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PHYSIOTHERAPISTS' VIEW OF GYNECOLOGICAL PHYSIOTHERAPY SCOPE OF PRACTICE IN BANGLADESH

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

**“PHYSIOTHERAPISTS’ VIEW OF GYNECOLOGICAL PHYSIOTHERAPY SCOPE
OF PRACTICE IN BANGLADESH”**

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DECLARATION

I declare that the work presented here is my own. All sources used here have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of information of the study, I would be bound to take written consent from the Department of Physiotherapy of Bangladesh Health Professions Institute (BHPI).

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Acronyms

ACOG:	American College of Obstetricians & Gynecologists
BHPI:	Bangladesh Health Professions Institute
BMRC:	Bangladesh Medical Research Council
CRP:	Centre for the Rehabilitation of the Paralysed
CSP:	Chartered Society of Physiotherapy
CTS:	Carpal Tunnel Syndrome
DHHS:	Department of Health & Human Services
EBP:	Evidence Based Practice
IOPTWH:	International Organization of Physical Therapists in Women's Health
IRB:	Institutional Review Board.
NITOR:	National Institute of Traumatology & Orthopedic Rehabilitation
PGP:	Pelvic Girdle Pain
QoL:	Quality of Life
SCI:	Spinal Cord Injury
SPD:	Symphysis Pubis Dysfunction
SPSS:	Statistical Package for Social Sciences
USA:	United States of America
WCPT:	World Confederation for Physical Therapist
WHO:	World Health Organization

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Abstract

Purpose: The purpose of the study was to find the physiotherapists' view of gynecological physiotherapy scope of practice in Bangladesh.

Objectives: To know the idea of physiotherapists in gynecological physiotherapy. Scope of practice for physiotherapists in gynecological physiotherapy. Future recommendation for the development of gynecological physiotherapy practice in Bangladesh.

Methodology: A mixed study design was chosen to complete the study. For quantitative question cross sectional study design was chosen with self-administered questionnaire. 79 data was collected from different hospitals and organizations of Dhaka district.

Data analysis: Quantative data was analyzed by using SPSS 20.0. Qualitative content analysis was used to analyze the data.

Results: 61 participants answered the questions related to gynaecological physiotherapy and 18 participants didn't answer all these questions. 89.9% of the participants studied gynaecological physiotherapy in their under graduation level. All of the participants were agreed that gynaecological physiotherapy is important for women's health. 53.2% of the participants faced problem while treating any gynaecological condition due to lack of proper knowledge, training session and guideline. 85.71% of the participants suggested that improvement of referral system, more training session and evidence based practice is needed for the further development of gynaecological physiotherapy service in Bangladesh. 41.8% of the participants said that the scope of practice for physiotherapists in gynecological physiotherapy was fair. A significant association ($p=.000$) had found in between patient's motivation and their feedback.

Conclusion: This study is a reflection of physiotherapists' view about gynaecological physiotherapy practice in Bangladesh. This is also the first study where physiotherapists' view is seen on gynaecological physiotherapy practice.

Key words: Physiotherapist, Gynaecological physiotherapy, Scope of practice

1.1 Background

World Confederation for Physical Therapist (WCPT) state that, physiotherapy is a health care profession that deals with human function and motion and maximizes physical capacity. In the areas of promotion, prevention, intervention, habilitation and rehabilitation, it is concerned with identifying and maximizing the quality of life and movement potential. It utilizes physical methods to promote, maintain and restore physical, psychological and social well-being, in different health status. It is based on science, dedicated to expanding, implementing, assessing and reviewing the knowledge underlying and informing its practice and delivery (WCPT, 2017).

Chartered Society of Physiotherapy (CSP) mentioned that physiotherapy is a wide ranging profession with possibilities to work in many different areas including respiratory physiotherapy in hospitals and intensive care units, neurological physiotherapy, various musculoskeletal and orthopedic conditions, in special pediatric circumstances, sports physiotherapy, etc. (CSP, 2010).

Gynecology and obstetrics physiotherapy is a physical therapy subspecialty that deals with promoting health throughout the child-bearing stage. Physiotherapists who are specific in obstetrics and gynecology require a mature blend of an attribute enabling females to disclose some of their life most intimate and personal information. Including physical therapy facilities in obstetrics and gynecology is key to delivering an ideal health care service (Tahir et al., 2017).

Physiotherapy can play a vital role in obstetrics. The principles of physiotherapy in obstetrics were first developed by Miss Minnie Randall, who was a great physiotherapist in the early 20th century (Polden & Mantle, 1994).

The Obstetric Association of Chartered Physiotherapists was established in 1948 by representatives of the Chartered Physiotherapy Society interested in obstetrics. It was one of the earliest clinical interest groups to be formed. In 1976, gynecology was added to the specialty and the group became known as the Association of Chartered Physiotherapists in Obstetrics and Gynecology. The Association of

Chartered Physiotherapists in Women's Health was re-named in 1994. The Association currently has at least 700 members and associates from around the world. The Women's Health Chartered Physiotherapists Association is connected with the Chartered Physiotherapy Society (CSP) and is known as a recognized professional network. It is also a founder member of the International Organization of Physical Therapists in Women's Health (IOPTWH) (IOPTWH, 2013).

A healthy woman is the family's most important bond, which in turn becomes a significant social factor. Pregnancy, birth and postpartum are common events in women's lives that affect every aspect of their lives (Shifna et al., 2017).

Some studies have shown that women's physical performance and health and well-being decline after childbirth relative to pre- pregnancy period, with an adverse impact on their quality of life. Physical activity is essential for pregnant women as it helps to overcome complications of pregnancy and keep excellent physical fitness (Bahadroran & Mohamadirizi , 2015).

Moreover, there is evidence that shows females who practiced antenatal exercises have fewer chances of caesarean section, backache and urinary incontinence (Khatri et al., 2014).

The Canadian Physiotherapy Association and Society of Obstetricians and Gynecologists of Canada have developed a joint policy statement regarding posture in women's health that highlights the physical, psychological, and environmental factors that affect women's posture throughout their lifespan, from adolescence to menopause. This policy includes antenatal exercises such as pelvic floor exercises, core stability exercises, abdominal exercises, breathing exercises, aerobic exercises, postural education and back care exercises (Britnell et al., 2005).

Pelvic floor exercises such as Kegel exercises are frequently used to reinforce pelvic floor muscles in prenatal periods. An intensive pelvic floor muscle training during pregnancy has been shown to prevent urinary incontinence during pregnancy and after delivery (Morkver, 2003).

Furthermore, there are evidences that pelvic floor muscle stabilization is beneficial in shortening the first and second phases of labour (Shifna et al., 2017).

In developed countries, obstetric physiotherapy is a significant component of maternal health. In addition, some studies have shown that antenatal physiotherapy treatments help pregnant females to

decrease pregnancy complications and reduce labour pain (Du et al., 2015) and helps faster post-delivery recovery (Arati et al., 2014).

Physiotherapy interventions increase the effectiveness of maternal healthcare. One research conducted in Gangawatakoralle, Srilanka by Shifna et al. (2017) who mentioned that many females are suffering in silence and unaware of accessible treatments in physiotherapy. Due to lack of awareness, women fail to get the advantages of physiotherapy interventions that can improve their quality of life and relieve their sufferings.

Antenatal care is an essential pillar of safe motherhood. Antenatal care is a key pillar of secure motherhood. The goal is to provide the mother with optimal care so that she can endure the last nine months of pregnancy without any complications. (Sarfraz et al., 2013).

Carmen & Milanez (2011) conducted a research in Brazil showed 65.6% of the women were sufficiently informed about the practice of physical exercise during pregnancy and the vast majority 93.8% was in favor of it. While almost all women agreed with the benefits of light activity 98%.

Several studies have been conducted to evaluate the perception, experience, attitudes and utilization of physiotherapy services in various medical conditions (Odunaiya et al., 2013). In Bangladesh there are no studies about the perception of physiotherapists' in gynecological physiotherapy.

1.2 Rationale

Physical activity and regular exercise promote health in the general population, and exercise during pregnancy has several positive effects on mother and offspring (Gustafsson et al., 2015).

Pregnant women who have pain or disability during their months of childbearing may seek assistance from a physical therapist. Physical therapists' extensive experience in educating clients, treating patients with musculoskeletal dysfunction, and applying the principles of exercise physiology makes them well suited to treat obstetrical clients. Physical therapists have many services to offer pregnant

women, but some therapists may need further education about how to adapt their treatment to pregnant women (Peggy et al., 2008).

Throughout the world, specialists in women's health physical therapy are committed to providing their patients and clients with evidence-based, professional and comprehensive care in a respectful and caring environment (IOPTWH, 2013).

Although physiotherapy profession was introduced after the liberation war in Bangladesh but this profession is still under suppression, they can't even engage in the mainstream of the government's health care system with other healthcare practitioners (Mamin & Hayes, 2018).

Physiotherapy in gynecology and obstetrics is an emerging sub-speciality of physiotherapy profession in Bangladesh. Gynecological physiotherapy can play a vital role in the prevention of many pregnancy related complications and helps normal delivery. In Bangladesh, a few researches have done related to gynecological physiotherapy but no research has done to see the perception of the physiotherapist. For this reason, I am interested to do this research to see the Physiotherapist view, scope of practice, challenges on this area.

1.3 Research Question:

What are the views of physiotherapists' about gynecological physiotherapy scope of practice in Bangladesh?

1.4 Study Objectives

1.4.1 General Objective:

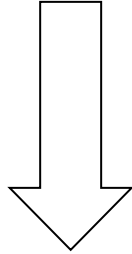
To find out the view of physiotherapists about gynecological physiotherapy scope of practice in Bangladesh.

1.4.2 Specific Objectives:

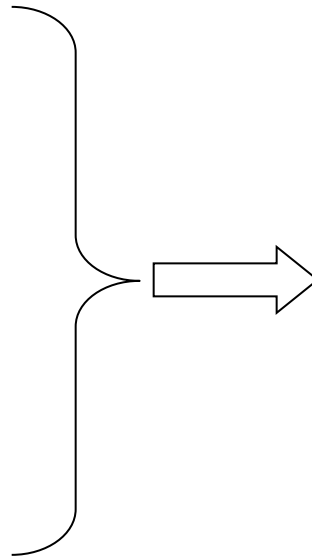
1. To find out the idea of physiotherapists about gynecological physiotherapy.
2. To find out the practice guideline if any, which they follow for treating their patients.
3. To find out the gynecological condition which they find very often and what problem they face during treatment session.
4. To find out the satisfaction level of both physiotherapists and patients in regarding gynecological physiotherapy.
5. To know the suggestions of the physiotherapists for the improvement of gynecological physiotherapy practice in Bangladesh.

1.5 List of variables:

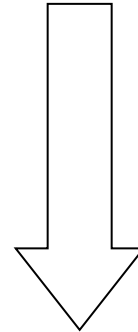
Independent variables



Age
Sex
Education
Years of job experience
Training session
Area of practice
Scope of practice



Dependent variables



View of physiotherapists' about gynecological physiotherapy practice.

1.6 Operational Definition:

Physiotherapist:

Physical therapist or physiotherapist is a rehabilitation professional who promotes optimal health and functional independence through the application of scientific principles to prevent, identify, assess, correct, or alleviate acute or chronic movement dysfunction, physical disability, or pain.

A physical therapist is a graduate of a PHYSICAL THERAPY programme approved by a nationally recognized institute.

Gynecological physiotherapy:

Gynecological physiotherapy or Women's Health Physiotherapy is the therapeutic treatment of all disorders affecting the pelvis and pelvic floor.

Women's Health Physiotherapy was founded from the clinical area of Obstetrics and Gynecology and is the care of women in relation to childbirth, both antenatally and post natally, including the treatment of incontinence, and in the care of women undergoing gynaecological surgery. All females across the life span, from the young athlete, the childbearing woman, the menopausal and elderly woman receive benefit from physical therapy.

Scope of practice:

Although the term “scope of practice” is often used in policy and professional documents, it is difficult to find a consistent definition of the concept (Baranek, 2005). The meanings of scope of practice vary among healthcare professionals. For some, it refers to standards of practice or professional competencies; for others, it encompasses the legal base of practice; still others equate it with the components of the clinical parameters of practice (Schuiling & Slager, 2000).

In the research, the term scope of practice is used to describe the knowledge, job opportunity in the area of gynecological physiotherapy.

Utilization of individual professional skills depends on cooperation between health team members and the extent to which they value the knowledge of other team members in discharging their services to the patient, who is the main focus of the team. Therefore, interdisciplinary collaboration is needed between health care professionals, including obstetricians, gynecologists, midwives, physiotherapists, medical laboratory researchers and social workers (Odunaiya et al., 2013).

Woman may undergo a gynecological surgery for different reasons including uterine prolapse, cancer of the uterus, cervix, or ovaries, endometriosis, bleeding, adenomyosis etc. Gynecological surgeries include procedures such as hysterectomy, oophorectomy, salpingectomy, myomectomy, ovarian cystectomy, etc. Physiotherapy intervention performed immediately after gynecological surgery improves Quality of life (Ponmathi et al., 2016).

Various post-operative complications that are probable to occur after gynecological surgery are chest infection, risk of straining recently inserted suturing, deep vein thrombosis, wound infection, urinary tract infection, incontinence, dyspareunia. The incidence of clinically considerable postoperative pulmonary complications following open abdominal surgery was shown to be as high as 53% (Urbach et al., 2006).

The amount of physiotherapy care required by such patients varies widely with the condition and age of the patient and with the severity of the surgery. The chief objective of the post-operative physiotherapy is that the patients recover as well as they possibly can in the shortest time and without preventable complications. Physiotherapy management reduces pain in post-operative gynecological patients and makes them mobile early, thereby decreasing complications in bed rest and improving recovery. In such cases, referral to physiotherapy is essential, but most patients are not referred for physiotherapy (Ponmathi et al., 2016).

Chauhan et al. (2016) said that, “It is from the womb of a woman that gives life to mankind into the world of light, a world in which to breathe and grow”.

Women are primary caretakers, first educators, bearers and nurtures of the next generation. Women's health is fundamental to the development of women in all endeavour. The pregnancy related disabilities result not only in human suffering but also effect social and economic empowerment. For maintaining health, exercise has been shown to improve health prospect in various ways, reduce body fat and overall weight, reduces blood pressure, and ensures better digestion, respiration and efficient circulation. Routine exercise will enhance the health and reduce symptoms or complications like gestational diabetes, bladder and bowel problems, backache, fatigue, varicose veins associated with pregnancy, labour and delivery. Furthermore, who maintains high level of fitness is more likely to quickly return to her pre-pregnancy health, figure and weight. While, exercise is a fundamental component of antenatal care, women's physical activity lessens, as the perception of risk during pregnancy is high. In the absence of medical or obstetrical complications, pregnant women are encouraged to continue and maintain active lifestyles during their pregnancies. Kegel's exercise is a commonly followed prenatal exercise used to strengthen pelvic floor muscle which may stretch during delivery, hence prepare for labour (Chauhan et al., 2016).

