Faculty of Medicine

University of Dhaka

Physiotherapists' Experience, Perceptions and Barriers In The Management of Pregnancy and Post-partum Related Disorder

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Physiotherapists' Experience, Perceptions and Barriers In The Management of Pregnancy and Post-partum Related Disorder.

Submitted by **Rahela Akter,** for the partial fulfillment of the requirement for the degree of the Bachelor of Science in Physiotherapy (B.Sc. in PT)

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Content

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Acronym

BHPI: Bangladesh Health Profession's Institute

CRP: Centre for the Rehabilitation of the Paralysed

IRB: Institutional Review Board

SPSS: Statistical Package for the Social Sciences

CST : Cranio Sacral Therapy

DRA: Diastasis recti abdominis

CTS : Carpal tunnel syndrome

UI: Urinary Incontinence

PFMT : Pelvic floor muscle training

PGP : Pelvic girdle pain

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Abstract

Background : In both antepartum and post-partum care, physiotherapists play a vital role. This study aimed to record the present-day approaches of physiotherapists in providing treatment during the stages before and after childbirth. By investigating these practices and perceptions, valuable insights can be gained into the strategies and techniques used in the field, potentially leading to improved care for expectant and new mothers. This research endeavor seeks to bridge the knowledge gap and contribute to the enhancement of antepartum and postpartum care through evidence-based practices**.** **Methodology:** This study is cross sectional study. Total 90 samples were selected conveniently for this study from Centre for the rehabilitation of the paralyzed (CRP), Savar and Mirpur branch. Self structured questionnaire is used with the help of previous survey. The study was conducted by descriptive and inferential analysis through using SPSS software 20.0 version. **Result:** Among the 90 individuals who participated, 33% has experience in treating pregnancy and post-partum related disorder. 20% participant stated The most common condition frequently addressed in their practice concerning pregnancy and postpartum was lower back pain. Within the participant who have experience, 47% to 50% participant stated slight to moderate level of confidence while providing treatment. Among the participant who have experience(n=30), 23% stated Most common barrier was lack of knowledge of women regarding physiotherapy in gynecological field, lack of referral system addition with lack of appropriate facilities. A significant association is found between physiotherapists willingness to provide treatment with experience, training and gender ($p = < .05$). **Conclusion:** The outcomes of this research emphasize the necessity for educational enhancements concerning antepartum and postpartum care within clinical practice, particularly for physiotherapists in Bangladesh.

CHAPTER I INTRODUCTION

1.1 Background

Dramatic physical, hormonal, physiological and psychological changes are experienced by many women during pregnancy and after childbirth. Many women experienced pelvic floor dysfunction (bladder, bowel and sexual dysfunction) (Vangeelen, Ostegard and Sand 2018), breast tenderness, blocked duct and mastitis. Musculoskeletal problem like low back pain, joint laxity, pelvic girdle pain, diastasis recti and carpel tunnel syndrome (Gross and George 2016). Besides cardiovascular problems, anxiety, depression and insomnia are also reported by them. These problems have great impact on the women wellbeing, health related quality of life and return to employment. Physical therapists play a crucial part in the management of the physical and psychological symptoms during pregnancy and the postpartum period as a member of a multidisciplinary team in gynecologic and obstetric care. They do this by offering advice on physical activity, teaching appropriate exercises like pelvic floor muscle training, treating musculoskeletal problems, and providing specialized treatment for example: therapeutic ultrasound and massage (Mantle et al. 2004).

The guideline of Canadian Physiotherapy Association for the society of Obstetrician and Gynecologits of Canada recommends PFMT and Core stability training prescribed by physiotherapists (Britnell et al. 2005).

For pregnant women without contraindications, previous studies have shown the exercise therapy to be safe and effective in lowering the risk of gestational diabetes, the severity of pelvic pain, and diastasis of the rectus abdominis muscle, as well as improving cardiorespiratory endurance, body composition, sleep, depressive symptoms, muscular strength, endurance, and flexibility (Davenport et al. 2019). Experienced therapists supervision makes the treatment procedure more effective. Most programme started during the second trimester. Depending on the content of the treatment and the type of symptom of the pregnancy, the number of guided treatment varied. The content of physiotherapeutic programme are- land- or water-based exercises (global stretch and

strength exercises, sitting pelvic tilt exercises, water gymnastics, stabilizing exercises, relaxation exercises, the use of a belt, and craniosacral therapy) for LBP and PGP, aerobic exercises combined with or without diet for a pregnancy-related weight increase and to treat gestational diabetes mellitus, and supervised pelvic floor muscle training for urinary incontinence and perineal massage to prevent perineal pain (Van campen et al. 2015).

Previous research revealed that women's reluctance to disclose physical and psychological symptoms and seek medical attention during pregnancy and after childbirth was a result of their lack of knowledge about antepartum and postpartum problems, influence from family and friends, acceptance of problems as a necessary part of motherhood, difficulty in getting postpartum care, fear of being judged, and women's cultural context (Mason et al. 2001).

94% of obstetricians and gynecologists referred patients for physical therapy, with the majority (87%) agreeing that patients with obstetric and gynecologic disorders need those treatments . Physiotherapists who specialize in obstetrics and gynecology need a unique combination of qualities, allowing women to feel comfortable and assured when sharing some of the most intimate and private aspects of their lives. Obstetricians had not been involving physiotherapists in the management of conditions such as pelvic inflammatory disease. In south-western Nigeria, obstetricians and gynecologists possess a basic understanding of physiotherapy services in their field. They exhibit a favorable outlook regarding the inclusion of physiotherapists in the care of patients with obstetric and gynecologic conditions. However, their awareness of the precise benefits of physiotherapy in certain conditions is restricted.(Oduniya et al. 2013).

Physiotherapists' perceptions and experiences can provide valuable insights into their understanding of women's health issues and the effectiveness of different treatment approaches. This knowledge can help in tailoring treatments to better suit the specific needs and conditions of women seeking physiotherapy services. Physiotherapy is urgently needed in current antepartum and postpartum care. Clinicians and patients could benefit from knowing about the provision of physical therapy services to women during their pregnancies and after giving birth. So, physiotherapy has great impact on women health care. By knowing physiotherapists experience, perceptions and barriers in

antepartum and postpartum care will bring a revolution in women health care. Barriers faced by physiotherapists in the gynecology and women's health sector can significantly impact the delivery of services. By understanding these barriers, healthcare organizations and policymakers can work towards removing obstacles and facilitating better access to physiotherapy for women in need.

Physiotherapy interventions have been shown to significantly enhance the quality of maternal healthcare. A study carried out by Shifna et al. (2017) revealed that numerous women silently endure their health challenges, often unaware of the available physiotherapy treatments. This lack of awareness prevents them from harnessing the potential benefits of these interventions, which could greatly enhance their overall well-being and alleviate their physical discomforts. The research highlights the critical need for raising awareness among women about the advantages of physiotherapy in addressing various maternal health issues. By educating women about the accessible and effective physiotherapy treatments, we can empower them to take charge of their health and improve their quality of life. Physiotherapy can play a pivotal role in relieving common discomforts associated with pregnancy, postpartum recovery, and other maternal health concerns, ultimately contributing to a healthier and more comfortable experience for women during this crucial phase of their lives. It is imperative to ensure that women are well-informed about the potential benefits of physiotherapy interventions, allowing them to make informed decisions and actively participate in their own healthcare journey.

A study carried out by Carmen and Milanez (2011) revealed that a significant proportion, specifically 65.6% of the women surveyed, possessed adequate knowledge about the concept of engaging in physical exercise during pregnancy. Furthermore, an overwhelming majority, approximately 93.8%, expressed a favorable attitude towards the idea of exercising during this period. Nearly all of the women surveyed, an impressive 98%, acknowledged and supported the advantages associated with engaging in light activity.

Antenatal care stands as a vital foundation for ensuring the safety and well-being of expectant mothers. It plays a pivotal role in securing maternal health. The primary

objective is to offer the mother the best possible care, enabling her to navigate the final nine months of pregnancy free from any complications (Sarfraz et al. 2013).

The well-being of a woman holds a crucial place as the cornerstone of family unity, subsequently exerting a substantial influence on broader social dynamics. The experiences of pregnancy, childbirth, and the postpartum phase are universal occurrences in women's lives, deeply impacting every facet of their existence (Shifna et al. 2017). The physical and emotional health of women during these pivotal life stages directly reverberates throughout the family unit. A healthy mother often assumes a central role in nurturing and supporting her family, thereby forming a significant bond within the household. Furthermore, this familial foundation extends its reach, shaping the larger social fabric by fostering stronger communities and contributing to the overall well-being of society.

The field of obstetrics greatly benefits from the pivotal role of physiotherapy. The foundational concepts of applying physiotherapy techniques in obstetrics were originally formulated by the renowned physiotherapist, Miss Minnie Randall, during the early 20th century. Her innovative approach recognizes the unique physical challenges and needs that arise during pregnancy, childbirth, and the postpartum period. By applying physiotherapy techniques tailored to these stages, healthcare professionals can help pregnant individuals manage discomfort, enhance their physical well-being, and promote smoother childbirth experiences.

1.2 Rationale

Women health Physiotherapy is a branch of medicine that originated in the field of obstetrics and gynecology. Its focus is on providing antenatal and postpartum care for women, as well as treating incontinence and caring for those who are having gynecological surgery. Physical therapists can have an important role in assessing and treating common postpartum health conditions, such as PFD and DRA, to prevent long-term symptoms and improve quality of life. Physical activity during pregnancy is linked to a decrease in back pain, better sleep quality, and an enhanced perception of overall health. Engaging in exercise during pregnancy was found to address or alleviate certain

pregnancy issues like weight gain, posture problems, fatigue, sleep disturbances, and back pain, according to perceived experiences. Providing clinicians and patients with pertinent and valuable information regarding the delivery of physical therapy services to women during pregnancy and postpartum can offer significant clinical benefit. The number of physical therapists offering services to women during pregnancy and after childbirth, as well as the frequency of referrals received by these therapists, remains uncertain and not well-documented. Recognizing the significance of physiotherapy in gynecology expands the scope of care for women, ensuring they receive appropriate and effective interventions for various gynecological conditions. It not only improves individual patient outcomes but also contributes to the advancement of women's healthcare as a whole. Understanding physiotherapists experience and barriers in antepartum and postpartum care encourages further research and advancements in the field. This can lead to the development of innovative techniques and treatments that continually improve women's health outcomes. Gaining insights into physiotherapists' perceptions, experiences, and barriers in the gynecology and women's health sector is essential for optimizing patient care, identifying areas for improvement, and advancing the field through research and collaboration. It ultimately contributes to better health outcomes and enhanced well-being for women seeking physiotherapy services. Knowledge of physiotherapists' perceptions can improve communication and collaboration between healthcare providers. It allows for better interdisciplinary teamwork, enabling physiotherapists to work seamlessly with other healthcare professionals in the gynecology and women's health sector to provide holistic care. Through this study we can identify physiotherapist's experience, perception, barriers in antepartum and postpartum care that might have great impact on women health care.

1.3 Research Question

What are the experience, perceptions and barriers of physiotherapists in treating pregnancy and post-partum related disorder ?

1.4 Study objectives

1.4.1 General Objectives

I. To find out physiotherapists experience, perceptions and barriers in the management of pregnancy and postpartum related disorder.

1.4.2 Specific objectives

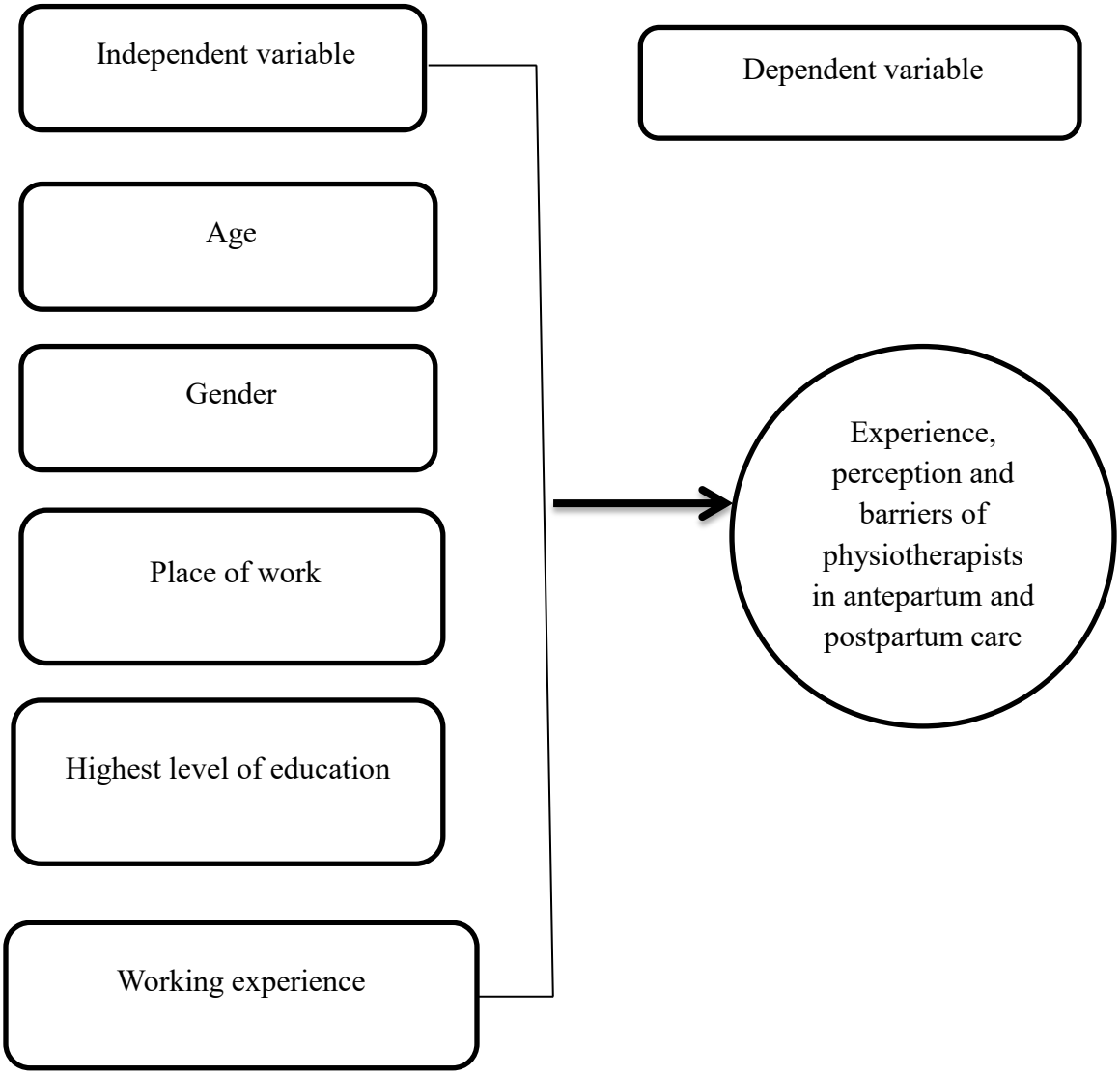
I. To explore physiotherapist's experience and perception in the management of pregnancy and postpartum related disorders.

II. To explore physiotherapist's knowledge on current practice.

III. To explore barriers perceived by physiotherapist's in the management of pregnancy and postpartum related disorder.

IV. To Document what interventions are prescribed, monitored and evaluated.

1.5 Conceptual framework



1.6 Operational Definition

Pelvic floor Dysfunction: Pelvic floor dysfunction refers to a range of conditions that affect the muscles, ligaments, and connective tissues in the pelvic region. It can lead to various problems such as urinary or fecal incontinence, pelvic pain, and sexual dysfunction.

Diastasis Recti: Diastasis recti is a condition characterized by the separation of the abdominal muscles, specifically the rectus abdominis. It commonly occurs during pregnancy due to the stretching of the abdominal wall to accommodate the growing uterus. After childbirth, some women may notice a visible bulge or gap between the abdominal muscles, leading to potential core weakness and back pain.

Postpartum Disorder: A postpartum disorder, also known as puerperal disorder, is a medical condition that occurs predominantly in the days and weeks following childbirth, during the postpartum period.

Antepurtum: Antepartum refers to the period of time before childbirth or before the onset of labor. It encompasses the duration of a pregnancy from conception to the beginning of labor.

Pelvic floor muscle training : Pelvic floor muscle training, also known as Kegel exercises, is a set of exercises aimed at strengthening the muscles of the pelvic floor. The pelvic floor muscles are located at the base of the pelvis and play a crucial role in supporting the bladder, uterus, and rectum, as well as controlling urinary and bowel functions**.**

Craniosacral therapy : Craniosacral therapy (CST) is a form of alternative or complementary therapy that focuses on the gentle manipulation and evaluation of the craniosacral system, which includes the bones of the skull (cranium), the spine, and the sacrum (the triangular bone at the base of the spine).

