



# EXERCISE DURING PREGNANCY, KNOWLEDGE, BELIEF AND PRACTICE OF GYNECOLOGISTS/OBSTETRICIANS

Sikander Ali Sangrasi<sup>1</sup>, Muhammad Hassan Waseem<sup>1</sup>, Asif Gulzar Shaikh<sup>1</sup>, Fahad Farooq Lasi<sup>1</sup>

## ABSTRACT

**Background:** Exercise plays a vital role in different phases of life but it is an important and integral part in the prenatal care. A number of complications and problems associated with pregnancy can be reduced and avoided if an expert advice is followed. A proper prescribed plan of care and exercise from an expert would help to increase awareness and facilitate the pregnant females and population.

**Objective of Study:** The aim of the study is to examine the knowledge, beliefs and practice of Gynecologists /Obstetricians regarding exercise during pregnancy.

**Methodology:** Two hundred fifty(250) practicing Gynecologists /Obstetricians FCPS (n=10) FCPS trainee (87)MBBS with three year experience (87) and other post graduate Gynecologists /Obstetricians (66) from the Liaquat University of Medical and Health Sciences hospital Jamshoro, Hyderabad .In this study descriptive characteristic data Gynecologists/Obstetrician knowledge , believes and current practice regarding exercise during pregnancy were collected ,descriptive statistics and chi-square analyses were completed.

**Results:** Overall 91% of Gynecologists /Obstetricians believe exercise during pregnancy is beneficial, only 34%recommand exercise to the pregnant patients.

**Conclusions:** Although the Gynecologists/Obstetricians beliefs about exercise is largely positive, but very few of them recommend exercise to the pregnant patients.

**Key word:** Antenatal exercise, Awareness in Gynecologists, Pregnancy.

1. Institute of Physical Therapy and Rehabilitation Sciences, IPRS  
Liaquat University of Medical and Health Sciences, LUMHS

## INTRODUCTION

Exercise is a major component of prenatal care advice from an expert of exercise can reduce the risk of complications. The awareness, recommendations and research studies regarding exercise during pregnancy will facilitate a proper plan of treatment to the patients. Evidence based practice of Gynecologists/ Obstetricians will enable to prescribe and advice about the efficacy of exercise and the physiological changes that occur during pregnancy with added risks and benefits for the mother and fetus.<sup>(1)</sup>It is observed that women do not take part in exercise during pregnancy because of a number of problems such as lack of interest, lack of referral, lack of time and financial issues. Among them majority of pregnant women suffered from low back pain, urinary incontinence and other problems during pregnancy.<sup>(2)</sup> Women and their care providers should consider the risks of not participating in exercise during pregnancy, including loss of muscular and cardiovascular fitness, excessive maternal weight gain, higher risk of gestational diabetes or pregnancy -induced hypertension, development of varicose veins and deep vein

thrombosis, a higher incidence of physical complaints such as dyspnea or low back pain, and poor psychological adjustment to the physical changes of pregnancy.<sup>(3)</sup>

Historically, exercise during pregnancy was not universally recommended for pregnant women because of limited research and fear of unknown risks to the mother and fetus. In recent descends Importance of exercise during pregnancy on mother and fetus has been evidenced by many studies.<sup>(4-7)</sup> Exercise during pregnancy improves a number of systems of the body like cardiovascular system, metabolic functions, increases strength and bone density and also, lower the risk of gestational diabetes mellitus (GDM), gestational hypertension, and preeclampsia. It has been shown to reduce excessive gestational weight gain (EGWG), which is an important predictor of numerous adverse maternal outcomes.<sup>(3)</sup> A number of evidences suggest that exercise during pregnancy prevents urinary incontinence during pregnancy and in the postpartum period.<sup>(8,9)</sup> Exercise during pregnancy relieves the discomfort experienced by pregnant women and prepares the body for an easier delivery and



recovery process with easy decreasing the chances of cesarean section.<sup>(4)</sup>