While exercise is beneficial to the health of individuals across the ages, it is even more critical for expectant women because partially a sedentary lifestyle places them at increases risks of pregnancy related health complications and compromised baby health. (Sarfraz et al., 2013).

For many decades the relationship between exercise and women reproductive health has been a controversial issue with uncertainty about safety and its benefits in pregnancy. The controversy is characterized by lack of understanding on the type of exercise and the precise effect on expectant women, knowledge and perception of the advantages of pregnant women, level of education, race and ethnicity (Edinah et al., 2018).

However, modern medicine appreciates that expectant mothers need exercise for good health. Emerging evidence show that appropriate exercises can be initiated and continued during pregnancy as it is safe and of significant benefits to a mother and foetus (Edinah et al., 2018).

It is suggested that, in absence of medical and obstetric complications, pregnant women should aim to perform at least 30 minutes or more of moderate intensity physical activity daily or exercise 3-5 times weekly for a minimum of 15 -30 minutes (Aliyu et al., 2018).

Exercises during pregnancy periods include aerobic exercises such as swimming, cycling, walking, dancing, core stability, pelvic floor exercises, breathing exercises, postural education and back care (Nayak et al., 2015).

Foot & leg exercises and pelvic tilting can be performed in sitting or half lying positions, whereas transverses and pelvic floor exercises can be carried out in any position (Keefer, 2005).

Performing all or combination of different exercises under the supervision of a physical therapist results in various benefits (Edinah et al., 2018).

Tobias et al., (2011) showed that regular exercise before pregnancy reduced the risk of gestational diabetes by 55% while engagement in early pregnancy decreased the risk by 24%.

Pregnancy reflects a special state in women's lives resulting in physiological, metabolic, social and psychological changes. In fact, it is an important period with several physical and emotional changes (Aliyu et al., 2018).

Physiotherapy plays an important role in obstetrics both with the ante partum and postpartum woman. Manual methods and education concerning posture, back care, and daily activity modification all assist achieve ideal postural alignment, minimizing joint pressure in pregnant females. Physiotherapists train females in the co-activation of transverses abdominus, multifidus and pelvic floors, which strengthens core stability and helps to prevent and treat back pain (Seyed et al., 2016).

Postpartum physiotherapy assessment can identify postural and structural weaknesses arising from the pregnancy, delivery, or postpartum conditions. Postpartum pelvic floor muscle (PFM) pain, dyspareunia, episodes of urinary or fecal incontinence, abdominal diastasis, and symptoms of pelvic joint dysfunction are all conditions that can be treated with specific physiotherapy interventions(Noble, 2003).

According to World Health Organization, women's health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO, 1997).

It is the position of the International Organization of Physical Therapists in Women's Health (IOPTWH) that the scope of practice in women's health physical therapy shall subscribe with the WHO definition of women's health and the five DHHS criteria includes the role of physical therapist in women's health; evaluation, treatment, and education of women throughout the life stages;

education of students of physical therapy; education of health professionals or providers; Education of the community at large; the scope of knowledge for physical therapy practice in women's health; promotion of research efforts in women's health and women's health physical therapy. The role of physical therapist in women's health: the roles of educator, clinical practitioner, consultant, researcher, and administrator. In all roles the physical therapist considers and treats the woman as a 'whole person', including physical and emotional or psychosocial factors related to her health. (IOPTWH, 2013)

Exercise has been scientifically and physically known to promote blood circulation to the mother and the foetal vital organs such as the brain, liver and heart etc. Exercise also improves pelvic bone and muscle tone thus enhancing normal safe delivery of baby during labour (Olufemi et al., 2014).

Haggard (2008) states that women who practiced more than one type of sports or leisure time physical activity had 24% of reduced risk of preterm delivery, which compared with women with no sports activity.

Pelvic girdle pain (PGP) or symphysis pubis dysfunction (SPD) is a common musculoskeletal disorder which affects women during pregnancy and the postpartum period (Almoussa et al., 2017).

Physical therapists can combine patient education with therapeutic modalities to reduce pregnancy related pain. Back pain, calf cramps, carpal tunnel syndrome, and varicosities are some pregnancy related discomforts that may be treated by physical therapists. The incidence of PGP is reported as 63% at the 30th gestation week, 31% at 3 months postpartum, and 30% at 1 year after delivery (Robinson et al., 2014).

Calf cramps have been reported in 15 to 30% of all pregnant females and may be triggered by direct nerve root stress, referred pain, neural ischemia or calcium or magnesium deficiencies (Fast et al., 2007).

Pain from carpal tunnel syndrome follows the distribution of the median nerve and affects the first three or four fingers with a frequency estimated as high as 30% of all pregnant women (Heckman, 2008)

Discomforts such as insomnia, migraine headaches, or muscular tension may occur during pregnancy. Breathing techniques, or breath awareness, may be taught as a means of achieving relaxation. The

pulmonary responses of pregnant women to exercise compared with non-pregnant women include increased respiratory rate, increased minute ventilation, increased oxygen consumption, and a generally increased tidal volume. The American College of Obstetrics and Gynecology recommends that the maximum heart rate of a pregnant woman during exercise should stay below 140 bpm. (Pirie & Curtis, 1987). Non-jarring activities such as walking, stationary bicycling, and swimming are generally thought to be the most beneficial (Peggy et al., 2008)

According to World Health Organization (WHO) 2010 report, the cesarean section rate was the highest in Brazil (45.9%) and was probably the lowest in countries like India and Pakistan, about 7 to 8% (Gibbons et al.,2010). During the last three decades the cesarean section rates were lower than 10% in 52 countries, from 10% to 15% in 14 countries and above 15% in 69 countries of the world, though WHO in 1985 stated that the cesarean section rates for any region should not be any higher than 10–15%. Preliminary results of BDHS (source: bdnews24.com, 26/ 04/2015) has reported that the rate of Caesarean Section was 23% in 2014 whereas it was only 4% in 2004, 9% in 2007 and 17% in 2011. WHO recommended acceptable limit is 10% to 15%. So it is 6% higher from 2011 and 8% higher than WHO's maximum prescribed limit (Rahman et al., 2018)

Gynecological problems are major health problem of women with spinal cord injury (Jackson & Wadley, 2009).The most common problems of these women after spinal cord injury is the menstrual problem and many women faces amenorrhea and galactorrhoea (Rutberg et al., 2008).

Spasticity exacerbation, autonomic fluctuation and spasticity of the bladder are observed during menstruation of females with spinal cord injury but not in females with spina bifida (Jackson & Mott, 2007). Another gynecological experience of women with spinal cord wounds is urinary tract infection, vaginal yeast infection, and ovarian cyst (Jackson & Wadley, 2009).

Menopausal problem is not commonly seen after spinal cord injury as well as women with spina bifida because of their short life span (Jackson & Mott, 2007). Therefore, women with spinal cord injury needs complete rehabilitation (Samuel et al., 2007) and concern towards the gynecological problems which also hamper the rehabilitation process (Jackson & Wadley, 2009).

3.1 Study Design

A mixed study design was chosen to conduct the study which includes both qualitative and quantitative data. Cross sectional study was selected by researcher to carry out the quantitative part of the research. In this study a mixed study design was used to find out the view of physiotherapists' about gynecological physiotherapy scope of practice in Bangladesh. This study design was appropriate to find out the objectives. The data was collected all at the same time or within a short time frame. A cross-sectional design was chosen because it provides a snapshot of the variables included in the study, at one particular point in time (Environmental Health Investigations branch, 2009).

3.2 Study Site

Data was collected from the physiotherapist who are working at different hospitals such as Centre For The Rehabilitation Of The Paralyzed (CRP) both Savar and Mirpur branch, NITOR, Apollo hospital, Enam Medical and College Hospital and some private chambers of the Savar area.

3.3 Study population and sample population

A population is the total group or set of events or totality of the observation on which a research is carried out. In this study the physiotherapists who were completed at least Bachelor in Physiotherapy (B.Sc.) from Government approved university or received higher education and who were practicing clinically was selected to carry out the study.

3.4 Sampling Technique

Purposive sampling technique is used to conduct this research.

3.5 Sample Size Calculation

When the sample frame is finite,

The equation of finite population correction in case of cross sectional study is:

$$\begin{aligned}n &= z^2 p(1-p) / d^2 \\ &= (1.96)^2 \times .5(1-.5) / (0.1)^2 \\ &= 96\end{aligned}$$

Here,

n=Sample size

z= Confidence interval=1.96

p=50%=.05

And, d=0.01

The actual sample size was, n= 96

As it is an academic thesis, self-funding and data was collected in a limited time by considering the feasibility and time limitation 79 sample were collected conveniently.

3.6 Data Collection Tools

A self-structured questionnaire under the supervision of my respected supervisor was selected to collect data. The questionnaire contains a total of 22 questions which includes 7 qualitative questions, 15 quantitative questions and personal information of the participants 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

The self-administered answer technique was used to collect data. Participants administered the questionnaire own-self. Before collecting data the study aims and purpose explained to the participants. The participants read the information sheet and consent form. All the participants had the opportunities to ask any study related questions and they could show interest to participate in the study they could sign in the consent form willingly. The duration of data collection was 15-20 minutes for every individual participants. A question paper, inform consent, pen, pencil, clip board etc. were used to collect information from the participants.

3.8 Pilot Study

Before the start of collecting final data, a pilot study was conducted with 5 participants. Carrying out pilot study is a preparation of starting final data collection. It helped to make a plan that how the data collection procedure can be carried out, sorting out the difficulties during questioning, making a basic plan of questioning and if there is needed any modification of the questionnaire. The pilot study helped the researcher to make the plan on how the ways can be for collecting data.

3.9 Data Analysis

As the questionnaire contains both qualitative and quantitative questions. The quantitative questions are analyzed by using statistical package for social sciences (SPSS) 20.0 version. Researcher analyzed the data by descriptive statistics using Frequency, Percentage (%), Pie diagram, Bar diagram.

And the Qualitative method is also used to analyze the qualitative data. It facilitates the formation of core data through a systematic method of reduction and analysis. By systematic reduction and analysis of data, the theme of the study was created. Qualitative method follows three steps (coding, categorizing and generating theme) to show the result of the study. In a short line, it is said that, texts are coded into established categories to support the generation of ideas (Priest et al., 2002)

3.10 Inclusion Criteria

- Physiotherapist who had obtained at least Bachelor degree (B.Sc.).
- Physiotherapist who were working in musculoskeletal, pediatric, neurology, spinal cord injury, cardiorespiratory and women's health unit.
- Age: between 25years and above.
- Both male and female physiotherapist are included.

3.11 Exclusion Criteria

- Physiotherapist those who were unwilling to participate.
- Physiotherapist with less than 12 months of experience.

3.12 Ethical Consideration

The researcher maintained some ethical considerations: Researcher has followed the Bangladesh Medical Research Council (BMRC) guideline & WHO research guideline. A research proposal was submitted to the physiotherapy department of BHPI for approval and the proposal was approved by the faculty members and gave permission initially from the supervisor of the research project and from the course coordinator before conducting the study. The proposal of the dissertation including methodology was presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) for oral presentation defense was done in front of the IRB. Then the necessary information was approved by Institutional Review Board and was permitted to do this research. After getting the permission of doing this study from the academic institute the researcher had been started to do it. The participants would be informed before to invite participation in the study. A written consent form used to take the permission of each participant for the study. The researcher ensured that all participants were informed about their rights and reserves and about the aim and objectives of the study. Researcher also ensured that the organization (CRP) was not hampered by the study. All kinds of confidentiality highly maintained. The researcher ensured not to leak out any type of confidentialities. The researcher was eligible to do the study after knowing the academic and clinical rules of doing the study about what should be done and what should not. All rights of the participants were reserved and researcher was accountable to the participant to answer any type of study related question.

3.13 Informed Consent

Written consent was taken from all participants prior to completion of the questionnaire. The investigator explains to the participants about his or her role in this study. The investigator received a written consent form every participants including signature. So the participant assured that they could understand about the consent form and their participation was on voluntary basis. The participants were informed clearly that their information would be kept confidential. The investigator assured the participants that the study would not be harmful to them. It was explained that there might get a direct benefit from the study for the participants. Information from this study was anonymously coded to ensure confidentiality and was not personally identified in any publication containing the result of this study.

3.14 Rigor of the study

The rigorous manner was maintained to conduct the study. The study was conducted in a clean and systemic way. During the data collection it was ensured that participants were not influenced by experience. The answer were accepted whether they were in negative or positive impression. No leading questions were asked. The participant information was coded accurately checked by the supervisor to eliminate any possible errors. The entire information was handled with confidentiality. In the result section, outcome was not influenced by showing any personal interpretation. Every section of the study was checked & rechecked by research supervisor.

4.1 Gender of the participants:

Among 79 participants, the female participants were 56% (n=44) and male participants were 44% (n=35). (Figure-1).

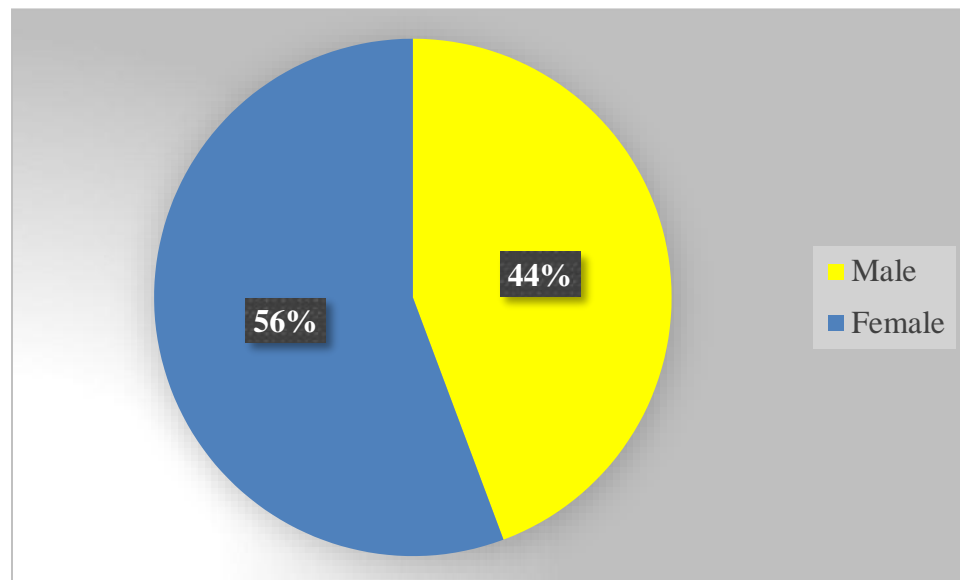


Figure-1: Gender of the participants

4.2 Age group of the participants

There were several age groups among 79 participants. The participants with 25-29 years were 62% (n=49), 30-34 years were 32% (n=26), 35-39 years were 4% (n=3). (Figure-2).