Obstetric and Gynecology Physiotherapy : Obstetric and gynecologic physiotherapy is a specialized field within physiotherapy that focuses on promoting maternal well-being during the entire process of childbirth.

CHAPTER II LITERATURE REVIEW

Pregnancy-related low back pain (LBP), with or without pelvic girdle pain, is a prevalent issue, affecting a substantial number of women during their pregnancy. Research indicates that LBP impacts approximately 45% to 75% of pregnant women at some point. Studies have found that pregnant women experiencing LBP have a lower quality of life compared to healthy non-pregnant women. Additionally, pregnancy-related LBP is a significant cause of sickness absence, with around 20% to 23% of women taking sick leave due to this pain (Pierce et al. 2011).

Physical therapists in the UK show hesitancy in employing acupuncture as a treatment method for pregnancy-related low back pain. The reasons for this reluctance include their perception of insufficient knowledge and confidence in utilizing acupuncture effectively. Moreover, there is a prevalent professional culture that emphasizes caution, specifically concerning fears of inducing premature labor and concerns about potential legal issues (waterfield et al. 2015).

A study over 364 physiotherapist in Taiwan concluded that 37.6% had experience treating pregnant and postpartum women in clinical practice. All respondents expressed moderate to quite level of confidence in their ability to manage pregnancy/postpartum-related disorder. The most commonly reported challanges was “lack of available training” (81.3%). According to their study The majority of referrals came from physiatrists, accounting for 54.7% of all referrals, followed by orthopedists at 40.9%, and obstetricians and gynecologists at 26.3%.Among the patients referred, the most prevalent issue was low back pain, making up 61.3% of the cases. Breast-related problems, including breast engorgement, blocked ducts, and breast pain, constituted 12.4% of the referrals. Additionally, pelvic pain accounted for 11.7% of the referral diagnoses (Lin et al. 2022).

A cross-sectional study conducted in India stated that a mere 15% of 106 pregnant women were recommended to seek the assistance of a physiotherapist for back care by their healthcare providers. 22% of the survey participants reported that they kept up with their exercise routines while pregnant, with walking being the most common form of

physical activity. The respondents also acknowledged that the primary reason for discontinuing their exercise regimen was a shortage of time. most of them reported that it could help to reduce back pain (60%), prevent excessive weight gain (54%), prevent fatigue (63%), and help with labour and delivery (50%). In this survey , 60% of the respondents held a positive view of physiotherapy's role in antenatal care. Additionally, 75% of these participants agreed that physiotherapy played a beneficial role in helping new mothers regain their pre-pregnancy shape. Moreover, 54% of the respondents were aware that physiotherapy could reduce pregnancy-related complications, while 58% believed it facilitated postnatal recovery. The study indicated that respondents who were above 25 years old, women with multiple pregnancies, and those from middle-class socio-economic backgrounds demonstrated a higher level of awareness regarding antenatal exercises. 46% of the participants demonstrated awareness of antenatal exercises. However, the majority of respondents (80%) were not familiar with the various types of antenatal exercises (Kumar 2016).

Approximately 11.9% of Gynecology and obstetrecians were strongly in favor of including physiotherapists in the treatment of dyspareunia, and an additional 34.3% expressed their agreement with this involvement. Likewise, 34.3% strongly supported the inclusion of physiotherapy in managing pelvic inflammatory disease, while 13.3% also agreed with this approach. The survey results revealed that a significant majority of gynecologic patients, comprising 86.6%, strongly supported the idea that physiotherapy services could play a vital role in enhancing the overall well-being of such patients. Additionally, a small percentage of 1.5% also expressed their agreement with this notion. Similarly, among obstetric patients, 76.1% strongly agreed with the potential contribution of physiotherapy to their complete well-being, while an additional 1.5% expressed their agreement as well (Odunaiya et al. 2013).

Besides, The survey results indicated that a significant majority of Gynecology and Obstetrician, accounting for 80.6%, strongly believed that a physiotherapy service would be reasonably affordable for patients. Regarding the time commitment, 50.7% strongly agreed and an additional 6.0% agreed that physiotherapy sessions could be time-consuming. Furthermore, 56.7% of respondents strongly agreed, and 10.4% agreed that

physiotherapists should have the opportunity to be present during surgical procedures for patients with gynecologic conditions. Similarly, 38.8% strongly agreed, and 16.4% agreed that physiotherapists should be allowed to attend the labor ward. However, when it came to maintaining adequate interprofessional relationships, the opinions were more varied. Specifically, 41.8% strongly disagreed, and 13.4% agreed with the notion that physiotherapists upheld satisfactory interprofessional relationships (Odunaiya et al. 2013).

Physiotherapy intervention conducted shortly after gynecological surgery enhances the overall quality of life for women who have undergone procedures such as hysterectomy, oophorectomy, salpingectomy, myomectomy, ovarian cystectomy, and others. These surgeries may be necessary for various reasons like uterine prolapse, cancer of the uterus, cervix, or ovaries, endometriosis, bleeding, adenomyosis, and more. By receiving prompt physiotherapy care after the surgical procedure, women experience improved well-being and overall satisfaction in their daily lives (Paramanandam et al. 2016).

Women play crucial roles as primary caretakers, educators, and nurturers of the next generation. Their well-being is fundamental to their development in all aspects of life. Pregnancy-related issues can lead to significant suffering and can impact women's social and economic empowerment. Engaging in regular exercise has been proven to positively influence health in various ways, including reducing body fat and overall weight, lowering blood pressure, and promoting efficient digestion, respiration, and circulation. Incorporating exercise into a routine can help minimize symptoms and complications associated with pregnancy, such as gestational diabetes, bladder and bowel problems, backaches, fatigue, and varicose veins. Additionally, staying physically active during pregnancy can contribute to a quicker return to pre-pregnancy health, figure, and weight after delivery. Despite exercise being a vital aspect of antenatal care, some women tend to reduce physical activity due to perceived risks during pregnancy. However, in the absence of medical or obstetrical complications, pregnant women are encouraged to maintain an active lifestyle throughout their pregnancies. Among the common prenatal exercises is Kegel's exercise, which strengthens the pelvic floor muscles, preparing them for the

stretching that may occur during delivery, thereby aiding in labor preparation (Chauhan et al. 2016).

A study conducted in 2015, it was revealed that more than half of obstetricians (50% or more) admitted to never providing counseling to women regarding urinary or fecal incontinence. Additionally, approximately 36% of obstetricians reported that they never made referrals for physical therapy to address pelvic floor dysfunction (PFD). The reasons cited for this omission were primarily related to a lack of time and knowledge on the subject matter (Dessie et al. 2015).

Although 87% of women's health specialists reported using pelvic floor physical therapy (PFPT) to treat diastasis recti abdominis (DRA), a recent study found no additional reduction in abdominal separation compared to a control group that did not engage in pelvic floor exercises. In traditional DRA rehabilitation, certain abdominal exercises, like curl-ups, were avoided as they were believed to increase the separation distance. However, a study in 2020 demonstrated that during head lifts, twisted curl-ups, and curl-ups with pelvic floor preactivation, the inter-recti separation significantly decreased (Gluppe, Engh and Bo 2020).

Treatment strategies for pelvic floor dysfunction aim to enhance the pelvic floor's strength, relaxation, and coordination. These approaches encompass various exercises such as power, strength, endurance, and relaxation exercises, alongside techniques like electrical stimulation, biofeedback training, manual therapy, and behavioral education. Numerous studies have shown that pelvic floor physical therapy (PFPT) is highly effective in several aspects, including increasing pelvic floor muscle strength and endurance, reducing symptoms of incontinence, pelvic organ prolapse, and sexual dysfunction, as well as enhancing functional impairments and overall quality of life. In comparison to women who received general education, lifestyle advice, motivational phone calls, or no interventions, those who underwent PFPT exhibited significant improvements (Wallace, Miller and Mishra 2019). Specifically, women who received PFPT were found to be 5 to 8 times more likely to eliminate their symptoms of urinary incontinence. Furthermore, in cases where incontinence surgery was necessary,

preparatory and rehabilitative PFPT demonstrated the potential to enhance surgical success rates (Mazur-Bialy et al. 2020).

Physical therapists play a crucial role in evaluating and addressing prevalent postpartum health conditions like pelvic floor dysfunction (PFD) and diastasis recti abdominis (DRA), aiming to prevent persistent symptoms and enhance overall quality of life. However, several obstacles hinder women from accessing physical therapy care, including societal stigma surrounding women's health issues, limited awareness about the benefits of physical therapy, and certain healthcare policies. To overcome these barriers and provide better care, physical therapists can take proactive measures within their practices and communities. By actively engaging as integral members of a multidisciplinary team focused on postpartum care, therapists can contribute to improving the quality of treatment and support offered to women. Such efforts may have a positive ripple effect, promoting broader changes in the field of postpartum care (Critchley 2022).

Post-operative complications that may arise after gynecological surgery encompass issues such as chest infections, the potential strain on recently placed sutures, occurrences of deep vein thrombosis, wound infections, urinary tract infections, incontinence, and dyspareunia. Research conducted by Urbach et al. in 2006 indicated that the frequency of significant postoperative pulmonary complications subsequent to open abdominal surgery could be notably elevated, with rates reaching up to 53%. These findings underscore the importance of diligent postoperative care and monitoring to mitigate the impact of such complications on patient recovery and well-being.

For a long time, people have argued about whether exercise is good for women's reproductive health. They're not sure if it's safe or helpful during pregnancy. This argument happens because we don't fully understand what kind of exercise is best and how it affects pregnant women. Other things that make the argument include not knowing all the good things exercise can do for pregnant women, how much education they have, and where they come from (Edinah et al. 2018).

It's recommended that pregnant women who don't have medical problems should try to do around 30 minutes or more of moderate exercise every day. They can also exercise 3 to 5 times a week, with each session lasting 15 to 30 minutes at least (Aliyu et al. 2018).

The International Organization of Physical Therapists in Women's Health (IOPTWH) says that women's health physical therapy should follow the WHO definition of women's health and the five DHHS criteria. These criteria include what physical therapists do in women's health, like checking, treating, and teaching women through their lives. This also involves teaching physical therapy students and other health professionals, as well as the wider community. The things physical therapists should know in women's health, and the push for more research in this area, are also part of it. Physical therapists have different roles, like teachers, clinical experts, advisors, researchers, and managers. No matter the role, they look at the whole woman's health, including her body and feelings (IOPTWH, 2013)

Physical therapists can help pregnant individuals with pain by teaching them and using treatments. They can help with different kinds of discomfort during pregnancy like back pain, cramps in the calf muscles, carpal tunnel syndrome, and swollen veins (varicosities). One common type of discomfort is called PGP. It happens to about 63% of pregnant people around the 30th week of pregnancy, then 31% have it three months after giving birth, and 30% still have it one year after giving birth. It's important for pregnant people to know that physical therapists can assist them in feeling better during and after pregnancy (Robinson et al. 2014).

Providing care during pregnancy, known as antenatal care, is a crucial part of ensuring safe and healthy motherhood. The main aim is to offer the mother the best possible care, ensuring she can go through the final nine months of pregnancy without facing any issues (Sarfarz et al. 2013).

The Canadian Physiotherapy Association and the Society of Obstetricians and Gynecologists of Canada have worked together to create a shared official statement about how posture relates to women's health. This statement talks about the physical, mental, and surroundings-related things that influence how women hold their bodies from when

they're teenagers to after menopause. This statement also covers exercises that are good to do during pregnancy, like exercises for the pelvic floor, the core muscles, the abdomen, breathing, and aerobic fitness. It also mentions learning about posture and taking care of the back (Britnell et al. 2005).

Between 15% to 30% of pregnant women experience calf cramps. These cramps can happen because of pressure on the nerve roots, pain felt in another area but connected to the cramp, lack of blood flow to the nerves, or not having enough calcium or magnesium in the body (Fast et al. 2007)

Recently, it has been found that engaging in exercise with an intensity reaching 60% of the heart rate reserves during pregnancy, along with a gradual increase in intensity, can lower the chances of gestational diabetes. Physical activity while pregnant helps ease the discomfort felt by expectant mothers, readies the body for smoother childbirth, and decreases the likelihood of needing a cesarean section. Unfortunately, not enough people have good information about this, leading to its neglect. It's really important for pregnant women to have accurate information about this to encourage its adoption (Hashmi et al. 2020)

CHAPTER III METHODOLOGY

3.1 Study design

The study was conducted by cross sectional study to find out physiotherapists experience, perceptions and barriers in the management of pregnancy and postpartum related disorder. It was found to be an appropriate design to reach the goal. Cross-sectional studies assess exposure and health effects in a particular population and area during a specified time period. Furthermore, this research was both cost-effective and time-efficient for the researcher compared to conducting an experimental study.

3.2 Study site :

Data was collected from the physiotherapists who are practicing in Center for Rehabilitation of the paralysed (CRP) Mirpur and Savar branch.

3.3 Population and sample

Population: it is the set of all observable items or occurrences on which the research is conducted.

Sample: A sample is a representative part of a population (Hannan, 2016). For this research, study population are physiotherapists who had finished at least a Bachelor's degree in Physiotherapy (B.Sc.) from a university approved by the government or received further education and were actively practicing in a clinical setting. Data was collected from April 2023 to June 2023. Sample size was 90 which were selected randomly.

3.4 Sampling technique

The study utilized the convenient sampling technique as it proved to be the most feasible, inexpensive, and expeditious method of sample selection due to time limitation. The researcher used this procedure, because, getting of those samples whose criteria were concerned with the study purpose.

3.5 Sample Size Calculation : When the sample frame is finite, The equation of finite population correction in case of cross sectional study is:

n=z2p1-pd2

=(1.96)2×.5(1-.5) (0.05)2

= 384

Here,

n=Sample size

z= Confidence interval=1.96

p=50%=.5

And, d=0.05

The actual sample size was, n= 384

As it is an academic thesis, self-funding and data was collected in a limited time by considering the feasibility and time limitation 90 sample were collected conveniently.

3.6 Data collection tool :

A self-structured questionnaire with the help of previous study and under the supervision of my respected supervisor was selected to collect data. The questionnaire contain total 22 question along with some personal question. Which were related to the research. Some other necessary materials like pen, pencil, and white paper, clip board & note book were also needed.

3.7 Data collection Procedure :

Data was gathered using the self-administered answer technique, where participants completed the questionnaire themselves. Prior to data collection, the researchers provided a clear explanation of the study's objectives and purpose to the participants. Each

participant received an information sheet and a consent form, which they read thoroughly. They were given the opportunity to ask any questions related to the study and expressed their interest in participating by willingly signing the consent form. The data collection process took approximately 15-20 minutes for each individual. To gather the information, the participants were provided with a question paper, an informed consent form, a pen, a pencil, and a clipboard.

3.8 Pilot Study :

Before commencing the main data collection, a pilot study involving 5 participants was conducted. The pilot study served as a preparatory phase to refine the data collection procedure. It allowed the researchers to identify and address any challenges that might arise during questioning. Moreover, it facilitated the creation of a preliminary plan for structuring the questions and determining if any modifications were required for the questionnaire. Through the pilot study, the researchers gained valuable insights on how best to collect data and develop an effective approach for the actual data collection process.

3.9 Data analysis :

Descriptive statistics were used to analyze data. Descriptive statistics refers to methods of describing a set of results in terms of their most interesting characteristics (Hicks, 2009). Data were analyzed with the software named Statistical Package for the Social Science (SPSS) version 20.0. The variables were labeled in a list and the researcher established a 18 computer-based data definition record file that consist of a list of variables in order. The researcher put the name of the variables in the variable view of SPSS and defined the types, values, decimal, label alignment, and measurement level of data. The next step was cleaning new data files to check the inputted data set to ensure that all data has been accurately transcribed from the questionnaire sheet to the SPSS data view. Then the raw data were ready for analysis in SPSS. Data were collected on frequency and contingency tables. Measurements of central tendency were carried out using the mean plus standard deviation (SD) for variables. For the study of the association of numeric variables, chi-square tests were used. Data were analyzed by

descriptive statistics and calculated as percentages and presented using tables, bar graphs, pie charts, etc. Microsoft Office Excel 2019 was used to decorate the bar graph and pie charts. The results of this study have consisted of quantitative data. In this study, a lot of information was collected. The data was divided into two groups based on participants' willingness to offer interventions to women with pregnancy/postpartum-related disorders. To find the association between Physiotherapits's willingness to provide treatment with gender, training, experience, educational level, chi square test had used. In this study the level of significance is considered as 5% (p= <.05).

