Importance of Gynecological Physiotherapy during antenatal and postnatal period: Perception of gynecologists

By

Zakia Rahman

Master of Rehabilitation Science

Registration no: 6267

Roll no: 313

Session: 2013-2014



Bangladesh Health Professions Institute (BHPI)
Faculty of Medicine

University of Dhaka



Student's Declaration

This work has not previously been accepted in substance for any degree and is not

concurrently submitted in candidature for any degree.

This dissertation is being submitted in partial fulfillment of the requirements for

the degree of MSc in Rehabilitation Science.

This dissertation is the result of my own independent work/investigation, except

where otherwise stated. Other sources are acknowledged by giving explicit

references. A Bibliography is appended.

I confirm that if anything identified in my work that I have done plagiarism or any

form of cheating that will directly awarded me fail and I am subject to disciplinary

actions of authority.

Signature:

Name: Zakia Rahman

Date:

Thesis Supervisor's Statement

As supervisor(s) of Zakia Rahman	MSc Thesis work, we certify that we consider	er his
thesis "Importance of Gynecologic	cal Physiotherapy during antenatal and post	tnatal
period : Perception of gynecologist	ts " to be suitable for examination.	

Dr. Mohammad Sohrab Hossain

Professor of BHPI & Executive Director of CRP

Signature: Date:

We the undersigned certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for acceptance of this thesis entitled,

"Importance of Gynecological Physiotherapy during antenatal and postnatal period: Perception of gynecologists"

Submitted by **Zakia Rahman**, for the partial fulfillment of the requirements for the degree of M. Sc.in Rehabilitation Science.

Prof. Dr. Mohammad Sohrab Hossain

Professor

Department of Physiotherapy

Bangladesh Health Professions Institute

Prof. Dr. Sharker Md. Numan

Dean

School of Science and Technology (SST)

Bangladesh Open University (BOU)

Muhammad Millat Hossain

Associate Professor

Department of Rehabilitation Science

Bangladesh Health Professions Institute (BHPI)

Punam D Costa

Lecturer

Department of Rehabilitation Science,

Bangladesh Health Professions Institute (BHPI)

Date of approval: 24/06/2024

Acknowledgement

First of all, I am grateful to almighty Allah for enabling me to complete this thesis. I am extremely grateful to my honorable and praiseworthy Supervisor Prof. Dr. Mohammad Sohrab Hossain Sir for his excellent guidance from the very beginning to winding up of this study.

I am very much thankful to my data collectors, in charge of BRB hospital and OGSB hospital for their cordial support and permission for data collecting data. I am also indebted to my colleagues Shahid Afridi, Lectuer, SAIC and Zahid Bin Sultan sir, Assitant Professor & Head of Physiotherapy Dept., SCMST & Dr. A K M Enamul Haque sir, Principal, SCMST for sharing their precious knowledge that enabled me to fine-tune various aspects concerning this study.

I want to remember my guide teacher Kamrunnahar Koly mam, Lecturer of MRS dept. for her immense support & flexibility and also thanks to my classmates Ummey Kulsum Urmi and Akhter Hossain for their inspiration and extending helpful hands in different situations throughout this study.

I am also very grateful to Mohammad Millat Hossain Sir, Associatr Professor, Dept.of Rehabilitation Science, BHPI for his support and guidance.

Table of Contents

Contents	Page No	
Acknowledgement	i	
Table of contents	ii	
List of tables	iii	
List of figures	iv	
List of abbreviations	v	
Abstruct	vi	
CHAPTER-I: Introduction	8-19	
1.1.Background	8-14	
1.2.Rationale	15	
1.3. Research Question	16	
1.4. Objectives	17	
1.5. Operational Definition	18-19	
CHAPTER-2: LITERATURE REVIEW	20-42	
CHAPTER-3: METHODOLOGY	43-46	
3.1. Study design	43	
3.2. Study area	43	
3.3. Study population	43	
3.4. Study period	43	
3.4. Sample size	43	
3.5. Sampling technique	44	
3.6. Inclusion & exclusion criteria	44	
3.7. Method of data collection	44	
3.8. Data collection tool & materials	45	
3.9. Data analysis	45	

Contents	Page No
3.10.Ethical consideration	46
CHAPTER-4: RESULT	47-59
CHAPTER-5: DISCUSSION & CONCLUSION	60-63
CHAPTER-6: LIMITATION &	64
RECOMMENDATION	
CHAPTER-7: REFERENCE	65-70
APPENDIX	71-76
A. IRB permission letter	71
B. Permission letter	72
C. Inform consent	73
D. Questionnaire	74-76

List of Tables

Table No	Description	Page no
Table 1	Patients query about exercise during pregnancy	47-48
Table 2	No of participants thought exercise is beneficial on	49
	pregnancy	
Table 3	No of participants believes each patient need	51
	standard exercise protocol	
Table 4	Number of participants that give booklet about	56
	exercise	
Table 5	No participants those thought exercise can break	57
	amniotic fluid	

List of Figures

Figure no	Description	Page No
Figure 1	Experience on gynecological field	47
Figure 2	Importance of exercise during pregnancy	50
Figure 3	Low birth weight of babies	52
Figure 4	Importance of exercise after pregnancy	53
Figure 5	Exercise that recommend after delivery	54
Figure 6	Recommend for taking Physiotherapy	55
Figure 7	When to avoid exercises	58
Figure 8	role of exercise on antepartum & postpartum	59

List of Abbreviations

PT Physiotherapy Therapy.

LBP Low Back Pain.

DRAM Diastasis rectus abdominis muscle.

GDM Gestational diabetes mellitus.

UI Urinary incontinence.

PD Primary dysmenorrhea.

C-section Caesarean section.

POP Post-operative.

GS Gestational sac.

CSP Cesarean scar pregnancy.

PF Pelvic floor.

POP Pelvic organ prolapse.

PNE Postnatal exercise.

ANEX Antenatal exercise.

PFM Pelvic floor muscle.

PFME Pelvic floor muscle exercise.

PFMD Pelvic floor muscle dysfunction.

PFPT Pelvic floor physical therapy.

PFH Pelvic floor hyper-tonicity.

MBBS Bachelor of Medicine and Bachelor of Surgery.

FCPS Fellow of College of Physicians and Surgeons.

MCPS Member of College of Physicians and Surgeons.

MS Muscle

UTI Uterine Prolapse

WMO Women Medical Officers.

OGSB Obstetrical and Gynecological Society of Bangladesh.

WHO World Health Organization.

MMR Maternal mortality rate.

Abstract

Background: Obstetrics and gynecology physiotherapy is a physical therapy field that focuses on promoting health during childbearing. It involves integrating physical therapy treatments with obstetrics and gynecology to provide optimal healthcare. The role of physiotherapists includes addressing pregnancy, labor, puerperium, preoperative and postoperative phases, and various obstetrics and gynecology problems. However, doctor knowledge and attitudes influence the frequency of use of these services.

Objective: This study seeks to investigate the perspectives and understanding of gynaecologists on the involvement of physiotherapy in obstetric and gynaecological treatment, with a specific focus on its advantages, recommended methods, and possible issues.

Method: The study utilised a qualitative phenomenological methodology, which involved conducting semi-structured interviews with a total of 10 Gynaecologists from two hospitals in Bangladesh. Participants were chosen via convenience sampling, and the data was analysed using NVivo 12 software.

Results: The study uncovered different degrees of understanding and attitudes about physiotherapy during pregnancy and after giving birth. Although many participants recognised the advantages of physical activity, such as enhanced pelvic muscle strength, decreased discomfort, and improved healing, a considerable proportion noted that their patients seldom asked about physiotherapy. The study also revealed a deficiency in standardised exercise programmes and emphasised situations in which exercise should be abstained from.

Conclusion: There is a pressing requirement for improved education and standardised protocols for physiotherapy in obstetric care. Enhancing the integration of physiotherapy into prenatal and postnatal treatment has the potential to enhance the health outcomes of both mothers and their babies, highlighting its significance in obstetric healthcare.

Keywords: Obstetric physiotherapy, gynecological physiotherapy, pregnancy, postpartum, maternal health, qualitative study, Bangladesh

CHAPTER-I INTRODUCTION

1.1 Background:

Physiotherapy is a medical field that offers therapy to individuals with the goal of improving and preserving their capacity to move and function effectively throughout their lives (Maruf et al., 2012). Physiotherapy is a healthcare profession. Physiotherapy has evolved into a significant therapeutic technique that utilizes defined procedures based on scientific principles. It is a crucial element of the care that is given to the overwhelming majority of patients. Abichandani and Radia (2015) state that it has also evolved into a significant medical and rehabilitative adjunct to the provision of healthcare. An increasing number of physiotherapists are collaborating with other medical specialists to offer their patients the most cutting-edge treatment and rehabilitation options currently accessible. A physician possesses the ability to identify a medical problem, alleviate symptoms by pharmaceutical intervention, conduct surgical procedures, and provide guidance on the optimal approach to address a specific ailment or damage (Mishra & Vidhyadhari, 2019). On the contrary, a physiotherapist can assist a patient in recovering more quickly and efficiently.

Harper et al. (2012) found that family physicians and obstetrician-gynecologists in the United States collaborate to administer a substantial quantity of contraceptive medicine, aiming to decrease the occurrence of unwanted pregnancies among their patients. Obstetrics and gynecology physiotherapy is a specialized branch of physical therapy that aims to enhance the well-being of parents throughout the period of pregnancy. Tahir et al. (2017) state that obstetrics and gynecology physiotherapists must have a mature blend of qualities that allow women to openly discuss very sensitive and intimate areas of their lives. Given the importance of maternal health as a worldwide public health issue, the fifth Millennium Development Goal is to decrease maternal mortality ratios by 75% by 2015.

This objective will be achieved by the year 2015. The Maternal Mortality Rate (MMR) in India between 2010 and 2014 was determined to be 196 maternal deaths per 100,000 live births, as reported by the World Health Organization (WHO) in a recent study titled

8

"Trends in Maternal Mortality 1990-2014" conducted by (Nayak et al). In the field of obstetrics and gynecology, physiotherapists are responsible for addressing the needs of patients during the prenatal and postnatal periods, as well as during labor and delivery. Patients experiencing issues such as low back pain, abdominal or pelvic floor muscle weakness leading to stress urine incontinence or mild prolapse, pelvic pain, pregnancy discomfort, or limited mobility can benefit from physical therapy treatments. Physiotherapists specializing in obstetrics and gynecology should possess a unique combination of qualities. Some of the most personal and private aspects of a person's life are often related to their physical and physiological changes during pregnancy. These changes can lead to common issues such as low back pain, stress urine incontinence, and pelvic discomfort. Physiotherapy can help address these issues through techniques such as posture reeducation, strengthening of pelvic floor muscles, and other specific methods. Engaging in physical activity during pregnancy offers numerous benefits, including improved physical fitness, reduced risk of excessive weight gain, decreased chances of preeclampsia and pre-term birth, alleviation of low back pain, better sleep, reduced stress. Physical therapy plays a crucial role in obstetrics, both during pregnancy and after delivery. It has no adverse effects on infants and can provide long-lasting positive benefits for women. Pregnant women are encouraged to engage in physical activity as it helps prevent pregnancy-related issues and maintains their physical well-being. Supervised birthing ball exercises have shown to result in faster labors for pregnant women. Furthermore, research has shown that multiparous women who remain physically active in the later stages of pregnancy have a positive impact on the duration of the second stage of labor.

Additionally, there is evidence indicating that prenatal exercise reduces the rates of caesarean section, back pain and incontinence among women. Prenatal fitness routines encompass exercises such as pelvic floor exercises (Kegels), core stability exercises, breathing exercises, aerobics, postural awareness exercises, and back care exercises. The prevention of urine incontinence both during pregnancy and after birth can be achieved by engaging in rigorous pelvic floor muscle exercise. These activities are specifically designed for pregnant women to maintain their physical wellbeing during pregnancy. Additionally, research has shown that strengthening the pelvic floor muscles can reduce the length of the first and second phases of labor. When a woman is pregnant for the first time, or a

primigravida, prenatal pelvic floor muscle training may not raise her risk of episiotomy, instrumental delivery, or perineal laceration. Along with improving stress urine incontinence, pelvic floor muscle strengthening has a favorable relationship with this condition (Shifna et al., 2017). Exercise during pregnancy has been shown over time to relieve pain, strengthen muscles in preparation for labor, and support for loose joints. It also improves circulation, flexibility, capacity (endurance), energy level, fights fatigue, reduces muscle tension and encourages relaxation. Exercise throughout pregnancy can avoid gestational diabetes. An analysis of 8 research revealed that early pregnancy activities had a 24% lower risk of gestational diabetes and that regular exercise before becoming pregnant had a 55% lower risk (Sabiri et al., 2018). In the postpartum period, lumbo-pelvic pain can cause severe discomfort and mobility restrictions, contribute to persistent back pain, and be a major source of pain. Exercises designed to stabilize the pelvic girdle are beneficial for postpartum individuals with pelvic girdle pain (Nazar, 2021). Pregnancy-related postural alterations are generally brought on by weight increase, which is mostly distributed in the breasts and belly. Hormonal changes connected to pregnancy are typically the cause of laxity in ligamentous and connective tissue (Munawar et al., 2013). A gap of greater than 2 cm between rectus muscles at one or more evaluation places (4.5 cm above or below the umbilicus, or at the level of the umbilicus) has been referred to as diastasis rectus abdominis muscle (DRAM) in another research. DRAM happens anywhere from one day to eight weeks after birth.