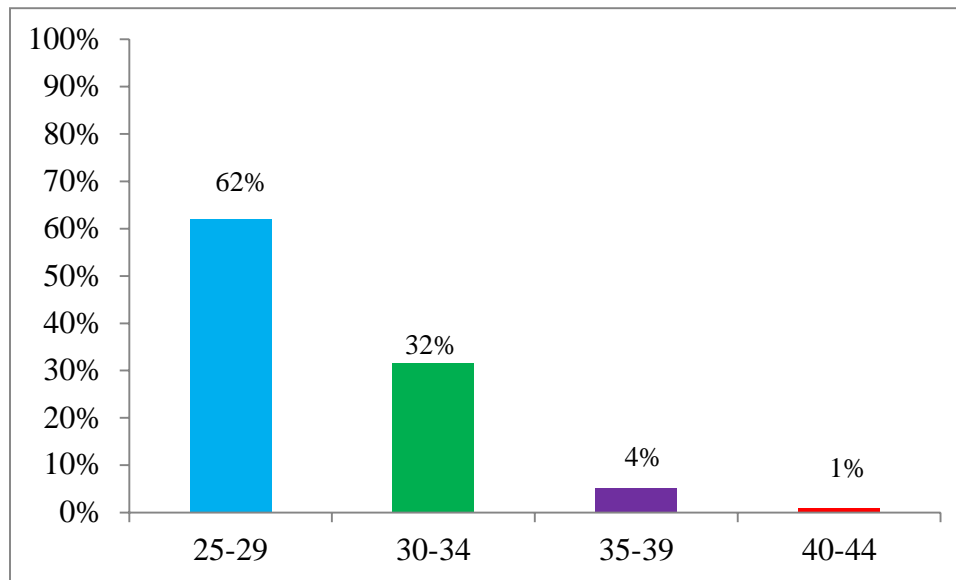


Figure 2: Age group of the participants.

4.3 Educational Level of the Participants:

Out of 79 participants, 57% (n=45) of the participants had completed their Bachelor of Science (B.Sc) studies and 43% (n=34) of the participants had completed their Masters of Science (M.Sc) studies. (Figure-3)

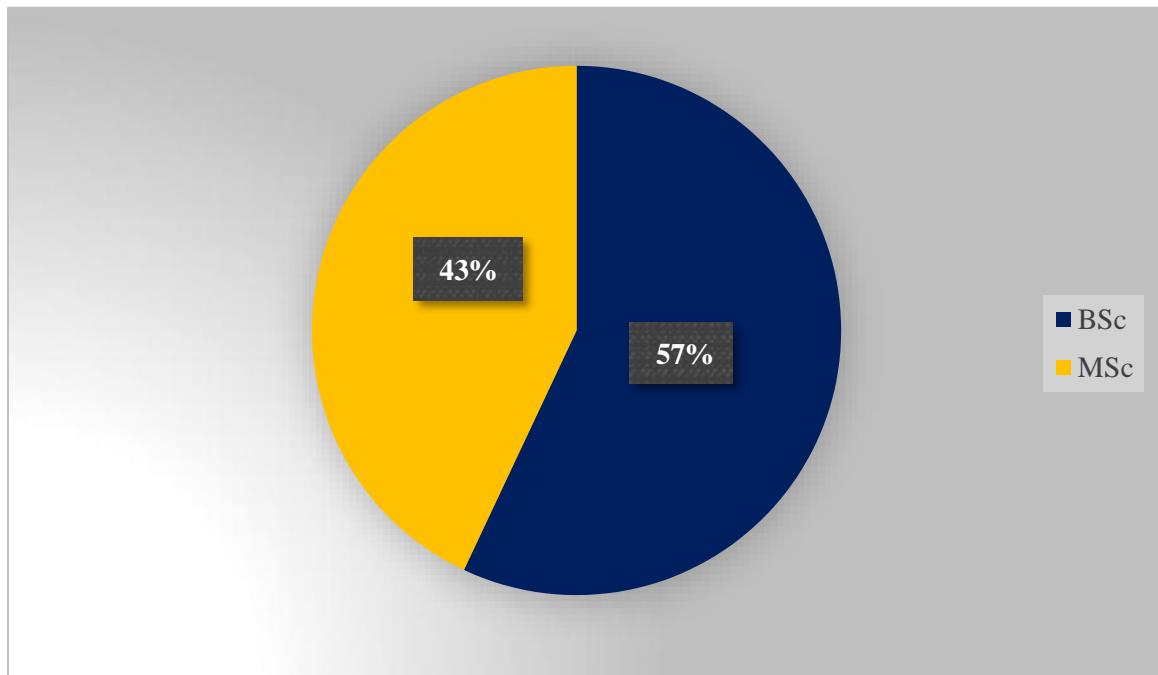


Figure-3: Educational Level of the Participants

4.4 Marital Status of the Participants:

Among 79 participants, the married participants were 70% (n=56) and unmarried participants were 35% (n=23). (Figure-4).

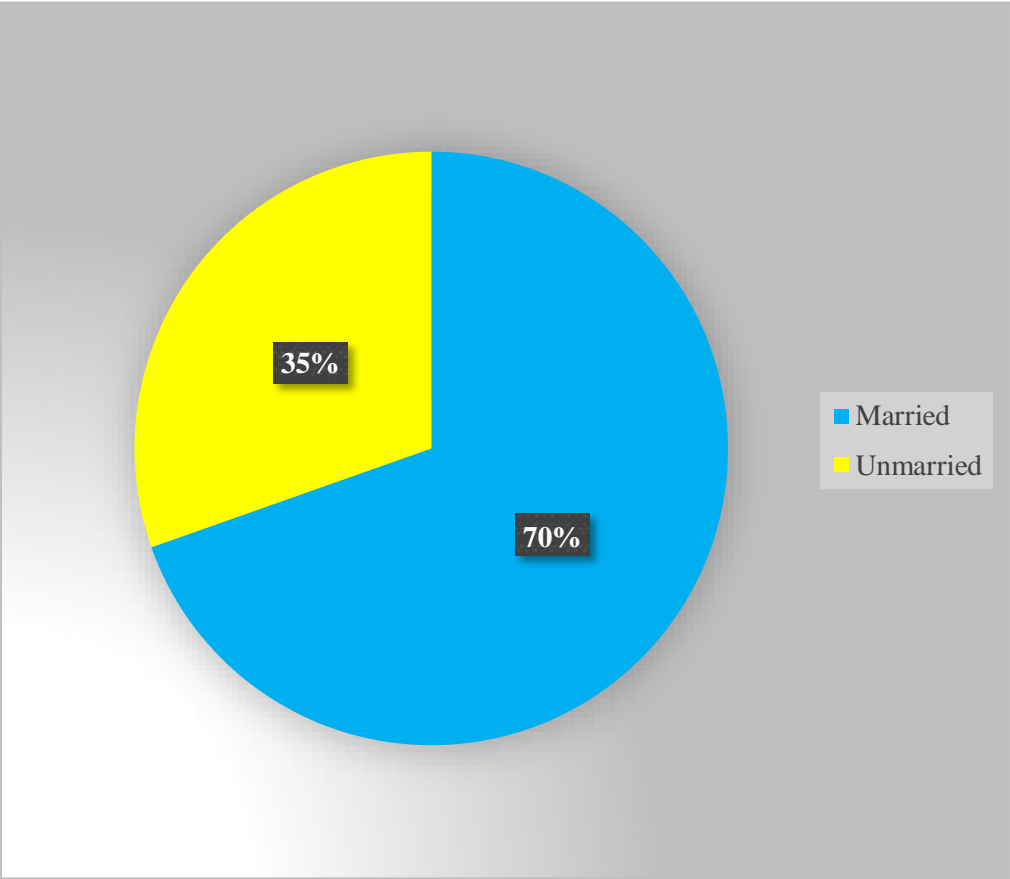


Figure-4: Marital Status of the Participants

4.5 Working Institute of the Participants:

Data was collected from the physiotherapists who were working at different organizations, hospitals and also who were practicing in individual chamber. Among these 62% (n=49) data was collected from the physiotherapists who were working in different units of CRP, Savar branch. 27% (n=22) respondents were from CRP, Mirpur branch. And 10% (n=8) data was collected from others organization which includes some non-governmental hospitals and private chamber practice. (Figure-4).

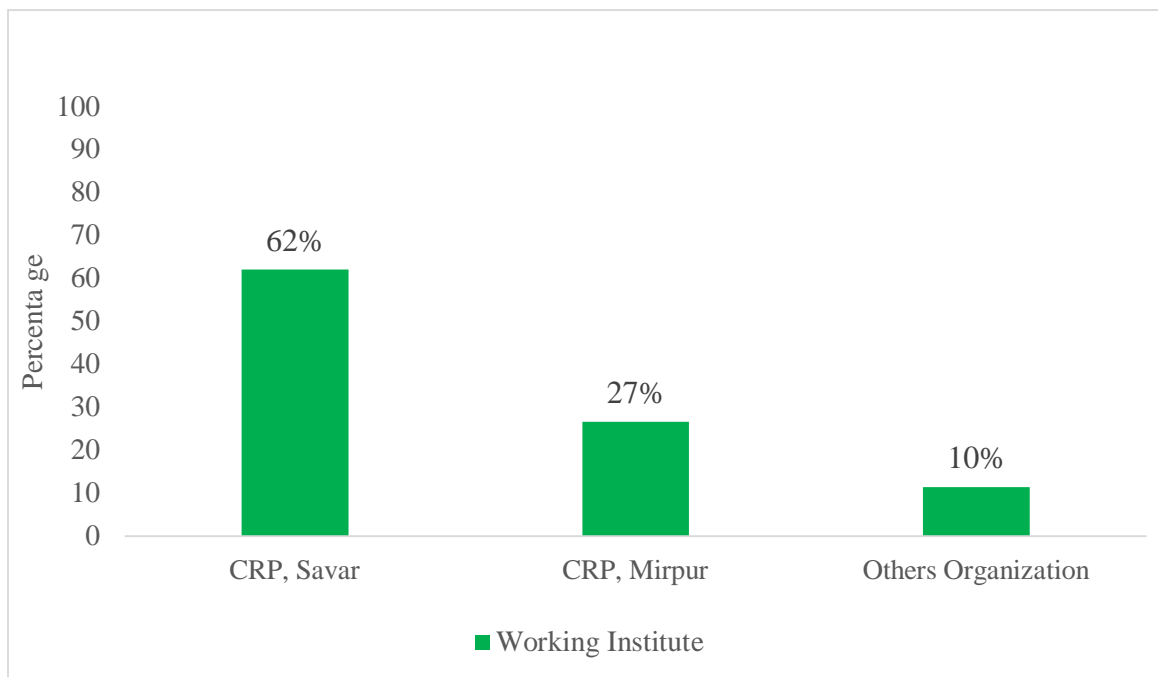


Figure-5: Working Institute of the Participants

4.6 Gynecological Physiotherapy Content in Curriculum:

About 90% (n=72) of the participants answered that, they studied some gynecological conditions and the role of physiotherapy in these conditions as a part of Physiotherapy in Surgical Conditions subject. They also added that it was very limited. Only 9% (n=7) of the participants answered that they didn't study any content related to gynecological physiotherapy. (Figure-6).

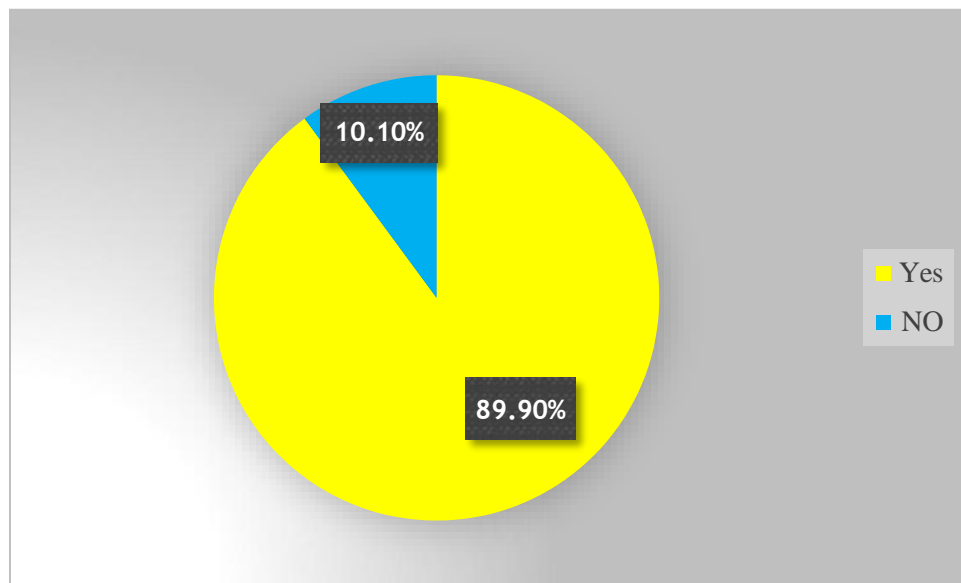


Figure-6: Gynecological Physiotherapy content in curriculum

4.7 Necessity of Gynecological Physiotherapy for Women's Health

Among 79 participants, 93.7% (n=74) agreed that gynecological physiotherapy is important for women's health and the 6.3% (n=5) of the participants disagreed with this opinion. (Figure-7).