3.10 Inclusion Criteria:

- Physiotherapists who have achieved a minimum of a Bachelor's degree (B.Sc.) in their field.
- Physiotherapists who have experience more than 1 year.
- Physiotherapist who were working in musculoskeletal, pediatric, neurology, spinal cord injury, cardiorespiratory and women's health unit.
- The age range of eligible physiotherapists is 25 years and above.
- Both male and female are included.

3. 11 Exclusion Criteria :

- Physiotherapists those are unwilling to participate

3.12 Ethical Consideration :

The researcher adhered to ethical considerations throughout the study. They followed the guidelines set by the Bangladesh Medical Research Council (BMRC) and the World Health Organization (WHO) for conducting research. The research proposal was submitted to the physiotherapy department of BHPI for approval, which was granted by the faculty members and supervisors of the project, as well as the course coordinator. The Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) reviewed and approved the dissertation proposal and methodology through an oral presentation defense. Prior to involving participants in the study, they were informed about the research and invited to participate. Each participant gave written consent, and

they were clearly informed about their rights and the study's objectives. The researcher ensured that the study did not disrupt the organization (CRP) in any way. Maintaining strict confidentiality, the researcher made sure that no sensitive information was disclosed. The researcher also familiarized themselves with the academic and clinical rules regarding the study's conduct. Participants' rights were protected, and the researcher was accountable for addressing any study-related inquiries from the participants.

3.13 Informed Consent :

Prior to completing the questionnaire, all participants provided written consent. The investigator thoroughly explained their role in the study to each participant. Each participant signed a consent form, confirming their understanding and voluntary participation. The participants were assured that their involvement was entirely voluntary and that their information would be kept confidential.The investigator emphasized that the study posed no harm to the participants. Additionally, the participants were informed that there might be direct benefits for them resulting from their participation. To safeguard confidentiality, the information collected from the study was coded anonymously and would not be personally identified in any publications presenting the study's findings.

3.14 Rigor of the study :

The study was conducted with a strict and systematic approach, ensuring its rigor. Care was taken to maintain a clean and organized environment during data collection. Participants' responses were gathered without any influence from the researchers' experiences, and both positive and negative impressions were accepted without bias. The questions posed to the participants were neutral and not suggestive in any way. To prevent errors, participant information was accurately coded and carefully reviewed by the supervisor. Confidentiality was paramount throughout the study, and all information was handled discreetly. In the results section, personal interpretations were avoided to maintain objectivity.

CHAPTER IV RESULT

4.1 Socio-demographic charecteristics of the participant

Socio-demographic characteristics of the participant include age, Gender, clinical setting.

Table 1: Sociodemographic charecteristics of the participant

Variable	Frequency	Percentage
Age		
25-30 years	23	77%
31-35 years	4	13%
36-40 years	3	10%
Gender		
Male	4	13%
Female	26	87%
Clinical Setting		
CRP, Mirpur	60	67%
CRP, Savar	30	33%

4.1.1 Age of the participant

Among the participant ,77% (n=23) participants' age group was 25 to 30 years. 13% (n=4) participants' age group was 31 to 35. 10% (n= 3) participants' age group was 36 to 40.

4.1.2 Gender of the participant

Among the participant, male was 61% (n=55) and female was 39% (35).

4.1.3 Clinical setting

Among the participant 67% (n= 60) are from CRP, Mirpur and 33% are from CRP, Savar.

4.2 Gender of the participant who have experience in treating pregnancy and post-partum related disorder

Among the participant who have experience in treating pregnancy and post-partum related disorder, male was 13% and female was 87%.

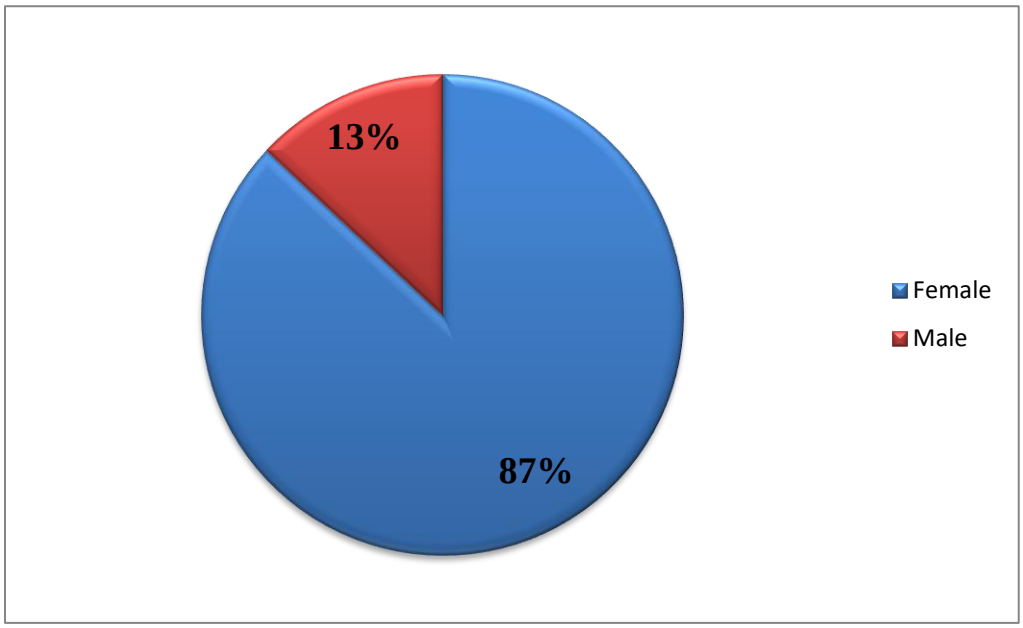


Figure 1: Gender of the participant who have experience in treating pregnancy and post-partum related disorder.

4.3 Highest level of education of the participant who have experience in treating pregnancy and post-partum related disorder

Among the participants with experience in treating pregnancy and postpartum-related disorders, 63% (n=19) hold a Bachelor's degree (BPT), 13%(n=4) have a Master's degree (MPT), and 23% (n=7) have completed an Associate degree, such as MDMR or MPH.

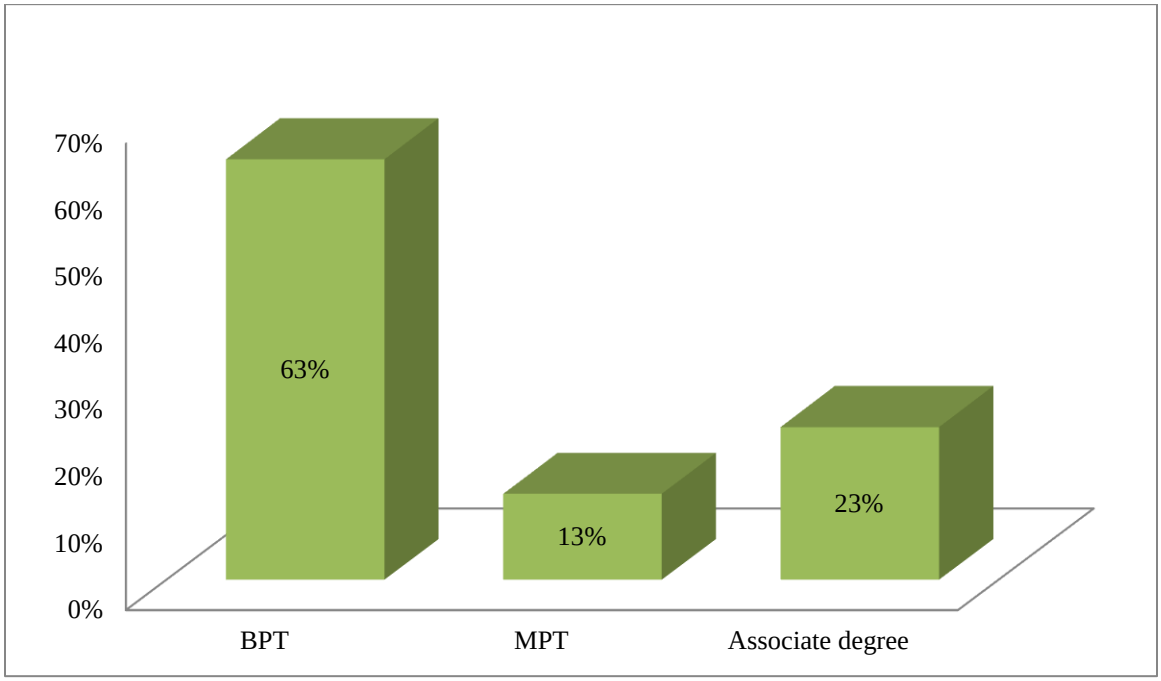


Figure 2: Educational level of the participant

4.4 Experience of participant in treating pregnancy and post-partum related disorder

Among the 90 participant, 33% has experience in treating pregnancy and post-partum related disorder. Having a considerable portion of the participants with this specialized experience indicates the importance of addressing pregnancy and postpartum health concerns within the context of the broader study or discussion.

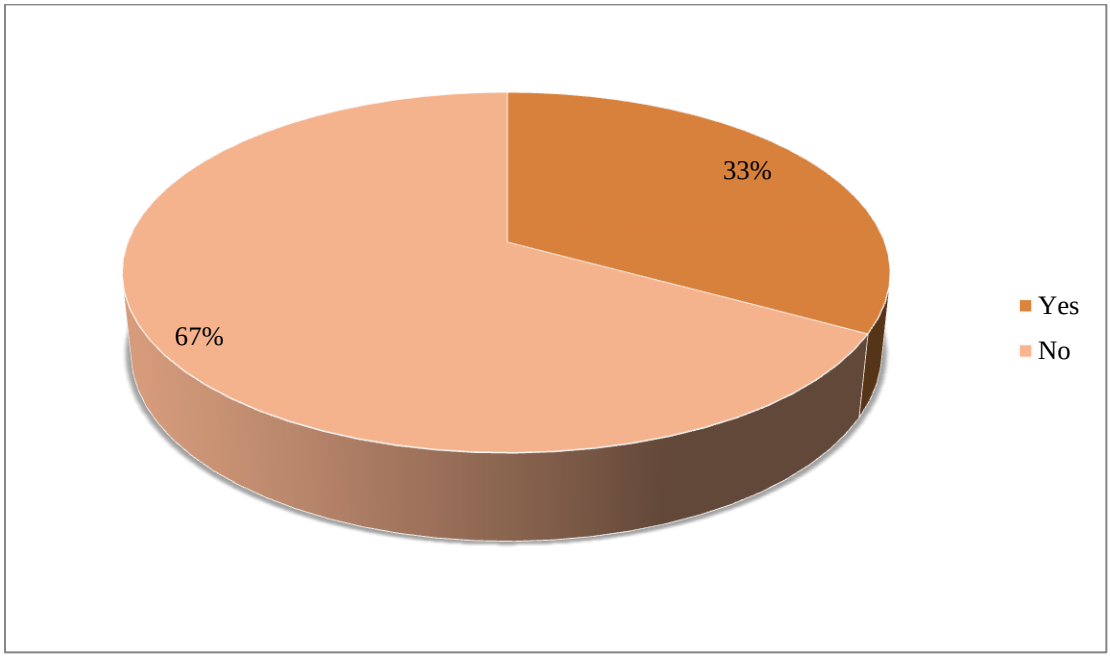


Figure 3: Experience of participant treating pregnancy and post-partum related disorder.

4.5 Willingness of participant providing treatment

Out of all the participants, 40% express their willingness to offer treatment to antepartum and postpartum patients. These participants show a readiness and openness to provide medical care and support to women during both the stages of pregnancy and the period following childbirth. The high percentage of participants willing to provide treatment to antepartum and postpartum patients is encouraging.

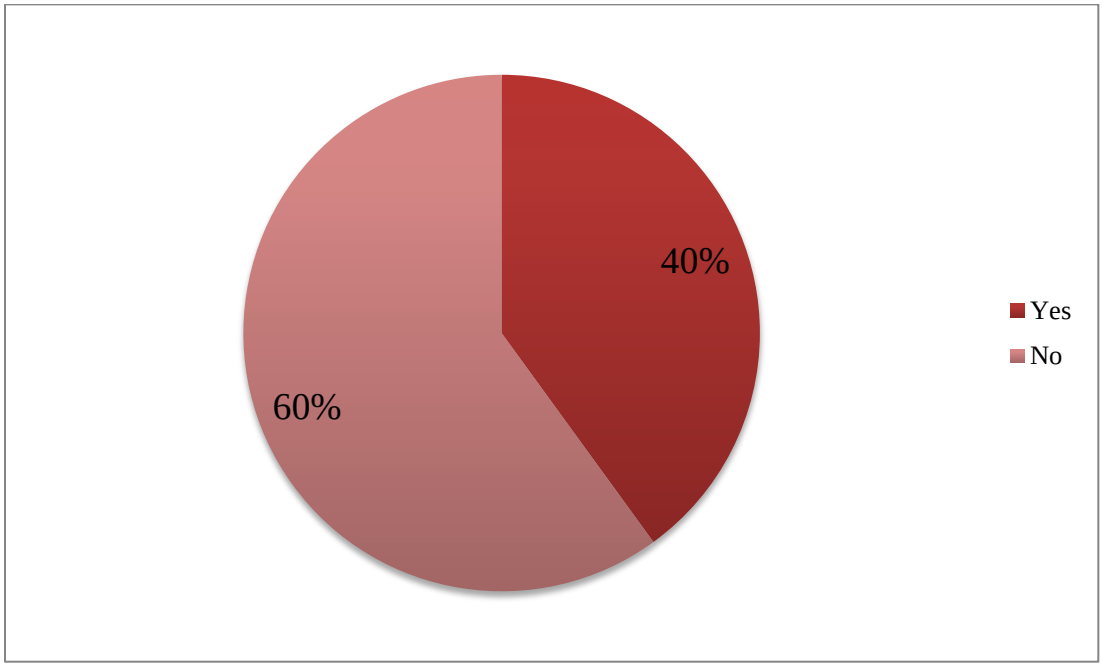


Figure 4: Willingness of participant to provide treatment

4.6 Time of experience in treating pregnancy and post-partum related disorder

Among the attendees, 93% of the physiotherapists possess a background in managing pregnancy and postpartum-related conditions, with a range of experience spanning from 1 to 5 years. In addition, a mere 3% (n=1) boasts a professional history of 6 to 10 years in this domain, while another 3% (n=1) offers extensive expertise spanning 11 to 15 years. This diverse range of experience levels ensures a well-rounded and knowledgeable cohort capable of addressing a variety of pregnancy and postpartum concerns.

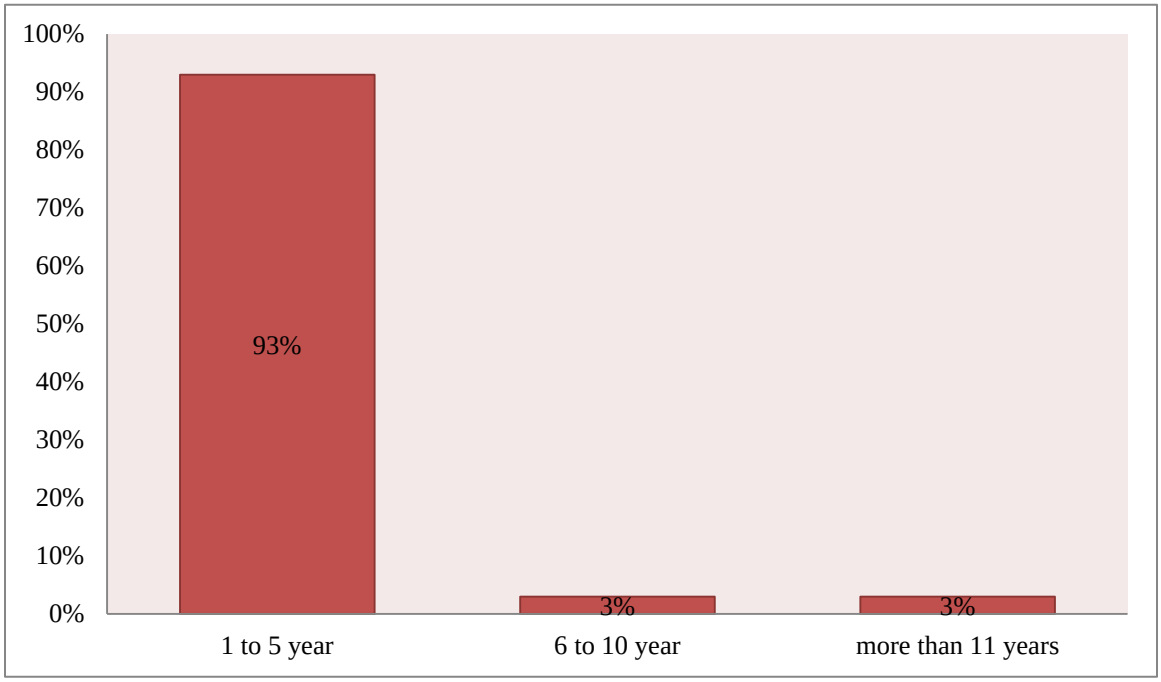


Figure 5 : Experience of physiotherapists in treating pregnancy and post-partum related disorder.