It occurs 60% of the time in postpartum mothers (Nazar, 2021). An estimated 80% of people may have low back pain at some time in their life, and it is a widespread condition around the world during pregnancy. According to a poll conducted in Sweden, 66% of women between the ages of 38 and 64 reported having low back pain (LBP), and the majority of the time, it was related to pregnancy. According to an Iranian study, 57.3% of women have during pregnancy, many women experience low back pain (Munawar et al., 2013). Research indicates that 90% of women face postpartum problems, including weak pelvic floor muscles (70%) and urine incontinence (40%). These issues are caused by physiological changes during pregnancy, such as shifts in the center of mass, heightened organ pressure and increased body weight (Nazar, 2011).

Regular physical activity appears to reduce the incidence of gestational diabetes mellitus (GDM), gestational hypertension, and preeclampsia. There is also evidence that exercise can help avoid incontinence during pregnancy and after childbirth (Watson et al., 2015). Nazar said in 2021 exercise reduces strain on the linea alba and aids in the maintenance of abdominal muscular strength, tone, and control. According to the International Continence Society, uncontrolled urine leaking is referred to as Urinary Incontinence. The prevalence of urine incontinence was 72.1%, slightly higher among multiparous women (75.4%) and those who had vaginal birth (72.8%). Physical therapists offer a variety of treatments in obstetric circumstances, including posture reeducation, pain relief for musculoskeletal therapists can also assist expectant women by recommending activities to strengthen the muscles in the pelvic floor and to ease back discomfort (Munawar et al., 2013). Due to the lack of sufficient data and concern over potential hazards to the mother and baby, exercise during pregnancy has not always been strongly advised for pregnant women. Numerous studies have recently shown the importance of exercise on the mother and fetus during pregnancy (Sangrasi et al, 2016). Research conducted in various parts of the world has focused on increasing awareness and understanding of the functions of physiotherapy among different populations. Similarly, studies have been conducted to examine the awareness, views, and beliefs of Saudi Arabian physicians towards physiotherapy (Bolarinda & Joseph, 2021).

There has been a significant shift in the perception of physiotherapy within the medical profession. Previously, only medical doctors were considered qualified to provide care for injured individuals. However, health professionals now collaborate with physiotherapists to offer patients the best options for rehabilitation and treatment (Mahto et al., 2021). Physical therapy plays a crucial role in the rehabilitation of patients, and physiotherapists utilize their knowledge and skills in the field to provide effective care. Assess. It entails giving people and populations services in order to maximize their mobility and functional capacity throughout their lifespan, serving as a crucial component of the delivery of health and community/welfare services. They work with multidisciplinary rehabilitation programs as well as independently of other healthcare and other providers. The field is dedicated to promoting health, a healthy way of living, and a high quality of life that

includes a wide variety of physical and physiological therapeutic treatments and assistance (Abichandani & Radia, 2015). Medical physicians have a significant effect on other health professions, including physiotherapists, because they are at the top of the healthcare professional pyramid. As a result, patients continue to rely on their doctors for referrals to other healthcare experts, despite the fact that physiotherapy is now widely recognized as an autonomous profession (Mahto et al., 2021). In order to enhance or restore human motor capabilities, optimize movement potential, treat or avoid pain syndromes, and treat or prevent physical problems brought on by illnesses, accidents, and other impairments, physiotherapists assess, design, and carry out rehabilitation programs. They use a wide variety of physical treatments and procedures, including movement, warmth, ultrasound, laser, and other methods. Over the years, the field of physiotherapy has developed from basic physical treatments to specialist physiotherapy services in medical settings. These specialties include, among others, neurology, pediatrics, orthopedics, cardiac care, geriatrics, women's health, and sports. Although physiotherapy plays a significant role in healthcare, the extent to which the general public is aware of it as a vital healthcare partner is still debatable. This is likely because the general public and other members of the healthcare team are unaware of the breadth of this profession.

A common misconception about the profession is that it mostly focuses with massage and fitness (Bolarinde& Joseph,2021). Multiple literature reviews highlight a significant knowledge gap, specifically in the field of specialist physiotherapy services. Patients consistently report that doctors lack the necessary expertise and understanding of their profession. The impact of globalization on healthcare is substantial and has led to The number of professionals in the field of health care is increasing. This is because new medical procedures are being developed and there is a constant flow of research, leading to a significant improvement in the quality of health care. Physical therapy, also known as physiotherapy, is one area of medicine that is growing rapidly. Over time, there has been a noticeable change in the medical community's perception and utilization of physiotherapy (Mishra & Vidhyadhari, 2019). The ability to articulate potential courses of action that would produce the desired result is made feasible by knowledge, which is essential in creating suitable actions. Increasing public and other healthcare professionals' knowledge

of physiotherapy's place in the delivery of medical treatment is the biggest problem facing physiotherapists. A profession's perception can be distorted by lack of knowledge, just as it can be made more appreciable and useful by more knowledge. As a result, effective use of physiotherapy may depend on having a solid understanding of its functions within the healthcare delivery system. Philosophers have long characterized knowledge as a justifiable true belief, using an idea from Plato's dialogue theaetetus. On the other side, attitudes are ingrained evaluative ideas related to how people feel, think, and act. The observable, evaluative reactions one makes are used to assess the quality of their attitude. This is why researchers rely on behavioral indicators of attitude, including what individuals say or how they respond to surveys, or on physiological indicators like changes in heart rate. It is assumed that a person's perspective on any category will be correlated with how effectively that category satisfies that person's own ideals (Maruf et al.,2012). In Nigeria, it is unusual for first-contact physical therapy to be conducted. Nigerian physiotherapists primarily see patients who have been referred by specialized doctors in various medical fields. Many individuals require physiotherapy, but only a few are fortunate enough to receive these services.

However, these individuals often lack proper guidance and are confused by the unconventional methods used in their treatment. According to literature, medical professionals may not be fully aware of all the services provided by physiotherapy or how it can benefit their patients. Additionally, a survey of 151 doctors in California revealed that 83.4% of them prescribed physical therapy instead of simply referring patients. These practice settings in physiotherapy, with patients as the target audience, highlight the issue of inadequate understanding and misguided beliefs. The possibility of developing inappropriate attitudes and biased utilization cannot be disregarded (Maruf et al., 2012). Gynecologists and Obstetricians, through their evidence-based practice, are capable of prescribing and providing guidance on the efficacy of exercise and the physiological alterations that occur during pregnancy, along with the associated risks and advantages for both the mother and al., 2016). fetus (Sangrasi et The effective utilization of individual professional talents in the healthcare team relies on the collaboration and mutual appreciation of each member's knowledge. This collaboration

is crucial in providing services to the patient, who is the primary focus of the team. Therefore, it is necessary to promote multidisciplinary collaboration among various healthcare specialists, including obstetricians, gynecologists, midwives, physiotherapists, medical laboratory scientists, and social workers (Odunaiya et al., 2013). In order to expand healthcare options for women, gynecologists in hospital settings should enhance their understanding of physiotherapy. This requires improved communication and interaction between gynecologists and physical therapists. Seminars, clinical meetings, and workshops can be organized to educate gynecologists about the value of physiotherapy in the gynecological field (Nazar, 2021).

1.2 Rationale

The roles that physiotherapy plays in gynecological and obstetric cases are distinct from one another. Positive outcomes have been observed in a number of obstetric and gynecological cases that have been treated with physiotherapy in various nations across the world, despite the fact that there were significantly less opportunities for physiotherapists to get employment in that field in Bangladesh. It was therefore essential to have an understanding of the knowledge, attitude, and perception of gynecologists with reference to that particular regard owing to the fact that the functional role of a physiotherapist was not quite common in Bangladesh's industry. While the researcher was thinking about it, the gynecologist knew that this may perhaps result in the creation of a position in that industry. In addition, research conducted on a variety of gynecological and obstetrics cases has shown that physiotherapy was effective in that particular instance. However, in the context of Bangladesh, there was not much interest in it, and both public opinion and medical professionals were a little behind in that regard. The researcher believed that this could bring about a change in that particular instance, and the findings of the research could change the picture. Only then was that sector ready to work. Urinary incontinence can be treated with kegal exercise, low back pain, and even diastasis recti, scar healing, and other cases physiotherapy was helpful, and patients benefitted from it. Physiotherapy was required after a cesarean section, and patients profited from it. Patients in Bangladesh who were experiencing gynecological and obstetric conditions profited tremendously from the treatment regimen that included physiotherapy. This was the case in the context of Bangladesh. When it came to obstetric cases, physiotherapy proved to be quite helpful, and every pregnant lady who participated in physiotherapy was more likely to have a normal delivery. Although physiotherapy was used in gynecology and obstetrics cases in a number of countries around the world, it was not used at all in the context of Bangladesh. The researcher believed that the gynecologist should be responsible in some way or another. This is because the researcher believed that if the gynecologist had the appropriate knowledge, attitude, and perception regarding physiotherapy in that particular case, and patients or made the opportunity, then the patient would have benefited. Regarding this subject, the researcher was the one who was conducting the research.

1.3 Research Question

What is the level of perception of gynecologists about the importance of gynecological physiotherapy on antepartum and postpartum period?

1.4 Objectives of the study

1.4.1 General objective

• To assess the level of perception of gynecologists about the importance of gynecological physiotherapy on antepartum and postpartum period.

1.4.2 Specific objectives

- To explore the level of clinical experience of the gynecologists.
- To explore the relationship between experience of gynecologists and their level of perception about gynecological physiotherapy during pregnancy and after pregnancy.
- To inspect thinking about the importance of referral of gynecological physiotherapy.

1.5 Operational definition of different variables

- Perception: Perception is the organization, identification, and interpretation of sensory data in order to represent and comprehend the information or environment provided. All perception is based on impulses that go through the neurological system and are triggered by physical or chemical activation of the sensory system.
- **Gynecologist:** A physician who specializes in the treatment of illnesses of the female reproductive organs and the provision of well-woman health care with a primary focus on the reproductive organs.
- **Physiotherapy:** Physical therapy (PT), commonly referred to as physiotherapy, is a field of allied health. Physical therapists that specialize in this field work with patients to promote, maintain, or recover their health through physical examinations, diagnosis, treatment, prognosis, patient education, physical intervention, rehabilitation, illness prevention, and health promotion. Many nations refer to physical therapists as physiotherapists.
- Gynecology and Obstetrics: A medical specialty that focuses on the care of
 women during pregnancy and delivery, as well as the diagnosis and treatment of
 illnesses of the female reproductive organs. It also focuses in other aspects of
 women's health, such as menopause, hormone difficulties, contraception (birth
 control), and infertility. Obstetrics and Gynecology are other terms for the same
 thing.
- Gynecological Cases: Cervical Dysplasia, Menstrual Disorders, Pelvic Floor Prolapse, Pelvic Pain, Polycystic Ovarian Syndrome, Uterine Fibroids, Urinary Incontinence.
- **Obstetrics Cases:** Abdominal pregnancy, abruption placentae, contracted pelvis, contraction ring, prolapse of the cord, eclampsia, failed forceps and placenta previa.
- Low back pain during pregnancy: It is defined as pain that develops during pregnancy between the pubic symphysis and the 12th rib and may radiate to the calf, knee, and/or posterior lateral thigh, but not the foot. This discomfort can start

at any time throughout pregnancy and is not brought on by a recognized disease like a herniated disc.

- Normal delivery or Labor: Series of events that take place in the genital organs
 in an effort to expel the viable products of conception (fetus, placenta and the
 membranes) out of the womb through the vagina into the outer world is called labor.
- Cesarean section: The surgical technique known as a caesarean section, commonly referred to as a C-section or caesarean delivery, involves delivering one or more infants through an incision made in the mother's belly. This is frequently done because a vaginal birth would put the mother or the baby at danger.
- Scar: A scar is the body's natural mechanism of mending and replacing skin that
 has been removed or injured. Scars are often made of fibrous tissue. Scars can occur
 for a variety of causes, including infections, surgery, traumas, or tissue
 inflammation.
- Pelvic girdle pain: Pelvic girdle pain associated with pregnancy, trauma, arthritis, and osteoarthritis. Pain is felt between the posterior iliac crest and the gluteal folds, particularly in the neighborhood of the sacroiliac joint. The discomfort may radiate to the posterior thigh and may occur in combination with/or apart from the symphysis.
- Genital organ prolapse: Pelvic organ prolapse (POP) is a gynecological disorder in which the pelvic organs protrude into the vagina as a result of ligament or muscle weakening. POP is classified based on the compartment of descent. Cystocele is an anterior wall herniation, rectocele is a posterior vaginal wall descent, and vaginal vault prolapse is a sinking of the uterus, cervix, or vaginal apex.
- **Urinary incontinence:** Incontinence is described as the involuntary flow of urine from the bladder. Incontinence can afflict both men and women of any age, although it is more frequent in women and the elderly.