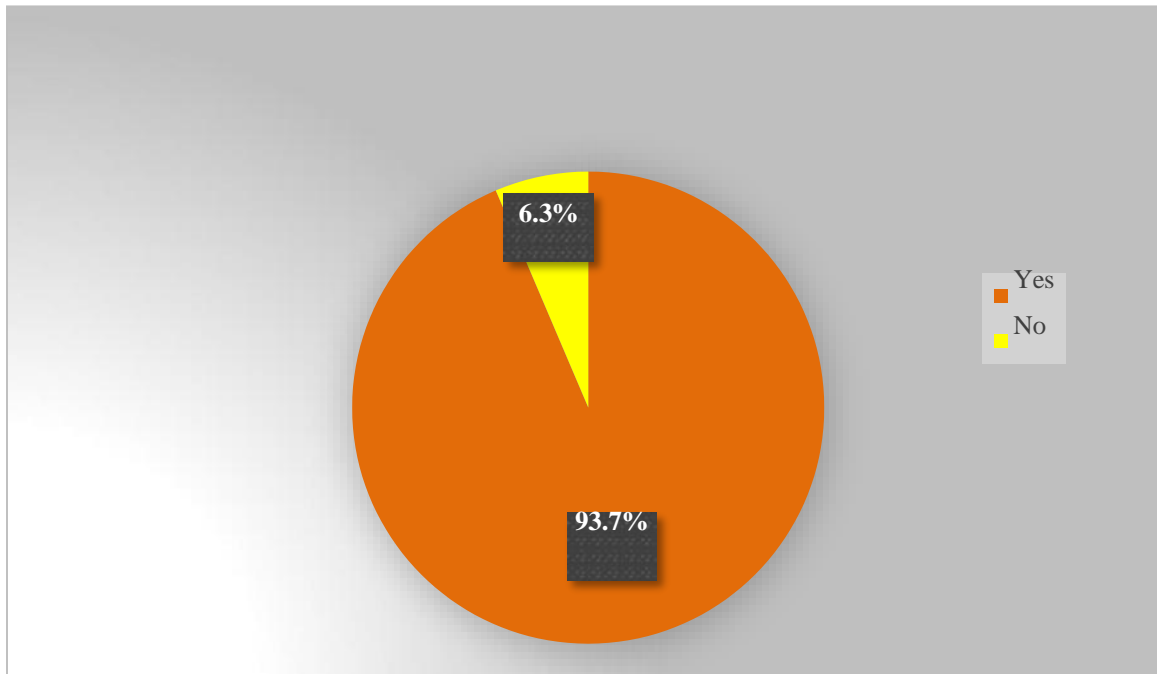


Figure-7: Necessity of gynecological physiotherapy

4.8 Recently (3-6 month) Attending Training Session on Gynecological Physiotherapy:

Among the participants only 2.5% (n=2) of the participants attended training session within last 3-6months and the rest 97.5% (n=77) did not attend any training session within last 3-6 months. (Figure-8).

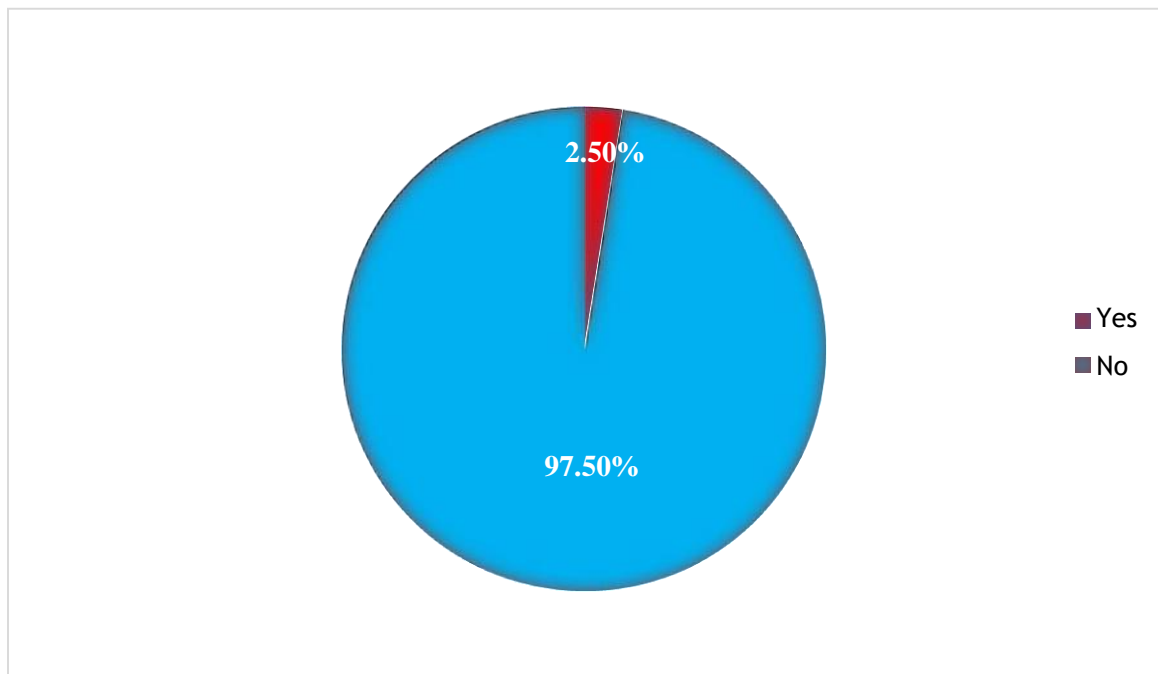


Figure-8: Recently (3-6 month) attended training session

4.9 Previously (6month-1year) Attended Training Session on Gynecological Physiotherapy:

Among the participants 36.7% (n=29) of the participants participated training session within 1yr, and the 63.3% (n=50) of the participants didn't participate any training session. (Figure-9).

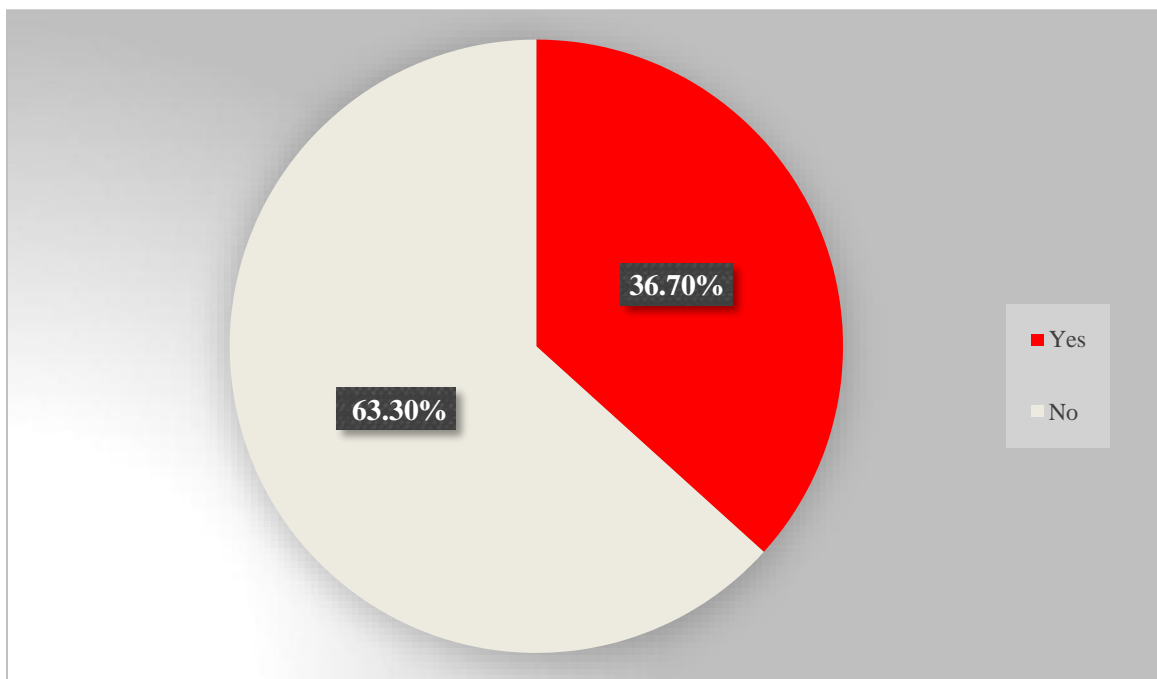


Figure-9: Previously (6month-1yr) attended training session

4.10 Training Session influence in clinical practice

Among the participants 35% (n=28) answered that training session influenced their clinical practice and 65% (n=51) of the participants didn't answer this questions because they didn't attend training session. (Figure-10)

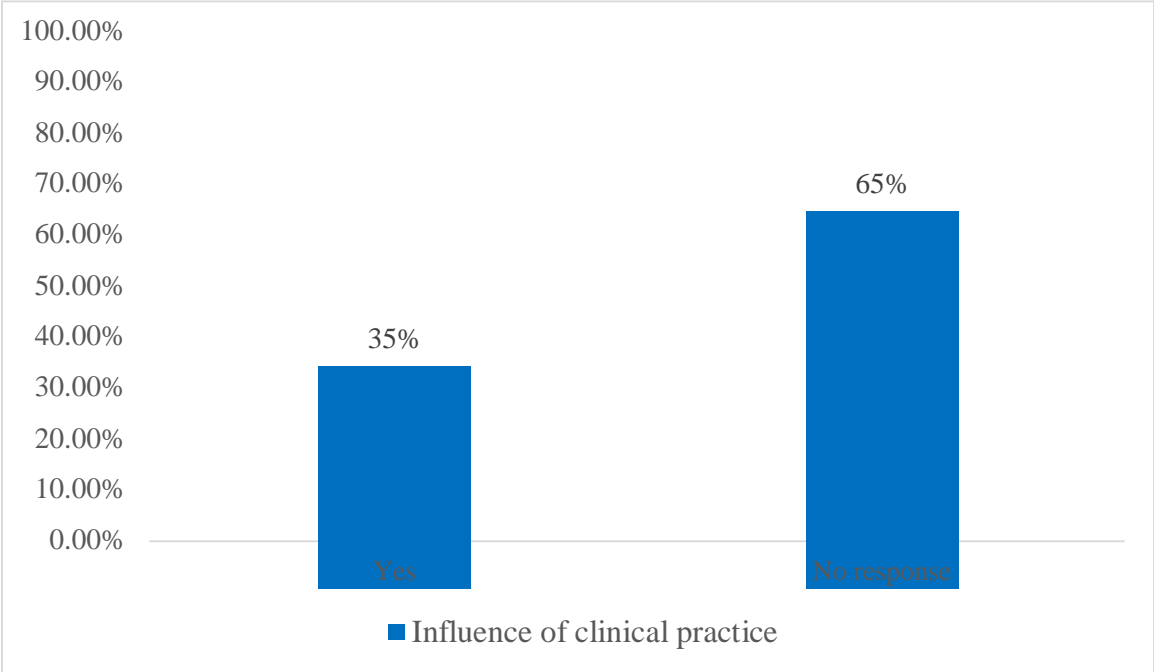


Figure-10: Influence of training in clinical practice

4.11 Participants faced problem while treating any gynaecological conditions:

Among 79 participants 53.2% (n=42) of the participants said they faced problem while treating any gynecological condition and 24.1% (n=19) of the participants said that they didn't face any problem during treatment of any gynecological conditions. And 22.8% (n=18) of the participants didn't answer this questions as they didn't see any patients who had gynecological problems. (Figure-11)

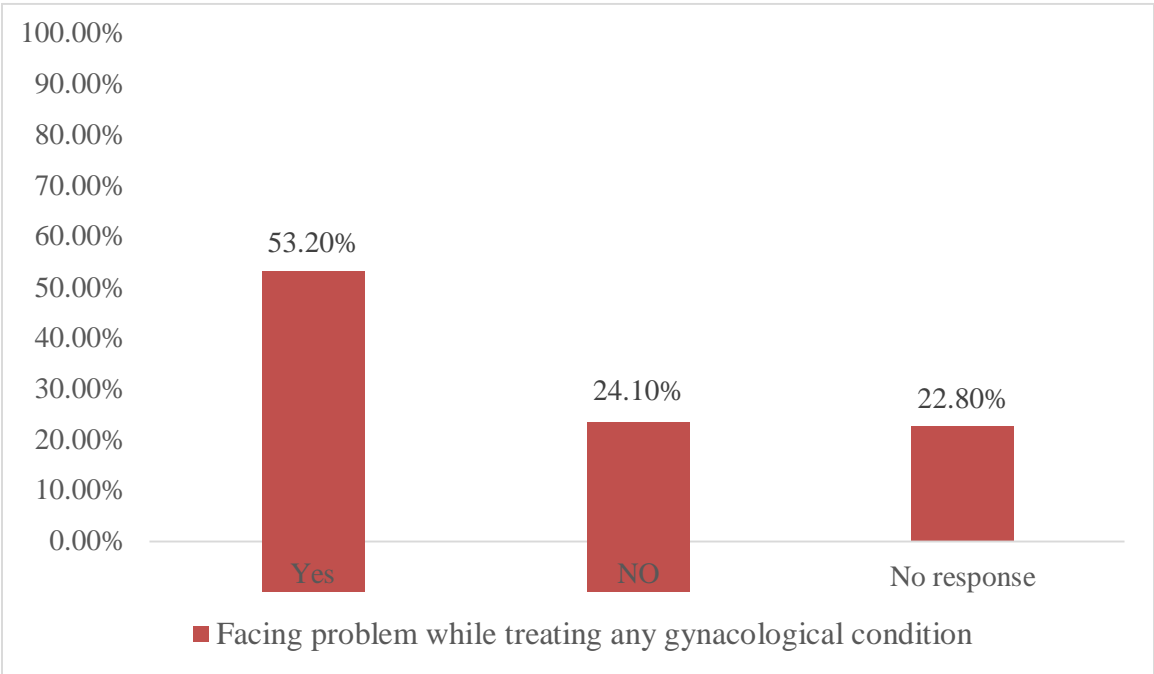


Figure-11: Facing problem while treating any gynecological condition

4.12 Most often Referral Patients:

Most of the participants 48.1% (n=38) said that they find those patients mostly who were referred by themselves and only 2.6% (n=2) of the participants added that they found patients who were referred by gynecologist. 29.1% (n=23) of the participants answered that they found mostly those patients who were referred by other patients or their relatives or by other physiotherapists. And 22.8% (n=18) of the participants didn't answer this question as they didn't see any patients related to gynecological problems. (Figure-12).