4.7 Receiving training after graduation

Out of the individuals taking part, 77% (n= 23) have undergone additional instruction in gynecology and women's healthcare subsequent to their graduation, while the remaining 23% (n=7) have not pursued any further training after completing their initial education. Currently, numerous training sessions are being conducted within the realm of physiotherapy in the field of gynecology. With over fifty percent of the attendees actively engaging in these instructional programs. This surge in participation underscores the contemporary significance of staying informed and up-to-date in this dynamic field, fostering a community of healthcare professionals dedicated to advancing their knowledge and skills.

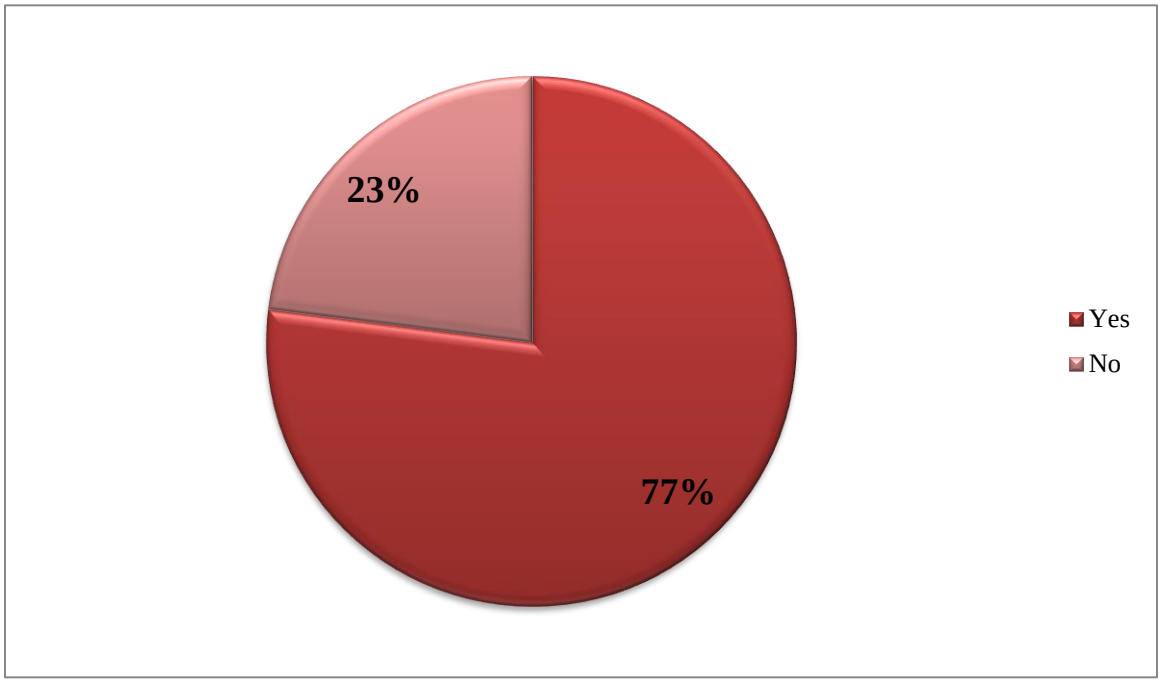


Figure 6: Receiving training after graduation

4.8 Receiving training as a part of university education

Within the group of participants, a substantial 73% (n=22) have pursued physiotherapy in Gynecology field related education during graduation. Conversely, a minority of 27% (n=8) either lack any form of relevant education or find the education they have received insufficient for their needs. This divide in educational background highlights the potential diversity of perspectives and experiences within the cohort, promising enriching discussions and the chance to bridge the knowledge gap during this event.

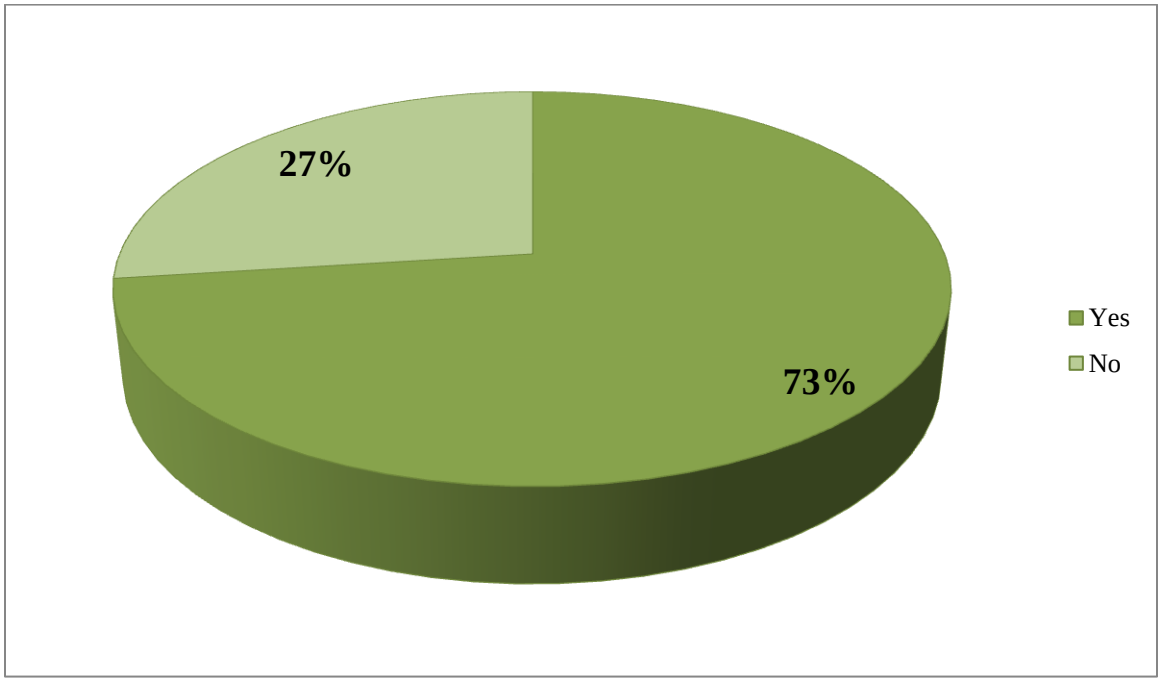


Figure 7 : Receiving training as a part of university education

4.9 Predominantly practicing area

In the attendee pool, the largest portion, constituting 47% (n=6), is engaged in the musculoskeletal department, followed by 20% (n=6) in the neurology department, 10% (n=3) in the Gynecology and women's health care department, another 10% (n=3) in the pediatric department, and 6% (n=2) each in the SCI department and from different organizations. Notably, the musculoskeletal department holds the highest number of participants experienced in managing pregnancy and postpartum-related disorder.

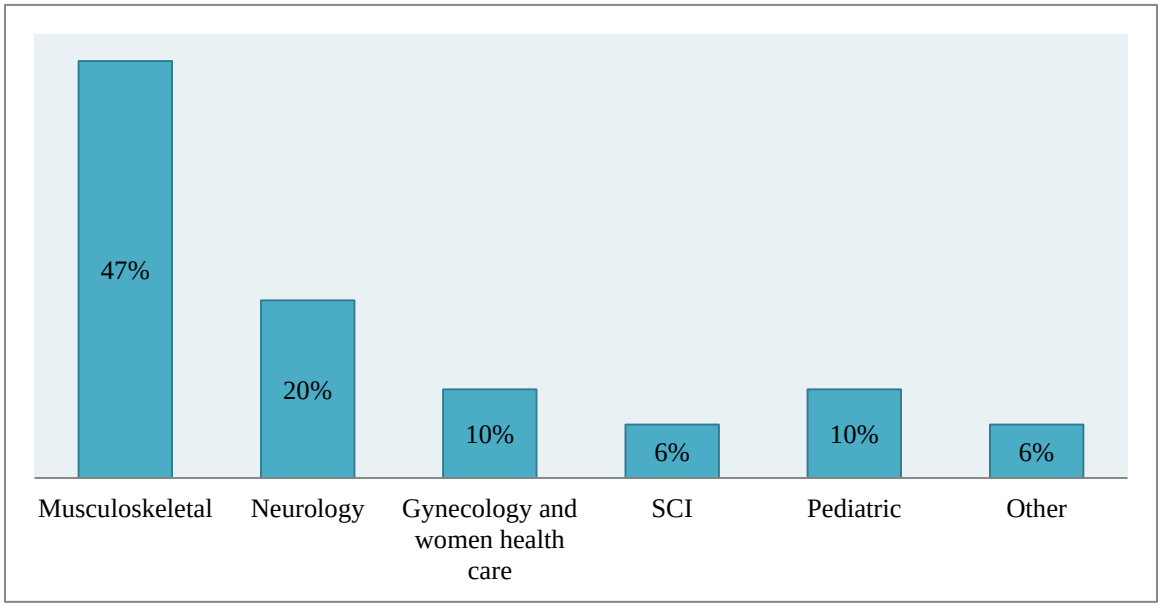


Figure 8 : Predominantly practicing area

4.10 New antepartum and postpartum patient treated per month

In the group of participants, 37% (n=11) indicated that their caseload involved treating fewer than 5 new antepartum and postpartum patients each month, while a majority of 63% (n=19) reported managing 5 to 9 patients on average per month. Notably, a significant portion of these professionals observed that they generally encounter a higher number of postpartum patients compared to antepartum patients. This distribution of patient numbers sheds light on the frequency and balance of cases these practitioners handle, which will likely contribute to valuable discussions about patient care strategies during the event.

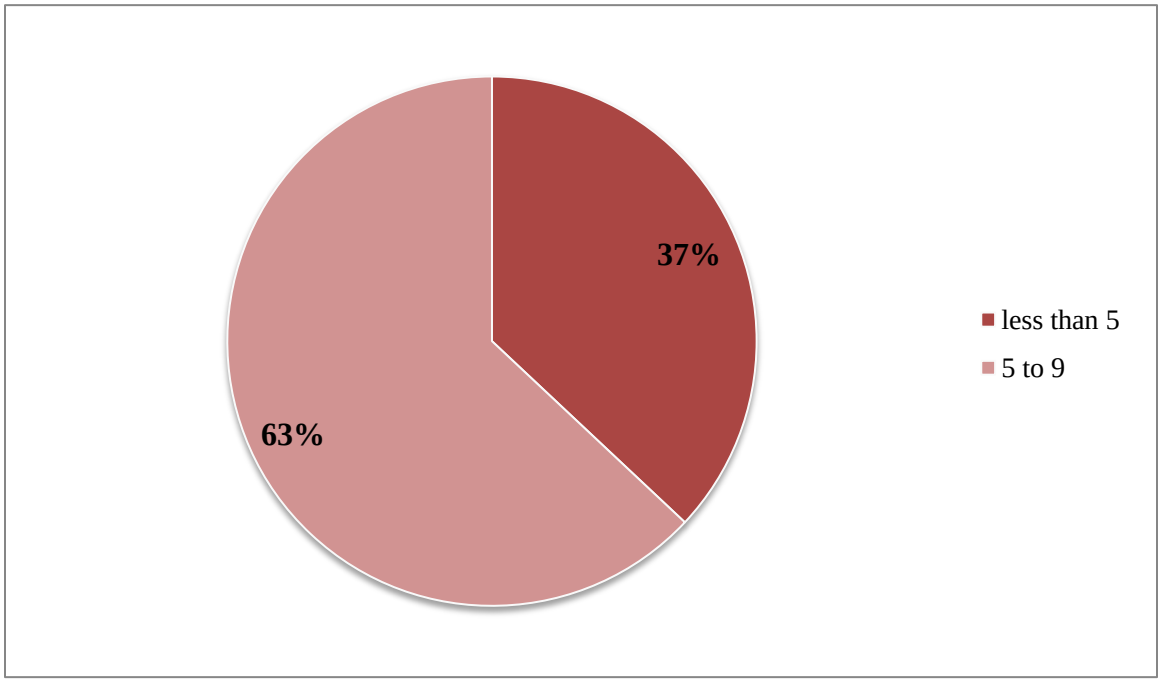


Figure 9: New antepartum and post-partum patient treated per month

4.11 Follow up antepartum and post-partum patient treated per month

Within the participant group, 20% (n=6) reported overseeing fewer than 5 follow-up patients, while a larger segment of 60% (n=18) stated they manage an average of 5 to 9 follow-up patients. Additionally, 10% (n=3) indicated their involvement with 10 to 19 patients, and a minority of 7% (n=2) mentioned handling more than 19 follow-up patients on average. This distribution highlights a noteworthy trend: physiotherapists tend to oversee a higher number of follow-up patients compared to the count of new antepartum and postpartum patients**.**

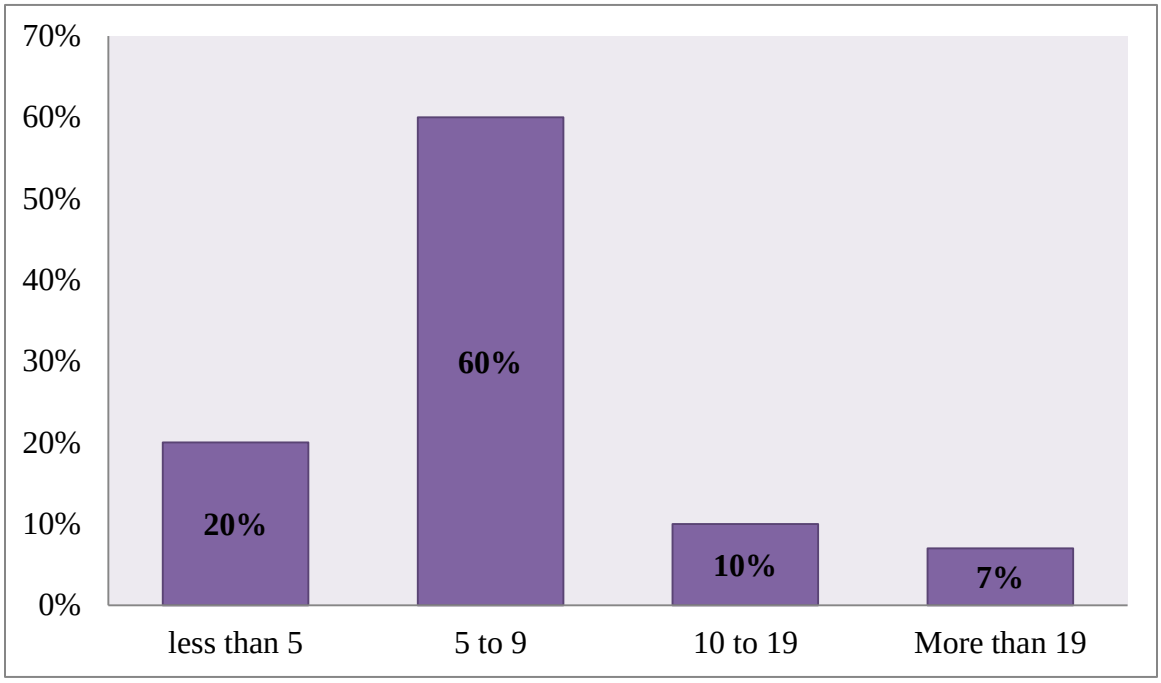


Figure 10**:** Follow up antepartum and post-partum patient treated per month

4.12: Intervention provided by physiotherapists

Table 2 : Intervention provided physiotherapists

Intervention	Frequency	Percentage
Therapeutic exercise	3	10%
Manual Therapy	2	7%
Therapeutic exercise+ Manual education+ Health education+ Modality	12	40%
Health education+Therapeutic exercise+ Modality	13	43%

Specifically, 43% (n=13) reported employing a combination of therapeutic exercise, manual therapy, and health education. Meanwhile, 40% (n=12) indicated using therapeutic exercise along with modalities and health education. A smaller group of 10 using therapeutic exercise, and 7% choose manual therapy for treatment purpose.