LITERATURE REVIEW

The primary focus of the team when providing services to the patient is to utilize the individual professional talents. This utilization is dependent on the level of collaboration among the members of the health care team and the extent to which each member values the knowledge of others. Therefore, it is imperative for obstetricians, gynecologists, midwives, physiotherapists, medical laboratory scientists, and social workers to collaborate in an interdisciplinary fashion (Odunaiya et al., 2013). Physiotherapy is a medical profession that use physical methods to assess, diagnose, treat, and potentially prevent disease and impairment, as indicated by the results of a research study. It plays a crucial role in providing health and community/welfare services by delivering services to individuals and populations to promote the development, preservation, and restoration of optimal movement and functional ability throughout their lives. Furthermore, they not only operate autonomously from other healthcare or service providers, but also cooperate with rehabilitation programs that encompass other disciplines for treatment. According to Abichandani and Radia (2015), the field is dedicated to promoting health, lifestyle, and quality of life. It encompasses a diverse range of physical and physiological therapeutic interventions and aids. The physiotherapy received by a patient is a crucial element of their rehabilitation process. A physiotherapist is responsible for utilizing their expertise in physiotherapy to assess, plan, administer, and evaluate physiotherapeutic treatments for a range of conditions, such as acute or chronic illnesses, disabilities, or handicaps (Shimpi et al., 2014). The field of physiotherapy has undergone significant development over time, shifting from offering basic physical therapies to delivering specialized care in hospitals and other healthcare settings. There are numerous fields of expertise, such as neurology, pediatrics, orthopaedics, cardiac care, geriatrics, women's health, and sports medicine. The level of public awareness regarding the importance of physiotherapy as a crucial healthcare collaborator remains a subject of discussion, despite its significant contribution to the healthcare sector.

This is likely because the general public and other healthcare team members are unaware of the different aspects that make up this profession. (Bolarinde & Joseph, 2021) A common misconception about the profession is that it primarily focuses on massage and exercise. The globalization of the health care business is exerting a significant influence, leading to a growing need for experts in the field of health care. Indeed, the quality of healthcare services has significantly enhanced due to the advancement of novel medical techniques and the ongoing influx of research. Physical therapy, also referred to as physiotherapy, is a rapidly expanding field in the realm of healthcare.

Currently, physiotherapists are collaborating with other practitioners to offer their patients the most efficient choices for rehabilitation and therapy (Mishra & Vidhyadhari, 2019). To effectively devise appropriate courses of action, it is crucial to possess the necessary knowledge to understand and address the specific circumstances. The primary problem faced by physiotherapists is effectively communicating the advantages of physiotherapy to the general population and other healthcare professionals. Insufficient information about a profession might result in misconceptions about it, whereas possessing a comprehensive understanding of that profession can enhance one's satisfaction and effective usage of it. Therefore, possessing a thorough understanding of the functions that physiotherapy fulfills in the healthcare delivery system may contribute to its appropriate utilization. Maruf et al. (2012) state that the widely recognized concept of knowing in philosophy is "justified genuine belief," which can be traced back to Plato's dialogue Theaetetus. Attitudes, in essence, are deeply rooted evaluations of an individual's thoughts, emotions, and behaviors. This remark is in opposition to the previous one. The visible and evaluative reactions provided by an individual serve as a reliable indicator of their attitude.

This is because researchers depend on behavioral manifestations of attitude, such as verbal expressions or questionnaire responses, as well as physiological markers, such as fluctuations in heart rate. According to this concept, the level of a person's appreciation for a specific category is closely correlated to the level of effectiveness of that category (Maruf et al., 2012).

Physiotherapy aims to optimize an individual's movement capabilities through activities related to promotion, prevention, treatment, and rehabilitation. Physiotherapy is used to treat a wide variety of diseases and conditions. These include musculoskeletal problems

such as joint pain, stiffness, and low back pain. It is also effective for neurological disorders like stroke, Parkinson's disease, and cerebral palsy. Physiotherapy can address cardiac and pulmonary anomalies such as chronic obstructive pulmonary disease, asthma, atrial septal defects, ventricular septal defect, and myocardial infection. Additionally, it is beneficial for obstetrics and gynecological conditions like pregnancy and prolapsed intervertebral disc. Sports injuries such as anterior cruciate ligament injury and shoulder impingement syndrome can also be treated with physiotherapy. Lastly, physiotherapy is useful for geriatric patients (Mishra & Vidhyadharia, 2019). Physiotherapists are responsible for assessing, designing, and executing rehabilitation programs that enhance or recover human motor abilities, optimize mobility potential, address or prevent pain syndromes, and manage physical issues caused by illnesses, injuries, and impairments (Bolarinde et al.,

2021. Another study has found that the fundamental goal of obstetrics and gynecology physiotherapy, a specialized field of physical therapy, is to ensure the overall well-being of women throughout the entire process of childbearing. Physiotherapists specializing in obstetrics and gynecology must exhibit a combination of mature qualities that allow women to comfortably share highly sensitive and private information. Encompassing tangible elements.

Providing therapeutic services in the field of obstetrics and gynecology is crucial for delivering the utmost quality of medical care. The utilization of these treatments is impacted by various factors, such as attitudes towards physical therapy and the level of knowledge possessed by gynecologists. Tahir et al. (2017) state that the physiotherapist plays a crucial role in treating obstetrics and gynecological problems, such as pregnancy, labor, puerperium, as well as preoperative and postoperative phases. Based on a study, the duties of a physiotherapist in the field of obstetrics and gynecology involve delivering care during pregnancy, childbirth, and the periods before and after surgery.

Obstetrics and gynecology patients suffering from conditions such as low back pain, weakened abdominal or pelvic floor muscles resulting in stress urine incontinence or mild prolapse, pelvic pain, pregnancy discomfort, or limited mobility can find relief through physical therapy services (Nazar, 2021). Odunaiya et al. (2013) reported that most of the

participants fell between the age range of 31 to 50 years. Another study revealed that the whole sample size consisted of 300 persons, encompassing both obstetricians and gynecologists. Out of the total, 177 individuals (59%) sought treatment from private facilities, whilst 123 individuals (41%) sought treatment from public hospitals. Out of the total respondents, 144 individuals, which accounts for 48% of the sample, reported having more than five years of experience. On the other hand, 156 respondents, making up 52% of the sample, reported having three to five years of experience or more. Munawar et al. (2013) found that among the entire sample, 192 individuals (64%) successfully obtained their Bachelor of Medicine and Bachelor of Surgery (MBBS) degrees, 57 individuals (19%) successfully obtained their Fellowship of College of Physicians and Surgeons (FCPS) degrees, and 51 individuals (17%) successfully obtained their Member of College of Physicians and Surgeons qualifications. Due to the significant benefits and little risks of physical activity, pregnancy guidelines encourage that women with uncomplicated pregnancies participate in physical activity. Engaging in physical activity during pregnancy has been shown to enhance physical fitness, decrease the likelihood of excessive weight gain, and lessen the risk of preeclampsia and pre-term birth.

The study conducted by Harrison et al. (2018) found that regular exercise during pregnancy can reduce the intensity of lower back pain, improve sleep quality, alleviate symptoms of anxiety and depression, and improve overall health perception and self-reported body image. Family physicians and obstetrician-gynecologists in the United States work together to decrease the occurrence of unintended pregnancies among their patients. This is achieved by providing coverage for a substantial proportion of the contraceptive drug. Based on the results of our analysis (Harper et al., 2012), they successfully met the criteria for offering women the most efficient forms of contraception.

Nevertheless, just 34% of gynecologists and obstetricians recommend physical activity to their patients, despite the consensus among 91% of these specialists that physical activity is beneficial during pregnancy. 62% of women believe that sedentary women with uncomplicated pregnancies should be encouraged to exercise. 47% think that women with chronic diseases should continue exercising during pregnancy. 64% agree that strength training should be included, and 91% believe that exercise should be recommended for all pregnant women.

Sangrasi et al. (2016) discovered that a mere 67% of FCPS, trainee FCPS, and other post-graduate obstetricians and gynecologists in both sub-specialty groups advised their pregnant patients to participate in physical exercise. Inadequate physical activity during pregnancy and the postpartum period has been linked to many issues, some of which may overlap. Some individuals still hold onto outdated beliefs and attitudes, including the misconception that activities related to pregnancy are risky and overly delicate. Conversely, women are hesitant to participate in physical activity due to the belief that it would adversely affect their health. Various variables impact women's physical activity, such as the added caregiving responsibilities associated with pregnancy and childbirth, as well as societal perceptions. Prior researchers (Mbada et al., 2015) have presented an account of the occurrence of physical activity among pregnant women in affluent countries, together with the types of physical activity they participate in. Physical therapy is a crucial aspect of obstetrics, necessary during pregnancy and postpartum.

There are no risk factors related with the infant. Furthermore, it can have enduring positive impacts on women. Pregnant women should engage in physical exercise as it helps them prevent pregnancy-related complications and maintain their physical well-being. Under the supervision of a medical practitioner, pregnant women engaged in birthing ball exercises, which led to faster labors, as indicated by the results. Moreover, it has been confirmed that

Multiparous women who maintain a higher level of physical activity throughout the later stages of pregnancy experience a beneficial effect on the duration of the second stage of labor.

Additionally, there is empirical evidence indicating that women who engaged in prenatal exercise experience a reduced occurrence of caesarean section, back discomfort, and incontinence (Shifna et al., 2017). The available data leads to this conclusion. The research findings indicate that physiotherapy is used in prenatal care. 70% of the poll respondents were knowledgeable of the main emphasis of physiotherapy being on exercises, whereas 73% of those questioned were aware of the definition of physiotherapy. During the period when inquiries were made about antenatal exercise, a mere 46% of the participants possessed knowledge regarding prenatal workouts. Further research findings indicated that

46% of respondents held the belief that physiotherapists were the most suitable professionals to provide exercise routines. The survey participants demonstrated familiarity with many categories of prenatal exercise, including aerobics (28 percent), back care exercises (20 percent), abdominal exercises (21 percent), pelvic floor exercises (13 percent), relaxation and breathing techniques (21 percent), and others. However, as stated by Nayak et al. (2016), most individuals who were reached either lacked awareness of the different prenatal exercise choices or were unsure of their efficacy.

Research completed by 199 obstetricians (Munawar et al., 2013) suggests that physiotherapy is advised for all pregnant women. Physiotherapy is crucial for pregnant women. The researcher states that the incidence of gestational diabetes cases is increasing due to the rising prevalence of obesity among women of reproductive age.

Gestational diabetes mellitus (GDM) is a prevalent complication that can occur during pregnancy. It impacts 7% of all pregnancies in the United States, amounting to 200,000 instances annually. Gestational diabetes mellitus (GDM) increases the likelihood of complications in the immediate and distant future for both the mother and the child. Tobias et al. (2011) found that women with gestational diabetes mellitus are at an increased risk of experiencing perinatal morbidity, decreased glucose tolerance, and acquiring type 2 diabetes in the years after giving birth. When it comes to managing blood sugar levels, incorporating physical exercise as an additional intervention is advantageous. To minimize the negative consequences of inadequately controlled type 2 diabetes, it is crucial to establish glycemic control management.

Pregnant women who are in good health, have gestational diabetes mellitus, or are overweight or obese should engage in aerobic activity for thirty minutes on most days of the week, according to Harrison et al. (2018). The application of physiotherapy as a remedy for postnatal dysfunctions is insufficient. The following text:

The vast majority of women, even gynecologists, lack awareness of the multitude of benefits that can be derived from post-natal exercise (PNE). Insufficient information leads to delayed or nonexistent recommendations for postnatal physiotherapy. The delay prolongs the duration and intensifies the severity of disease symptoms, while also diminishing the likelihood of resolving dysfunctions related to postnatal problems. During

childbirth, women may encounter various negative consequences such as urinary and fecal incontinence, inflammatory bowel disease, Cohn's disease, pelvic congestion disease, dyspareunia, pre- and postnatal musculoskeletal dysfunctions, puerperal depression, neurological diseases, and a range of surgical complications (Majeed et al., 2022). Postpartum hip and pelvic muscle dysfunction is a prevalent disorder that impacts women following childbirth. To mitigate pelvic floor muscle disorders, it is advisable for women to engage in pelvic floor muscle exercises (PFME) during pregnancy and postpartum. Pelvic floor dysfunction is a debilitating condition caused by the injury or denervation of the muscles comprising the pelvic floor.

Both the postpartum period and pregnancy are considered possible risk factors for illnesses that impact the pelvic floor. Strengthening the muscles of the pelvic floor is considered essential for both treating and preventing pelvic disorders. By enhancing the pelvic muscles, individuals can decrease the likelihood of encountering urine incontinence throughout pregnancy and after. Supervised training is a highly effective approach to ensure that women consistently participate in physical exercise. Only a small number of women regularly participate in activities specifically designed to strengthen their pelvic floor muscles. Postpartum women are significantly more inclined to participate in activities specifically designed to strengthen the muscles of the pelvic floor immediately after giving birth, compared to the period after the delivery of their child. Despite this, pregnant women unanimously agreed that pelvic floor exercises should be done regularly. Few women truly exert serious effort.