The Polish standard tool for prenatal care should be implemented with detailed instructions for designing prenatal exercise programs and should include the new guidelines for physical activity during pregnancy, both in Poland and abroad.<sup>(14)</sup> Exercise during pregnancy has both medical and psychological benefits as well as improves overall emotional well-being.<sup>(2-10)</sup> By using the medical pre-screening tools included in PAR med-X for Pregnancy and by promoting the recommended exercise guidelines included in the document, physical therapist can play a key role in boosting the physical activity levels of pregnant women, so that they and their offspring can enjoy the health benefits like ease in labor, less discomfort in pregnancy as generally felt by females and decrease in depression are some added benefits.<sup>(11)</sup> The brief physical activity counseling by health care provider increase likely-hood of the patient participation in physical activity.<sup>(12)</sup> Recent researches suggest that majority of women's do not participate in exercise because of their health care providers.<sup>(12)</sup> It is not possible to bound a pregnant women to follow the goals of exercise strictly as per advised. A number of factors are dependent for pregnant females to be active or wish to be during pregnancy includes individual fitness level, type of exercise that effects each pregnancy and the way Physiotherapist or health care professional counsels and motivate an individual to change the living style during pregnancy.<sup>(13)</sup>

As many researchers have proved the benefits of exercise during pregnancy about the awareness and counseling of Gynecologists / Obstetricians as they are the major person in prenatal care.<sup>(5)</sup> A room for research is available about the gynecologist/obstetricians role of counseling in pregnancy. Therefore this study aims to assess the Knowledge, beliefs and practice of Gynecologists/Obstetricians of Liaquat University of Medical, Health Sciences Hospital Jamshoro and Hyderabad. This knowledge will be useful in future to increase awareness in Gynecologists/Obstetricians.

## METHODOLOGY

It was a descriptive cross sectional study design conducted at Liaquat University of Medical and Health Sciences. Each participant was surveyed using a pen and paper instrument consisting three sections first section was about demographic information , second section consisted of questions about Gynecologists/Obstetricians knowledge and beliefs and the third section was about their current practice. Data was interred in SPSS software version 20, data was screened before analysis, frequencies and parentages were taken out as part of descriptive statistics. Participants were grouped by age (10-year intervals starting with >30 to < 60 years of age), gender, degree (FCPS, FCPS TRAINEE, MBBS, OTHER.), and years of experience (<5, 5-10, 11-15, and >15 years).

Descriptive statistics were calculated for all questions to determine group means and standard deviations (SD). Because of the nature of the data and lack of homogeneity of variance, were performed using chi-square analysis. Comparisons were performed on all knowledge, attitude, and belief questions to assess differences based on provider gender, age, degree, and experience.

## RESULTS

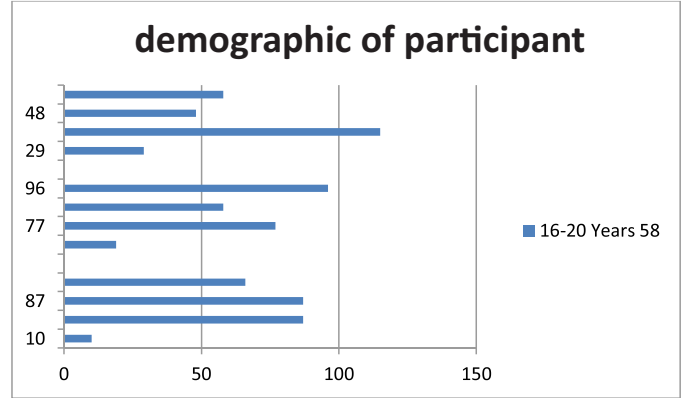
The total sample size of the this study was n=250 including Gynecologists /Obstetricians, the demographic information is tabulated in table -1 .Majority of participant were FCPS trainee (34%) and MBBS (30%) with three years or more than one year experience and between the age of 45-50 years.

