A KNOWLEDGE ATTITUDE AND PRACTICE SURVEY IN WOMEN DURING ANTENATAL PERIOD REGARDING REHABILITATION SERVICES

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ABSTRACT

Background: Normal physiological and anatomical changes give rise to most of musculoskeletal problems during pregnancy. The general perception about rehabilitation care during pregnancy is not good in Pakistan. Objective of study was to assess knowledge, aptitude and practice (KAP) regarding rehabilitation services among pregnant women.

Methods: The participants of survey were 300 with age between 18 and 40 years. Simple random sampling technique was used to select participants. A pretested Performa was used for data collection. Data were analysed through statistical package for social sciences (SPSS) version 23.

Results: The knowledge, aptitude and practice about physiotherapy among antenatal patients were significant with $P<0.05$. Significantly less satisfactory 33.7% participants were aware about rehabilitation services. Only 19.3% (n=58) participants were aware about role of physiotherapy. The attitude rate 99.0% (n=297) was calculated towards knowledge and importance of exercises. However, the practice rate 3.0% (n=9) was very poor compared to knowledge and attitude. Only 6.0% (n=18) participants were aware about rehabilitation care by their physicians.

Conclusion: Rehabilitation services awareness among antenatal women was satisfactory as compared previous surveys. The behaviour was positive but practice of antenatal exercises was very poor. The results reveal that awareness campaigns are needed to promote rehabilitation services, educate pregnant women and health care providers for best outcomes of maternal life.

Keywords: Antenatal period, rehabilitation exercises, rehabilitation services, pregnancy

INTRODUCTION

Pregnancy is the period in which problems related to musculoskeletal system are very common in women. Rehabilitation services like exercises, manual techniques and therapeutic modalities could be very useful to overcome and prevent the musculoskeletal problems during antenatal period (ANP)[1]. The exercises impact is very limited during ANP on the fetus and mother. Some studies already done in women during the period of pregnancy and the results are often contradictory. However, the moderate exercise for 30 minutes most days in a week for pregnant females is recommended by the American College of Obstetricians and Gynecologists (ACOG)[2, 3].

The effects of normal physical activities and exercises are based on the knowledge about antenatal exercises (ANEx) and practice[4]. ANEx can reduce LBP of lumbosacral region as well cervical pain, increases ability to bear labor pains during delivery and also prevent the excessive increase in weight[5, 6]. Pain can be managed by proper plan of care with exercises e. g. back pain, cervical pain and labor pains[7].

The awareness in pregnant women is less about ANEx and the attitude is almost favourable. However, only a few women practicing exercise in actual during pregnancy. The main reason for less practice is lack of the awareness about how to exercise properly[3]. During pregnancy normal anatomy and physiology of the body is changed due to the growth of fetus and increasing size of uterus. ANEx have minimum risks and it is confirmed that exercise is beneficial for pregnant females[3, 8, 9].

Most reliable studies reveal that physical activities and exercises effects positively about in all aspects of health related changes and complications that occur during ANP. But perception about physiotherapy services during pregnancy is not good in Pakistan, especially in rural areas. How much this perception is correct, the survey is needed to conduct for assessment of KAP toward rehabilitation services and ANEx among pregnant females.

METHODS

A cross-sectional survey was conducted on 300 pregnant women to assess their knowledge, attitude and practice related to physiotherapy and rehabilitation services during ANP. Data were collected through simple random sampling technique from Government Maternity Hospital, New Family Hospital and Clinical Laboratory and Al-Khadim Health Care Centre in Gujrat, Punjab, Pakistan. This survey was completed in between September 2020 to March 2021.

Sample size was calculated through formula[10]

$$n = (Z_{1-\alpha/2})^2(p)(1-p)/(d)^2$$

- $Z_{1-\alpha/2} = 1.96$, It is standard normal variate at 5% type-I error
- $p = 0.26$, which is expected proportion based on previous study[1]
- d = Expected absolute error or precision is 5%

$$n = (1.96)^2(0.26)\ (0.74) / (0.05)^2$$

$$n = 295.64$$

At least 296 participants were required. After taking written consent from 300 pregnant women of age 18-40 years with musculoskeletal pain were included in the survey. Females suffering from any traumatic injury which causes postural changes, injuries or diseases of spinal cord, disc herniation and malignancies were excluded from the study.