Majeed et al. (2022) found that pregnancy and postpartum inactivity are two potential factors that may contribute to the development of diastasis recti.

Findings from a study suggest that pregnant women who consistently participate in physical activity during the initial six months of their pregnancies have a higher likelihood of avoiding a cesarean section procedure. Pregnant women who participate in physical exercise at an adequate intensity can reduce the length of the second stage of labor, resulting in a quicker and easier delivery. Consequently, individuals experience improved self-esteem, develop a more positive perception of their physical appearance, experience reduced levels of anxiety and hopelessness, and adapt more swiftly and easily to the

changes brought about by pregnancy (Bahadoran & Mohamadirizi, 2015). These are a few of the supplementary advantages that accompany pregnancy and engaging in physical exercise. Pregnant women might derive advantages from a diverse range of exercise routines specifically tailored to enhance their

Enhance their physical fitness and develop their muscles. Aerobic exercise is an effective approach as it elevates the heart rate, leading to an increased need for oxygen and blood supply to the muscles, resulting in accelerated respiration of the muscles.

Aerobic exercises encompass activities such as walking, dancing, performing calisthenics, and engaging in water aerobics. Enhancing muscle size can also be achieved by engaging in strength training. This type of exercise encompasses activities such as weightlifting, engaging in exercises that entail pushing and pulling, and similar activities. Sarfraz et al. (2013) suggest that incorporating kegel exercises into a prenatal fitness routine can be advantageous. The study conducted by Munawar et al. (2013) found that 258 participants (equal to 86%) agreed on the benefits of physiotherapy, namely in strengthening the muscles of the pelvic floor. Watson et al. (2015) found that 69 percent of participants do not typically impose limitations on their activity, whereas 15 percent felt that low-intensity exercise is enough to positively impact their health. Ashraf and Ahmad's 2019 study found that 85.8% of participants believe it is crucial to receive supervision from healthcare professionals when participating in physical exercise, whereas 14.2% of participants disagree with this assertion.

The importance of physiotherapy during the postpartum period, also known as the postnatal phase or postpartum, cannot be overstated. This information is in accordance with the assertion made by another author. Although the body starts to revert back to its original condition, there is still a degree of looseness in the muscles and ligaments that increases the vulnerability of women to conditions such as organ prolapse, urine incontinence, and diastasis recti. A gynecological physiotherapist should assess and evaluate the patient no later than six weeks after giving delivery. Once the relevant concerns have been identified, the patient should start a personalized workout program that addresses neuromuscular, ergonomic, and rehabilitative needs, based on the client's specific requirements. Based to

Jabbar et al.'s 2021 study, the most effective therapies for postpartum care are exercises that enhance the pelvic floor and pain management. Among all musculoskeletal issues, backache is the most commonly reported problem by pregnant women. Approximately 50% to 70% of pregnant women are believed to be affected by this. It is a persistent discomfort that impacts various elements of a woman's life, such as her employment, household chores, recreational pursuits, and even her ability to sleep. This discomfort is attributed to pregnancy-related lumbo-pelvic discomfort.

This pain has the potential to lead to persistent back pain and can cause intense suffering and impairment at different times during pregnancy (Mirmolaei et al., 2018).

Postnatal is a common issue that women often face throughout the postpartum period. Low back pain (LBP) varies in intensity from minor discomfort to a more debilitating illness. Another prevalent problem is pelvic pain. Research conducted by Bennett (2014) indicates that the occurrence of postnatal low back pain might vary from 21 percent to 82 percent within the first year after giving birth. A considerable proportion of pregnant women fail to seek medical treatment or reveal their Lower Back and Pelvic Pain (LBPP) to antenatal physicians, despite the potentially fatal consequences. Physical therapy is a therapeutic approach used by physical therapists to enhance, sustain, and regain optimal mobility and functional capacity, rather than only alleviating pain. These activities are mandatory for physical therapists. This technique is one of the most significant non-pharmacological therapy options for expectant moms who are worried about the well-being of their unborn children.

Several potential therapies for this condition include the use of a pelvic belt, the use of a cushion, acupuncture, ergonomic training, massage, and relaxation techniques (Richards et al., 2012). These examples represent only a small portion of the potential options. Based on the results of a separate study conducted by Munawar et al. in 2013, more than 95% of gynecologists expressed the belief that physiotherapy is a highly efficient remedy for back pain that arises during and after pregnancy. Based on a study that closely resembles this one, the term "menopause" is employed to describe the period when a woman's regular menstrual cycle and her ability to conceive cease. There is a period of transition that accompanies the decline in ovarian function. This period is characterized by alterations in

the physiological, psychological, and societal processes. Although menopause is an unavoidable aspect of the aging process, the hormonal changes that happen during this stage of a woman's life modify the health risks she faces. Generally, it is regarded as a risk factor that contributes to a higher likelihood of experiencing health problems due to a lack of estrogen.

This deficiency can result in abnormalities in the functioning of the musculoskeletal system. According to Anadkat and Tanna (2016), when a woman reaches the age of 45 and experiences menopause, she may be deemed handicapped, affecting approximately 10-15% of the population. Research has demonstrated that adopting a sedentary lifestyle is linked to several adverse health consequences, such as cardiovascular disease and increased risk of death. Research has shown that a sedentary lifestyle in postmenopausal women can worsen a range of health issues, namely those related to menopause. Physical exercise is one of the most widely recognized non-pharmacological therapies. Research conducted by Fraile et al. (2020) has shown that physical activity has positive effects on the physical and mental health of postmenopausal women and older persons. Physical activity is widely recognized as one of the most effective therapies.

Physiotherapy encompasses several techniques such as manual treatment, functional training (including coordination, strength, muscle resistance, flexibility, and relaxation), as well as the use of mechanical, physical, or electrotherapy agents employed to achieve predetermined objectives.

This finding was made by a researcher who was doing a study on the topic. In order to fulfill the goals of increasing the number of motor units, increasing the frequency of muscle stimulation, and increasing the amount of muscle mass, it is essential to first improve the tone and strength of the muscle fibers during pelvic rehabilitation. During this phase of their lives, women can derive advantages from physiotherapy, as it can lead to a decrease in symptoms and an enhancement in their overall quality of life. Comparing the data of multiple research studies and conclusively determining which training program is more useful is a challenging task (Rochera et al., 2017). The reason for this is the utilization of various techniques and metrics to evaluate and measure the robustness of the pelvic floor.

Urinary incontinence (UI) is characterized as the unintentional release of urine, which can be objectively observed and causes social and hygienic issues, as described by the International Continence Society. The group provided this definition. Urinary incontinence can be classified into three specific categories: urge, stress, and mixed (Ghaderi et al., 2014).

Adults in the community who experience urinary incontinence often face significant challenges in managing this condition. Females have a higher likelihood of experiencing urine incontinence compared to males. For a significant number of women, this problem first occurs during pregnancy or the postpartum period. Stress and urge urinary incontinence are the predominant forms of urinary incontinence observed in females. Urinary incontinence is a condition when there is involuntary leaking of urine that occurs either during or shortly after a sudden and strong urge to urinate (Smith et al., 2010). Stress urine incontinence is defined as the occurrence of involuntary leakage during physical activity, while urge urinary incontinence is defined as the occurrence of involuntary leaking. Urinary incontinence (UI), the unintentional release of urine, is a costly issue that significantly affects the quality of life and productivity worldwide. Unlike younger women, older women are more susceptible to experiencing bladder control issues, including urine incontinence, urinary urgency, urinary frequency, and nocturia, for the first time. According to Neville et al. (2017), the prevalence of incontinence among women aged 75 and above might reach up to 75%.

The prevalence of incontinence in middle-aged or postmenopausal women aged 40 to 65 ranges from 44% to 57%. The author asserts that physical therapy is crucial for both preventing and treating stress urine incontinence. Physical therapy aids in the activation and fortification of the muscles in the pelvic floor, as well as in the instruction of the bladder, Kegel exercises, and biofeedback, all of which have been found to be advantageous according to several studies (Ayman et al., 2017). Munawar et al. (2013) did a study which revealed that over eighty-one percent of gynecologists believe that physical therapy is an effective treatment for pregnant urine incontinence. Dysmenorrhea is the medical word used to describe the discomfort associated with menstruation. This is the most common type of problem.

Recurrent pelvic pain that individuals endure. Terms like "dyes" (referring to something difficult, uncomfortable, or abnormal), "meno" (meaning month), and "rrhea" (derived from the Greek word for "flow") are used in relation to dysmenorrhea.

This condition significantly affects the mental well-being of women and the overall quality of life for adolescent girls. Consequently, it results in decreased productivity and financial loss, particularly for employed women. Additionally, it negatively impacts the scholastic achievements of girls attending school, as well as their involvement in intellectual and sports pursuits. Primary dysmenorrhea, a condition that is quite prevalent, impacts over fifty percent of teenagers and between thirty and fifty percent of menstrual women (Desai, 2022). Dysmenorrhea can be categorized into two separate categories based on its pathophysiology. Primary dysmenorrhea (PD) refers to menstruation pain that occurs throughout regular ovulation cycles, does not entail any issues with the pelvic area, and has a verified physiological cause. Adolescents and individuals in their early adulthood are the demographic group that is most susceptible to any particular ailment. Secondary dysmenorrhea refers to menstruation discomfort that is linked to a specific medical condition, such as endometriosis, fibroids, adenomyosis, pelvic adhesions, endometrial polyps, or pelvic inflammatory disease. It can also be caused by the use of an intrauterine contraceptive device (Liria et al., 2021).

Primary dysmenorrhea refers to lower abdomen discomfort that occurs shortly before or during a menstrual period, without being caused by any pelvic ailment. Kannan and Claydon (2014) identified several secondary concomitant symptoms such as nausea, vomiting, fatigue, lumbar discomfort, headaches, confusion, and diarrhea. Presently, a multitude of studies are underway to investigate complementary and alternative treatments for dysmenorrhea. The reasons for this include the exorbitant expenses, intricate nature, and contraindications associated with specific pharmacological therapies, together with the availability of alternative remedies and the public's inclination to utilize them. Elbandrawy and Elhakk (2021) have shown through multiple research conducted over the past two to three decades that engaging in regular exercise and other forms of physical activity is highly effective in both preventing and treating dysmenorrhea. The study noted that

physiotherapy is a viable alternative treatment method that involves participating in physical exercises to enhance the performance of both the pelvic and extra pelvic organs. This is achieved by modifying the metabolism, hydroelectric equilibrium, hemodynamic conditions, and blood circulation.

Rani et al. (2019) found that this strategy induces a state often known as analgesia through physical exercise. Pelvic organ prolapse, also referred to as POP, is the downward displacement of the upper part of the vagina, the cervix, the front wall of the vagina (formerly called "cystocele"), the back wall of the vagina (formerly known as "rectocele"), or the space left after the removal of the uterus (vaginal vault) during a hysterectomy. As the prolapse issue worsens, there is a possibility that organs may protrude from the vaginal canal.

The prevalence of this condition is extensive, as indicated by the statistic that 94% of women encounter some level of prolapse (France et al., 2007). According to the results of a study conducted by Tahir et al. (2017), nearly all gynecologists have knowledge of the significance of physical therapy in the management of uterine prolapse. Physical therapy incorporates several therapeutic techniques, including biofeedback, electrical stimulation, isolated pelvic-floor muscle (PFM) training, and lifestyle counseling.

To burst or explode with a sudden sound or force, one must POP. As independent therapies for postpartum edema (POP) and urinary incontinence (UI), these methods are seldom associated with negative side effects and effectively enhance symptoms, as well as the quality of life and surgical outcomes (UI). However, it is important to remember that most of these treatments focus exclusively on the function of the PFM (Kurz & France, 2017). Many physiotherapists, who are knowledgeable in women's health, provide women suffering from prolapse with the chance to engage in personalized therapy targeting the muscles of the pelvic floor. Muscle training is an exercise method aimed at improving the strength, endurance, and coordination of the muscles comprising the pelvic floor. Moreover, its purpose is to enhance the structural reinforcement received by the pelvic organs (Hagen et al., 2014). In another survey conducted by Munawar et al. (2013), it was found that 261 gynecologists, accounting for 87% of the total, expressed their agreement about the significance of physiotherapy in managing pelvic discomfort. Multiple studies

have found that postural changes occurring during pregnancy are a highly common problem for women, leading to eventual lower back pain.

Posture, as commonly understood, refers to the manner in which an individual positions their body while standing, sitting, or lying down. An optimal posture during pregnancy necessitates the body to be conditioned to assume positions for standing, walking, sitting, and lying down that exert minimal stress on the back. This training is necessary and unavoidable. During fetal development, the center of gravity shifts in a forward and upward direction, resulting in increased stress on the muscles responsible for maintaining proper posture. The movement of the spine, which is essential for maintaining stability, exerts a substantial amount of stress on the lower back (Sarkar et al., 2022). During this stage, the lower limbs experience increasing strain due to antigravity movements such as standing and sitting. Engaging in anti-gravitational exercise during pregnancy is crucial for improving postural stability and increasing muscular activation that supports one's own body weight. Furthermore, it is crucial to be cognizant of the wobbling that arises from alterations in weight distribution in the front, rear, left, and right orientations.