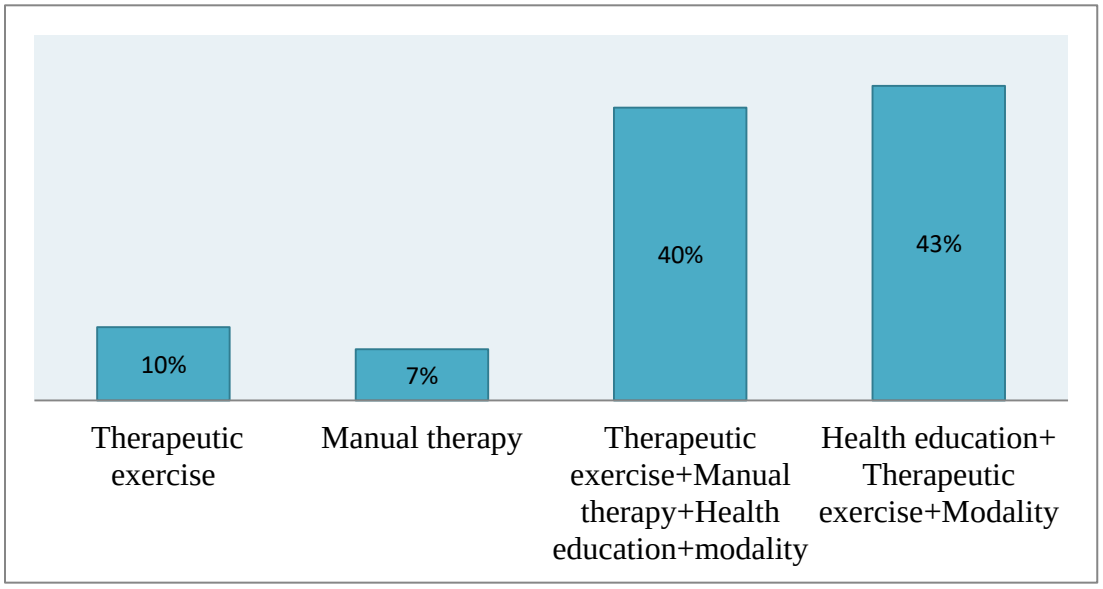


Figure 11 : Intervention provided by physiotherapists

4.13 Most common type of pregnancy and post-partum related disorder

A significant portion of participants gravitate towards multiple disease conditions as the most prevalent types. Merely 3% (n=1) identified pelvic floor dysfunction as the primary ailment, while 6% (n=2) cited breast problems, and 20% highlighted low back pain as the most common condition. In addition, 3% (n=1) pointed to bladder dysfunction, while another 6% (n=2) referred to diastasis recti. Singular mentions were made for carpal tunnel syndrome, urinary incontinence, and a mix of low back pain with diastasis recti and urinary incontinence, each representing 3% (n=1). A more complex combination of low back pain, diastasis recti, urinary incontinence, and bladder dysfunction emerged as the most common condition for 10% (n=3), while 13% (n=4) characterized low back pain, bladder dysfunction, pelvic floor dysfunction, and urinary incontinence as the predominant disease set. Furthermore, 6% specified a combination of pelvic floor dysfunction, low back pain, and diastasis recti, and an equal percentage attributed the highest prevalence to low back pain paired with urinary incontinence. Lastly, 6% detailed a composite condition comprising low back pain, pelvic floor dysfunction, bladder dysfunction, urinary incontinence, and diastasis recti.

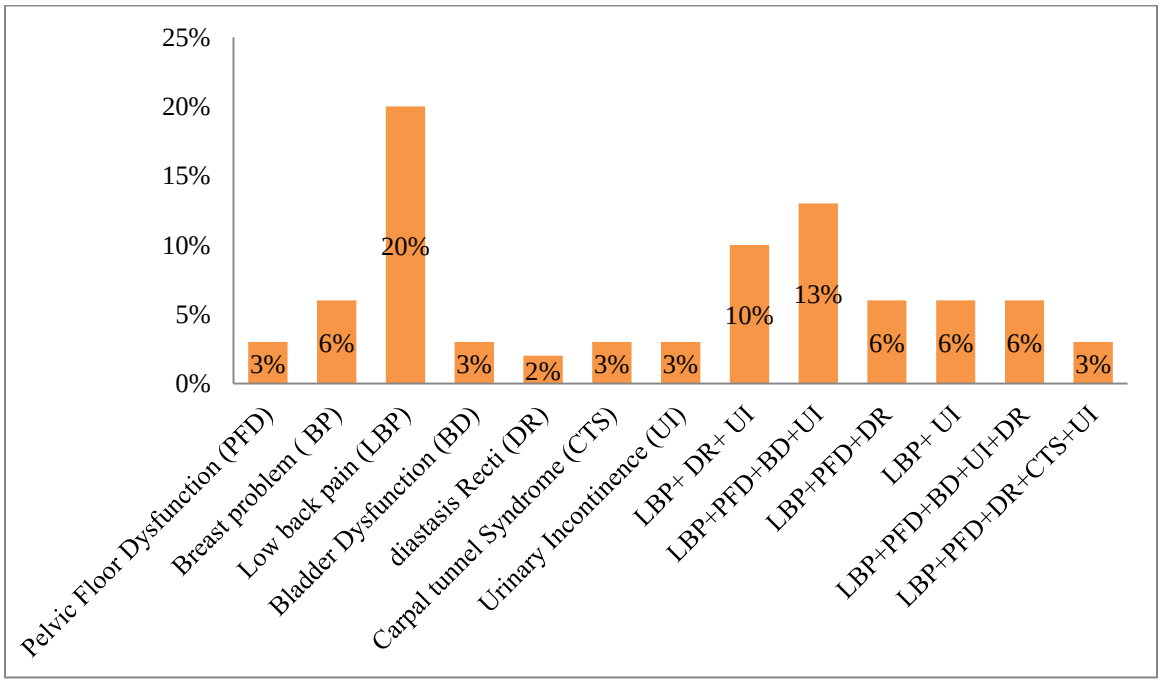


Figure 12 : Most Common Type of Disorder

4.14 Treatment session required on average

Within the participant cohort, a notable 47% (n=14) of respondents conveyed that patients typically necessitate 1 to 5 sessions on average. Meanwhile, 37% (n=11) indicated that a range of 6 to 12 sessions is commonly required. A smaller portion, comprising 13% (n=4), cited a higher range of 13 to 18 sessions as the norm, with a solitary 3% (n=1) mentioning cases where patients need more than 18 sessions. This distribution underscores the varying treatment requirements among patients, reflecting the diverse nature of conditions and individual needs in the field. The wide spectrum of responses enriches the understanding of patient management strategies and expectations shared during the event.

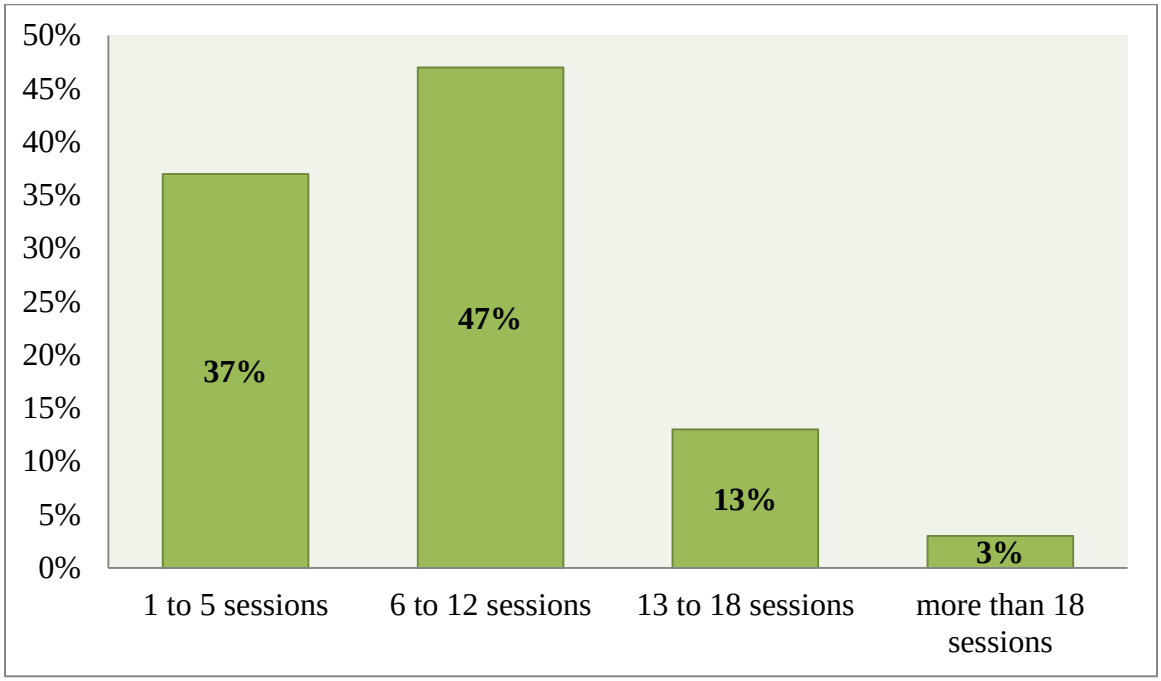


Figure 13 : Treatment session required by physiotherapist on average.

4.15 Confidence of physiotherapists in treating pregnancy and post-partum related disorder:

Within the participants, half of the respondents expressed a moderate level of confidence when delivering treatments, while 47% (n=14) conveyed a considerable level of confidence in their approach. A minor 3% noted an exceptionally high level of confidence in providing treatment. This spectrum of confidence levels sheds light on the varying degrees of assurance participants feel in their therapeutic practices, adding depth to the discussions and shared insights during the event.

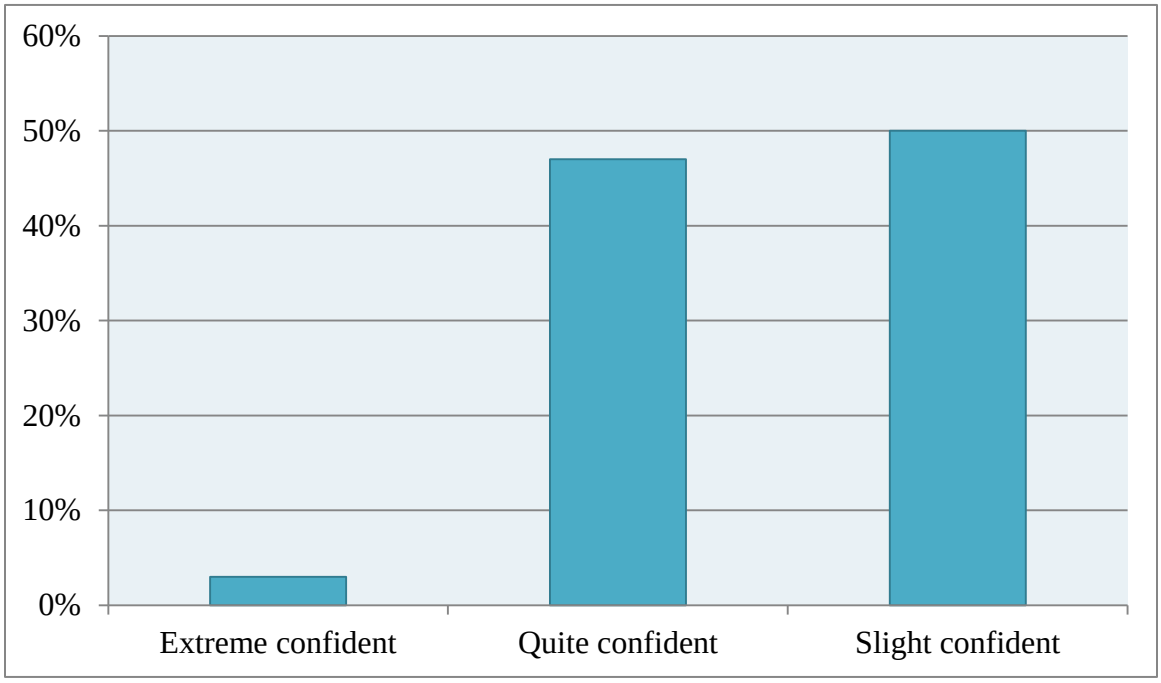


Figure 14 : Confidence of Physiotherapists

4.16 Referral System In Gynecology field of Physiotherapy

In the participant group, 37% (n=11) reported that patients seek treatment for themselves directly. Additionally, 20% (n=6) mentioned that patients are referred to them by Obstetric and Gynecology professionals. A mere 3% (n=1) specified patient referrals from Neurology. Furthermore, 13% (n=4) noted patient referrals coming from a combination of general medicine, Obstetric & Gynecology professionals, and self-referral. Another 7% (n=2) indicated patient referrals originating from both Orthopedics and Obstetrics and Gynecology. This array of patient sources reflects the multidisciplinary nature of the participants' practice and sets the stage for engaging conversations on referral patterns during the event.

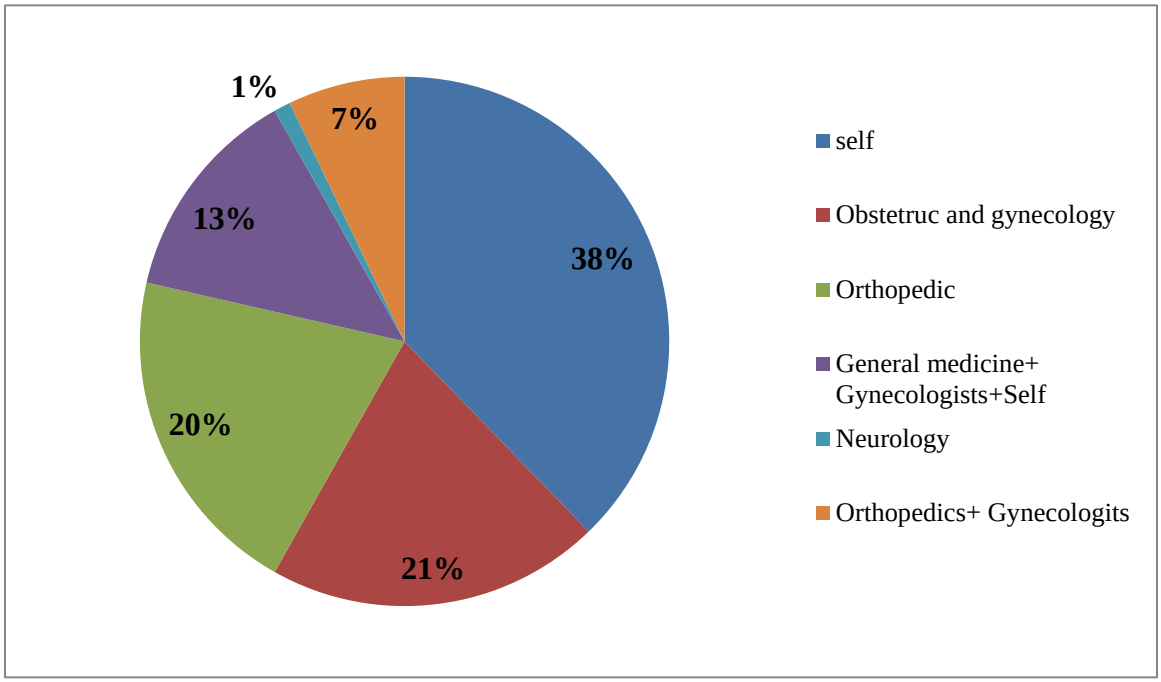


Figure 15 : Referral system in Gynecology field of Physiotherapy

4.17 Perceptions of physiotherapists regarding training :

Among the participant, a significant majority of 80% (n=24) affirmed that their training has effectively equipped them to handle certain pregnancy and post-partum related disorders. A notable 17% (n=5) expressed confidence in their training, stating it adequately prepared them for addressing all pregnancy and post-partum related conditions. Conversely, a minor 3% (n=1) indicated that their training fell short in adequately preparing them to manage pregnancy and post-partum related disorders.