In the table no: 2, 91% Gynecologists /Obstetricians believe exercise is beneficial during pregnancy, only 34% recommend exercise to the patients, 62% believe that sedentary women with uncomplicated pregnancy should be encouraged to do exercise , 47% says chronic conditions should continue exercise throughout pregnancy , on the question of strength training participation 64% agreed ,as for maternal and fetal risk of exercise during pregnancy 91% believe that they are minimal in



non exercisers , 34% believe that exercise is not cause of low birth babies .

Approximately 11.5% FCPS (trainee) and other postgraduates officers gave advice to the patient to do exercise and the percentage decreased to 3.08% for FCPS (senior). Although believes are largely positive, but in practice percentage for recommendation is less due to unknown reasons and current statistics reveals only 15% know about the ROCG statement 4. And 94% of the clinicians do not know about any exercise expert and 90% are interested to attend workshops on exercise information.



Graph 2: Demographic of Participant

Table.1 Participants Demographics (N=250)

	Q-10 Exercise is beneficial	Q-14 Sedentary women not start exercise	Q-15 Chronic exercisers can continue	Q-18 Heart rate should stay < 140 bpm	Q-20 Risk of fetal harm minimal	Q-26 Aware of ROCG statement -4 Guidelines	Q-28 Recommend exercise to pregnant patients
FCPS n=10	7(2.8%)	2(0.77%)	1(0.38%)	6(2.31%)	6(2.3%)	0	9(3.46%)
FCPS Trainee n=87	67(26.9%)	48(19.2%)	48(19.2%)	77(30.7%)	77(30.77%)	19(7.69%)	29(11.54%)
MBBS n= 87	87(34.6%)	58(23.08%)	38(15.3%)	67(26.9%)	87(34.6%)	10(3.85%)	19(7.69%)
OTHER n=66	68(26.9%)	48(19.2%)	29(12.5%)	48(19.2%)	58(23.08%)	10(3.85%)	19(7.69%)
TOTAL n= 250	288(91%)	156(62%)	116(47%)	198(79%)	227(91%)	38(15%)	76(30%)

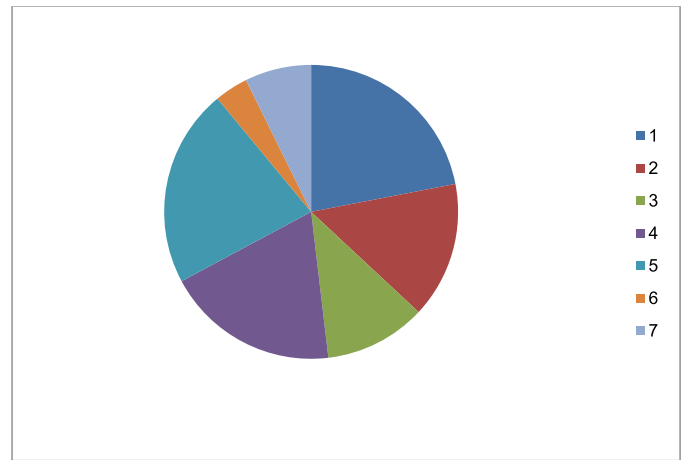


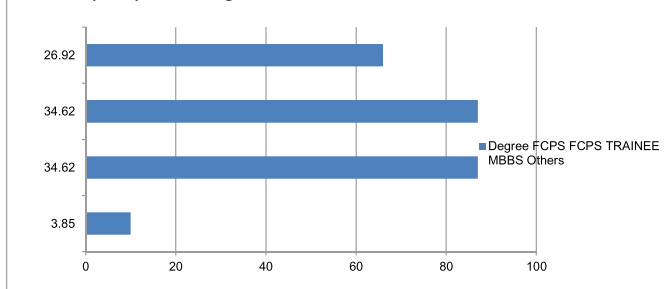
Table – 2: Number and percentage of providers who agreed with key questions, broken down by provider type and total sample.