Takeda et al. (2019) suggest that women should regularly engage in these activities to adapt to the changes in their center of gravity and weight distribution that happen during pregnancy. This will enable ladies to perceive this period in their life with greater ease. Thus, it is crucial for expectant mothers to participate in physical activities and obtain guidance on maintaining proper posture in order to mitigate fitness-related challenges and address discomfort resulting from postural imbalance, it is important to take preventive measures during pregnancy and after childbirth. Engaging in physical activity and taking steps to maintain proper posture might be beneficial in addressing fitness-related health problems that occur during pregnancy and the postpartum period, therefore reducing the risk of long-term health difficulties for women (Sarkar et al., 2022). This is a widely recognized truth. According to the poll, 138 participants (39.5%) had appropriate understanding, while 193 participants (55.3%) showed a positive outlook, and good practice.

A total of 108 individuals responded, representing 30.9% of the participants. Among the pregnant women who engaged in prenatal exercise, only 41 of them (37.9%) reported being satisfied with their practice. The predominant forms of prenatal exercise (ANEx) were brisk walking (90.7%), relaxation (38.9%), and running.

The breathing exercises were the most popular, accounting for 36.1% of the participants. On the other hand, the pelvic floor yoga postures 3 and 6 were the least popular, with only 2.8% and 5.6% of participants choosing them, respectively. Janakiraman et al.'s 2021 study found that around 64.5% of participants viewed vaginal bleeding as a benefit of ANEx, while 71% considered it a reason to avoid the treatment. A further investigation found that 259 gynecologists, constituting 86.3% of the total, concurred on the efficacy of physiotherapy in promoting postural awareness (Munawar et al., 2013). Pelvic floor muscle exercise (PFME) is the primary conservative treatment for women experiencing pelvic floor muscle dysfunction (PFMD), urine incontinence (UI), or pelvic organ prolapse. It is an effective therapeutic option.

For the general population, it is advised to use this medication for urine incontinence (UI), since it has the ability to prevent the condition in women throughout pregnancy and postpartum. According to a study conducted by Muhammad et al. in 2018, women who participate in pelvic floor muscle exercises (PFME) have a higher probability of successfully treating or enhancing their pelvic floor muscle dysfunction (PFMD) compared to those who do not engage in PFME routines. Pelvic floor physical therapy (PFPT) encompasses a range of methods designed to enhance the performance of the pelvic floor (PF), lumbopelvic, and spinal muscles, as well as sexual, urinary, and bowel functions. PFPT is commonly regarded as a crucial element in the management of pelvic floor hypertonicity (PFH). The primary objectives of PFPT include enhancing body awareness, proprioception, muscle relaxation, flexibility of the pelvic floor muscles, and pain management throughout the body. Various therapeutic approaches exist, including educational interventions on PF and associated symptoms, behavioral modifications, and exercises that integrate soft-tissue manipulation and myofascial release with PF awareness and relaxation (Baggen et al., 2021).

In cases where a normal delivery is not feasible, a cesarean section might be employed to ensure the survival of both the mother and the fetus. The procedure of cesarean section is associated with several problems, including discomfort at the incision site.

Possible complications include incision-related issues, infection, hemorrhage, uterine rupture, allergies, and disruption of breast milk production. An inherent drawback of a caesarean section is the possibility of the woman encountering discomfort in the specific region where the incision was performed. This pain may impede her ability to perform her usual tasks. A study conducted by a state hospital in Surabaya (Yuliadarwati, 2017) revealed that the annual rate of women getting cesarean sections is rising by 22.28%. Throughout their research, the researchers noted that women who have undergone a caesarean section, also referred to as a C-section, experience specific situations as a result of the incision made in the abdominal wall and the subsequent wound. Given their current situation, it is imperative to delay the execution of abdominal workouts until a later time.

The C-section is widely regarded as a frequently performed surgical technique on the abdominal cavity. Currently, almost forty percent of all births are being performed by the surgical procedure known as cesarean section. Following a cesarean section, the abdominal muscles experience a decrease in tonic activity and stabilizing capacity, leading to reduced muscular activity and weakened muscles. Due to the need for additional recovery time for these muscles after this type of delivery, it is advised to postpone the start of abdominal muscle exercises. This is due to the fact that these muscles require a longer period of time for recovery.

Here is a compilation of exercises and physical activities that are advised for women who have recently had cesarean sections (Kuciel et al., 2020). This include women who have undergone a non-complicated C-section as well as those who have encountered issues such as diastasis recti or lower back pain. Physical therapy is a crucial aspect of postpartum treatment.

Patients who get early postoperative physical therapy report improved mobility, restored normal bowel function, and a notable decrease in post-surgical discomfort. Weerasinghe

et al. (2022) have found that engaging in mobility exercises, practicing breathing techniques, and maintaining proper posture can alleviate the immediate discomfort caused by the incision and improve functional task performance by the second day after surgery. The study conducted by Tahir et al. (2017) revealed that gynecologists had a high level of awareness regarding the importance of physical therapy for postpartum care (98.5%), antenatal care (82.1%), and parturition (56.7%). According to certain research, core stability exercises can be advantageous for those experiencing chronic back pain or weak abdominal muscles. Ensuring the stability of the core is crucial for proper distribution of the load throughout the spine, pelvis, and kinetic chain. Squats, pushups, sit-ups, and crunches are among the primary workouts that specifically focus on the abdominal area. The issue of postpartum low back pain is exacerbated. Poor posture contributes to the condition and causes discomfort, whereas good posture helps improve the condition and reduce discomfort.

The balanced posture prioritizes keeping a straight spine, an elevated head, relaxed shoulder muscles, and a firm abdomen. The position's most crucial component is this. Exercises that improve posture are highly effective for muscle development. The exercises that belong to this group are neck retraction, breastbone raise, shoulder blade squeeze, and abdominal pull-in, as described by Chaudry et al. (2013). Scientists have shown that the term "rectus abdominis muscle diastasis" (DRAM) is used to describe a condition when the two bands of these muscles are separated by a width larger than two cm. The fundamental processes of DRAM involve the expansion and weakening of the abdominal wall. Several factors can augment the probability of developing DRAM. These factors encompass abdominal obesity, pregnancy, sudden weight loss, smoker's cough, conditions affecting collagen formation, deterioration of soft tissues, and improper exercise technique, all of which can lead to dysfunctional abdominal cramping. Although DRAM can also impact boys and toddlers, it is predominantly observed in adult females.

According to estimates, around 66% of women will be diagnosed with DRAM (Diastasis Recti Abdominis Muscles) during the third trimester of their pregnancy and within the first week after giving birth (Bobowik & Dabek, 2018). The researcher observed that the treatment approach can be determined based on the magnitude of the enlarged inter-recti

distance. A minor diastasis may resolve spontaneously, whereas a larger diastasis left untreated may persist for an extended duration, leading to various issues including reduced quality of life, compromised posture, lower back pain, and incontinence. To mitigate these consequences, the study proposes two alternative therapeutic methods that are also accessible. The first one is a task that necessitates a demonstration of skill or ability.

To engage the rectus abdominis muscles, one should perform abdominal crunches while resting on their back. The second exercise, known as the drawing-in exercise, primarily engages the internal oblique and transverse abdominal muscles. Based on the research conducted by Gitta et al. (2016), it has been found that the drawing-in exercise is more efficient and demands less exertion compared to the abdominal crunch.

Empirical evidence indicates that participating in consistent physical exercise before and during pregnancy seems to decrease the likelihood of developing a disorder called depression of the reproductive system (DRAM) and, consequently, the severity of DRAM. Postnatal women with diastasis recti abdominis (DRAM) are typically prescribed abdominal exercises. Additional common non-surgical treatments for women with DRAM include aerobic exercise, instruction on posture and back care, and the use of external support (Acharry & Kutty, 2015). Following a cesarean section procedure, patients may encounter complications such as constipation and urine incontinence. These issues can be mitigated by engaging in exercises that specifically target the muscles of the pelvic floor, abdominal contractions, hip joint flexion, and energetic activities involving the trunk. Additionally, focusing on proper breathing techniques can also help manage these complications.

Physical activities, abdominal massage, and knowledge acquisition. Other repercussions encompass diminished muscular strength, restricted joint mobility, and impaired functional ability. Additionally, individuals may have discomfort in the lower abdominal region, precisely at the site of the prior surgical incision (Puspitosari et al., 2021). Considering this, physiotherapy is a crucial element of this approach. The approach includes the application of methods such as early mobilization, minimizing postoperative pain and discomfort, preventing adhesions in the incision area, vascular complications, abnormal posture due to

pain, pelvic floor muscle dysfunctions, weakened abdominal muscles, and intensive respiratory therapy using respiratory physiotherapy techniques and exercises. These measures aid in the prevention of atelectasis (Martins et al., 2020).

There has been a significant increase in the number of women who have hysterectomies before the age of 35, as indicated by readily accessible data. The increasing life expectancy and longevity have heightened the significance of healthcare concerns related to post-hysterectomy problems, including obesity, urine incontinence, and a decline in quality of life (Subramanian, 2017). Regularly engaging in pelvic floor muscle training and progressively increasing the number of repetitions can successfully strengthen the muscles involved for incontinence, leading to effective treatment and prevention.

Subsequent research has confirmed the veracity of this claim. In addition, engaging in exercises that incorporate physical movement, massage, and certain breathing techniques can effectively alleviate discomfort, incontinence, and anxiety, while also enhancing the body's overall functional ability. In order to adequately prepare for the at-home program, it is advisable to engage in exercises and massage techniques on many occasions. Furthermore, it is advisable to engage in the habit of delaying the act of urination. Patients are prohibited from intentionally withholding or delaying feces. Moreover, it is advisable to increase water intake and consume a higher quantity of fruits and vegetables (Puspitosari et al., 2021).

A total hysterectomy is a surgical procedure that entails the complete extraction of the uterus, as referred to in medical terminology. Complications may emerge during the healing process following a medical treatment, potentially due to the consequences of bed rest. Hence, it is imperative to administer physiotherapy interventions to individuals. In this specific scenario, various interventions such as pelvic floor muscle training, static contraction of abdominal muscles, active engagement of hip joint flexors and trunk, breathing exercises, colon massage, and education can be employed to alleviate any complications that may have occurred as a consequence of the complete hysterectomy procedure (Puspitosari et al., 2021). Moreover, the study conducted by Tahir et al. (2017)

found that 71% of gynecologists were cognizant of the significance of physical therapy in the context of hysterectomy. The author defines cesarean scar pregnancy (CSP) as the implantation of the gestational sac (GS) into the uterine scar resulting from a previous cesarean surgery.

The myometrium and fibrous scar tissue are present, enclosing and isolating the GS from the endometrial cavity. According to Kim et al. (2018), it is estimated that the occurrence of CSP in pregnancies ranges from 1 in 1,000 to 1 in 2,000. However, the true prevalence of CSP remains uncertain due to its infrequency. Scarring is an undesired yet frequent outcome of the wound healing process.

Hypertrophic scars, in contrast, typically stay within the boundaries of the initial incision and may naturally diminish over time. Keloid scars, in contrast, beyond the boundaries of the wound and persist in an elevated state. Scarring frequently occurs after the formation of a deep incision that has reached the dermis and subdermal tissue (Meaume et al., 2014). A comparable study has revealed that dermatologists currently possess a diverse range of therapeutic alternatives at their disposal for the purpose of preventing and treating scars. These therapies encompass both non-invasive methods like silicone sheets or gels, tape, compression therapy, and physiotherapy, as well as invasive techniques such as cryotherapy, radiation, laser therapy, and intralesional corticosteroid injections. Physiotherapy is encompassed within this area as well. These procedures can be used independently or in combination with other therapy options. Due to the relative ease of preventing scars compared to treating them, it is advisable to seek the guidance of a dermatologist at an earlier stage.

A team of twenty-four experts from various fields, such as dermatology, plastic and reconstructive surgery, general surgery, physical medicine, rehabilitation, burns, as well as psychosocial and behavioral research, has recently created a set of practical guidelines for preventing and treating hypertrophic scars and keloids. The objective of these guidelines is to aid medical practitioners, specifically dermatologists, in determining the most suitable course of action for their patients in scar care. Based on the latest clinical evidence on scar

treatment options, these guidelines were established as an update to a previous set of scar care guidelines released in 2002 (Meaume et al., 2014). These guidelines were developed using the existing information. Medical professionals are unfamiliar with physiotherapy, despite its extensive acceptance and global expansion. Some medical practitioners may lack comprehensive knowledge of all the treatments provided by physiotherapy. A average medical intern possesses a proficiency of 26 percent in the various techniques employed in physiotherapy. Multiple responses were elicited about the awareness of the function of physiotherapy practice (Mahto et al., 2021). One of the 28 obstetric and gynecologic disorders examined in the study was obstetric palsy.

