Original Article

Antenatal Exercises in Pakistan

Knowledge Attitude and Practices Regarding Significance of Exercise during Pregnancy Among Health Care Providers in Karachi, Pakistan

Zaira Batool[1], Ayesha Khatoon[1], Syed Tabish Rehman[3], Omar Shafique[3], S Saif Ur Rehman[2] and Farhat Jafri[2]

ABSTRACT

Objective: To assess the knowledge, attitude and practice of Health Care Providers (HCP) regarding antenatal exercises in Pakistan.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the Sobhraj Maternity Home, Karachi from January till April 2020.

Materials and Methods: A convenience sample of 152 HCP was taken. Informed consent was obtained. A goggle survey was conducted along with physical survey for this study. Practitioners who participated, obstetricians n= 65(42.8%), gynecologist n=44(28.9%) and remaining n= 43(28.3 %) general practitioners filled a questionnaire. For every response descriptive statistics were computed.

Results: Most of the practitioners (97%) believed the beneficence of exercise during pregnancy however only 25.7% were found to have an adequate knowledge regarding benefits of exercise during pregnancy. In addition to it 65% of them believe that pregnant woman should be provided with the advice regarding exercise in any form such as verbal or pamphlets during antenatal visits. Majority of the practitioners (72%) were found to be unaware of the recommendations by international organizations.

Conclusion: Since there seems to have a mismatch in knowledge and practice of HCP in this regard, all possible efforts should be taken for exercise promotion in pregnancy to ensure healthy mother and baby.

Key Words: Health Care Providers (HCP), Knowledge, Attitude, Practice, Exercise, Pregnancy

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INTRODUCTION

Much has been studied, understood and written, on the benefits of exercise and physical activity on the physiologic and psychological aspect of human life.[1] Despite the abundant information available at our disposal, sedentary lifestyle and unhealthy dietary habits are prevalent among pregnant woman worldwide.[2]

On the other hand, woman who actively participated in regular antenatal exercises happen to lower the risk of gestational diabetes and gestational hypertension.[3] Furthermore, it leads to a reduction in excessive gestational weight gain, prevents urinary incontinence during pregnancy and postpartum. [4,5]

According to the publish researches only 15% of pregnant woman exercise at a recommended level.[6] Pregnant woman report that their lack of knowledge and fear of 'something going wrong' during pregnancy prohibits them to exercising at will and that counselling during antenatal visits would ease their engagement. [7] Recent researches cohere to the fact that healthcare practitioners (HCPs) have the most importance role in influencing pregnant woman regarding physical activity credence. [8] American College of Obstetricians and Gynecologist (ACOG) specify activity, like walking, to be divided as five times per week for 30 minutes, or three times per week for 45 minutes which further goes on to support decreased risk of coronary events in woman. [9] Exercises such as yoga can lead to increase in newborn infant weight, reduce overall labor discomfort, pain during labor and decrease the rate of cesarean section. [6]

Pakistan is a country with limited resources, facing social and economic challenges when it comes to primary antenatal care. The 2017-2018 Pakistan Demographic Health Survey (PDHS) revealed that 86%

[1.] Department of Obs and Gynae / Community Health Sciences[2], KMDC, Karachi.
[3.] Agha Khan University Hospital, Karachi.

Correspondence: Dr. Batool Zaira, Assistant Professor of Obs and Gynae, Unit IV, KMDC, Karachi.
Contact No: 0300-2794048
Email: Zairab_saif@hotmail.com

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of woman who gave birth in last five years received antenatal care from a skilled provider (HCPs, nurse, midwives and lady health visitor). [10] These visits can be utilized for effective counselling for antenatal exercises. Thus, HCPs should effectively counsel on the importance of physical activity by promoting exercise and bridging the information gap on the importance of physical activity during antenatal period and beyond. Although encouragement to exercise among woman with an uncomplicated pregnancy should be integral for prenatal and antenatal care, scarce knowledge is available about the views of HCPs in Pakistan. Therefore, the present study was conducted to enhance understanding and knowledge of antenatal exercises among healthcare practitioners, gynecologists, and obstetricians. The data obtained by this study will facilitate future stake holders and policy makers to implement positive changes in the attitude of antenatal care providers in Pakistan.

MATERIALS AND METHODS

A cross sectional survey study was conducted at Public sector hospital Karachi named as Sobhraj Maternity hospital from January till April 2020 to determine the knowledge of health care providers regarding the benefits of exercise during pregnancy. A non-probability convenience sampling technique was used. The Sample size was calculated by using WHO sample size calculator while keeping proportion of knowledge (p) =0.94, margin of error (d) =0.05, confidence level (CL) =95% and sample size (n) =136 HCPs from reference study. [5]

Participants currently practicing at hospitals and birth centers in Karachi with at least two years of working experience were invited to participate. Health practitioners having a fellowship, degree and certification from developed country or practiced in a developed country healthcare settings in last five years were excluded. Moreover, health practitioners having attended continuing medical education (CME) related to exercise during pregnancy in last two years were also excluded. We invited 182 health practitioners satisfying the eligibility criteria, among which 152 health practitioners (HP's) mostly obstetrician (n=84) and gynecologist (n=44) and some other specialists (n=24) filled the questionnaire. Anonymity and confidentiality of the study participants were maintained. The participation was voluntarily and no incentives were provided. Ethical approval was obtained Ethical review committee of Karachi Medical and Dental College.