Degree	N	%
FCPS	10	3.85
FCPS TRAINEE	87	34.62
MBBS	87	34.62
Others	66	26.92
<b>Age</b>		
<30	19	7.69
30-39	77	30.77
39-45	58	23.08
45-50	96	38.46
<b>Experience</b>		
<5 Years	29	11.53
6-10 Years	115	46.15
11-15 Year	48	19.24
16-20 Years	58	23.08

## DISCUSSION

The study results suggested that majority of Gynecologists/Obstetricians had positive beliefs regarding exercise during pregnancy but a very few of them recommend exercise to pregnant ladies. The reasons of fear are the possible complications of exercise with lack of knowledge about exercise and less experienced expert advice. Due to the possible complications of prescribing exercise and monitoring the exercise intensity and timings are required for a positive outcome. The Changes in heart rate (an increase in resting and decrease in sub maximal) render heart rate is less preceded way to monitor exercise intensity.<sup>(14)</sup> To address this issue Canadian guidelines (PAR med-X for pregnancy) advised using a target heart rate zone representing 60-80% of age specific aerobic capacity along with Borg's rating of perceived exertion scale (6-20) to monitor

Number of participants with degrees.



Graph 1: Numbers of participant with degrees



exercise intensity. Most guidelines advocate a maximal heart rate of 60-70% for women who were sedentary prior to pregnancy and the upper range of 60-90% of maximal heart rate for women wishing to maintain fitness during pregnancy.<sup>(13)</sup>

It was also estimated that the both sub-specialty groups the FCPS, trainee FCPS and other post graduates (Gynecologists /Obstetricians) out of which only (67%) of them advise the patients on exercise during pregnancy and is not a major component of prenatal care. Only 34% recommend exercise to the pregnant patients. A recent study from Hina, et.al from Pakistan reported that very few Gynecologists /Obstetricians advise exercise to pregnant patients, some occasionally and majority never advised their patients regarding exercise in tertiary care hospitals in Karachi. This study has been done in Michigan State USA by Patricia W.Bauer; et.al has shown that majority of health care providers advice exercise during pregnancy and differences in both the countries is because of awareness and knowledge of exercise to the health care providers.

Exercise by self motivation of pregnant lady is also a area from where awareness of exercise can be enhanced. Study about the effects that provide recommendations have on exercise behavior have generally shows that patient attitudes are responsive to exercise advice from health care professional. Surprisingly, the advice which was given to the pregnant patients was fully followed. A study done by Sarfraz.Et.al from Pakistan has reported that pregnant patients were aware of physiotherapy treatment and most of women agreed that physiotherapy has positive role in antenatal care, but few of them actually attended physiotherapy sections. The reason they don't attend the session is because of non-referral, lack of time, lack of interest and financial problems, it's important to work on both awareness during pregnancy as well as Gynecologists/ Obstetricians to promote exercise during pregnancy and after delivery. The current Study shows the difference of Gynecologists /Obstetricians believes in the importance of exercise counseling and

individual consults that is the possible reason that they do not recommend exercise to the patients. So, as heart rate restrictions 79% believes heart rate should not exceed 140 beats per minute and only 15 % aware of ACOG guidelines and recommendations. It is clear that the importance of knowledge of current recommendations must be updated in Gynecologists/Obstetricians and information about the exercise expert must be given to them, as 94 % do not know about any Women health Physiotherapist in their area. But 90 % of people are interested to attend workshops on the importance of exercise during pregnancy.

## CONCLUSIONS

Although, Gynecologists /Obstetricians believe about exercise during pregnancy were largely positive, but very few of them recommended exercises to the patients as a prescription? The reason behind this is the lack of knowledge about the current recommendations, believes about possible complications as the heart rate elevates during the exercise. Another risk being low weight birth babies, lack of knowledge about the exercise, expertise of an expert to monitor an exercise .A majority of the females out o if the whole are willing to attend the workshops for an update about the importance of exercise during pregnancy.

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