The study found that 80% of gynecologists strongly supported the involvement of physiotherapists in the treatment of pregnant patients as part of the overall treatment process. The primary approach of managing this According to a previous report, physiotherapy is considered an effective treatment for illness, as supported by this data. It is important to note that a significant percentage of participants (43.4% and 41.8% respectively) did not agree on the role of physiotherapy in managing perineal tears and episiotomy care, despite evidence suggesting that it is more beneficial than currently believed (Odunaiya et al., 2013). Over time, there has been a significant change in both the medical profession's perspective on physiotherapy and its actual practice. In the contemporary day, physiotherapists have begun collaborating with other healthcare practitioners to offer their patients the most efficient methods of therapy and recovery.

A physician possesses the ability to identify and classify a medical condition, administer medication to alleviate symptoms, conduct surgical procedures, and recommend the best suitable course of treatment for a certain ailment or injury (Mishra & Vidhyadhari, 2019). In contrast, a physiotherapist can assist a patient in achieving a faster and more efficient recovery. Based on the researchers' findings, the cost of physiotherapy for patients is not too high. This conclusion is supported by 80.6% of gynecologists who strongly agreed with this assertion. Odunaiy et al. (2013) found that 57% of respondents strongly agreed and 6% agreed that physiotherapy is time-consuming. Although gynecologists and obstetricians generally believe that physical activity is beneficial during pregnancy, only a minority of

them actively recommend physical activity to their patients. This is attributed to a lack of knowledge regarding the latest guidelines and preexisting notions about potential complications that may occur owing to elevated heart rate caused by physical activity. There are additional risks connected with giving birth to a kid with a low birth weight, lacking knowledge about exercise, and lacking the skills to properly manage physical activity. According to Sangrasi et al. (2016), a large majority of pregnant women express a willingness to participate in workshops in order to gain up-to-date knowledge about the advantages of engaging in physical activity during pregnancy.

According to Odunaiy et al. (2013), a study showed that 94.0% of gynecologists believed that physiotherapy treatments were not harmful to patients, but only 1.5% of gynecologists agreed with this assertion. Conversely, the limited comprehension of the role of physiotherapy in pelvic inflammatory disease indicates that Obstetricians and gynecologists, while having a general understanding of the purpose of physiotherapy, lacked specific knowledge about this particular condition. 92.5% of the participants strongly agreed that physiotherapists, who are competent, can effectively treat obstetric and gynecologic diseases. They also believe that physiotherapy services are irreplaceable and cannot be substituted by prescriptions and instructions. Odunaiya et al. (2013) found that most participants unanimously agreed that physiotherapy does not have any negative consequences for patients. Within the group of individuals who provided responses.

Out of the total, 59 individuals, which accounts for 19.6% of the sample, hold the belief that physical therapy is not significant. However, a significant majority of gynecologists and obstetricians, namely 241 individuals, constituting 80.3% of the sample, consider physical therapy to be a crucial element of their rehabilitation team. This information is sourced from the researcher. The study conducted by Munawar et al. (2013) revealed that 271 (90.3%) gynecologists acknowledged the role of physiotherapists in treating gynecological problems, and 259 (86.3%) gynecologists were knowledgeable about the use of physiotherapy in caring for obstetric patients. Out of the total number of gynecologists surveyed, 11 of them, which is equivalent to 14.7%, refer their patients to the physiotherapy department. On the other hand, 14 gynecologists, or 18.7%, do not refer any patients at all.

Additionally, 28 gynecologists, or 37.3%, only refer patients when it is deemed necessary. Lastly, 22 gynecologists, or 29.3%, send their clients to the department very infrequently (Nazar, 2021). Obstetricians and gynecologists in south-western Nigeria are widely recognized for their extensive knowledge of physiotherapy therapies for the antepartum and postpartum periods. Furthermore, they hold a favorable outlook on the incorporation of physiotherapists in the management of patients with obstetrical and gynecologic problems (Odunaiya et al., 2013).

CHAPTER-III

3.1. Study design

The researcher opted for a phenomenology qualitative study to ascertain participants' perceptions of gynecological physiotherapy based on their personal experiences. Qualitative research adopts a humanistic perspective when understanding research issues. The qualitative methodology is employed to gain an understanding of individuals' experiences, behaviors, beliefs, and attitudes (Pathak et al, 2013). The objective of qualitative research is to address inquiries on the significance and experiential aspects of individuals' lives and societal circumstances. An essential aspect of qualitative research excellence lies in the capacity to elucidate the subjective interpretations, behaviors, and social contexts of research participants, as perceived by them (Fossey et al, 2002). Qualitative researchers employ their own cognitive abilities, visual observations, and auditory senses to get comprehensive insights and detailed depictions of certain populations and locations. It is important to properly organize qualitative research, evaluating the aims and techniques thoroughly (Popy al, 2006).

3.2.Study area

Study area are two well-known hospital – OGSB(Obstetric & Gynecological society of Bangladesh) and BRB hospital limited.

3.3Study population

Participants were Gynecologist & Obstetrician of OGSB hospital and BRB hospital.

3.4.Study period

October 2023 to March 2024

3.5. Sample size

Ten participants were selected as a sample from the community.

3.6. Sampling technique

The participants were picked using convenience sampling from the population. Convenience sampling is sample method where participants are picked for a study based on certain criteria such as easy accessibility, proximity, availability at a particular time or willingness to participate. It also pertains to the population of study participants that are easily accessible to the researcher (Etikan et al, 2016). Upon leaving the hospitals, the researcher proceeded to consult with the gynocologists who were working there. Out of the total 10 gynecologists consented to contribute their expertise and viewpoint of Gynecological Physiotherapy.

3.7.1. Inclusion Criteria

- Gynecologists who worked in the field for at least two years.
- Gynecologist who treat women with pregnancy and also follow up after pregnancy
- Subjects who were willingly participated.

3.7.2. Exclusion Criteria

- Gynecologist who ever received physiotherapy for their own condition
- Others physicians.
- Gynecologists who were not interested

3.8. Method of data collection

To collect data, the researcher conducted comprehensive interviews utilizing a combination of open-ended questions and closed-ended questions. Participants have a greater chance to articulate their opinions when the inquiry is open-ended. Conducting in-depth interviews allows the researcher to observe the nonverbal cues and facial expressions of participants during the interview (Depoy & Gitlin, 2015).

Initially, the researcher provided the participants with a concise understanding of the research goals and objectives. Subsequently, they reached a mutual agreement to exchange

their viewpoints and formally endorsed the consent form. Subsequently, they began responding in accordance with the queries. The questionnaire was administered in English due to their greater proficiency and ease with English language questions. Each participant's interview lasted around 20-30 minutes.

3.9. Data analysis

The data management and analysis technique in qualitative research involved the use of NVivo 12, a software developed by QSR International. Due to its comprehensive inspection and superior data analysis capabilities, NVivo is extremely beneficial for assessing large amounts of textual material (Devitt, 2003; Gibbs, 2004; Kumar & Singh, 2019). NVivo is the optimal software for coding, classification, and theme creation operations. The references cited are Joffe (2004) and Strauss (1987). This tool allows researchers to utilize efficient and uncomplicated data management and analysis methods instead of cumbersome paper and pen methods. In order to improve the accuracy and trustworthiness of the findings, a substantial quantity of data was organized and analyzed utilizing theme coding, classification, and structuring techniques with the use of NVivo 12 software. As a result, the completion of coding was of superior quality (Patton, 2002; Zamawe, 2015).

.3.10. Data collection tools and materials

Pen, paper and clip board was used to write down their sharing and notes.. An information sheet and consent form was used for taking permission from the participants. An open ended & closr ended question sheet was used to conduct the interview. For data collection a semi-structured questionnaire was used. The questionnaire was formed based upon the related literature and determine of the material.

3.11. Ethical consent

The dissertation proposal, which includes the methodology, was accepted by the Institutional Review Board and got clearance from the ethical committee of Bangladesh Health Professions Institute (BHPI). The entire research endeavor was conducted in accordance with the rules set forth by the Bangladesh Medical Research Council (BMRC) and the World Health Organization (WHO) for research. Prior to commencing data collection, the researcher received permission from the relevant authorities in the clinical setting to ensure the safety of the participants. Additionally, a witness from the authority was assigned to verify the acquired data. The researcher rigorously upheld the anonymity of the participants' condition and treatments.

CHAPTER-IV RESULTS

4.1 Theme-1: Experience on gynecological field

After analyzing the data, experience years have been shown in the graph –

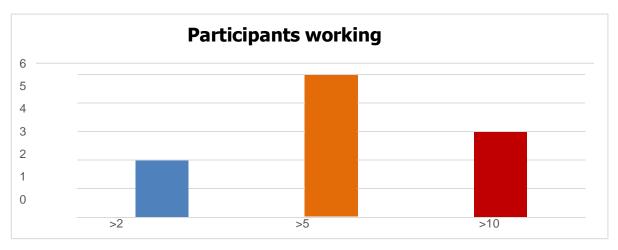


Figure 1- Experience on gynecological field

Here 2 participants working experience is more than 5 years where 5 participants has more than 5 years & 3 participants has more than 10 years experiences

4.2 Theme-2: Patients query about exercise during pregnancy

4.3 Table 1: Patients query about exercise during pregnancy

No of participants	Yes	No
P1	V	
P2		V
Р3	V	
P4		V
P5	V	

P6		V
P7		V
P8	V	
P9		V
P10		V
Total=10	4	6

Among 10 participants, 4 participants said that their pregnant patients ask them about doing exercise and 6 participants informed that their patients never asked them about doing exercise on pregnancy.

4.4 Theme-3: Exercise is beneficial on pregnancy

Table 2: No of participants thought exercise is beneficial on pregnancy

No of participants	Yes	No
P1	V	
P2		V
Р3	V	
P4		V
P5	V	
P6	V	
P7	V	
P8	V	
P9	V	
P10	V	
Total=10	8	2

Here within 10 participants, 8 gynecologists responded that they think exercise is beneficial for their patients in pregnancy whereas 2 participants said exercise is not beneficial on pregnancy.

4.5 Theme-4: Importance of exercise during pregnancy



Figure 2- Importance of exercise during pregnancy (participants number)

Here we can see that 6 participants stated that if patient do exercise during pregnancy then pelvic floor muscle strengthen, it facilitate normal delivery, 3 participants said that exercise decrease pain and postnatal complications. Some also think that it improve relaxation, decrease gestational diabetes, osteoarthritis and urinary incontinence. One participant said it help to change fetal position.

- 4.6 Theme-5: Standard exercise protocol
- 4.7 Table 3: Number of participants believes each patient need standard exercise protocol

No of participants	Yes	No
P1	V	
P2		√
P3	V	
P4		V
P5	V	
P6	V	
P7	V	
P8	√	
P9	V	
P10	V	
Total =10	8	2

Among 10 participants, 8 gynecologist thought that each patients should have standard exercise protocol during pregnancy on the other hand 2 participants thought it is not necessary to have individual protocol.

4.8 Theme- 6: Low birth weight of babies

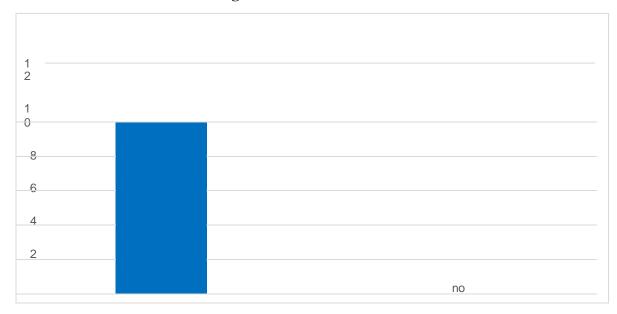


Figure: 3 low birth weight of babies

Here shows that none of the gynecologists thought that exercise during pregnancy can affect babies weight.

4.9 Theme-7: Importance of exercise after pregnancy



Figure 4: Importance of exercise after pregnancy (participants number)

Here in the picture it shows that 4 participants thought exercise after pregnancy can improve pelvic muscle and perineal muscle strength, 2 participants thought exercise can increase abdominal muscle strength, 3 of them thought exercise can decrease back pain, 1of them thought it will prevent uterine prolapse and improve self -active movement.

4.10 Theme-8 Recommended exercise after delivery



Figure 5: Exercise that recommend after delivery

Among all the participants 6 of them recommend freehand exercise, 7 of them suggest Kegel exercise to their patient when they come after delivery. On the other hand each one of them suggest breathing exercise, yoga, abdominal muscle strengthening and proper diet & 2 of them recommend perineal muscle strengthening exercise,.