Each participant filled a questionnaire validated by the experts**.** The questionnaire consisted three part. The first part of the questionnaire consisted of ten questions inquiring attitude of HCP's towards exercise in pregnancy with response option as strongly agree, agree, disagree and strongly disagree. The second part consisted of sixteen items asking benefits of exercise with response option as yes or no. The last part consisted of eleven questions identifying practice pattern of HCP's towards exercise during pregnancy. The questionnaire was administered physically (n=120) as well as electronically through goggle survey (n=32) due to COVID 19 pandemic restrictions. The data was analyzed using SPSS version 25 (IBM). Descriptive statistics were performed and categorical values were presented as frequency percentages.

RESULTS

A total of 152 health practitioners were enrolled in the current study. Statements reflecting the attitudes of participants regarding exercise in pregnancy are mentioned in Table 1.

Table No 1: Attitude of Healthcare Providers towards Exercise during Pregnancy

Statements	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed
Exercising during pregnancy is beneficial.	51(33.6%)	94(61.8%)	6(3.9%)	1(0.7%)
Counselling patients to exercise during pregnancy is not an integral part of prenatal care.	11(7.2%)	42(27.6%)	85(55.9%)	14(9.2%)
No individualized recommendations regarding exercise during pregnancy should be given.	6(3.9%)	102(67.1%)	36(23.7%)	8(5.3%)
Exercise program should not be recommended to sedentary non complicated pregnant women.	3(2%)	48(31.6%)	82(53.9%)	19(12.5%)
Encouragement to continue exercise program in all trimesters of pregnancy for chronic exercisers.	23(15.1%)	101(66.4%)	23(15.1%)	5(3.3%)
During pregnancy women must not engage in any exercise program of strength building.	22(14.5%)	79(52%)	45(29.6%)	6(3.9%)
Moderate intensity exercise is recommended during pregnancy.	12(7.9%)	118(77.6%)	21(13.8%)	1(0.7%)
Risk of giving birth to low birth weight babies is enhanced by doing exercise in pregnancy.	3(2%)	33(21.7%)	104(68.4%)	12(7.9%)
There is possibility of poor obstetric outcomes for women who exercised during pregnancy.	13(8.6%)	119(78.3%)	14(9.2%)	6(3.9%)

Table No.2: Practice pattern of Healthcare Providers towards exercise during Pregnancy

Practice related questions	Frequency (n)	Percentage(%)
Does your pregnant patients receive advice about exercise?		
Yes	91	59.9%
No	61	40.1%
Who is responsible for giving this advice?		
Yourself	67	44.1%
Nurse/Others	29	19.1%
N/A	56	36.8%
When this advice is given?		
Initial Visit	59	38.8%
Follow-up Visits	38	24.8%
N/A	55	36.2%
Are informational pamphlets provided on pregnancy and exercise?		
Never	74	48.7%
Seldom	39	25.7%
Always	39	25.7%
Does exercise histories are taken?		
Never	38	25%
Seldom	50	32.9%
Always	64	42.1%
Does each pregnant patient receive an individualized exercise program to follow?		
Never	54	35.5%
Seldom	53	34.9%
Always	45	29.6%
Do you know about 2002 ACOG guidelines related to pregnancy and exercise?		
Very Aware	12	7.9%
Aware	67	44.1%
Unaware	73	48%
For exercise recommendations who you refer your pregnant patients?		
Personal Trainer	30	19.70%
Bio kinetics	5	3.3%
Physiotherapist	43	28.3%
Other	74	48.7%
Which exercise type you recommend?		
Walking	84	55.3%
Running	38	25%
Cycling/ Aerobics	2	1.4%
Do not Recommend	28	18.45
Does certain types of exercise you advice to avoid?		
Yes	116	76.3%
No	36	23.7%
Given opportunity are you interested in attending workshop on exercise during pregnancy?		
Yes	124	81.6%
No	28	18.4%

More than half responded in affirmation on the statement that exercise in pregnancy is beneficial and 66% of them agreed that exercise promotion is essential. Around two third (66.4%) subjects were in favor of continuation of routine exercise during pregnancy and 52% recommended that participation in strength training program should be avoided. Additionally, 77.6% participants emphasized that during pregnancy exercise on moderate intensity should be done. Furthermore, to assess participant's view regarding the perceived benefits of exercise during pregnancy sixteen statements were inquired regarding different conditions as demonstrated in Figure 1. Most of the study participants hold the opinion that exercise in pregnancy is beneficial as it decreases the risk of gestational diabetes and increases the fitness level. More than sixty percent (61.8%) also responded

positively that it helps in weight management and improves musculoskeletal status.