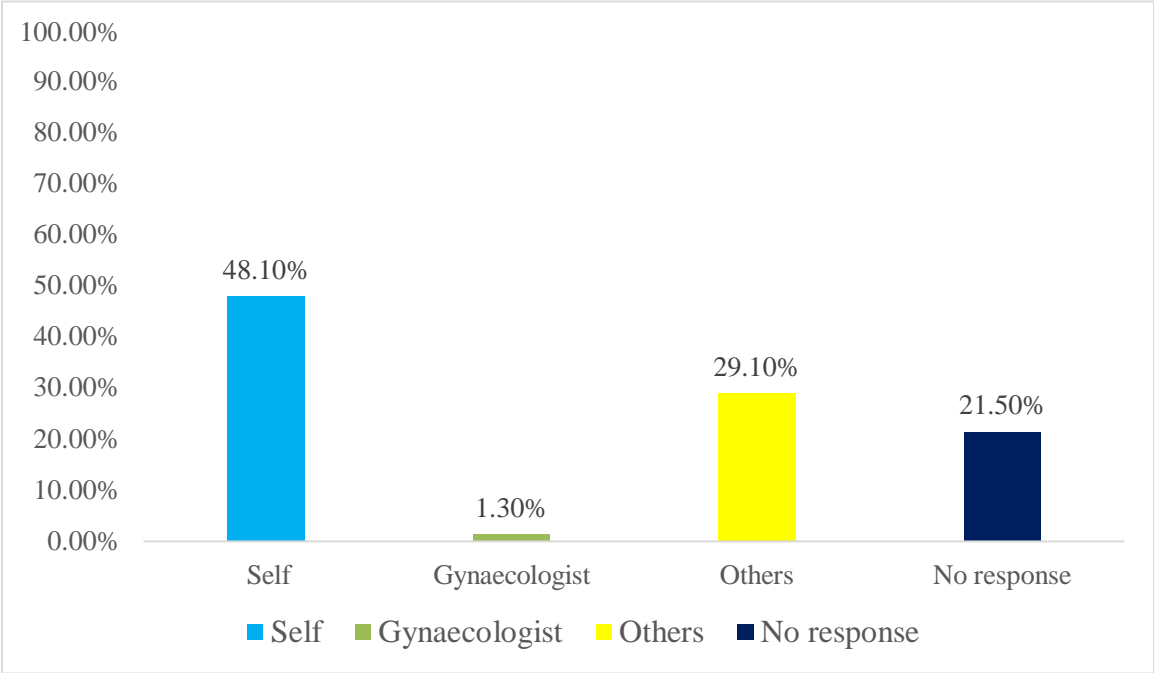


Figure-12: Most often referral patients

4.13 Guideline for gynecological physiotherapy practice:

64.6% (n=51) of the participants said that they didn't have any guideline for gynecological physiotherapy practice and only 15.2% (n=12) of the participants agreed that they had a guideline for gynecological physiotherapy practice. 20.3% (n=16) participants didn't respond this question. (Figure-13)

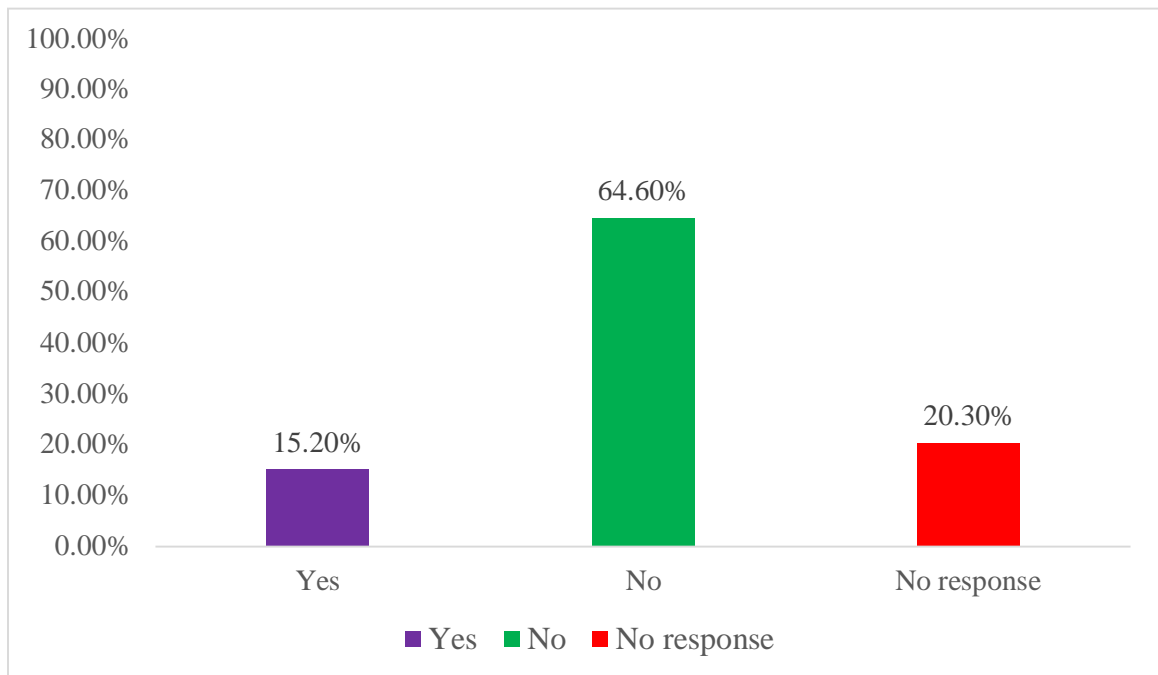


Figure-13: Guideline for gynecological physiotherapy practice

4.14 Scope of practice in gynecological physiotherapy:

Majority of the participants 41.8% (n=33) said that the scope of practice in gynecological physiotherapy is fair and 16.5% (n=13) participants said that there is good scope of practice in gynecological physiotherapy and only 1.3% (n=1) of the participants said that it is very good. 19% (n=15) participants said that the scope of practice in gynecological physiotherapy is very bad and the rest 21% (n=17) participants said that it is bad. (Figure-14)

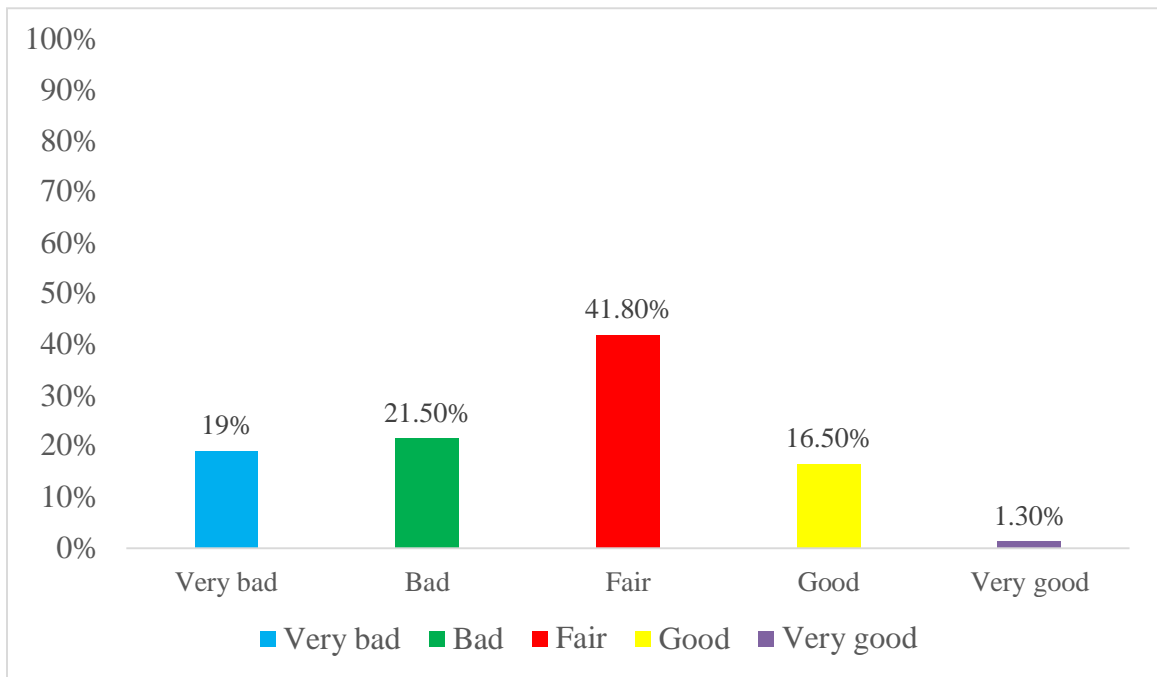


Figure-14: Scope of practice in gynecological physiotherapy

4.15 Patient's feedback after receiving gynecological physiotherapy:

Physiotherapist 51.9% (n=41) said that their patient's expressed satisfaction with gynecological physiotherapy, 5.1% (n=4) were very satisfied, 20.3% (n=16) were neither satisfied nor dissatisfied. And 22.8% (n=18) participants didn't answer this questions because they didn't see any patients who have gynecological problems. (Figure-15)

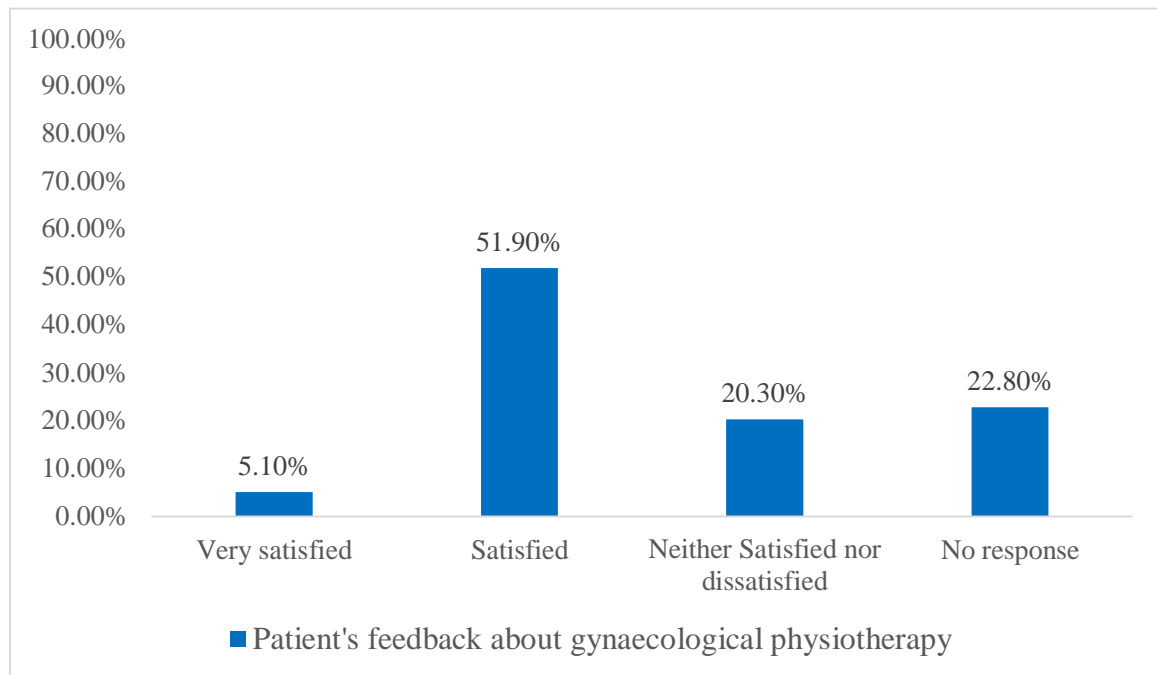


Figure-15: Patient's feedback about gynecological physiotherapy

4.16 Percentage of patients understanding instructions:

24.1% (n=19) of the participants said that the percentage of patients understanding instruction was 30-50%, 20.3% (n=16) participants said it was 50-80%, 15.2% (n=12) participants said it was 10-20% and only 10.1% (n=8) participants said it was less than 10%. And 22.8% (n=18) of the participants didn't answer this question as they didn't see any gynecological patients. (Figure-16)

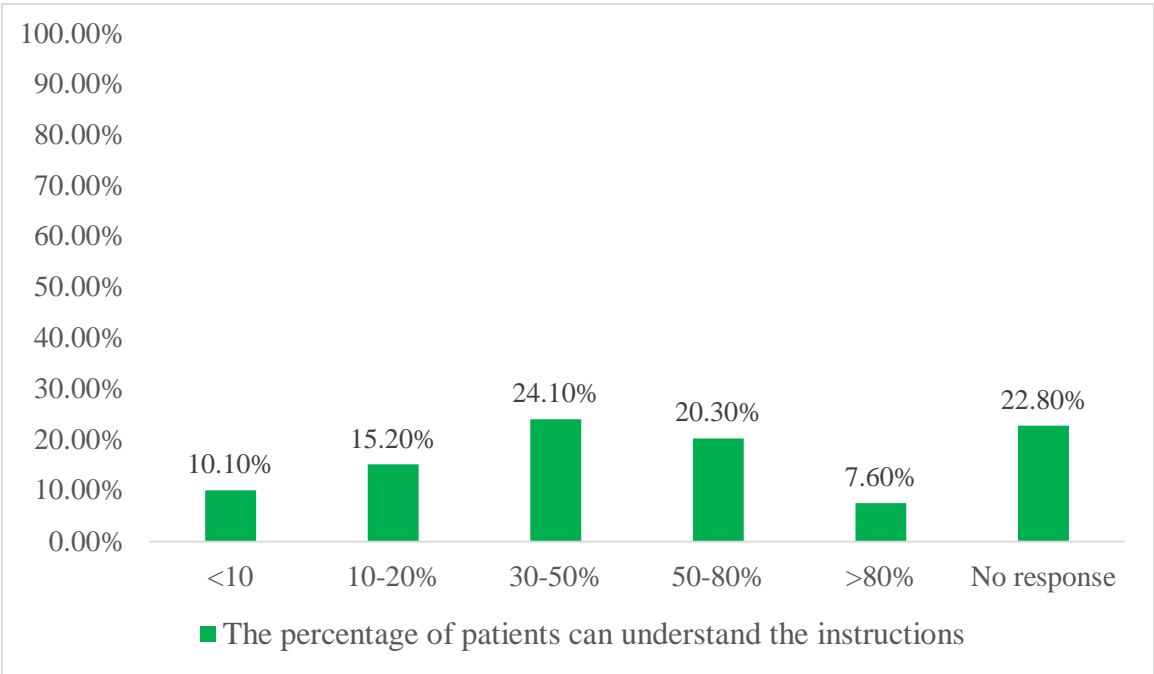


Figure-16: Percentage of patients can understand instructions

4.17 Motivation of Patients:

Patient motivation is an important element for an effective training session. Among the patients that the physiotherapist treated 48.1%(n=38) participants said that their patients were motivated, 8.9%(n=2) participants said that patients were neither motivated nor demotivated, 13.9%(n=11) participants said that patients were somewhat motivated and only 1.3%(n=1)said that patients were not motivated at all. 22.8% (n=18) participants didn't answer this questions. (Figure-17).