4.11 Theme-9 Recommend patient for PT during & after pregnancy

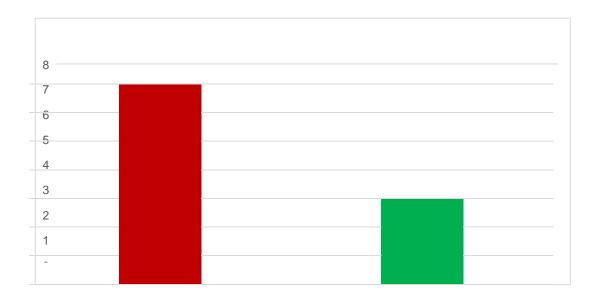


Figure 6: Participants number of recommendation for taking Physiotherapy

Among 10 participants, 7 of them stated that they recommend their patient for taking physiotherapy during and after pregnancy and 3 of them said they don't refer for physiotherapy.

4.12 Theme-10 Booklet of exercise

Table 4: Number of participants that give booklet about exercise

No of participants	Yes	No
P1	√	
P2		√
P3	√	
P4		√
P5		√
P6	√	
P7	√	
P8	√	
P9	√	
P10	√	
Total=10	7	3

Among 10 participants 7 of them didn't give any booklet to patients about exercise but 3 of them give informational exercise booklet.

4.13 Theme-11: Break amniotic fluid

Table 5 Number of participants those thought exercise can break amniotic fluid

No of participants	Yes	No
P1		V
P2	V	
Р3		V
P4		V
P5		V
P6		V
P7		V
P8		V
P9		V
P10		V
Total =10	1	9

Here only 1 participants thought exercise can break amniotic fluid whereas rest of them thought there is no relationship between exercise and amniotic fluid.

4.14 Theme-12: Avoid exercises during pregnancy

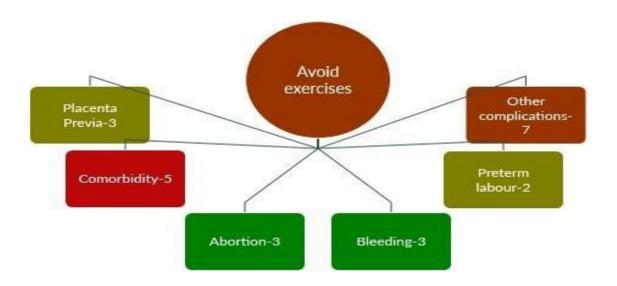


Figure 7: Participants advice to avoid exercises

Among 10 participants 3 participants thought if patient has abnormal bleeding, abortion and placenta previa then exercise is prohibited. 5 participants thought when patients have comorbidity then shouldn't do exercise and 2 participants advice to avoid exercise in case of preterm labour.7 participants advice if patient has other complication like infection then should avoid exercise.

4.15 Theme-13: Role of exercise on ante &postpartum

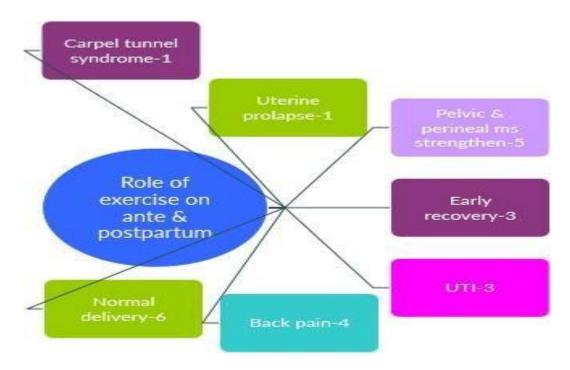


Figure 8: Role of exercise on antenatal & postnatal period

Here it shows that 6 participants thought exercise can help patient to ready for normal delivery, 5 of them thought it increase pelvic & perineal muscle strength, 3 of them thought it helps in early recovery process, 4 of them exercise decrease back pain, each 1 of them thought it decrease carpel tunnel syndrome and uterine prolapse.

DISCUSSION & CONCLUSION

Obstetric and gynecologic physiotherapy is a specialized branch of physiotherapy that focuses on enhancing health throughout the period of pregnancy and childbirth. It also helps mothers make beneficial adaptations to the physical and psychological changes that happen throughout pregnancy and the postpartum period, with the aim of reducing the stress related to childbirth (Odunaiya, 2013). Gynecological physiotherapy is a scientifically supported approach that specifically addresses the care of the female vaginal area and adjacent regions. It employs many techniques and procedures to address the needs of women during pregnancy and childbirth. Throughout pregnancy, a woman undergoes many physiological alterations. As the pregnancy progresses, the body posture undergoes modifications along with other physiological changes (munawar, 2013). Physiotherapy, a type of physical treatment, has evolved into specialized services over time. Physiotherapy plays a crucial part in the care of obstetric patients both before and after giving birth. It focuses on strengthening the muscles of the pelvic floor, providing back care, performing core stability exercises, and giving instructions on maintaining proper posture. Specialized physiotherapy treatments can effectively address conditions such as abdominal diastasis, postpartum pelvic floor muscle pain, dyspareunia, urinary incontinence, and symptoms of pelvic joint dysfunction (Isherwood et al, 2005).

In this study we saw that the P2 & P4 participants who has less working experience didn't have proper knowledge about Gynecological Physiotherapy. Conversely rest of the participants who has more than 5 years of experience has idea about Physiotherapy. According to a study done by Watson et al, 2015 many South African doctors think that physical activity is good for expectant mothers. However, they also discovered that the recommendations for exercise were lacking in precise details.

Pregnant women have less knowledge about physiotherapy interventions. One study found that 47.5% of women were unsure of the answers to the knowledge-related questions while 28.75 percent of women had adequate understanding of the role of physical therapy. This indicates a knowledge gap in our population. Since

it was less than fifty, this level of knowledge can be regarded as below average (Nipa et al, 2020). Similarly in our study we also found that 6 participants stated that their patients never asked them about exercise during pregnancy and 4 participants said that their patients asked them about physiotherapy.

In our study maximum participants stated that doing exercise during pregnancy has several benefits. One of them stated that, "exercise can increase circulation of pelvis, increase adaptation for cephalic presentation of fetus, improve physiological condition"

Another participant said that "it helps to strengthen pelvic & perineal muscle also walking beneficial for GDM, Relaxation of patienst and helpful for NVD"

Rest of them mentioned that exercise can decrease different types of musculoskeletal pain and can prevent postnatal complications

However, a number of studies revealed that exercise may be beneficial for expectant mothers. Reduced musculoskeletal complaints, better posture and body mechanics, breath awareness and relaxation, preventing issues related to gestational diabetes, hypertension, and pre-eclampsia, stress reduction, and improved self-image are some of these advantages (Soma-Pillay et al, 2016). Another study found that along with the pregnant woman, the fetus has also been shown to benefit from exercise throughout pregnancy. Reduced resting fetal heart rate, enhanced placenta viability, and elevated amniotic fluid level are some of

these benefits to the fetus (Clapp et al, 2000).

Gynecologists often recommend several exercises to their patients. One study found that pregnant patients are advised to walk, according to 42% of medical practitioners, 94.4 % of gynecologists, 55.1 % of physiotherapists, and 90% of other health care providers. Swimming was the recommended activity for pregnant patients, according to 8.3% of medical professionals and 11.9% of physiotherapists. Among those who recommended exercise for pregnant patients, 21.7% of medical professionals, 5.6% of gynecologists, 30.5% of physiotherapists, and 10% chose "aerobics." According to a study by Berghella et al, 2017 safe prenatal exercise options include walking, stationary cycling,

aerobics, resistance training (with weights or resistance bands), stretching, hydrotherapy, and water aerobics.

In our study we also found that participants thought doing exercise after delivery can increase muscle strength, reduce back pain, helps patient to get back to her normal life easily and quickly.

One participant mentioned that "it helps to make the perineal muscle, anterior and posterior muscle of abdomen and back muscle strengthen and prevent uterine prolapse, uterus incontinence and prevent back pain"

Another participant said "it helps to decrease postnatal complications if she had cesarean section"

But one of the participant mentioned that "exercise is not very much important because self-active movement is more important than passive movement"

According to ACOG there are some alarming sign where exercise is prohibited - Vaginal bleeding, Dyspnoea before exertion, Dizziness, Headache, Chest pain, Muscle weakness, Calf pain or swelling (need to rule out thrombophlebitis), Preterm labour, Decreased fetal movement, Amniotic fluid leakage (Artal and O'Toole, 2014).

One of our participant said "Previous history of preterm labour, spotting blood and have hypertension or heart disease then exercise is prohibited"

Another participant said that "if patient has placenta previa or preterm delivery or infection than exercise need to be stopped"

In this study we found that most of them refer their patient for physiotherapy. One of them said that "I often refer patient gynecological physiotherapy for exercise so that patient's quality of life can improve"

On the contrary two of them mentioned that "I don't refer patient for physiotherapy until they ask about it because I don't think it is that much necessary for a women"

According to Ward-Ritacco et al, 2016 Pregnant women frequently experience exhaustion and poor energy, which can have detrimental effects. This may be

linked to depression and a lower quality of life, as well as lower productivity at work. However, it has been seen that short bursts of resistance training regularly increase pregnant women's energy levels and reduce their symptoms of exhaustion during the second and third trimesters.

Conclusion

The study's findings indicate that gynecologists who had experience had knowledge on the benefits of exercising during pregnancy rather than the young gynecologists. Additionally, they believe that it is advisable to provide an activity program for their pregnant patients. Nevertheless, there is a dearth of excitement when it comes to referring patients to physiotherapists for tailored exercise prescriptions. Furthermore, they possess limited knowledge regarding the advantages of physiotherapy treatments for specific circumstances. Enhancing the understanding and perspectives of obstetricians regarding the inclusion of physiotherapists in patient care can be achieved by incorporating physiotherapy rotations during basic medical education and fostering better communication among gynecologists, physiotherapists, and obstetricians through seminars, workshops, and grand rounds. Physical therapists assert that it is imperative to educate the general public and other medical professionals about the latest evidence-based techniques.

LIMITATION & RECOMMENDATION

6.1 Limitation

The main limitation is small number of sample the study was conducted with 10 participants

Which was a very small size of samples in compare with the real world prevalence. The study was done in private hospital so it will be more beneficial if participants can be taken from Govt. hospital. Due to national crisis researcher was unable to include them. Along with that if we get more time then more sample could be taken.

6.2 Recommendation

Further study should be done with more participants so that it could represent the population more transparently. It requires large sample size. Along with private hospitals, Government hospitals should also include. A similar study with large sample size and study area can bring better results on the perception level of gynecologists.

CHAPTER-VII REFERENCES

Acharry, N., & Kutty, R. K. (2015). Abdominal exercise with bracing, a therapeutic efficacy in reducing diastasis-recti among postpartal females. *Int J Physiother Res*, *3*(2), 999-05.

- Artal, R., & O'Toole, M. (2003). Guidelines of the American College of Obstetricians and Gynecologists for exercise during pregnancy and the postpartum period. *British journal of sports medicine*, *37*(1), 6-12.
- Ayman, D. M., Awad, M. A., Mohamed, M. A., & Gaber, A. A. Awareness of Gynecologists About The Role of Physical Therapy in Treatment of Stress Urinary Incontinence.
- Bahadoran, Parvin, and Soheila Mohamadirizi., 2015. "Relationship between physical activity and quality of life in pregnant women." *Iranian journal of nursing and midwifery research*; 20(2); pp.282-286.
- Berghella, V., & Saccone, G. (2017). Exercise in pregnancy!. *American journal of obstetrics and gynecology*, 216(4), 335–337. https://doi.org/10.1016/j.ajog.2017.01.023
- Bobowik, P. Ż., & Dąbek, A. (2018). Physiotherapy in women with diastasis of the rectus abdominis muscles. *Advances in Rehabilitation*, *32*(3), 11-17.
- Caesarea. In *Health Science International Conference (HSIC 2017)* (pp. 386-389). Atlantis Press.
- Chaudry, S., Rashid, F., & Shah, S. I. H. (2013). Effectiveness of core stabilization exercises along with postural correction in postpartum back pain. *Rawal Med J*, 38(3), 256-9.
- Clapp III, J. F., Kim, H., Burciu, B., & Lopez, B. (2000). Beginning regular exercise in early pregnancy: effect on fetoplacental growth. *American journal of obstetrics and gynecology*, 183(6), 1484-1488.