The Table 2 showed results of practice pattern of health practitioners towards exercise during pregnancy. Around sixty percent (59.9%) of practitioners give advice to their patients about exercise during pregnancy. Moreover almost half of the participants never provide any help tool like pamphlet or any hand out in this regard. On questioning study subjects regarding their awareness about 2002 ACOG guidelines for pregnancy and exercise only around eight percent (7.9%) subjects were very well aware, more than two fifth (44.1%) only aware, while slightly less than fifty percent (48%) were unaware. Overall awareness about the guidelines was found adequate in 52% practitioners. Importantly, eighty one percent (81%) practitioners were interested in attending workshops and CPD's to improve their knowledge.

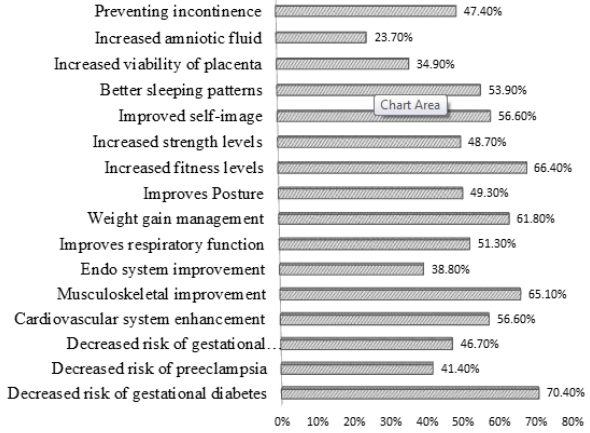

Figure No. 1: Benefits of Exercising during Pregnancy

DISCUSSION

In Pakistan around 38.4% of reproductive age women are overweight. [11] According to the Pakistan's economic survey 2018-2019 the country's current literacy rate is 60% in which women lags behind. [11] This indicates that numerous pregnant women seek medical guidance and help to maintain a healthy pregnancy from health care providers and thus their recommendations are the most trusted source of knowledge, especially for new mothers. The current study reflected that majority of HP strongly agree that exercise in pregnancy is beneficial for the patient and they should advice regarding its initiation and continuation in pregnancy as shown in similar studies. [5] Slightly more than half of the participants in our study were against the idea of participation in strength training program and seventy two percent of HP hold the opinion that women should continue only moderate exercise during pregnancy. Seventy percent of the participants agreed that exercise decreases the risk of diabetes. Importantly, the study reflected that almost fifty percent of providers never provide any tool such as pamphlets to promote exercise and only slightly higher percentage of HP were found to be aware about ACOG guidelines regarding pregnancy and exercise.

Substantial amount of participants in our study considered exercise as a beneficial form of physical activity during pregnancy but only a small percentage had adequate knowledge of the benefits.[12] These results were found to be in alignment with a study conducted on the impact of physical activity during pregnancy and postpartum on chronic disease risks [13] which also suggested that antenatal exercises had a promising impact on numerous factors. Many practitioners included in our study encouraged their patients to do antenatal exercise on their initial visit. However, due to lack of essential knowledge on the subject, more than half of these health workers do not provide supporting materials to help the women. A similar pattern was observed in a study conducted by Melanie Hayman [14] which concluded that even though health practitioners play an instrumental role in encouraging physical activity among pregnant women, they may lack the necessary knowledge to provide the required guidance. Nevertheless, a study by the ACOG strongly suggests a thorough clinical evaluation of a pregnant women before recommending any physical exercises.[15] In the study conducted only a small percentage of our participants encouraged and provided essential knowledge regarding antenatal exercises to their patients. Most of these women would end up relying on the psychosocial norms and practices portrayed by the society. Nonetheless, a study published in 2011 assessing the knowledge, attitude and practice of women with respect to antenatal exercises in Brazil presented that women had a positive attitude towards physical activities and were reasonably equipped in knowledge of antenatal exercises as well. [16]

CONCLUSION

The overall assessments of our study brought to view the lack of antenatal exercise knowledge among health care practitioners who were in close correspondence with pregnant women. The study confirms that substantial amount of health workers have inadequate knowledge regarding antenatal exercises and they do not encourage women to participate in such exercises. The stake holders such as Society of Obstetrics and Gynaecology Pakistan to publish the guidelines to aid the understanding of the physicians on this important aspect. Since majority of the participants showed interest in attending workshops to increase their knowledge, necessary steps should be taken in this regard.

Author's Contribution:

Concept & Design of Study:	Zaira Batool
Drafting:	Ayesha Khatoon,

	Syed Tabish Rehman
Data Analysis:	Omar Shafique, S Saif Ur Rehman, Farhat Jafri
Revisiting Critically:	Batool Zaira, Zaira Batool
Final Approval of version:	Zaira Batool

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