Data Collection Procedure

Target population was pregnant women of District Gujrat Data were collected from three different settings; Government Maternity Hospital, New Family Hospital and Clinical Laboratory and Al-Khadim Health Care Center of district Gujrat. Data of 300 participants were collected under the supervision of professional physical therapists and gynecologists through a pre-tested Performa[1] about knowledge, attitude and practice regarding rehabilitation services among pregnant women. The pre-tested Performa was divided into three sections. Section 1, consists of five questions about demographic characteristics. Section 2, includes two questions about awareness of antenatal care. Section 3, has ten questions about attitude, practice and necessity of physiotherapy services.

Statistical Analysis

Data were entered and analysed in Statistical Package for Social Sciences (SPSS) version 24. For quantitative normal data, mean and standard deviation were calculated. Frequencies and percentages were calculated for qualitative data in frequency distribution table. Statistical significance was assessed through Chi-Square test. P-value ≤ 0.05 was considered as significant value.

RESULTS

Three hundred participants were selected in a sample and their demographic characteristics shown in Table I. Average age of antenatal mothers was found 27.46 ± 4.89 years. Mostly participants were belonging to the age group 21-25 and 26-30 years which were approximately (35%). The majority of respondents n=188 (62.7%) were belongs to urban

area. Out of total, 110 (36.7%) participants were completed their secondary education, and the illiterate contributors who never attended school were only 31(10.3%). It is very interesting to know that out of total participants, 269(89.7%) women were educated and 281(93.7%) were house wives.

Table I. Demographic characteristics of participants

Demographic Variables		n(%)
Age of participants in years (Mean ± S.D)		27.46 ± 04.89
Age Group (years)	<21	13(04.30)
	21-25	105(35.00)
	26-30	106(35.30)
	31-35	66(22.00)
	>35	10(03.30)
Area	Urban	188(62.70)
	Rural	112(37.30)
Qualification	Never attended school	31(10.30)
	Some primary education	26(08.70)
	Completed primary education	24(08.00)
	Some secondary education	30(10.00)
	Completed secondary education	110(36.70)
	Higher secondary	33(11.00)
	Bachelor or above	45(15.00)
	Other	01(0.30)
Occupation	House wife	281(93.70)
	Self employed	05(01.70)
	Govt. employee	10(03.30)
	Private employee	03(01.00)
	Student	01(0.30)
	Other	0(0.00)

S.D= Standard deviation

Knowledge of participants about physiotherapy services in pregnancy is shown in Table II. The knowledge of physical therapy or rehabilitation services during ANP in women was found 33.7% (n=101) that is statistically significant difference with p-value <0.001. Other

sources (relatives, friends circle and media etc.) of awareness were observed 80(26.70%) that was high from source of knowledge and statistically significant with p-value <0.001 (Table II).

Table II. Knowledge of participants about physiotherapy services in pregnancy

Variables	Responses	n(%)	Chi-Square	d.f	P-Value
Do you know about physiotherapy services during pregnancy?	Yes	101(33.70)	32.01	1	<0.001*
	No	199(66.30)			
How do you get to know about that service?	N/A	199(66.30)	472.17	4	<0.001*
	Doctor	18(06.00)			
	Nurse	02(0.70)			
	Midwife	01(0.30)			
	Others	80(26.70)			

"*" indicate the statistical significant difference

Attitude and practice related physiotherapy services among antenatal mothers are displayed in Table III. The gestation period is divided into three trimesters. The most respondents 40.0% (n=120) were in 3rd trimester of gestation period. Stage of pregnancy was also statistical significant with p-value=0.048. A large number of participants 74.3% (n=223) reported cervical pain, LBP and/or joint pain. Approximately half of women 49.3% (n=148) indicated urine urgency, 42.3% (n=127) said that they have tingling sensations, muscle cramps and edema in legs during the period of gestation and statistically significant with p-value=0.008. Only 25.7% (n=77) were aware that all those musculoskeletal impediments and urinary incontinence can be avoided and prevented by ANEx following physical therapist's directions. 19.3% (n=58) antenatal women aware about role of rehabilitation services in gestation period while a few 9.3% (n=28) were mentioned that physiotherapy services were in their access. Only 3.0% (n=9) ladies were approached and attended physiotherapy sessions for physical disabilities during pregnancy. Approximately all participants 99.0% (n=297) responded that ANEx are necessary for antenatal mothers and should go for rehabilitation care.