- Desai, R. G. (2022). Physiotherapy Intervention for Primary Dysmenorrhea-A Narrative Review.
- Elbandrawy, A. M., & Elhakk, S. M. (2021). Comparison between the effects of aerobic and isometric exercises on primary dysmenorrhea. *Acta Gymnica*, *51*, 0-5.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian & New Zealand journal of psychiatry*, 36(6), 717-732.
- Ghaderi, F., & Oskouei, A. E. (2014). Physiotherapy for women with stress urinary incontinence:
- Gitta, S., Magyar, Z., Tardi, P., Füge, I., Járomi, M., Ács, P., ... & Hock, M. (2016). How to treat diastasis recti abdominis with physical therapy: A case report. *Journal of Diseases*, *3*(2), 16-20.
- Harper, C. C., Henderson, J. T., Raine, T. R., Goodman, S., Darney, P. D., Thompson, K.
 M., ... & Speidel, J. J. (2012). Evidence-based IUD practice: family physicians and obstetrician-gynecologists. *Family medicine*, 44(9), 637.
- Harrison, A. L., Taylor, N. F., Shields, N., & Frawley, H. C. (2018). Attitudes, barriers and enablers to physical activity in pregnant women: a systematic review. *Journal of physiotherapy*, 64(1), 24-32.
- *International Journal of Research and Review*, 9(3), 441-449.
- Isherwood, L., Britnell, N., Candido, G., & Watson, L. (2005). Postural health in women: the role of physiotherapy. *J Obstet Gynaecol Can*, 27(5), 493-500.
- Jabbar, S., Ans, M., & Azam, S. (2021). Role of physical therapy in antenatal and postnatal care. *Doi*, *10*, 2157-7595.
- Janakiraman, B., Gebreyesus, T., Yihunie, M., & Genet, M. G. (2021). Knowledge, attitude, and practice of antenatal exercises among pregnant women in Ethiopia: A

- cross-sectional study. PloS one, 16(2), e0247533.
- Kuciel, N., Mazurek, J., Biernat, K., Pawik, Ł., & Sutkowska, E. (2020). Abdominal muscles activity during abdominal bracing and posterior pelvic tilt in women after natural birth and after caesarean delivery. *Acta Of Bioengineering And Biomechanics*, 22(4), 167-173.
- Kumar, V. K. (2016). Knowledge, perception, and attitude of pregnant women towards the role of physical therapy in antenatal care-a cross sectional study. *Online Journal of Health and Allied Sciences*, *14*(4).
- Kurz, J., & Borello-France, D. (2017). Movement system impairment-guided approach to the physical therapist treatment of a patient with postpartum pelvic organ prolapse and mixed urinary incontinence: case report. *Physical Therapy*, 97(4), 464-477.
- Mahto, P. K., Manadhar, N., & Joshi, S. K. (2021). Knowledge of Physiotherapy Practice among Medical Interns in a Tertiary Care Hospital: A Descriptive Cross-sectional Study. *JNMA: Journal of the Nepal Medical Association*, 59(240), 771.
- Majeed, R., Zehra, S., Furqan, Z., Shoukat, M., Samad, M., Gulzar, T., & Waris, S. (2022). Knowledge, attitude and practice among women regarding postnatal exercises; a cross-sectional study across Lahore in private sector. *Pakistan Journal of Medical & Health Sciences*, *16*(03), 883-883.
- Maqsood, U., Tahir, A., & Arshad, H. S. (2017). Awareness of Obstetricians and Gynecologist Regarding Role of Physical Therapy in Managing Obstetric and Gynecological Patients in Private and Government Hospital. *Journal of The Society of Obstetricians and Gynaecologists of Pakistan*, 7(3), 144-148.
- Martins, E. M., Girola, C., Wolpe, R. E., Da Roza, T. H., & Honório, G. J. D. S. (2020). Physiotherapeutic approach in women undergoing hysterectomy. *Manual Therapy, Posturology & Rehabilitation Journal*, *18*, 1-10.
- Mbada, C. E., Adebayo, O. E., Awotidebe, T. O., Faremi, F. A., Oginni, M. O., Ogundele, A. O., & Emechete, A. A. I. (2015). Practice and pattern of antenatal and postnatal exercise among Nigerian women: a cross-sectional study. *International Journal of*

- Women's Health and Reproduction Sciences, 3(2), 93-98.
- Meaume, S., Le Pillouer-Prost, A., Richert, B., Roseeuw, D., & Vadoud, J. (2014).

 Management of scars: updated practical guidelines and use of silicones. *European Journal of Dermatology*, 24, 435-443.
- Mishra, P., & Vidhyadhari, B. S. (2019). Awareness & perception of physiotherapy intervention among medical practitioner & medical students: A cross sectional study. *International Journal of Advanced Research and Development*, 4(1), 22-7.
- Mishra, P., & Vidhyadhari, B. S. (2019). Awareness & perception of physiotherapy intervention among medical practitioner & medical students: A cross sectional study. *International Journal of Advanced Research and Development*, 4(1), 22-7.
- Muhammad, J., Muhamad, R., Husain, N. R. N., & Daud, N. (2019). Pelvic floor muscle exercise education and factors associated with implementation among antenatal women in hospital Universiti Sains Malaysia. *Korean journal of family medicine*, 40(1), 45.
- Munawar, H., Tasadduq, A., & Zehra, N. (2013). Awareness of obstetricians/gynecologists regarding the role of physiotherapy services in managing obstetric patients. *Pakistan Journal of Medicine and Dentistry*, 2(01), 17-23.
- Odunaiya, N. A., Ilesanmi, T., Fawole, A. O., & Oguntibeju, O. O. (2013). Attitude and practices of obstetricians and gynecologists towards involvement of physiotherapists in management of obstetric and gynecologic conditions. *International journal of women's health*, 109-114.
- Puspitosari, D. P., Supriyadi, A., & Anifah, N. (2021). PHYSIOTHERAPY IN POST TOTAL HYSTERECTOMY: A CASE REPORT. In *Academic Physiotherapy Conference Proceeding*.
- Rochera, M. B., Andreu, C. S., Madrid, Y. C., Bouallalene, K., & Pau, E. M. (2017). Physiotherapy as a way to maintain vaginal health during menopause. *Advances in Sexual Medicine*, 7(2), 97-104.
- Sangrasi, S. A., Waseem, M. H., Shaikh, A. G., & Lasi, F. F. (2016). Exercise During

- Pregnancy, Knowledge, Belief And Practice of Gynecologists/Obstetricians: JRCRS. 2016; 4 (2): 54- Sarfraz, M., Islami, D., Hameed, U., Hasan Danish, S., & Ahmad, F. (2013). Role of Physical Therapy in antenatal care as perceived by the clients-a cross sectional survey on pregnant females attending antenatal OPD. *Pakistan Journal of Medicine and Dentistry*, *1*(01), 34-46.
- Sarkar, P. K., Singh, P., Dhillon, M. S., Bhattacharya, S., & Singh, A. (2022). Postural deviation in pregnancy: A significant debilitating balance problem which can be rectified by physiotherapeutic intervention. *Journal of Family Medicine and Primary Care*, 11(7), 3717-3725.
- Soma-Pillay, P., Nelson-Piercy, C., Tolppanen, H., & Mebazaa, A. (2016). Physiological changes in pregnancy: review articles. *Cardiovascular journal of Africa*, 27(2), 89-94.
- Subramanian, S.S., 2017. Pilates and Physiotherapy in post Total Hysterectomy. Journal of Medical Science and Clinical Research; 5(9); pp.27653-27657.
- Takeda, K., Yoshikata, H., & Imura, M. (2019). Do squat exercises with weight shift during pregnancy improve postural control. *Int J of Women's Health and Reproduction Sciences*, 7, 10-16.
- Ward-Ritacco, C., Poudevigne, M. S., & O'Connor, P. J. (2016). Muscle strengthening exercises during pregnancy are associated with increased energy and reduced fatigue. *Journal of Psychosomatic Obstetrics & Gynecology*, *37*(2), 68-72
- Watson, E. D., Oddie, B., & Constantinou, D. (2015). Exercise during pregnancy: knowledge and beliefs of medical practitioners in South Africa: a survey study. BMC pregnancy and childbirth, 15, 1-7.
- Weerasinghe, K., Rishard, M., Brabaharan, S., & Mohamed, A. (2022). Effectiveness of face-to-face physiotherapy training and education for women who are undergoing elective caesarean section: a randomized controlled trial. *Archives of Physiotherapy*, 12(1), 4.

Yuliadarwati, N. (2017, October). The Effect of Exercise Therapy on Pain in Mothers After Section

Caesarea. In *Health Science International Conference (HSIC 2017)* (pp. 386-389). Atlantis Press.



বাংলাদেশ হেল্থ প্রফেশন ইনস্টিটিউট (বিএইচপিআই) Bangladoch III Bangladesh Health Professions Institute (BHPI)

(The Academic Institute of CRP)

Ref

% 1/2023

CRP-BHPI/IRB/11/2023/830

To

Zakia Rahman

M.Sc. in Rehabilitation Science

Session: 2021-2022 Student ID: 181210143

BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal "Importance of gynecological physiotherapy on antepartum and antepartum and postpartum period: Perception of Gynecologists" by ethics committee.

Dear Zakia Rahman,

Congratulations. The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the principal investigator.

The Following documents have been reviewed and approved:

SI. No.	Name of the Documents
1	Research Proposal
2	Questionnaire (English version)
3	Information sheet & consent form

The purpose of the study is to determine Perception of gynecologists about gynecological physiotherapy. The study involves use of a self-structured questionnaire & any other measurement tools to explore the perception of gynecologists that may take 20 to 30 minutes to answer the questionnaire and there is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 8.30 AM on 8th April, 2023 at BHP1 (35th IRB Meeting).

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki. 1964 - 2013 and other applicable regulation.

Best regards,

theledelanoun Muhammad Millat Hossain

Associate professor, Dept. of Rehabilitation Science Member Secretary, Institutional Review Board (IRB)

BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিম্মারণি-চাপাইন, সাতার, চাকা-১৩৪৩, ক্লোচোপ। সেয়া ৮৮৮ ৩২ ২২৪৪৪৪৪৪৭, ২৮৮ ৩২ ২২৪৪৪১৪৩৪, মোরাইদঃ ৮৮৮ CRP-Chapain, Savar, Dhako-1349, Bunghakah, Tol: +88 112 224445464-5, +88 02 2244414M, Mobile: +88 13-mail : principal-biptificm; banghalesh,org, Web: html.edu.bd

Appendix B

Date: 30.11.2023

To Director

Obstetric and Gynecology society of Bangladesh

Mirpur-13, Dhaka-1216

Subject: Regarding permission for thesis data collection.

With due respect I am Zakia Rahman, a student from Master of Rehabilitation Science Program funded bt SAARC Development Fund (SDF). For the completion of this program, I have to conduct a thesis where my thesis title is "Importance of Gynecological Physiotherapy during antenatal and postnatal: Perception of Gynecologists" under supervision of Dr. Mohammad Sohrab Hossain, Professor of BHP1 & Executive Director of CRP. For this purpose I want to collect data from your hospital. I would like to assure that anything of my thesis project will not be harmful for the participants. be harmful for the participants.

permitted.

So, I therefore pray and hope that you would be kind enough to allow me to collect data from your hospital.

Yours Sincerely

Name: Zakia Rahman

M.Rs 6th Batch DU reg no: 6267

Mobile no: 01303421807

Email: zakiarahman432@gmail.com

Appendix C

Informed Consent Form

I am a postgraduate student of Bangladesh Health Professional Institute currently following Masters in Rehabilitation Science program conducting a research on "Importance of Gynecological Physiotherapy during antenatal and postnatal period- Perception of Gynecologists". This form provides you information regarding the above mentioned research and invites you to be a part of this research. You may discuss the research with anyone you are comfortable with before making a decision to participate or not. Please do not hesitate to stop us to inquire from us at any point if you have any questions or need clarification. If any questions/doubts arise at a later time, you may inquire from us at any time during this research. The information that we collect from this research project will be kept confidential. Information about you that will be collected during the research will be put away and no-one but the researchers will be able to see it. It will not be shared with anyone else. Privacy will be maintained when applying the treatments. You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

Doctor's Name:

Signature:

Appendix D

Appendix

This questionnaire is developed to explore the perception of our respected gynecologists about gynecological physiotherapy and this portion will be filled by data collector using a black pen. Please answer every section and mark in each section only the one box that you think is right. Your response will be kept confidential.

Title: Importance of Gynecological Physiotherapy during antenatal and postnatal period|: Perception of gynecologists

Name of Doctor:
Name of Hospital:
What is your current specialty?
Medical practitioner
Gynecologist & Obstetrician
2. How many (years) have you been practicing?
<u></u> >2
>5
>10
3. Do you find your patients asking you about exercise during pregnancy?
Yes
No

4. a. Do you think exercise is beneficial for pregnant women?
Yes
No
b. If yes, would you please highlights the importance of doing exercise
during pregnancy?
Your response:
5. Do you think, all pregnant women should follow standard exercise protocol
throughout the pregnancy?
Your Response:
6. Do you think, doing exercises could increase the risk of low-birth-weight
babies?
Yes
No
7. What is your opinion about the importance of Physiotherapy after
pregnancy?
Your response:
8. What types of exercises will you recommend for your patients after delivery
a baby?
Your response:
9. Do you recommend your patients to undergo Physiotherapy during pregnancy
and after delivery?
Yes
No

10. Do you often give your patients any informational booklet about exercises?
Yes
No
11. Do you think every pregnant patient should have individualised exercise
program?
Yes
No
12. Do you think doing exercise in pregnancy can break amniotic fluid?
Your response
13. What are the conditions that you recommend the patients to avoid exercises?
Your response:
14.a. Do you aware of Antenatal & Postnatal Physiotherapy that could benefit
your patients?
Your response:
b. If yes, then what are the benefits of Physiotherapy in antenatal and postnatal
period?
Your response:
15. Would you recommend Physiotherapy sessions to your patients as routine
follow up?
Yes
No
Thank You for your valuable time