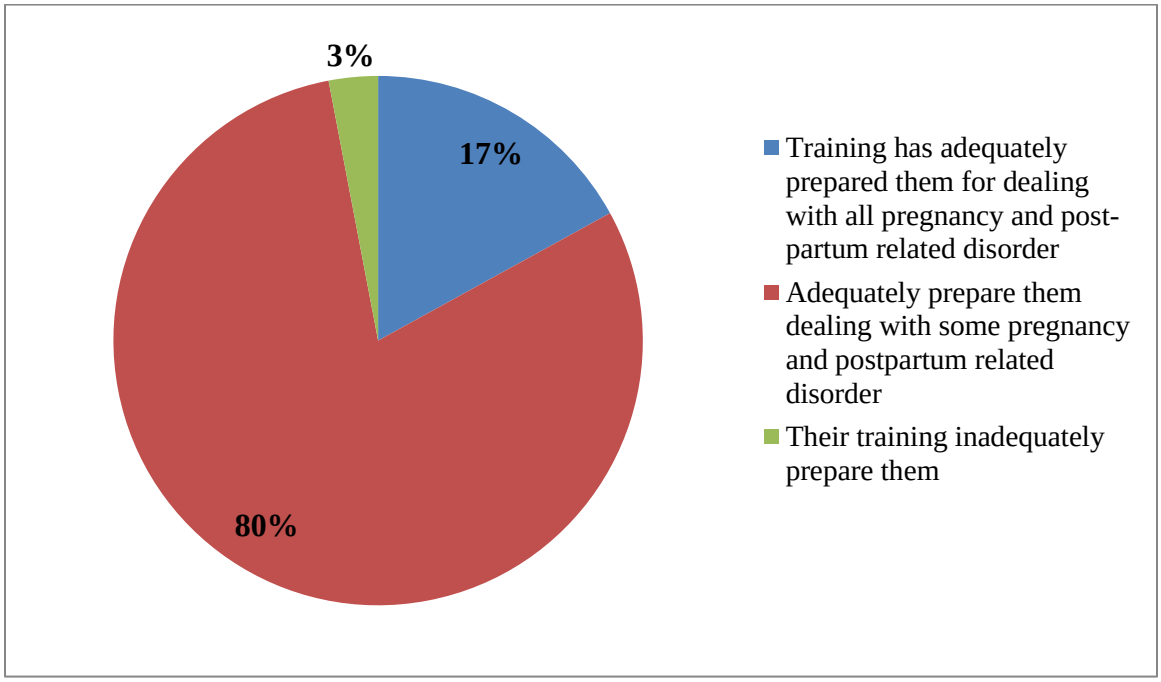


Figure 16 : Perceptions of physiotherapists Regarding training

4.18 Necessity of training in the field physiotherapy in Gynecology

Within the participant cohort, an overwhelming 97% (n=2) emphasized the necessity of specialized training in the field of Physiotherapy in Gynecology. In contrast, a mere 3% (n=1) expressed the view that they do not deem additional training essential, given the proliferation of comprehensive training programs available today.

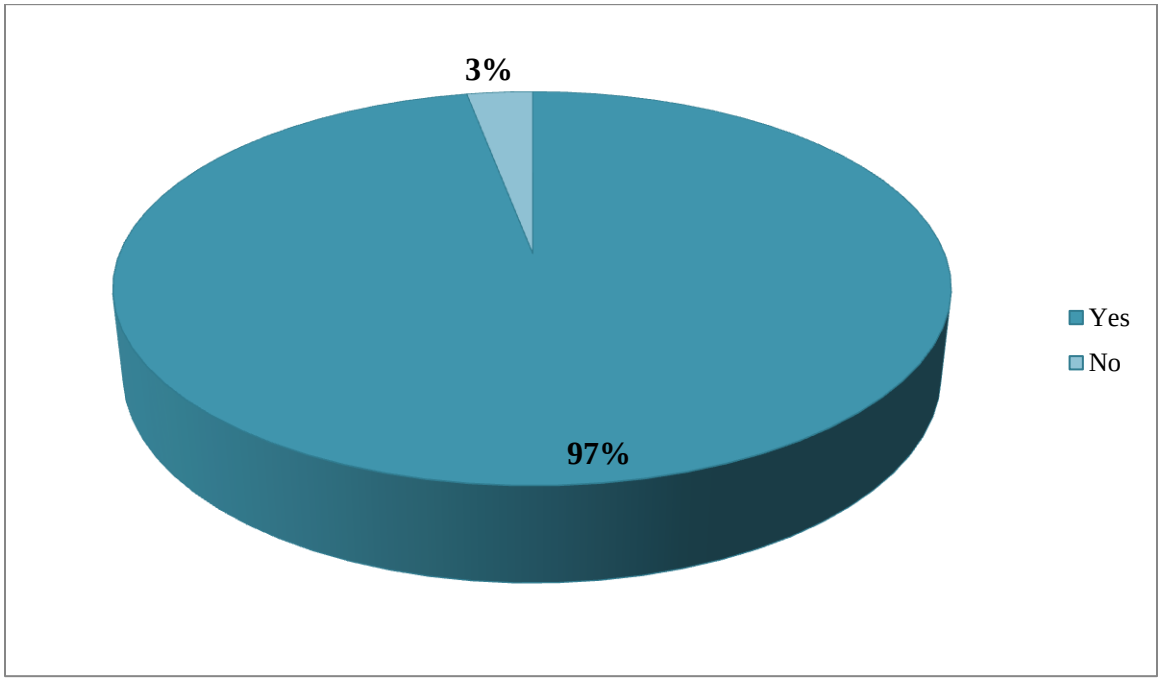


Figure 17 : Necessity of training in the field of Physiotherapy in Gynecology

4.19 Strategy to improve physiotherapy in Gynecological field

Among the participants, the majority have opted for multifaceted strategies to enhance physiotherapy in the gynecology field. A notable 23% (n=3) emphasized the need for improved training facilities to augment knowledge and skill. In contrast, a minority of 3% (n=1) expressed the viewpoint that focusing solely on enhancing the referral system would suffice. The largest proportion of participants, comprising 27% (n=8), favored a combination of strategies involving the referral system, training facilities, and a designated private area for discussions as the most effective approach to enhance physiotherapy in the gynecology field. This diversity in viewpoints underscores the complex nature of improving practices in the field, and the event provides an opportunity to explore and discuss these varied strategies in depth.

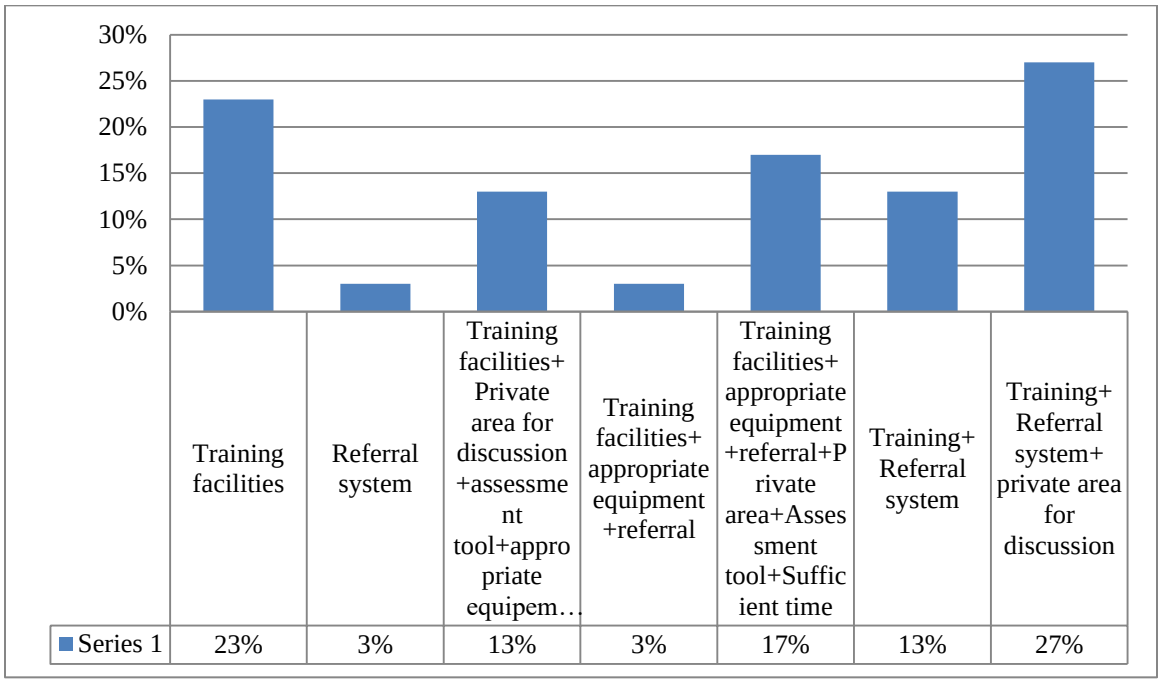


Figure 18 : Strategy to improve physiotherapy in Gynecolgical field

4.20 Barriers facing by physiotherapists

Nearly all participants acknowledged encountering obstacles in their treatment provision. A substantial number of physiotherapists pointed out that the primary barrier arises from women's insufficient awareness of PT management within the Gynecological field. Additionally, they noted the lack of a clear referral pathway and inadequate facilities as contributing factors. This collective recognition of barriers highlights the challenges faced by practitioners and underscores the need for targeted discussions to address these issues during the event. Sharing insights and strategies can pave the way for more effective patient care in the gynecological realm.

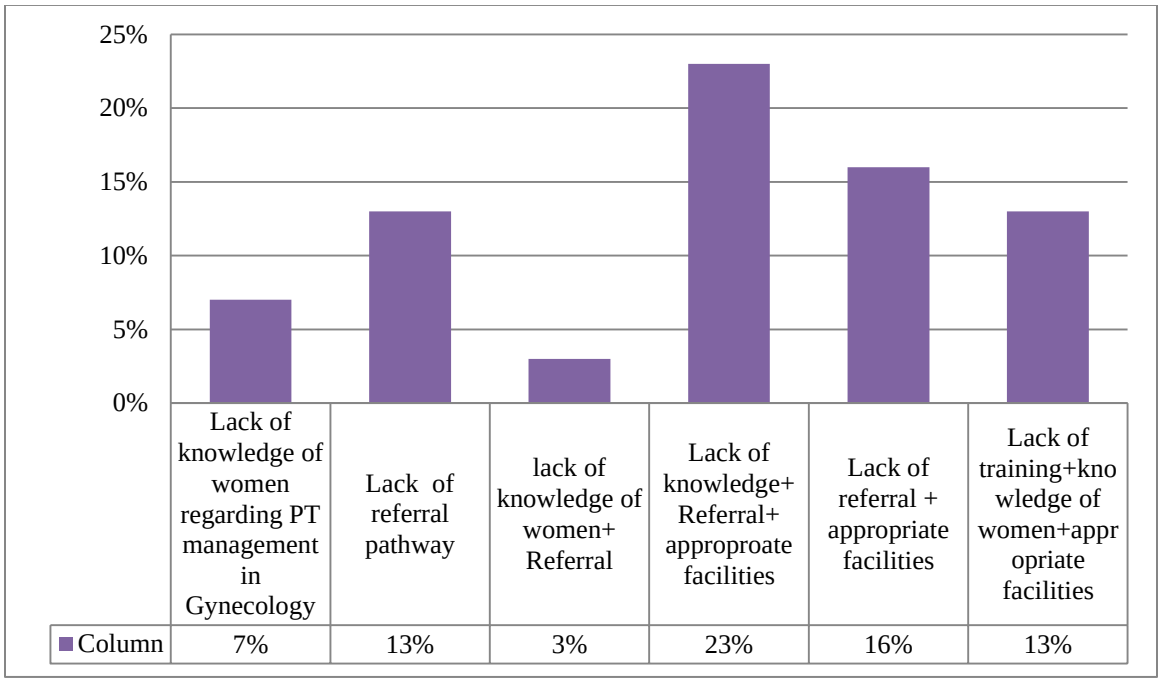


Figure 19 : Barriers facing by physiotherapists

4.21 Physiotherapists interest in conducting research

The majority of participants displayed favorable attitudes towards Physiotherapy in the Gynecology field. A significant 90% (n=27) expressed a keen interest in engaging in research within this domain. However, a smaller fraction of 10% (n=3) indicated that they lacked the inclination for conducting research in this specific field. This overall positive attitude toward research reflects a commitment to advancing knowledge and practices in the intersection of physiotherapy and gynecology, setting a promising tone for the event's discussions and knowledge-sharing sessions.

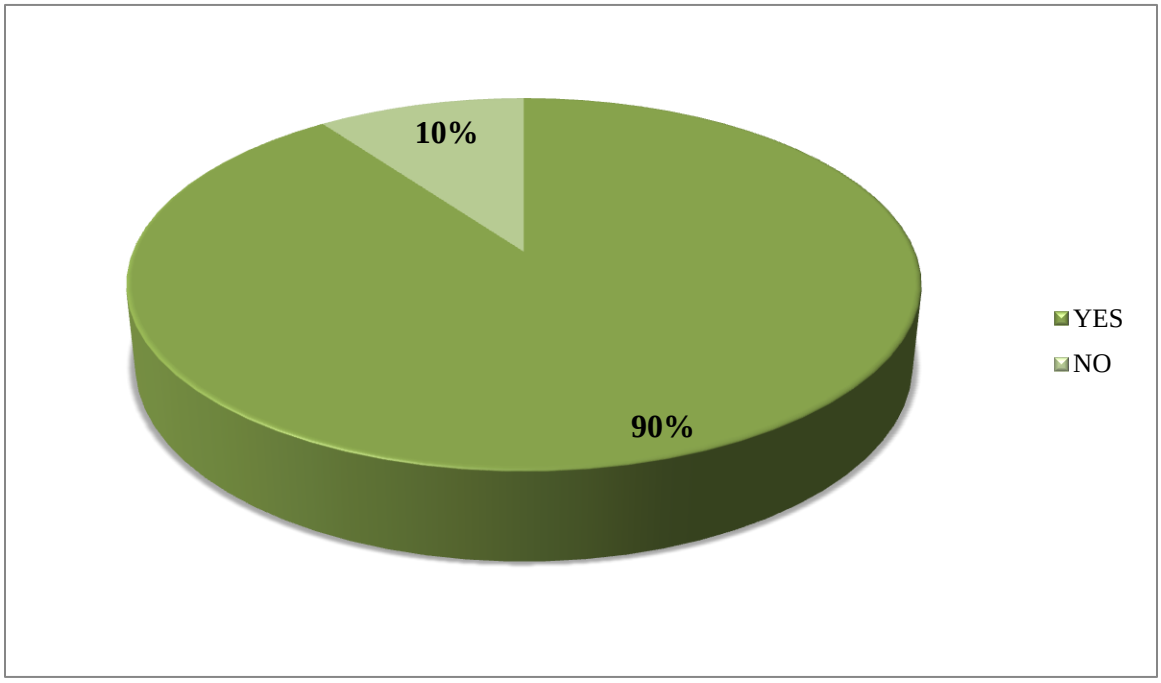


Figure 20 : Physiotherapists interest in conducting research

4.22 Association of socio-demographic factor with willingness of physiotherapists to provide treatment

This table demonstrate Association of sociodemographic factor (age, gender, clinical setting) with willingness of physiotherapists to provide treatment.

Table 3 : Association of socio-demographic factor with willingness of physiotherapists to provide treatment

Variables	Willingness to provide treatment		Pearson Chi square co efficient value ($\chi 2$)	P value
	Yes (n)	No(n)		
Age			.652	.722
25-30y	21	2		
31-35y	4	0		
35-40y	3	0		
Gender			63.117	**.000***
Male	4	51		
Female	32	3		
Clinical setting			8.532	**.003***
CRP, Mirpur	29	31		
CRP, Savar	5	25		

***=significant [p<0.05]**

4.23 Association between the physiotherapists willingness to provide treatment with receiving training after graduation

Null (H0): There has no association between Physiotherapists willingness to provide treatment with training.

Alternative Hypothesis (HA) : there is association between physiotherapists willingness to provide treatment with Training.

Test assumption:

In case of Pearson chi square,

1. Two categorical variables including two or more subcategory

2. 0-1 cells (0%-20%) have expected count less than 5.

In case of Fisher's exact test if

1.Expected frequency is <5, cell count is more than 20%

Level of significance (α value < .05)

Table:4 Association between the physiotherapists willingness to provide treatment with Training

Variables	Receiving training after graduation and post graduation		Pearson Chi square co efficient value ($\chi 2$)	Significant value (P value)
Willingness to provide treatment	**Yes**	**No**		
1. Yes	23	5	7.041	.008
2. No	0	2		

α value is 0.05. P value is statistically significant if it is less than α value and alternative hypothesis is accepted. If P value is greater than α value then null hypothesis is accepted.

Result: This table show association between willingness of physiotherapists to provide treatment with Training. P value is less than .05 so there is association between willingness to provide treatment with Training.

4.24 Association between the physiotherapists willingness to provide treatment with Experience of treating pregnancy and post-partum related disorder

Null (H0): There has no association between Physiotherapists willingness to provide treatment with training.

Alternative Hypothesis (HA) : there is association between physiotherapists willingness to provide treatment with Training.

Test assumption:

In case of Pearson chi square,

1. Two categorical variables including two or more subcategory

2. 0-1 cells (0%-20%) have expected count less than 5.

