Physiotherapy becomes essential in managing pain as an effect of increased relaxin. The specific antenatal training not only alleviates muscular pain but also maintains the muscle strength.[2] However, awareness of antenatal physiotherapy among the general population is not known.

Objective

The objective of this study was to assess the awareness of antenatal physiotherapy among pregnant women in rural and urban population of Maharashtra.

Methodology

Ethical clearance was obtained for this study which was conducted in rural and urban areas of Maharashtra, India. As exact details of the region wise birth registrations per month in Maharashtra could not be obtained, a sample size for this survey was determined as a convenient sample of 500 pregnant women (250 each from rural and urban areas). Rural places included were Nerle (District: Sangli), Islampur, Kodoli (District: Kolhapur), Yelur (District: Sangli), Chikurde (District: Sangli), Kameri (District: Sangli), peripheral parts of Kolhapur district, Talegaon Dabhade (District: Pune) whereas urban areas included the cities Kolhapur and Pune. Participants in rural population were included from women attending regular ante-natal check-ups to Primary Health Centre's (PHC's), nursing homes and tertiary referral health centers. Participants in Urban population were from Private obstetric hospitals and maternity homes. Permission to conduct the study at respective places was obtained from the Heads of the Obstetrics and Gynecology private clinics, PHC's and Tertiary Health Centers. A self-generated questionnaire was prepared keeping the aims of the study in view. The questionnaire contained closed ended questions and included information about the demographic details, environmental history, education, parity, awareness of physiotherapy in general and in pregnancy. The questionnaire was reviewed by 3 local obstetricians for cultural and social acceptability of the questions included. All the 3 reviewers had an experience of more than 10 years. Pregnant women during their 1st, 2nd, and 3rd trimester who were willing to participate in the study were included. Women were explained about the survey and consent to participate was obtained from them. 500 pregnant women were randomly selected (250 from rural and 250 from urban areas) from the hospital registers for participation in the study. Women who could read and write were given the form to be filled by self. Data from women who could not read and write was obtained through interview method. Only 437 women agreed for participation at a response rate of 87%. However, 31 of the self filled questionnaires, on screening for completeness were found to have incomplete data. Finally data from 406 (208 rural & 198 urban) questionnaires was subjected to statistical analysis.

Inclusion criteria:

Pregnant women of all gestational ages and any status of parity above the age of 18 years were included in the survey.

Exclusion critera:

Women with a hisotry of high risk pregnancies as diagnosed by the consulting obstetritian were excluded from participation.

Results

The sample of data analyzed using Statistical Package for Social Sciences (SPSS) 23 was from 406 pregnant women which included 208 women from rural and 198 women from urban areas. The mean age of the 208 (51%) rural women and 198(49%) urban women was 23.6 (±3.39) and 26 (±2.59) respectively. The proportion of rural and urban women was not significantly different at a z-score of -0.7019 at

a p-value of 0.48392. The mean ages of pregnant women in rural areas was significantly lower than the urban women with a z-score of -7.40054 at a p-value of <0.00001. Among the rural women 195 (94%) were housewives while 13 (6%) were working. The number of working women in the rural areas who were aware of general physiotherapy was 9 (70%), whereas those unaware were 4 (30%). The number of housewives who were aware of general physiotherapy was 98 (50%) and those unaware were 97 (50%).

Among the urban women 115 (58%) were housewives while 83 (42%) were working. The number of working women in the urban areas who were aware of general physiotherapy was 77 (93%), whereas those unaware were 6 (7%). The number of housewives who were aware of general physiotherapy was 68 (59%) and those unaware were 47 (41%).

Urban women aware about antenatal physiotherapy were significantly higher than women in rural area with a z-score of -3.4675 and a p-value of 0.00052. The women unaware of antenatal physiotherapy consisted of a significant number of those from rural population at the z-score of 5.6023 and p-value of < 0.00001.

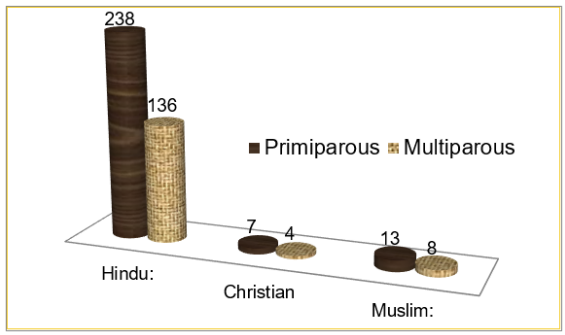
Urban women among primi-para were significantly older than rural women at a t-value of 8.1812 and p-value of <0.00001. The number of women with first pregnancies was also significantly higher among urban women as compared to rural with a z score of -2.9935 and p-value of 0.00278. The urban women were significantly lower in number among the multiparous women when compared with rural at a z-score of 5.1149 and p-value of <0.00001.

Table1: Education level and awareness about antenatal physiotherapy.

Education	Unaware n (%)	Aware n (%)
Less than equal to 10th	33(21.5%)	32 (12.65%)
Less than equal to 12th	15 (9.80%)	44(17.40%)
Degree	105(68.70%)	177(69.95%)
Total	153	253

Table 1 show that the educational level influenced the awareness of physiotherapy positively. The greater the educational level greater was the awareness of physiotherapy.

Women in the rural population being referred for antenatal exercises were not significantly different from those not being referred with a z-score of 0.9806 and p-value of 0.32708. However women being referred for antenatal exercises were significantly higher than those not referred with a z-score of 5.8292 and p-value of <0.00001.The comparison between rural and urban references for antenatal exercises showed that women in the urban population had a significantly greater chance of being referred for antenatal physiotherapy with a z-score 3.4588 and p-value 0.00054.



Discussion

The number of participating rural and urban women was proportionately distributed. However the mean age of the urban women was higher than the rural women. This result could be due to the greater number of women getting married at a later age according to various other studies. (3)

As the educational level increased the awareness of physiotherapy among the women increased significantly. This result is supported by other researches which also report similarly. (4)

All the women who reported being aware of exercises in general were reporting "walking" as the only exercise known.

The greater awareness about antenatal physiotherapy among urban women could be due to the greater exposure to and presence of centers catering to antenatal exercises.

Conclusion

The study concludes that the awareness of antenatal physiotherapy and rate of referral was found to be greater in urban women. Hence the

study would like to highlight the need to create greater awareness of antenatal physiotherapy at all levels of health care systems. The awareness among the caregivers and associated health care delivery systems is also equally essential.

Future studies trying to awareness among grass-root level healthcare workers can be undertaken.

Ethical clearance: Ethical clearance was obtained from the institutional ethical committee Ethical number: SDMIEC/2022/316.

Informed consent: Written informed consent was obtained from all participants prior to their inclusion in the study. Participation was voluntary, and confidentiality of the collected data was maintained throughout the research process.

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