Table III. Attitude and practice of participants related physiotherapy services

Variables		n(%)	Chi - Square	P-Value
What is the Stage of your pregnancy?	1st Trimester	88(29.30)	06.08	0.048*
	2nd Trimester	92(30.70)		
	3rd Trimester	120(40.00)		
Do you have Back pain, Neck pain and/or joint pain?	Yes	223(74.30)	71.05	<0.001*
	NO	77(25.70)		
Do you have urine urgency?	Yes	148(49.30)	0.053	0.817
	No	152(50.70)		
Do you have edema, tingling sensation, muscle cramp of hand and leg?	Yes	127(42.30)	07.05	0.008*
	No	173(57.70)		
Do you know that Physiotherapy can help for these conditions?	Yes	77(25.70)	71.05	<0.001*
	No	223(74.30)		
Do you know about the role of Physiotherapy in pregnancy?	Yes	58(19.30)	112.85	<0.001*
	No	242(80.70)		
Are the Physiotherapy services accessible?	Yes	28(09.30)	198.45	<0.001*
	No	272(90.70)		
Are you ever attended or referred by a Doctor to Physiotherapy for any of physical problems experienced during pregnancy?	Yes	9(03.00)	265.08	<0.001*
	No	291(97.00)		
Will you go for physiotherapy services if it were recommended?	Yes	297(99.00)	288.12	<0.001*
	No	3(01.00)		
Do you think that Physiotherapy service is necessary for Pregnant women?	Yes	297(99.00)	288.12	<0.001*
	No	3(01.00)		

"*" indicate the statistical significant difference

Significance of variables shown in Table III with p-values<0.05, attitude, practice, LBP, accessibility and necessity of physical therapy and role of physiotherapy among pregnant women are statistically significant with p-value <0.05.

DISCUSSION

In this survey 300 antenatal mothers of age 18-40 years were included. Average age of participants was 27.46 ± 4.89 years. The awareness of rehabilitation services related ANC through ANEx was found in 101(33.70%) participants out of total. Only 18(6%) and 80(26.70%) respondents were got awareness from their doctors and other sources (social media, newspaper etc.) respectively. Results of current study was aligned with the survey which was conducted in 2015, Dhaka, Bangladesh on 50 participants. According to that study, 13(26%) antenatal mothers were aware about physiotherapy services in pregnancy[1]. In 2015 another study was conducted in India, the results showed most 132(66%) antenatal women responded that they have knowledge about the ANEx during gestational period[6]. In another study the knowledge about rehabilitation care during pregnancy was 75.8% in mothers[11].

In 2014, a survey report in Zambia was published. The vast majority 74% of women in gestation period were well aware about ANC with ANEx. Only 5% a small portion of their sources of knowledge was covered by physical therapists[12]. While doctors were the source of knowledge about physiotherapy services, for 6% participants of current study. Only 18(6.0%) participants got informed by their doctors that physical therapy during gestation period is an option to be fit and stay healthy. It clearly showed that the lack of interest or knowledge by health care providers that rehabilitation exercises could help in pregnancy.

The prevalence of urinary urgency 19.6% was estimated through a survey conducted in 2012 in Malaysia. Awareness during gestation period about ANEx was 51.8% quite good and attitude was 96.4% while only 10.7% participants were practicing exercises of pelvic floor muscles[13]. A study reported 54% women of gestation period have the problem of urinary incontinence in Bangladesh[1]. To estimate attitude and practice among pregnant women about ANEx a study was performed in 2014 that showed the positive attitude of 93% participants and 67% were practicing ANEx during gestation period[12] .

The Urinary incontinence during gestation period was 49.3%, only 19.3% participants were not only aware but also have knowledge about the role of physical therapy exercises in ANC. Out of total, 297(99.0%) participants were agreed with positive attitude but only 9(3.0%) women were in practicing to get physical therapy services during pregnancy.

CONCLUSION

Awareness about role of rehabilitation services among pregnant women was not satisfactory whereas attitude was observed well. While practice of antenatal exercises was very poor.

Awareness campaigns and sessions about the importance of rehabilitation services are needed to educate the professionals related to antenatal care as well as patients.

Conflict of Interest

There is no any conflict of interest regarding this study

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Ethical Approval and informed Consent

This study was approved from the Institute Review Board (IRB), University of Lahore, Punjab, Pakistan.

Data available statement

Original data related to these findings will be provide on demand from the corresponding authors.

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