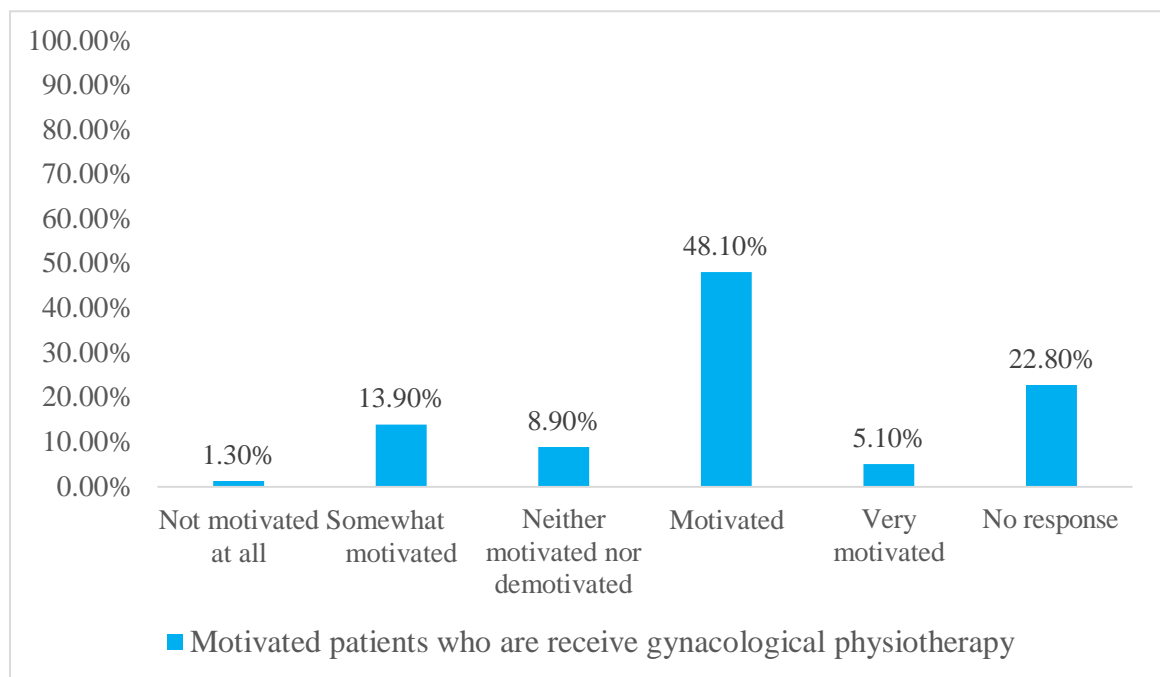


Figure-17: Motivation of patients receiving gynecological physiotherapy

4.18 Women came from for the treatment session:

32.9%(n=26) participant answered that most commonly women came from the urban area for the treatment session, 25.3% (n=20) said that most commonly women came from semi-urban area, 12.7% (n=10) added that women from rural area most commonly came for the treatment session and only 6.3%(n=5) participants said that women from semi-rural area came for receiving treatment. And 22.8% (n=18) participants didn't answer this question. (Figure-18).

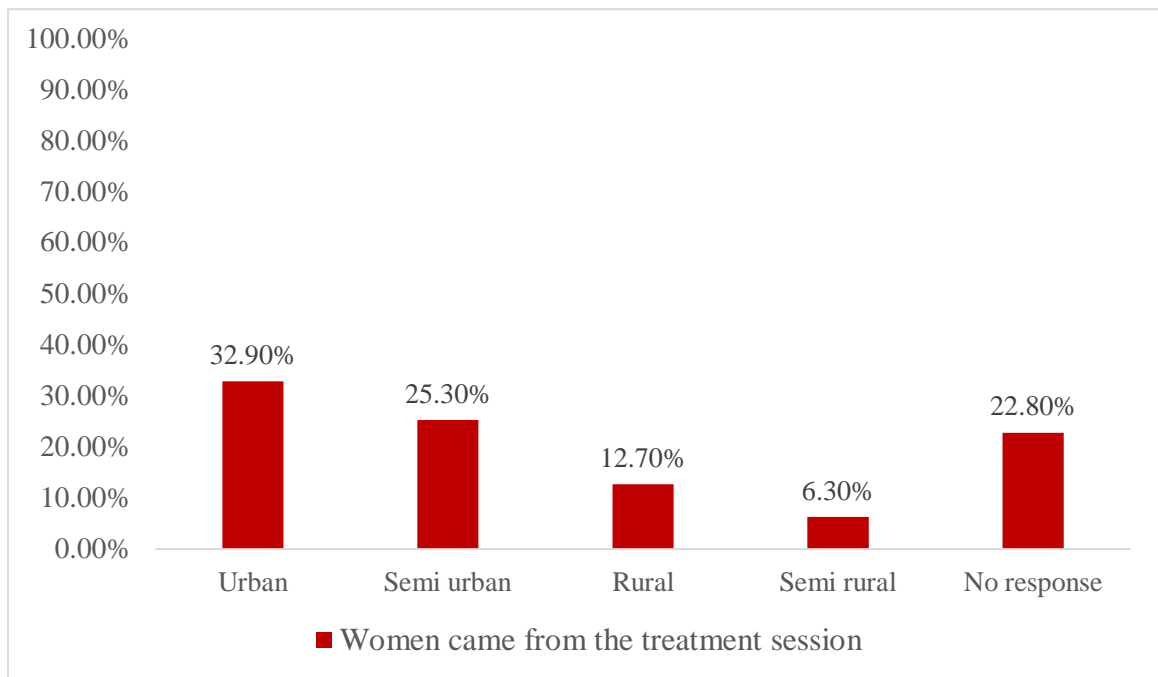


Figure -18: Women came from for the treatment session

4.19 Patients receiving gynecological physiotherapy in terms of literacy:

24.1% (n=19) of the participants replied that women came for the treatment session who had completed their higher secondary education, 19% (n=15) of the participants said it was graduation level, 13.9% (n=11) of the participants said it was secondary education level, 12.7% (n=10) of the participants said it was post-graduation level and only 7.6% (n=6) of the participants said that the patients education level was primary level. And 22.8% (n=18) of the participants didn't answer this question. (Figure-19).

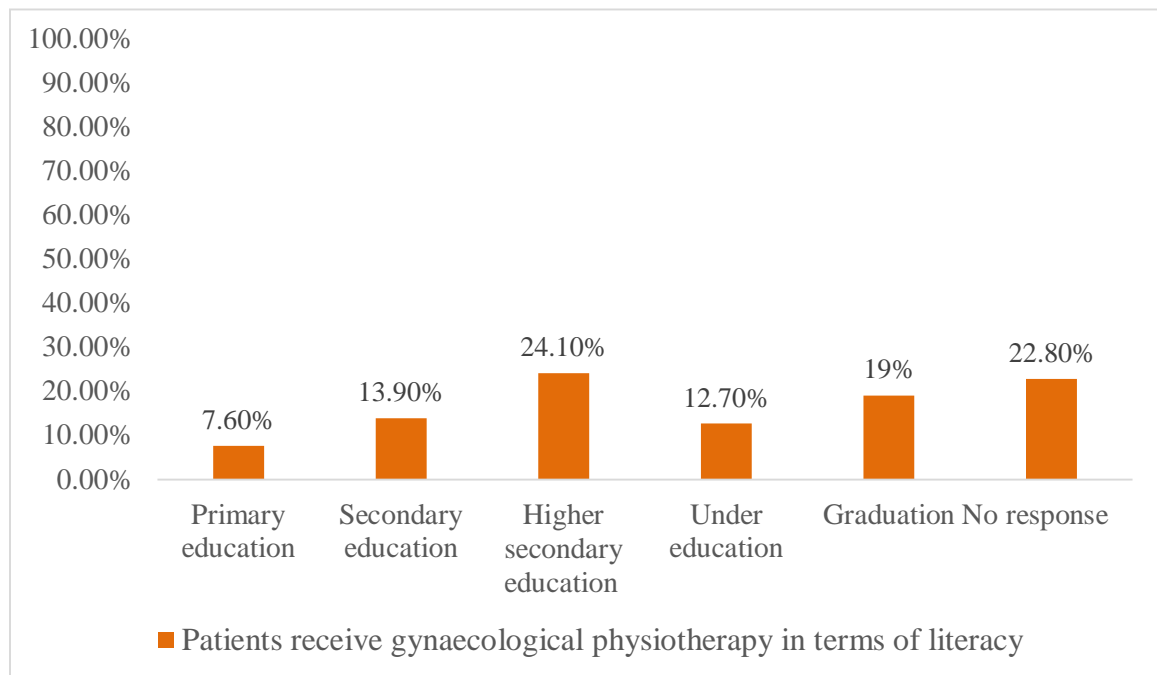


Figure-19: Patients receiving gynecological physiotherapy in terms of literacy.

4.20 Percentages of people in Bangladesh know about gynecological physiotherapy treatment:

Among 79 participants 70.9% (n =56) participants thought that <10% people of Bangladesh know about gynecological physiotherapy treatment, 27.8% (n=22) participant thought that the percentage is 10-20% and only 1.3% (n=1) participant thought the percentage is 30-50%. (Figure -20).

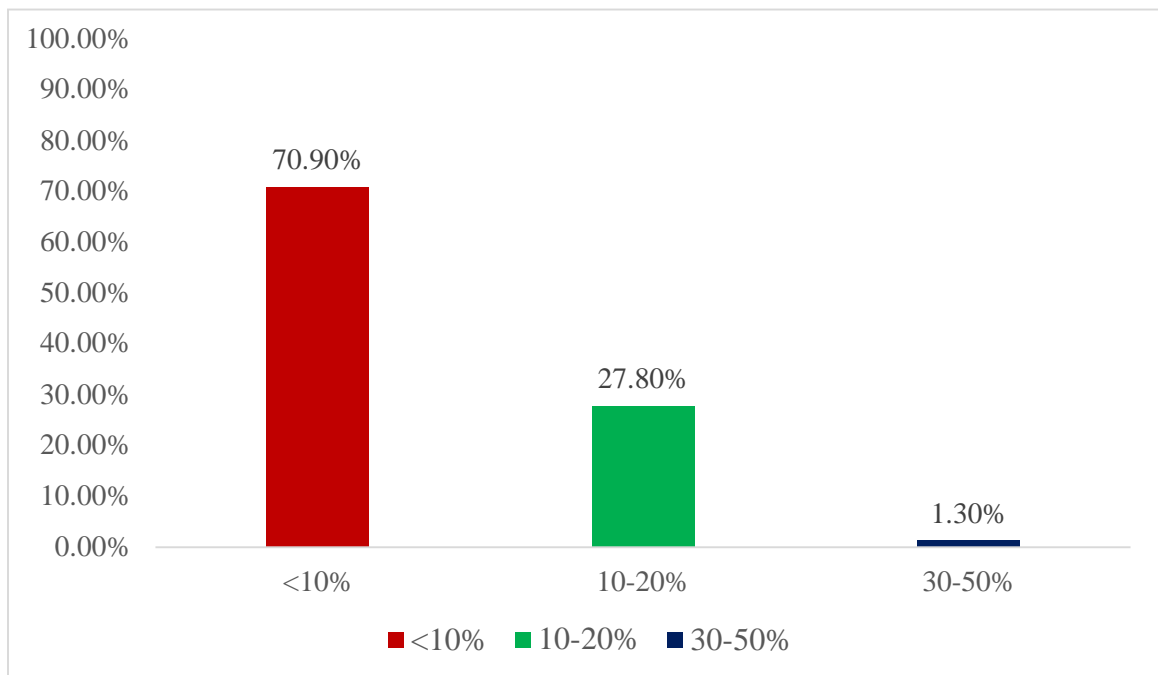


Figure -20: Percentages of people in Bangladesh know about gynecological physiotherapy treatment.

4.21 Satisfaction of Physiotherapists providing gynecological physiotherapy:

Among 79 participants 44.3% (n=35) of the participants answered that they were satisfied providing physiotherapy treatment to the women who had gynecological problems, 29.1% (n=23) were neither satisfied nor dissatisfied and only 1.3% (n=1) of the participant was very satisfied and 2.5% (n=2) of the participants were dissatisfied. 22.8% (n=18) of the participants didn't answer this question. (Figure-21).

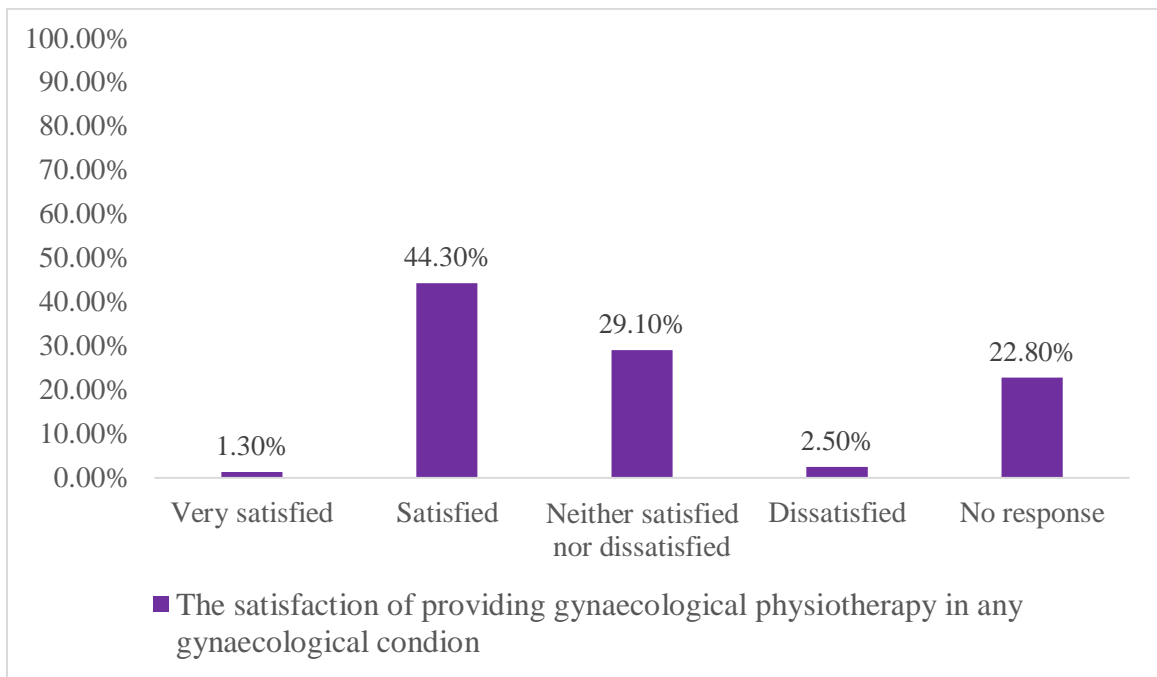


Figure -21: Satisfaction of physiotherapist providing gynecological physiotherapy.

4.22 Necessity of awareness programme for gynecological physiotherapy:

All of the participants were agreed that awareness programme is necessary for the development of gynecological physiotherapy. 41.8% (n=33) of the participants mentioned professionals need it most, 25.3% (n=20) said patients need it most, 15.2% (n=12) said students need it most and 17.7% (n=14) of the participants included that gynecologist doctor, mass people, women who are going to be pregnant, husband need it most. (Figure-22).