In case of Fisher's exact test if

1.Expected frequency is <5, cell count is more than 20%

Level of significance (α value < .05)

Table-: 5 Association between the physiotherapists willingness to provide treatment with Experience of treating pregnancy and post-partum related disorder

Variables	Having experience in treating pregnancy and post-partum related disorder		Pearson Chi square co efficient value ($\chi 2$)	Significant value (P value)
Willingness to provide treatment	Yes	No	59.080	.000
1. Yes	28	6		
2. No	2	54		

α value is 0.05. P value is statistically significant if it is less than α value and alternative hypothesis is accepted. If P value is greater than α value then null hypothesis is accepted.

Result: This table show association willingness of physiotherapists to provide treatment with Experience. P value is less than .05 so there is association between willingness to provide treatment with Experience of treating pregnancy and post-partum related disorder.

CHAPTER V DISCUSSION

The objective of this research is to explore and analyze the obstacles and supporting factors that physiotherapists therapists perceive when providing care during both the antepartum and postpartum periods. Additionally, the study aims to pinpoint the factors that influence physiotherapists' readiness to recommend interventions for conditions related to pregnancy and the postpartum phase. The study aims to shed light on potential improvements to antepartum and postpartum care provided by physiotherapists.

According to the survey conducted in Bangladesh, it was found that only one third, specifically 33%, of physiotherapists had previous experience in providing care to antepartum or postpartum women. In cases involving women with pregnancy or postpartum-related disorders, it was common for physiotherapists to implement multimodal treatment approaches. Additionally, the study revealed that the majority of physiotherapists demonstrated a positive attitude towards treating these conditions. This findings consistant with the previous result (Lin et al. 2022).

Among the participants with prior experience in treating pregnancy and postpartum-related disorders, a significant 77% had undergone additional training after their graduation. However, it was observed that the majority, approximately 50%, exhibited only a slight to quite level of confidence when delivering treatment for these conditions. These findings suggest that although a considerable number of physical therapists received specialized training in antepartum and postpartum care after completing their formal education, there remains a notable proportion who feel less confident in their abilities to provide effective treatment for pregnancy and postpartum-related disorders. This indicates a potential need for further professional development and support to enhance the competence and self-assurance of physical therapists in managing these specific health concerns. In contrast to another study they found that a significant number of therapists lacked access to specialized training or education focused on antepartum and postpartum care (Senat et al. 2016). Over 50% of the participants expressed confidence in their training, believing that it had adequately equipped them to handle certain

pregnancy and postpartum-related disorders. However, it was evident that additional training is still necessary for therapists to acquire a comprehensive understanding of these conditions.

opportunity to pursue courses or specialized training in antepartum and postpartum care after completing their qualifications were more likely to offer physical therapy services for women with pregnancy and postpartum-related disorders. These findings highlight the importance of continuous professional development and specialized training for physical therapists in the context of antepartum and postpartum care. While some therapists may feel adequately prepared based on their initial training, there is a growing body of knowledge in this area, and additional training can help them stay up-to-date with the latest evidence-based practices and interventions.

Nearly all of the participants in the study reported encountering obstacles when delivering treatment for pregnancy and postpartum-related disorders. The most commonly cited barriers included a lack of a clear referral pathway, insufficient awareness among women about physiotherapy in the gynecology field, and inadequate availability of suitable facilities. These challenges collectively pose significant impediments to the seamless delivery of physical therapy services for pregnant individuals and those in the postpartum phase. This result similarly line with previous research (Lin et al. 2022).

By integrating physical therapists into the antepartum and postpartum care team, there is an increased likelihood of addressing both the specific musculoskeletal challenges and the broader physical well-being of women during and after pregnancy. This holistic approach can lead to better management of pregnancy-related pain, improved postpartum recovery, and enhanced overall quality of life for women in this critical stage of their reproductive journey (Ickovics et al. 2019).

Additionally, the survey findings revealed that the willingness of physiotherapists to provide treatment for antepartum and postpartum-related disorders is associated with factors such as training, gender, and experience. However, the study did not identify any significant association between the willingness to provide treatment and the educational

level of physiotherapists. These results highlight the importance of ongoing professional development and specialized training for physiotherapists in the context of antepartum and postpartum care. Therapists who received specific training in this field may demonstrate a higher level of readiness and confidence in offering effective interventions for pregnant individuals and those in the postpartum phase. Additionally, the impact of gender and experience on willingness suggests that individual characteristics and experiences may play a role in shaping therapists' attitudes towards providing care for pregnancy and postpartum-related disorders. However, the lack of association between educational level and willingness to provide treatment indicates that a higher academic qualification may not necessarily correlate with increased readiness to address these specific healthcare needs. This observation underscores the need for targeted training programs that equip physiotherapists with the necessary knowledge and skills to address the unique challenges faced by women during and after pregnancy . Another study shows, Physiotherapists should make them active member in Physiotherapy in Gynecology field by acquiring knowledge and providing high quality research (Critchley et al. 2022)

This study revels one of the main barriers while providing treatment is poor referral system. On the other hand another study shows there need interaction between Physiotherapists and Obstetricians and Gynecologists through clinical meetings, seminers and workshop (Odunaiya et al. 2013)

The majority of physiotherapists emphasized that enhancing physiotherapy in the gynecology field requires the implementation of specific strategies. These strategies include providing adequate training facilities, establishing an efficient referral system, and creating private areas for professional discussions. To improve physiotherapy services in gynecology, it is crucial to invest in comprehensive and specialized training facilities that cater to the specific needs of pregnant individuals and postpartum women. By offering targeted training programs, physiotherapists can acquire the necessary expertise and skills to address the unique challenges associated with pregnancy and postpartum-related disorders effectively. Furthermore, providing private areas for professional discussions allows physiotherapists to engage in confidential conversations with patients, ensuring a patient-centered and supportive approach to care. These private

spaces also facilitate open communication between healthcare providers, enabling them to collaborate effectively and share valuable insights on patient management. The another study shows, The primary factors that would most support physical therapists in delivering services for antepartum and postpartum women were identified as follows: (a) receiving training or resources to enhance their knowledge and skills for managing these conditions (81.6%), (b) having access to facilities equipped with a private area for confidential discussions and assessments (61.5%), and (c) being allocated sufficient consultation time (37.6%) (Lin et al. 2022).

This study shows Amost all of the participant stated Physiotherapy treatment is effective in treating pregnancy and post-partum related disorder. The other study also have the similar findings that revel Prenatal physiotherapy has been effective in preventing issues such as low back pain, pelvic girdle pain, weight gain, incontinence, and pelvic pain during pregnancy (Van Kampen et al. 2015)

By incorporating these strategies into the healthcare system, physiotherapy in the gynecology field can be significantly improved, resulting in better outcomes for pregnant individuals and postpartum women. The combination of targeted training, efficient referral processes, and private discussion spaces empowers physiotherapists to deliver high-quality care and support during the crucial phases of pregnancy and postpartum recovery. Ultimately, the findings from this study can be utilized to develop targeted strategies and interventions that address the identified barriers and promote the facilitators, thereby improving the effectiveness and accessibility of antepartum and postpartum care services delivered by physical therapists.

5.2 Limitation of the study

Like any research, this study may have some limitations. One of the notable limitations is the relatively small sample size, which could potentially affect the generalizability of the findings. The data collection was confined to the Dhaka division, and therefore, the

perspectives gathered may not fully represent the views of all physiotherapists across Bangladesh. Additionally, the short study period might have constrained the researchers from gathering a more extensive and diverse sample of participants. Furthermore, as gynecological physiotherapy is a relatively new sector within the physiotherapy profession, there is a scarcity of existing research on the specific viewpoints of physiotherapists in this domain.

CHAPTER VI CONCLUSION & RECOMMENDATION

This research offers a comprehensive examination of how physical therapists in Bangladesh provide services during the antepartum and postpartum periods. Moreover, it highlights potential obstacles that need to be addressed for enhancing the quality of care. The study's findings shed light on the current state of antepartum and postpartum service provision by physical therapists in Bangladesh. By identifying the barriers that hinder optimal care delivery, the research opens opportunities for improvement and paves the way for targeted interventions and strategies. This knowledge can contribute to the advancement of antepartum and postpartum care in the country, ultimately benefiting pregnant individuals and new mothers by ensuring they receive the best possible support and treatment from skilled and knowledgeable physical therapists. To improve the overall quality of antepartum and postpartum care, healthcare institutions and authorities should consider designing training initiatives that address the identified factors associated with willingness to provide treatment. By empowering physiotherapists through comprehensive education and supportive measures, healthcare systems can enhance the delivery of care for pregnant individuals and those navigating the postpartum period, ultimately contributing to better maternal health outcomes. The collaboration between physicians, nurses, and physiotherapists, alongside the establishment of effective referral systems, paves the way for comprehensive, patient-centered antepartum and postpartum care. This concerted effort has the potential to optimize clinical outcomes and promote the health and well-being of women facing pregnancy and postpartum-related disorders. In this investigation, the focus is on understanding the viewpoints of physical therapists regarding the challenges they encounter while delivering care during the stages leading up to childbirth and the period following childbirth. By identifying these barriers and facilitators, the study aims to shed light on potential improvements to antepartum and postpartum care provided by physical therapists. Furthermore, the research will investigate the elements that contribute to a physical therapist's willingness to prescribe appropriate interventions for disorders related to pregnancy and the postpartum period. By recognizing these influential factors, the study endeavors to enhance the overall

quality of care and support provided to pregnant individuals and those who have recently given birth. Physical therapists have the ability to initiate changes within their own practices and local communities, transforming themselves into active participants in multidisciplinary teams. By doing so, they can play a crucial role in enhancing the overall quality of care provided to patients. These individual efforts have the potential to create a ripple effect, promoting broader changes on a larger scale within the healthcare system. By actively collaborating with other healthcare professionals, such as physicians, nurses, and specialists, physical therapists can contribute their unique expertise to the team. This interdisciplinary approach ensures a comprehensive and well-rounded assessment of patients' needs and fosters improved communication and coordination among healthcare providers. In summary, gaining insights into physiotherapists' perceptions, experiences, and barriers in the gynecology and women's health sector is essential for optimizing patient care, identifying areas for improvement, and advancing the field through research and collaboration. It ultimately contributes to better health outcomes and enhanced well-being for women seeking physiotherapy services.

Recommendation for author

- Include gynecological physiotherapy as a separate subject in the undergraduate curriculum.
- Organize dedicated training sessions focusing on gynecological physiotherapy.
- Increase the availability of opportunities in the field of gynecological physiotherapy**.**

Recommendation for future research

Numerous research opportunities exist in the field of gynecological physiotherapy, given its emerging status within the physiotherapy domain. Further studies in this area can significantly enhance the service and delivery system. Some ideas are include below-

- Gynecologists’ attitudes & views in regarding gynecological physiotherapy can be studied

CHAPTER VII REFERENCES

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Appendix

সম্মতি পত্র

(অনুগ্রহ করে অংশগ্রহনকারীকে পড়ে শুনাতে হবে)

আসসালামু আলাইকুম

আমার নাম রাহেলা আক্তার, ৪র্থ বর্ষ বি এস সি ইন ফিজিওথেরাপি শিক্ষার্থী, বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বি এইচ পি আই)। আমি এই গবেষনা অধ্যয়ন পরিচালনা করছি যা আমার ব্যাচেলর এর অংশ, বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বি এইচ পি আই), ঢাকা বিশ্ববিদ্যালয়র অধীনে ফিজিওথেরাপি প্রোগ্রামে। আমার গবেষনার শিরোনাম হল " প্রসবকালীন ও প্রসব পরবর্তী সম্পর্কিত যে কোন রোগ চিকিৎসা দেয়ার ক্ষেত্রে ফিজিওথেরাপিস্টের অভিজ্ঞতা, মনোভাব এবং প্রতিবন্ধকতা"। সেই কারণে আমি কিছু ব্যক্তিগত তথ্য ও অন্যান্য সম্পর্কিত তথ্য জানতে চাই। এটি প্রায় ২০-২৫ মিনিট সময় নিবে। আমি আপনাকে জানাতে চাই যে এটি সম্পূর্ন পেশাদার অধ্যয়ন এবং অন্য কোন উদ্দেশ্যে ব্যবহার করা হবে না। আপনার দ্বারা প্রদত্ত সমস্ত তথ্য গোপনীয় হিসেবে বিবেচিত হবে। কোন প্রতিবেদন বা প্রকাশনার ক্ষেত্রে এটি নিশ্চিত করা হবে যে তথ্যের উৎস বেনামী থাকবে। এই অধ্যয়নে আপনার অংশগ্রহন স্বেচ্ছাকৃত এবং আপনি কোন নেতিবাচক পরিণতি ছাড়াই এই অধ্যয়নের সময় ৭ দিনের মধ্যে নিজেকে প্রত্যাহার করতে পারেন। সাক্ষাতের সময় আপনি পছন্দ করেন না বা উওর দিতে চান না এমন এমন একটি নির্দিষ্ট প্রশ্নের উত্তর না দেয়ার অধিকারও আপনার আছে। অধ্যয়ন বা অংশগ্রহনকারী হিসেবে আপনার অধিকার সম্পর্কে আপনার কোন প্রশ্ন থাকলে, আপনি আমার সাথে অথবা আমার সুপারভাইজার মোসা. ফাতেমা আক্তার, সহকারী অধ্যাপক, ফিজিওথেরাপি বিভাগ, বিএইচপিআই- এর সাথে যোগাযোগ করতে পারেন।

আমি শুরু করার আগে আপনার কোন প্রশ্ন আছে?

ইন্টারভিউ সামনের দিকে এগিয়ে যাওয়ার জন্য আমি কি আপনার সম্মতি পেতে পারি।

হ্যাঁ..... না.....

অংশগ্রহনকারীর স্বাক্ষর..... .... তারিখ.....

তথ্যসংগ্রহকারীর স্বাক্ষর..... .... তারিখ.....

প্রশ্নাবলী

শিরোনাম : প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত যে কোন রোগ চিকিৎসার ক্ষেত্রে ফিজিওথেরাপিস্টদের অভিজ্ঞতা, মনোভাব এবং প্রতিবন্ধকতা

ব্যক্তিগত শনাক্তকরণ

নাম :	
শিক্ষাগত যোগ্যতা :	
কাজের অভিজ্ঞতা :	
কাজের স্থান :	
স্বাক্ষর	তারিখ :

১. আর্থো- সামাজিক বিষয়ক প্রশ্নসমূহ

প্রশ্ন নং	**প্রশ্নাবলী**	**সম্ভাব্য উত্তর**
১.১	বয়স	
১.২	লিঙ্গ	১. পুরুষ ২. মহিলা
১.৩	সর্বোচ্চ শিক্ষাগত যোগ্যতা	১. এমপিটি ২. বিপিটি ৩. পি এইচ ডি ৪. অন্যান্য ডিগ্রি
১.৪	কাজের স্থান	১. সি আর পি, মিরপুর ২. সি আর পি, সাভার

২. অভিজ্ঞতা

প্রশ্ন নং	প্রশ্নাবলী	সম্ভাব্য উত্তর
২.১	আপনি কি প্রেগিনেন্সি ও প্রেগনেন্সি পরবর্তী সম্পর্কিত যে কোন রোগ চিকিৎসা করতে ইচ্ছুক?	১. হ্যাঁ ২. না
২.২	আপনার কি প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত যে কোন রোগ চিকিৎসা প্রদান করার অভিজ্ঞতা আছে? [যদি উত্তর হ্যাঁ হয়, তাহলে পরবর্তী প্রশ্ন গুলোর উত্তর প্রদান করুন]	১. হ্যাঁ ২. না
২.৩	আপনি কত বছর ধরে ফিজিওথেরাপিস্ট হিসেবে কাজ করছেন?	১. ১-৫ বছর ২. ৬-১০ বছর ৩. ১০- ১৫ বছর ৪. ১৫ বছরের বেশি
২.৪	ফিজিওথেরাপির কোন ফিল্ডে তে আপনি সবচেয়ে বেশি রোগী দেখেছেন?	১. মাসকুলোস্কেলেটাল ২. গাইনেকোলজি এন্ড উইমেন হেলথ কেয়ার ৩. নিউরোলোজি ৪. পেডিয়াট্রিক ৫. এস সি আই ৬. অন্যান্য
২.৫	গ্রেজুয়েশন এবং পোস্ট গ্রেজুয়েশন এর পর গাইনেকোলজি এন্ড উইমেন হেলথ কেয়ারের উপর কোন ট্রেইনিং নিয়েছেন কিনা?	১. হ্যাঁ ২. না
২.৬	ব্যাচেলর কোর্স চলাকালীন গাইনেকোলজি এন্ড উইমেন হেলথ কেয়ারের উপর কোন কোর্স করেছেন কিনা?	১. হ্যাঁ ২. না
২.৭	প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত রোগ চিকিৎসা দেয়ার ক্ষেত্রে আপনার অভিজ্ঞতা কত বছরের?	১. ১-৫ বছর ২. ৬-১০ বছর ৩. ১০- ১৫ বছর ৪. ১৫ বছরের বেশি
২.৮	গড়ে কত সংখ্যক প্রসবকালীন এবং প্রসব পরবর্তী রোগী চিকিৎসা দিয়ে থাকেন প্রতি মাসে?	১. ৫ এর কম ২. ৫-৯ ৩. ১০-১৯ ৪. ১৯ এর বেশি
২.৯	প্রতি মাসে গড়ে কত সংখ্যক প্রসবকালীন এবং প্রসব পরবর্তী রোগী ফলোয়াপে আসেন?	১. ৫ এর কম ২. ৫-৯ ৩. ১০-১৯ ৪. ১৯ এর বেশি

২.১০	কোন ধরনের চিকিৎসা আপনি দিয়ে থাকেন [একের অধিক উত্তর টিক দিতে পারেন]?	১. থেরাপিউটিক এক্সারসাইজ ২. ম্যানুয়াল থেরাপি ৩. মডালিটি ৪. টেপিং ৫. স্বাস্থ্য শিক্ষা ৬. অন্যান্য *** আপনার উত্তর যদি অন্যান্য হয় তাহলে সেটি কি নিচে লিখুন?** **……..**

৩. মনোভাব

প্রশ্ন নং	**প্রশ্নাবলী**	**সম্ভাব্য উত্তর**
৩.১	প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত কোন রোগটি আপনি সবচেয়ে বেশি চিকিৎসা দিয়ে থাকেন প্রতি মাসে?	১. পেলভিক ফ্লোর ডিসফাংশন ২. ব্রেস্ট প্রবলেম ৩. কোমড় ব্যথা ৪. ব্ল্যাডার ডিসফাংশন ৫. ডায়াসটেসিস রেকটাই। ৬. কারপাল টানেল সিন্ড্রোম ৭. ইউরিনারি ইনকন্টিনেন্স ৮. অন্যান্য ***আপনার উত্তর যদি অন্যান্য হয় তাহলে সেটি কি নিচে লিখুন?** **……**
৩.২	গড়ে কত গুলো ট্রিটমেন্ট সেশন লাগে?	১. ১-৫ সেশন ২. ৬-১২ সেশন ৩. ১৩- ১৮ সেশন

		৪. ১৮ সেশনের বেশি
৩.৩	প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত রোগ চিকিৎসা দেয়ার ক্ষেত্রে আপনি কি রকম আত্মবিশ্বাসী?	১. অনেক বেশি আত্মবিশ্বাসী ২. অনেকটা আত্মবিশ্বাসী ৩. কিছুটা আত্মবিশ্বাসী ৪. আত্মবিশ্বাসী না।
৩.৪	এই ক্ষেত্রে ফিজিওথেরাপি চিকিৎসা কি উপকারী?	১. উপকারী ২. কিছুটা উপকারী ৩. কম উপকারী
৩.৫	প্রসবকালীন এবং প্রসব পরবর্তী রোগীদের ফিজিথেরাপিস্টের কাছে কে রেফার করে?	১. অর্থোপেডিক ২. জেনারেল মেডিসিন ৩.অবসটেট্রিক এন্ড গাইনেকোলজি ৪. নিউরোলজি ৫. অন্যান্য ***আপনার উত্তর যদি অন্যান্য হয় তাহলে সেটি কি নিচে লিখুন?** .....
৩.৬	নিচের কোন তথ্যটি সবচেয়ে বেশি যৌক্তিক আপনার ট্রেইনিং পরবর্তী দক্ষতার ক্ষেত্রে?	১. আমি মনে করি আমার ট্রেইনিং আমাকে পর্যাপ্তভাবে প্রস্তুত করেছে প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত সব রোগ চিকিৎসা দেয়ার ক্ষেত্রে। ২. আমি মনে করি আমার ট্রেইনিং আমাকে পর্যাপ্তভাবে প্রস্তুত করেছে প্রসবকালীন এবং প্রসব পরবর্তী সম্পর্কিত কিছু রোগ চিকিৎসা দেয়ার ক্ষেত্রে। ৩. আমার ট্রেইনিং আমাকে অপর্যাপ্তভাবে প্রস্তুত

		করেছে।
৩.৭	আপনার কি মনে হয় ফিজিওথেরাপি ইন গাইনেকোলজি ফিল্ডে ফিজিওথেরাপিস্টের জন্য বিশেষ ট্রেইনিং এর দরকার আছে?	১. হ্যাঁ ২. না
৩.৮	নিচের কোন কৌশলটি আপনি অবলম্বন করবেন এই ফিল্ডের উন্নতির জন্য? [আপনি একের বেশি উত্তর টিক দিতে পারেন]	১. ট্রেইনিং এর সুযোগ সুবিধা ২. পর্যাপ্ত চিকিৎসা সময় ৩. সংরক্ষিত কক্ষ ৪. পর্যাপ্ত মডালিটি ৫. পর্যাপ্ত এসেসমেন্ট টুলস ৬. রেফারেল সিস্টেমের উন্নতিকরন ৭. অন্যান্য ***আপনার উত্তর যদি অন্যান্য হয় তাহলে সেটি কি নিচে লিখুন?** **……**
৩.৯	আপনার কি এই ফিল্ডে রিসার্চ করার আগ্রহ আছে?	১. হ্যাঁ ২. না

৪. প্রতিবন্ধকতা

প্রশ্ন নং	**প্রশ্নাবলী**	**সম্ভাব্য উত্তর**
৪.১	চিকিৎসা দেয়ার ক্ষেত্রে আপনি সবচেয়ে বেশি কোন সমস্যার মুখোমুখি হন?	১. অপর্যাপ্ত ট্রেইনিং এর সূযোগ- সুবিধা ২. এই ফিল্ড সম্পর্কে মহিলাদের অপর্যাপ্ত জ্ঞান। ৩. রেফারেল সিস্টেম এর অভাব ৪. পর্যাপ্ত সুযোগ- সুবিধার অভাব ৫. অন্যান্য *** আপনার উত্তর যদি অন্যান্য হয় তাহলে সেটি কি নিচে লিখুন?** **……**

CONSENT STATEMENT

(Please read out to the participants)

Assalamualaikum,

My name is Rahela Akter, I am conducting this study for B.Sc in Physiotherapy project study dissertation title "Physiotherapists' experience, perceptions and barriers in the management of pregnancy and post-partum related disorer" under Bangladesh Health Professions Institute (BHPI), University of Dhaka. I would like to know about some personal and some other related information regarding gynecological physiotherapy. You will answer some questions which are mention in this form. This will take approximately 20-30 minutes.

I would like to inform you that it is a purely academic study and will not be used for any other purpose. All information provided by you will be treated as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous and also all information will be destroyed after completion of the study. Yours participation in this study is voluntary and you may withdraw yourself at any time during study without any negative consequences. You also have the right not to answer a particular question that you don't like or do not want to answer during interview. If you have any query about the study or your right as a participant, you may contact with me, researcher and/or Mst. Fatema Akter, Assistant Professor, Department of physiotherapy, BHPI, CRP, Savar, Dhaka-1343

Do you have any question before I start?

So, may I have your consent to proceed with the interview or work?

Yes □ No □

Signature of the participant……..

Signature of the interviewer……

Questionnaire

Title : Physiotherapists' experience , perceptions and barriers in the management of pregnancy and postpartum related disorder

Participants information

Name :
Qualification :
Working experience
Place of work :
Signature : Date :

1.Socio-Demographic information

QN	Questions	Response
1.1	Age	
1.2	Gender	1.Male 2.Female
1.3	Highest level of education	1.BPT 2.MPT 3.PHd 4.Associate degree

1.4	Clinical setting	1. Mirpur CRP 2. Savar CRP

2.Experience

QN	Questions	Response
2.1	Are you willing to provide physiotherapy treatment in antepartum and post-partum care	1.Yes 2.No
2.2	Do You have experience in the management of pregnanacy and postpartum related disorder? [If yes then continue answering further qus]	1. Yes 2. No
2.3	How many years You have been working as a physiotherapist ?	1. 1-5 years 2. 5-10 years 3. 10-15 years 4. more than 15 years
2.4	Which one of the following area you	1.Cardiopalmonary

	predominantly practice?	2. Gynecology and women health care 3. Neurology 4. Pediatric 5. Musculoskeletal 6. SCI 7. Others
2.5	Do you take any training or courses on Gynecology and women health care after graduation or postgraduation ?	1.Yes 2. No
2.6	Did you receive any training or courses on Gynecology and women health care as a part of university education ?	1. Yes 2. No
2.7	How many years of experience you have in treating pregnancy and postpartum related disorder ?	1. 1-5 years 2. 6-10 years 3. 11-15 years 4. more than 15 years
2.8	How many new antepartum and postpartum patients treated per month ?	1. less than 5 2. 5-9 3. 10-19

		4. 20-29 5. more than 29
2.9	How many follow up antepartum & postpartum patients come per month ?	1. less than 5 2. 5-9 3. 10-19 4. 20-29 5. more than 29
2.9	What are the intervention provided ? [you can choose more than one answer]	a)Therapeutic exercise b) Manual therapy c) Modality d) Taping e)Health education f) Others ***If your ans is others write your ans below** **……..**

3. Perceptions

QN	Questions	Response
3.1	What are the most common type of pregnancy and postpartum related disorder you see in average month ?	1. pelvic floor dysfunction 2. breast problem 3. low back pain 4.bladder dysfunction 5. Diastasis recti 6.carpal tunnel syndrome 7.Urinary incontinence 8. Other ***if your answer is "other" write your answer below** **……**
3.2	How many treatment sessions you provide on average ?	1. 1-5 session 2. 6-12 session 3. 13-18 session

		4. more than 18 session
3.3	How confident are you in treating pregnancy and postpartum related disorder ?	1.not at all confident 2.slightly confident 3. Quite Confident 4. Extremely confident
3.4	How effective are the treatment ?	1. less effective 2. moderate effective 3. effective
3.5	Women with pregnancy and postpartum related disorders were referred from ?	1.Orthopedics 2. General medicine 3.Obstetrics & Gynecology 4. Urology 5.Neurology 6.other *** if your answer is "Other"** **write your answer following** ……
3.6	Which of the following statement is	1. I think my training has

	most accurate with respect to your training or education about pregnancy and postpartum related disorder ?	adequately prepared me for dealing with all pregnancy and postpartum related disorder 2. I think my training has adequately prepared me for dealing with some pregnancy and postpartum related disorder 3. I think my training has inadequately prepared me for dealing with pregnancy and postpartum related disorder.
3.7	Do you think that there is need for special training for physiotherapists' to work in gynecology and women health care sector ?	1. Yes **2.** No
3.8	Which one of the strategy you choose to improve physiotherapy service in Gynecology and women health care sector ? [Yoy can choose more than one answer]	1. Training facilities for inproving knowledge and skill 2. Private area for discussion and assessment 3. Sufficient Consultation time 4. Appropriate assessment tools to use 5. Appropriate equipement to

		use 6. Referral from other health care professional **7.** Others ***if your answer is 'others" write your answer below** **…….**
3.9	Do you have interest in conducting research on women health and gynecological field ?	**1. Yes** **2. No**

4.Barriers

QN	Questions	Response
4.1	Which one of the the following barriers you face in treating pregnancy and postpartum related disorder ?[you can choose more than one answer]	1. lack of available training 2. lack of knowledge of women regarding physiotherapy management in Gynecological condition

		3. lack of referral pathway 4. lack of appropriate facilities 5. Others ***if your answer is "others" then write your answer below** **……**

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 08.04.2023

To
Central Manager,
CRP - Mirpur,
CRP, Mirpur-14, Dhaka - 1206.

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B. Sc in Physiotherapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Rahela Akter would like to collect data in your organization in your convenient time.

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Prof. Dr. Md. Omar Ali Sarker
Principal
BHPI, CRP, Savar, Dhaka.

Bangladesh Health Professions Institute (BHPI) ★ Date.....

24th July, 2023

The Head of the Physiotherapy Department,

Center for the Rehabilitation of the Paralyzed (CRP),

Chapain, Savar, Dhaka-1343.

Through: Head, Department of physiotherapy, BHPI.

Subject: Seeking permission for data collection to conduct my research project.

Dear Sir,

With due respect and humble submission to state that I am Rahela Akter, student of 4th Professional B.Sc in Physiotherapy at Bangladesh Health Professions Institute (BHPI). According to the course curriculum, we have to conduct research for the partial fulfillment of our degree. My research project entitled **" Physiotherapist's experience, perceptions and barriers in the management of pregnancy and post-partum related disorder"** under the supervision of Mst. Fatema Akter, Assistant Professor, Department of Physiotherapy, BHPI, CRP. So I need to take permission to collect data for my research project from the physiotherapists of the Physiotherapy Department, CRP, Savar. I would like to assure you that anything in my study will not be harmful to the participants.

I , therefore, pray and hope that you would be kind enough to grant my application and give me permission for data collection and oblige thereby.

Sincerely Yours,

Rahela Akter

Rahela Akter

4th Professional B.Sc in Physiotherapy

Roll: 02, Session: 2017-18

Bangladesh Health Professions Institute (BHPI).

Forward
24.07.2023

25.07.23

Approved
25/07/23

Dr. Mohammad Anwar Hossain, PhD
Senior Consultant & Head
Physiotherapy Department
Associate Professor, BHPI
CRP, Savar, Dhaka-1343

Date: 13th February 2023
The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professions Institute (BHPI), CRP
Savar, Dhaka-1343.Bangladesh

Subject: Application for review and ethical approval.

Dear sir,

With due respect, I am Rahela Akter, student of B.Sc. in physiotherapy program at Bangladesh Health Professions Institute (BHPI) the academic institute of Centre for the Rehabilitation of the Paralysed (CRP) under the Faculty of Medicine, University of Dhaka. As per the course curriculum, I have to conduct a dissertation entitled " **Physiotherapist's experience, perceptions and barriers in the management of pregnancy and postpartum related disorder** " under the supervision of Mst.Fatema Akter, Assistant Professor, Department of Physiotherapy, BHPI.

The purpose of the study is to explore physiotherapist's experience , perceptions and barriers in the management of pregnancy and postpartum related disorder . The study involves face-to-face interview by using semi-structured questionnaire. I would like to assure that anything in my study will not be harmful for the participants. Data collectors will receive informed consent from all participants and the collected data will be kept confidential.

Therefore, I look forward to having your kind approval for the dissertation proposal and to start data collection. I can also assure you that I will maintain all the requirements for study.

Sincerely,

Rahela Akter

Rahela Akter
4th Year B.Sc. in Physiotherapy
Session: 2017-2018 Student ID: 112170392
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Dissertation presentation date: 9th January 2023

18.02.2023

Head, Department of Physiotherapy, BHPI
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

Recommendation from the dissertation supervisor

13.02.2023

Mst. Fatema Akter
Assistant Professor
Department of Physiotherapy, BHPI.

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)
(The Academic Institute of CRP)

Ref: CRP/BHPI/IRB/03/2023/683 Date: 13/03/2023

To
Rahela Akter
B.Sc. in Physiotherapy,
Session: 2017-2018, DU Reg. No: 8621
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the dissertation proposal **"Physiotherapist's Experience, Perceptions and Barriers in the Management of Pregnancy and Postpartum Related Disorder"**- by ethics committee.

Dear
Rahela Akter,
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 and Mst. Fatema Akter, Assistant Professor, Department of Physiotherapy, BHPI, CRP as dissertation supervisor. The following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation Proposal
2	Questionnaire (English and Bengali version)
3	Information sheet & consent form

The purpose of the study is to explore physiotherapist's experience, perceptions and barriers in the management of pregnancy and postpartum related disorder. Should there any interpretation, typo, spelling, grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 20- 25 minutes and have no likelihood of any harm to the participants. The members of the Ethics committee approved the study to be conducted in the presented form at the meeting held at 09:00 AM on January 9, 2023 at BHPI, 34th 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,

Muhammad Millat Hossain
Associate Professor, Dept. of Rehabilitation Science
Member Secretary, Institutional Review Board (IRB) BHPI,
CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ। ফোন: +৮৮ ০২ ২২৪৪৪৫৪৬৪-৫, +৮৮ ০২ ২২৪৪৪১৪০৪, মোবাইল: +৮৮ ০১৭৩০ ০৫৯৬৪৭
CRP-Chapain, Savar, Dhaka-1343, Bangladesh. Tel: +88 02 224445464-5, +88 02 224441404, Mobile: +88 01730059647
E-mail : principal-bhpi@crp-bangladesh.org, Web: bhpi.edu.bd