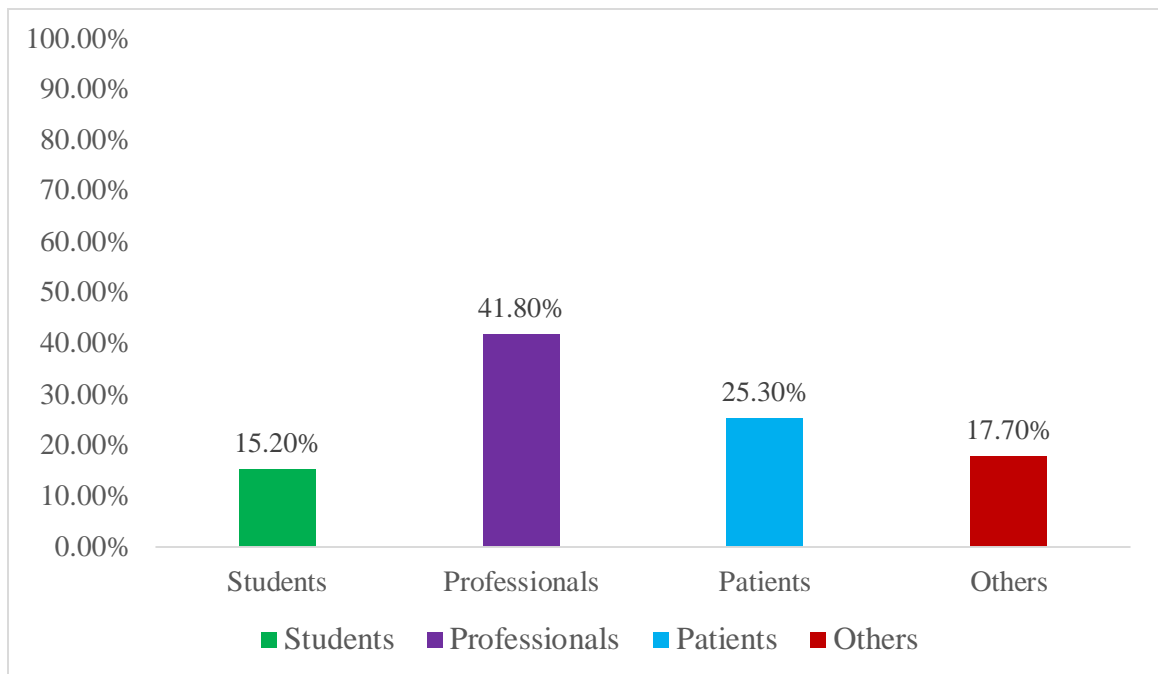


Figure -22: Awareness programme who need most

4.23 Training session arranged by working organization:

65.8% (n=52) of the participants said that the organization in which they were working arranged training session related to women's health and 34.2% (n=27) of the participants said that the organization in which they were working didn't arrange any training session related to women's health physiotherapy.(Figure-23).

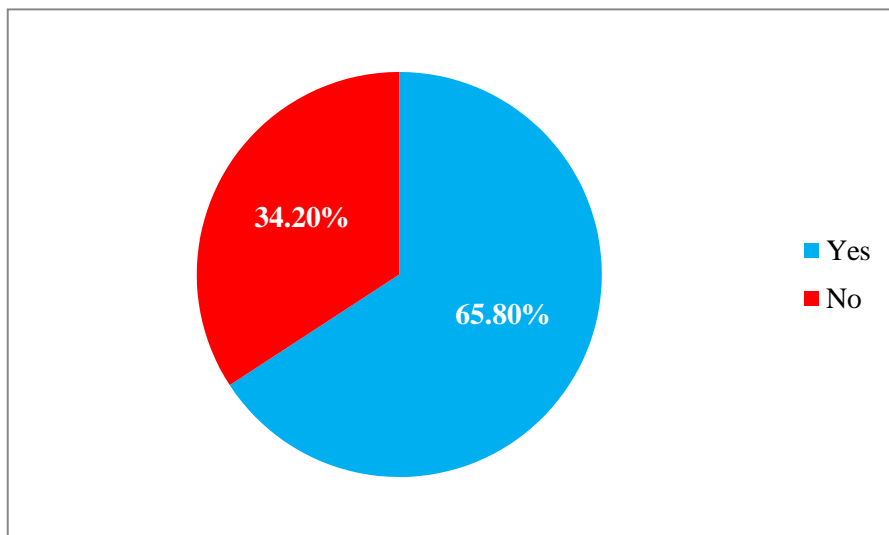


Figure -23: Training session arranged by working organization.

Table 1: Association between physiotherapists' years of job experience and patient's motivation:

Years of job experience	Patient's motivation			Total	Chi-square value	df	Significant value
	Not to minimum motivated	Moderately motivated	Highly motivated				
<2yrs	3	3	14	20	2.396	6	.880
2-5yrs	6	4	19	29			
>5-10yrs	2	0	5	7			
>10yrs	1	0	4	5			
Total	12	7	42	61			

From the table, Chi-square value is 2.396; df is 6 and p value is .880. As the p value is more than .05 the result shows that there is no association in between physiotherapists' years of job experience and patient's motivation.

Table 2: Association between physiotherapists' years of job experience and physiotherapists' satisfaction:

Years of job experience	Physiotherapist satisfaction			Total	Chi-square value	df	Significant value
	Highly dissatisfied	Neither satisfied nor dissatisfied	Highly satisfied				
<2yrs	1	9	10	20	3.007	6	.808
2-5yrs	1	11	17	29			
>5-10yrs	0	1	6	7			
>10yrs	0	2	3	5			
Total	2	23	36	61			

From the table, Chi-square value is 3.007; df is 6 and p value is .808. As the p value is more than .05 the result shows that there is no association in between physiotherapists' years of job experience and physiotherapists' satisfaction.

Table 3: Association between patient’s education level and patient’s motivation:

Patient’s education level	Patient’s motivation			Patient’s motivation	Chi-square value	df	Significant value
	Not to minimum motivated	Moderate motivated	Highly motivated				
Primary to secondary education	2	5	10	17	8.291	4	.069
Higher secondary to under graduation	6	2	21	29			
Higher secondary to under graduation	4	0	11	15			
Total	12	7	42	61			

From the table, Chi-square value is 8.291; df is 4 and p value is .069. As the p value is more than .05 the result shows that there is no association in between physiotherapists’ years of job experience and physiotherapists’ satisfaction.

Table 4: Association between patient’s motivation and their feedback:

Patients motivation	Patients feedback		Total	Chi-square value	df	Significant value
	Neither satisfied nor dissatisfied	Satisfied to very satisfied		22.363	2	.000
Not to somewhat motivated	6	6	12			
Neither motivated nor demotivated	6	1	7			
Motivated to very motivated	4	38	42			
Total	16	45	61			

From the table, Chi-square value is 22.363; df is 2 and p value is .000. As the p value is less than .05 the result shows that there is strong association in between patient’s motivation and their feedback.

Table 5: Association between physiotherapists' years of job experience and patient's feedback:

Years of job experience	Patients feedback		Total	Chi-square value	df	Significant value
	Neither satisfied nor dissatisfied	Satisfied to very satisfied				
<2yrs	6	14	20	.791	3	.852
2-5yrs	8	21	29			
>5-10yrs	1	6	7			
>10yrs	1	4	5			
Total	16	45	61			

From the table, Chi-square value is .791; df is 3 and p value is .852. As the p value is more than .05 the result shows that there is no association in between physiotherapists' years of job experience and physiotherapists' satisfaction.

- **Qualitative result:**

Category 1: Opinion about the importance of gynecological physiotherapy.

Table 1: Coding of importance of gynecological physiotherapy.

Participants	Codes			
	Facilitate in normal delivery	For personal well-being	Reduce C-Section complications	Available patients
1	√		√	√
2		√	√	
3			√	√
4		√		
5	√	√	√	
6			√	
7		√	√	
Total	2	4	6	2

All participants agreed that gynecological physiotherapy is important for women’s health and also for physiotherapy profession. One participant said, *“during pregnancy gynecological physiotherapy has no alternative choice as it helps to prevent various complications after cesarean section and also facilitates in normal delivery”*.

Another participant said that, “ In Bangladesh there are lots of gynecological patients. Women are less educated about their problem and that’s why they develop lots of complications which are sometimes life threatening. Through gynecological physiotherapy we can minimize these problems”.

A prospective study conducted in Madhya Pradesh, India by Chauhan et al., (2016) found that antenatal physiotherapy enhance normal delivery.

Theme 1: Gynecological physiotherapy is important for pregnancy and women’s health issues to lead a healthy lifestyle.

Category 2: Opinion about the influence of training session in clinical practice.

Table 2: Coding about the influence of training session in clinical practice.

Participants	Codes		
	Knowledge gain	Specific treatment	Improves confidence
1		√	
2		√	√
3	√	√	
4	√	√	
5	√		
6	√		√
7		√	√
Total	4	5	3

All participants agreed that, training programme is essential to improve physiotherapist skill and knowledge. One participant said that, *“In my clinical practice, I find lots of patients who have gynecological problem. Now, I know how to do pelvic floor exercise. How to prevent urinary incontinence and treatment of pelvic pain. So, it gives me much more confidence to provide session”*.

Another participant said that, “Now, I can apply treatment and preventive measures in some patients who had pregnancy related complications. Besides, who had urinary urgency and so on”.

Theme 2: Training programme helps physiotherapist to ensure appropriate diagnosis and specific treatment with more clinical competency.

Category 3: Opinion about the problem which physiotherapist faced during treatment session.

Table 3: Coding about the problem which physiotherapist faced during treatment session.

Participants	Codes			
	Lack of knowledge	Lack of training session	Difficulty to describe exercise	Socio-cultural barrier
1			√	√
2			√	
3	√	√		
4				√
5			√	√
6	√	√		
7	√	√		
Total	3	3	3	3

Majority of the participants said that they faced problems during treatment session. One participant said that, *“I have no details knowledge about gynecological physiotherapy. So, I face problem in diagnosis and treatment plan”*.

Another participant said that, *“Due to lack of proper training and education face difficulty in patient handling who have history of miscarriage and frequent child birth history. In Bangladesh perspectives we have also some cultural barriers”*.

Generally, women have a tendency to ignore gynecological issues till it reaches a level where some intervention becomes necessary. There is very little information on prevalence of reproductive health problems in the community and their perceived needs, knowledge and attitudes (Pirie et al., 2016).

Theme 3: Development of knowledge through training, along with awareness programme can resolve the challenges during gynecological physiotherapy practice.

Category 4: Opinion about the gynecological problem most often find by physiotherapist.

Table 4: Coding the gynecological problems most often find by physiotherapist.

Participants	Codes					
	Urinary incontinence	Pelvic floor muscle weakness	LBP after C-section	Pelvic prolapse	Pregnancy related complications	Sexual problem after an injury(e.g.SC I,Stroke)
1	√	√	√			√
2	√		√	√	√	
3		√		√	√	
4	√		√			√
5	√	√	√		√	
6		√	√			
7		√	√	√	√	√
Total	4	5	6	3	4	3

Physiotherapist finds lots of problems which are related to gynecological problem. One participant said that, *“I find patient’s like-pregnancy related complications, pelvic prolapse urinary incontinence, urinary urgency etc”*.

Another participant said that, *“I find patients of Low Back Pain (LBP) after cesarean section, sexual problem after Spinal Cord Injury or stroke, stroke with urinary incontinence”*.

Gynecological problems are major health problem of women with spinal cord injury (Jackson & Wadley, 1999).The most common problems of these women after spinal cord injury is the

menstrual problem and many women faces amenorrhoea and galactorrhoea (Rutberg et al., 2008).

Theme 4: Gynecological issues are found in almost all specialized fields of physiotherapy.

Category 5: Opinion about the availability of gynecological physiotherapy for women’s health.

Table 5: Coding about the availability of gynecological physiotherapy for women’s health.

Participants	Codes			
	Need referral	Open gynae unit	Awareness programme	Create scope in this area
1	√	√	√	
2		√	√	√
3	√		√	√
4		√		√
5	√		√	√
6	√	√		√
7	√	√	√	
Total	5	5	5	5

Gynecological physiotherapy should make accessible for all women. In this regard one participant said that, *“In my point of view for promote the gynecological physiotherapy, we should aware the people first and give knowledge about this. We should communicate with women from urban to rural area”*.

Another participant said that, *“awareness programme among patients, professionals so that appropriate referral can achieve. Education of patient in rural and urban area about gynecological physiotherapy. Establishment of gynecological physiotherapy unit in government hospitals and rehabilitation centers”*.

In USA 30 states have direct access of patients to therapist and 48 still required referral by other health professionals. In Pakistan most of the patients are referred by other medical health professionals (Baldwin, 2017).

Many doctors, physicians and surgeons do not make referral at time and many patients that can be best managed by a physiotherapist are managed by doctors, physicians and surgeons themselves. Autonomy in physical therapy will not reduce the medical dominance, but will in physical therapy will not reduce the medical dominance but will benefit to patients and maintain professional dignity (Afzal, 2017). After open abdominal surgery physiotherapy intervention helps to improve cardiopulmonary function and physical function and reduce the incidence of postoperative pulmonary complications. For this reason physiotherapist must ensure that surgeons and nursing staff are fully aware of that a physiotherapist is able to contribute to patient care only then will the patients best interests be served (Ponmathi et al., 2016).

Theme 5: More scope is needed to improve gynecological physiotherapy practice.

Category 6: Opinion to improve physiotherapist skill in gynecological condition.

Table 6: Coding about the improvement of physiotherapist skill in gynecological physiotherapy.

Participants	Codes			
	Training session	Evidence based practice	Workshop, Seminar	Include in curriculum
1	√		√	√
2	√	√	√	√
3	√	√		
4			√	√
5	√	√	√	√
6	√	√	√	√
7	√			√
Total	6	4	5	6

To improve physiotherapist skill in this area more opportunity is needed. One participant said that, *“it is very much important to arrange practical and theoretical training for every physiotherapist. Specially, who are working in different NGO as well as include gynecological physiotherapist in every hospital from primary to tertiary level hospitals”*.

Another participant said that, *“to improve physiotherapist skill we need national and international training, workshop, seminar, evidence based practice guideline. Gynecological physiotherapy and women’s health should include in the curriculum as an individual subject”*.

The World Confederation for Physical Therapist (WCPT) stated that EBP should be considered as an opportunity for physiotherapists, and not a threat, as the current physiotherapy literature has high quality evidence that can be used to demonstrate the valuable contribution of

physiotherapy in treating several health conditions. However, it promotes the development of physiotherapy (Mansour et al., 2017).

Theme 6: Training session and Evidence based practice is important to improve gynecological physiotherapist skill.

At a glance the percentage supporting the theme

Theme-1			Theme-2			Theme-3			Theme-4			Theme-5			Theme-6		
Response	Frequency	Percentage	Response	Frequency	Percentage	Response	Frequency	Percentage	Response	Frequency	Percentage	Response	Frequency	Percentage	Response	Frequency	Percentage
Facilitate in normal delivery	2	28.57%	Knowledge gain	4	57.14%	Lack of knowledge	3	42.85%	Urinary incontinence	4	57.14%	Need referral	5	71.43%	Training session	6	85.71%
For personal well-being	4	57.14%	Specific treatment	5	71.43%	Lack of training session	3	42.85%	Pelvic floor muscle weakness	4	57.14%	Open gynae unit	5	71.43%	Evidence based practice	4	57.14%
Reduce C-section complications	6	85.71%	Improve confidence	3	42.85%	Difficulty to describe exercise	3	42.85%	LBP after C-section	5	71.43%	Awareness programme	5	71.43%	Work shop, Seminar	5	71.43%
Available patients	2	28.57%				Socio-cultural barrier	3	42.85%	Pelvic prolapsed	3	42.85%	Create scope in this area	5	71.43%	Include in curriculum as a separate subject	6	85.71%
									Pregnancy related complications	4	57.14%						
									Sexual problem after an injury(e.g.SCI ,Stroke)	3	42.85%						

5.1 Discussion

In this study, 56% (n=44) of the participants were female physiotherapists and 44% (n=35) of the participants were male physiotherapist. One research conducted in Australia by Andrew E. et al., (2019) on the physiotherapists' view about physiotherapy service in mental illness had 68% female participants and 32% male participants.

From this study, researcher found 89.9% (n=71) participants studied some gynaecological conditions and the role of physiotherapy in these conditions as a part of Physiotherapy in Surgical Conditions subject but the contents were very limited. 10.1% (n=8) participants were not studied any gynaecological conditions related subject in their curriculum because they completed their graduation before the year 2006. And the curriculum was changed in October, 2005 and it was applicable from 2006.

In this study, 93.7% (n=74) participants also said that, gynaecological physiotherapy is important for women's health but 6.3% (n=5) participants said as the profession has not developed properly yet, gynaecological physiotherapy is not so important. One of the researches conducted in Brazil by Carmen & Milanez (2011) showed, 65.6% of the women were sufficiently informed about the practice of physical exercise during pregnancy and the vast majority 93.8% was in favor of it. Another research conducted in Australia by Evenson (2010) showed, 78% of women agreed to continue their regular exercise during pregnancy, 68% agreed that most women who never exercised could begin an exercise program during pregnancy. Most 89% agreed that regular exercise was better than irregular exercise during pregnancy.

Canada, the United States of America and the United Kingdom have published national guidelines for physical activity by pregnant women, based on World Health Organization recommendations. (ACOG, 2015). In the study, 64.6% (n=51) physiotherapist said they didn't

have any guideline for pregnant women. And 15.2% (n=12) participants said they follow some guideline which are available on different articles.

From the study, researcher found 41.8% (n=33) of the participants said that the scope of practice for physiotherapist in gynaecological physiotherapy is fair.

In the study 24.1% (n=19) of the participants said, the percentage of patients understanding instructions was minimum (30%-50%). One research conducted in Scotland by Holdsworth et al., (2008) found, majority 55% (26/47) physiotherapists reported very few population could understand about physiotherapy.

This study result shows, 65.8% (n=52) of the participants said the organization in which they were working arranged training session related to women's health and the role of physiotherapy in it. From the study, the researcher found that 36.7% (n=29) of the participants attended training session within last 6month-1 year.

From the study researcher found that majority of the participants 70.9% (56) assumption in regard that the percentage of people know about gynaecological physiotherapy in Bangladesh is <10%.

Awareness programme is a necessary for the development of the profession. In this study 41.8% (33) of the participants said that in awareness programme we should engage professionals (doctors, general physicians, private practitioners).

The researcher tried to find out association in different components which are related to the aim of the study, but didn't find any significant relation in most of these components, small sample size may be a cause of it.

The researcher found a significant association ($p=.000$) between patients motivation and their feedback.

5.2 Limitation of the study:

There might be some limitations in every research. In this study small sample size may constitute a limitation. As the data was collected only from the Dhaka division which might not represent the whole physiotherapists' view in the context of Bangladesh. As the study period was short so the adequate number of sample could not arrange for the study. As gynecological physiotherapy is a new sector for physiotherapy profession, there is limited research about physiotherapists' view in this sector.

6.1 Conclusion

Aim of the study was to find out the physiotherapists' view about gynecological physiotherapy scope of practice in Bangladesh. A mixed study design was chosen to conduct the research. There was a few number of research on gynecological physiotherapy in Bangladesh.

The main findings of the study was gynecological physiotherapy should include in curriculum as an individual subject in the under graduation level, so that students can learn more information and knowledge about the role of physiotherapy in women's health. Awareness programme is needed for the development of the service in our country. The referral system in our country is not so good and for this reason many patients can't get appropriate treatment which is necessary for them. As gynecological physiotherapy is a part of physiotherapy so physiotherapist should practice it fluently with confidence and proper knowledge.

A woman plays a multifaceted role contributing to the progress of society balancing her personal as well as professional life. Women have responsibilities to effectively manage their domestic as well as professional life. In order to deal with these stresses of family as well as professional life, a woman should have a healthy lifestyle. In all this, gynecological health of a woman plays an important role (Bhatwadekar et al., 2016). Not only in pregnancy but also other conditions which are most commonly occurs in female can be benefited from physiotherapy. Primary dysmenorrhea is a condition which is defined as cramping pain in the lower abdomen that occurs just before or during menstruation without identifiable pelvic pathology. Regular physical exercise can improves these symptoms (Kannan & Claydon, 2014).

In every hospital of Bangladesh separate gynaecological unit is available but there is a little opportunity for physiotherapist to practice in this area. So, more opportunity is needed for the establishment of gynaecological physiotherapy service in our country.

6.2 Recommendation

Recommendation for the author:

- Gynecological physiotherapy should include in under graduation curriculum as an individual subject.
- Arranged training session on gynecological physiotherapy.
- Create more opportunities on this area.

Recommendation for further research:

There are so many opportunities of conducting research study in this area because gynecological physiotherapy is an emerging area of physiotherapy. More study will enrich the service and delivery system. Some ideas are included below:

- Gynecologists' attitudes & views in regarding gynecological physiotherapy can be studied.
- Perception, knowledge and beliefs of pregnant women about physical exercise during pregnancy period can also be found by doing further research on this area.

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Appendix

CONSENT STATEMENT

(Please read out to the participants)

Assalamualaikum/ Namasker,

My name is Mariya Khan, I am conducting this study for B.Sc in Physiotherapy project study dissertation title **“Physiotherapists’ view of gynecological physiotherapy scope of practice in Bangladesh”** 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 Muhammad Millat Hossain, Assistant Professor, Project & Course Coordinator of Department of Rehabilitation Science, Bangladesh Health Professions Institute (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' view of gynecological physiotherapy scope of practice in Bangladesh.

Part –I: Personal Details

1 .Name of respondent:

2 .Sex:

3. Age:

4. Mobile no:

5. Educational status:

6. Marital status:

7.1 Present working institute:

7.2 Working unit:

8. Years of job experience:

9. Present address:

Village:

Post office:

Thana:

District:

10. Permanent address:

Village:

Post office:

Thana:

District:

- **Instructions:** Please give a tick (✓) mark in your answer. Would you kindly mention your valuable opinion in some answers?

Part – II

A. Factor / Area :

1. Is there any gynaecological physiotherapy content in your curriculum?
 - Yes
 - No
2. (a) Do you think gynaecological physiotherapy is important for women's health?
 - Yes
 - No

(b) If yes, why-

3. Recently (3-6 month), have you attended any training session / seminar related to gynaecological physiotherapy?
 - Yes
 - No
4. Previously (6 month – 1 year), did you attend any training session / seminar related to gynaecological physiotherapy?
 - Yes
 - No
5. If you attend any training session which is related to it?
 - Pregnancy care related
 - Women's health awareness related
 - Specific conditions (eg.urinary incontinence, pelvic floor dysfunction) related.
 - Others; Please mention....
6. (a) Does this training session influence your clinical practice?
 - Yes
 - No

(b) If yes, how this training session helped you?

7. Do you think any training session is needed for gynaecological physiotherapy?
- Yes
 - No
8. (a) The organization in which you are working arranged any training session /seminar related to gynaecological physiotherapy?
- Yes
 - No
- (b) Is the training session arranged –?
- Every monthly
 - Every half yearly
 - Every yearly
 - > 1 year.

B. Practice:4

1. (a) Do you face any problem while treating any gynaecological condition?
- Yes
 - No
- (b) If yes, which type of problem you face?
2. (a) Do you find patients who are referred by physician / gynaecologist?
- Yes
 - No
- (b) What type of referral patients most often you find?
- Self
 - Gynaecologist
 - Others; Please mention....
- (c) Which condition of patient do you find very often?
3. Is there any guideline for gynaecological physiotherapy practice?
- Yes
 - No

4. How is your scope of practice in gynaecological physiotherapy?
 - Very bad
 - Bad
 - Fair
 - Good
 - Very good
5. What do you think about the percentage of patients who can understand your instructions?
 - < 10 %
 - 10-20 %
 - 30-50 %
 - 50-80 %
 - > 80 %
6. How is your patient's feedback about gynaecological physiotherapy?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor dissatisfied
 - Dissatisfied
 - Very dissatisfied
7. How motivated are your patients who receive gynaecological physiotherapy?
 - Not motivated at all
 - Somewhat motivated
 - Neither motivated nor demotivated
 - Motivated
 - Very motivated
8. Most commonly from where women come for the treatment session?
 - Urban
 - Semi urban
 - Rural
 - Semi-rural
9. What types of patients receive gynaecological physiotherapy in terms of literacy?
 - Primary education
 - Secondary education
 - Higher secondary education
 - Under graduation
 - Graduation
10. What do you think the percentage of people in Bangladesh know about gynaecological physiotherapy treatment?
 - < 10%
 - 10-20 %
 - 30-50 %
 - 50-80 %
 - > 80%

11. (a) How satisfied are you providing gynaecological physiotherapy in any gynaecological condition?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

(b) If not satisfied, what is the possible reason?

12. (a) Do you think any awareness programme related to gynaecological physiotherapy is needed?

- Yes
- No

(b) If yes, who need most?

- Students
- Professionals
- Patients
- Others; Please mention...

C. Future Suggestion :

1. What should be done to ensure that gynaecological physiotherapy is accessible for women's health condition?

2. What should be done to improve gynaecological physiotherapist's skills in Bangladesh?

THANK YOU FOR YOUR HELP....

Permission Letter

May 16, 2019

Head of the Department,
Department of Physiotherapy,
Centre for the Rehabilitation of the Paralyzed (CRP),
Chapain, Savar, Dhaka-1343.

Subject: Prayer for seeking permission of data collection to conduct my research project.

Sir,

With due respect and humble submission that I am Mariya Khan, student of 4th year professional B. Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI), the academic institute of CRP. The ethical committee has approved my research project entitled on "Physiotherapist view of gynecological physiotherapy scope of practice in Bangladesh," under the supervision of Muhammad Millat Hossain, Assistant Professor, Project & Course Coordinator of Department of Rehabilitation Science, Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka-1343. Conducting this research project is partial fulfillment of the requirement for the degree of B.Sc. in Physiotherapy. I want to collect data for my research project from the physiotherapist who are working at Savar & Mirpur CRP & other hospitals. So, I need permission for data collection from different units of CRP (Savar & Mirpur) & other hospitals. I would like to assure you that anything of my research project will not be harmful for the participants.

I, therefore, pray and hope that you would be kind enough to grant my application and permit me to collect data to accomplish this research project.

Sincerely yours,

Mariya Khan

Mariya Khan
4th Year, B. Sc. in Physiotherapy,
Roll no: 18, Session: 2014-15,
Bangladesh Health Professions Institute (BHPI),
(An academic institute of CRP)
CRP, Chapain, Savar, Dhaka-1343.

Approved
16/05/19

Forwarded &
Recommended
Muhammad Millat Hossain
16/05/19
Muhammad Millat Hossain
Assistant Professor,
Project & Course Coordinator
Physiotherapy Dept., CRP
CRP, Chapain, Savar, Dhaka-1343, Bangladesh

13 May, 2019

The Centre Manager,

CRP- Mirpur,

Mirpur-14, Dhaka.

Through: Head, Department of Physiotherapy, BHPI.

Subject: Prayer for seeking permission to collect data to conduct a research study.

Sir,

With due respect to state that I am a regular student of 4th year B. Sc in physiotherapy in Bangladesh Health Professional Institute (BHPI). The Ethical committee has approved my research project title on "Physiotherapist view of gynecological physiotherapy scope of practice in Bangladesh." under supervision of Muhammad Millat Hossain, Assistant Professor, Project & Course Coordinator of Department of Rehabilitation Science, Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka-1343. My honorable teachers have suggested to collect the required data from CRP, Mirpur branch. So' I need permission for data collection from this institute. Anything of the study will not be harmful for the participants, I would like to assure that.

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

Yours faithfully,

Mariya Khan

Mariya Khan

Session: 2014-2015; Roll no- 18.

4th year B.Sc in Physiotherapy

Bangladesh Health Professions Institute (BHPI)

ForWARDED &
RECOMMENDED
13/05/2019
Muhammad Millat Hossain
Assistant Professor
Project & Course Coordinator
Dept of Rehabilitation Science
CRP, Savar, Dhaka-1343 Bangladesh

Recommended
13/05/19
Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
BHPI, CRP, Savar, Dhaka-1343

Approved
Mohammad Amirul Hossain
Assistant Professor
Physiotherapy Dept., CRP
CRP-Chepashin, Savar, Dhaka-1343

Incharge (PT)
Dr.
Please do mindful.
Asimul
23.05.19
0276



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

Ref:

Date: 25/09/2019

CRP-BHPI/IRB/09/19/1357

To
Mariya khan
4thyrB.Sc. in Physiotherapy
Session: 2014-2015 Student ID: 112140250
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal "Physiotherapists' view of gynecological physiotherapy scope of practice in Bangladesh." by ethics committee.

Dear Mariya,
Congratulations.

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

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

The purpose of the study is to determine the physiotherapists' view of gynecological physiotherapy scope of practice in Bangladesh. The study involves use of a self-structured questionnaire & other instruments to explore the physiotherapist view of gynecological physiotherapy scope of practice in Bangladesh, that may take 20 to 25 minutes to answer the questionnaire. There is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 9 AM on 11 August, 2018 at BHPI.

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 participant 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
Assistant Professor, Dept. of Rehabilitation Science
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh.