



Faculty of Medicine
University of Dhaka

**KNOWLEDGE, ATTITUDE & PERCEPTION TOWARD MENTAL
HEALTH AMONG THE PHYSIOTHERAPISTS AT CRP**

Kazi Abdur Rafi

Bachelor of Science in Physiotherapy (B.Sc in PT)

DU Roll no: 1102

Registration no: 8651

BHPI, CRP, Savar, Dhaka.



Department of Physiotherapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

Bangladesh

September, 2023

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).

Name:

Date:

Kazi Abdur Rafi

Bachelor of Science in Physiotherapy (B.Sc in PT)

DU Roll no: 1102

Registration no: 8651

BHPI, CRP, Savar, Dhaka

Content

Topic	Page
Acknowledgement	i
List of Acronyms	ii
List of Tables	iii
List of Figures	iv
Abstract	v
CHAPTER-I: INRODUCTION	1-8
1.1 Background	1
1.2 Rationale	4
1.3 Operational definition	5
1.4 List of Variables	6
1.5 Aim of the study	7
1.6 Study Objectives	7
1.7 Research Question	8
CHAPTER-II: LITERATURE REVIEW	9-14
CHAPTER-III: METHODOLOGY	16-20
3.1 Study Design	16
3.2 Study Site	16
3.3 Study population	16
3.4 Study Sample	16
3.5 Sampling Technique	17
3.6 Sample Size	17

3.7.1 Inclusion Criteria	17
3.7.2 Exclusion Criteria	17
3.8 Data Collection & Measurement Tools	17
3.9 Data Collection Procedure	18
3.10 Duration of the Study	19
3.11 Pilot Study	19
3.12 Data Analysis	19
3.13 Ethical Consideration	20
CHAPTER IV: RESULT	21-37
CHAPTER V: DISCUSSION & LIMITATION	38-42
5.1 Discussion	38
5.2 Limitation	42
CHAPTER VI: CONCLUSION & RECOMMENDATION	43-44
6.1 Conclusion	43
6.2 Recommendation	44
CHAPTER VII: REFERENCES	45-50
APPENDIX	vi-xix
Appendix 1: IRB Application and Approval from BHPI	vi-vii
Appendix 2: Data collection Permission	viii
Appendix 3: Information and Consent Form	ix-xi
Appendix 4: Questionnaire	xii-xviii

Acknowledgement

First of all, I would like to pay my gratitude to Almighty who has given me the ability to complete this research project in time. When I started the study I didn't know whether I could complete it or not, but I believed, 'Fortune favors the brave'. So I was determined to try my best to make it a success and I am most grateful to almighty ALLAH. I would like to pay my gratitude to my family members for always inspired me and provided necessary financial support. My deepest gratefulness goes to my honorable supervisor **Nadia Afrin Urme**, Lecturer, Department of Physiotherapy, Bangladesh Health Professions Institute (BHPI), not only for her valuable suggestions and guidelines but also for optimistic and courageous attitude to taking challenges that have inspired me throughout the project.

In addition, I am thankful to all of my honorable teachers **Professor Md. Obaidul Haque**, Vice Principal, BHPI; **Dr. Mohammad Anwar Hossain**, Associate Professor of Physiotherapy, BHPI & Head of the Department of Physiotherapy, CRP, Savar, Dhaka; **Md. Shofiqul Islam** Head of the Department of Physiotherapy, BHPI for their advice, support and guidelines and also given me the permission to collect the data from the all unit of Physiotherapy Department. I wish to thanks to all respectable Physiotherapy staff working at CRP Savar for helping me to collect the data.

I thank all of my friends for their direct and indirect inspiration, suggestion as well as support. Finally I would like to thanks all the physiotherapists who willingly participated as the study population during the conduction of my study and the entire individual who were directly or indirectly involved with this study.

Acronyms

ADL: Activity of Daily Life

ATP: Attitude to Psychiatry

BHPI: Bangladesh Health Professions Institute

BMRC: Bangladesh Medical Research Council

CBT: Cognitive Behavior Therapy

CRP: Centre for the Rehabilitation of the Paralysed

IRB: Institutional Review Board.

PLWMI : People Living With Mental Illness

QoL: Quality of Life

SPSS: Statistical Package for Social Sciences

WCPT: World Confederation for Physical Therapist

WHO: World Health Organization

List of Tables

Table No	Page
Table 1: Demographic information of the participants	21
Table 2: Association of physiotherapists' attitude with demography	25
Table 3: Summary of data analysis and result	26
Table 4: Knowledge about mental health	27
Table 5: Physiotherapists have a role in management of mental health condition	29
Table 6: Requirement of guidelines	34
Table 7: Recommendations of the physiotherapists	35

List of Figures

Figure No	Page
Figure-1: Flow diagram of data collection	19
Figure 2: Age group of the participants	21
Figure 3: Gender of the participants	22
Figure-4: Marital status of the participants	22
Figure 5: Educational status of the participants	23
Figure-6: Job experience of the participants	23
Figure-7: Working area of the participants	24
Figure-8: Participants attitude toward psychiatry	24

ABSTRACT

Background: The purpose of this study was to determine the knowledge, attitude and perception about mental health among the physiotherapists at Centre for the Rehabilitation of the Paralyzed. The study was also conducted to know the perception of physiotherapists' about role of physiotherapy in mental health and find out the importance and recommendation for guideline to manage the patient with mental illness from physiotherapists' view. **Methodology:** A mixed study design was chosen to complete the study. Attitude to Psychiatry-30 questionnaire was chosen to know participant's attitude and for the qualitative part a self-administered questionnaire was used to understand their knowledge and perception. Quantitative data was analyzed by using SPSS software version 22 and qualitative content was analyzed to formulate thematically. Total 25 physiotherapists from the department of physiotherapy, CRP, Savar were participated based on eligibility criteria. **Result:** The study has explored that the physiotherapists' attitude toward psychiatry is mostly positive 84% (n=21) and negative only 16% (n=4) and there is no association between participants socio-demographic with their ATP score. The finding of the qualitative contents showed, though there are some limitation in the knowledge of the physiotherapists' about mental health but most of them had affirmative agreement about their role in management of mental health conditions. They required an evidence based guideline and assessment to diagnose and manage the mental health. They also recommend cognitive behavior therapy and group based exercise program to manage mental health conditions. **Conclusion:** The study provides a snapshot of physiotherapists' knowledge, attitude and perspective about mental health. Here, researcher tried to find out the perspective of physiotherapists about their role in management of mental health conditions related to physical pain or trauma. Though the study had some limitation this is the first study in Bangladesh about physiotherapists' perspectives about mental health and the result is supported by some other study from different countries.

Key words: Knowledge, Attitude, Perception, Mental health, Physiotherapist.

1.1 Background

According to the World Health Organization (WHO) health is "a state of complete physical, mental and social well-being and not merely the absence of disease"(Burns et al., 2009). Mental health is an integral part of human health and wellbeing. Mental disorders constitute a major public health challenge and account for 13% of the global burden of disease measured as disability adjusted life years. Low and middle income countries have higher burden of mental disorders than economically developed countries (Bass et al., 2012). Mental disorders have serious negative effect on survival, and when present with chronic diseases as co-morbid condition, serious mental disorders may reduce life expectancy by about 20 years (Colton et al., 2006).

Mental health is a significant factor for a sound and productive life; nevertheless, mental disorders do not often receive adequate research attention and are not addressed as a serious public health issue in countries such as Bangladesh. The prevalence of mental disorders is very high and augmented in nature among different population groups in Bangladesh. A lack of public mental health facilities, scarcity of skilled mental health professionals, insufficient financial resource distribution, inadequately stewarded mental health policies and stigma contribute to making current mental healthcare significantly inadequate in Bangladesh. The country has few community care facilities for psychiatric patients (Hasan et al., 2021).

However, despite being part of the chronic diseases, mental illness of various types seldom gets attention when the issue of demographic and epidemiological transition is discussed. Contrary to overall general perception, mental illness constitutes a serious threat to the national health. According to WHO, more than 450 million people in the world are suffering from neuro-psychiatric disorders and in Bangladesh there are 15 million people suffering from mental illnesses of various types (Hosman et al., 2004).

A large number of people around the world are suffering from psychiatric disorders. Mental illness constitutes four of the ten most common causes of worldwide burden of disease, yet

it remains low on the agenda of policy makers, particularly in developing countries like Bangladesh. Unfortunately, numerous organizations and NGO's, that work on chronic non-communicable diseases in Bangladesh also largely ignore mental health. Overall general perception, mental illness constitutes a serious threat to the national health (Burns et al., 2009). According to WHO, more than 450 million people in the world are suffering from neuro-psychiatric disorders and in Bangladesh there are 15 million people suffering from mental illnesses and it is variable in types (Hosman et al., 2004). In other words, almost 10 % of the population is in need of mental health services. In Bangladesh, data related to mental health is scarce and are not readily available in Bangladesh although a few published articles provide some estimates of different mental disorders. Mental illness is the leading cause of disability in the world. Mental disorders have serious negative effect on survival and when present with chronic diseases, serious mental disorders may reduce life expectancy by about 20 years. Mental disorders are generally not perceived as a health problem and are not priority in the health care delivery (Colton & Manderscheid, 2006). It can significantly impact an individual's ability to engage in meaningful daily life activities and lead to productive daily routines. Physiotherapy is a profession vital to helping individuals with mental illness develop the skills needed to live life to its fullest (Brown & Stoffel, 2011).

There are more than 45 million people living with a mental illness (PLWMI) globally (Vancampfort et al., 2018). A report (WHO-AIMS REPORT ON MENTAL HEALTH SYSTEM IN BANGLADESH. 2007) evident that although the prevalence of mental illness in Bangladesh declined significantly between 1974 (31.4%) and 2005 (16.1%), it was still alarmingly high in 2005. The first national survey on mental health conducted in 2003-2005 demonstrated that 16.1 % of the adult population had some form of mental disorder and that the prevalence of mental disorders was higher among women (19%) than men (12.9%).

Extensive research has been conducted about the link between physical and mental health, although many health care professionals are unable to manage people living with mental illness People living with mental illness (PLWMI) holistically (Connaughton & Gibson., 2016).

According to the International Organization of Physical Therapists in Mental Health (IOPTMH), which is a branch of the World Confederation of Physical Therapy, physiotherapy in mental health aims to assist PLWMI by promoting functional movement, physical activity and exercises linking physical and mental issues based on scientific and clinical evidence (World Confederation of Physical Therapy 2016).

Physiotherapy plays an integral role in the management of patients with musculoskeletal conditions and could therefore also play an important role in the treatment of mental health disorders. Demyttenaere et al (2007) show that musculoskeletal conditions such as chronic neck or back pain are associated with mental health disorders. Connaughton and Gibson (2016) however, reveal that physiotherapy students are unaware of the prevalence of comorbidities in PLWMI, and they are also intrigued to learn about the relationship between chronic pain and mental health.

Mental health services are provided by psychiatrists, psychiatric nurses and clinical psychologists, with little to no multidisciplinary teamwork between them. It is difficult for rural populations to access psychiatrists and other mental health professionals (Nuri et al., 2018).

1.2 Rationale

According to the International Organization of Physical Therapists in Mental Health (IOPTMH), which is a branch of the World Confederation of Physical Therapy, physiotherapy in mental health aims to assist mental health condition by promoting functional movement, physical activity and exercises linking physical and mental issues based on scientific and clinical evidence. The country also has a small number of community care facilities for patients with mental disorders. National Institute of Mental Health in Dhaka is the only national level tertiary care mental health treatment and research facility in the country. Bangladesh has only one mental hospital that was established in 1957. Physiotherapy plays an integral role in the management of patients with musculoskeletal conditions and could therefore also play an important role in the treatment of mental health disorders. Previous research Demyttenaere et al. (2007) shows that musculoskeletal conditions such as chronic neck or back pain are associated with mental health disorders. However, reveal that physiotherapy students are unaware of the prevalence of comorbidities in PLWMI, and they are also intrigued to learn about the relationship between chronic pain and mental health. In Bangladesh, a few researches have done related to mental health management but no research has done about knowledge, attitude and perception of the physiotherapist. For this reason, I am interested to do this research to see the Physiotherapists' view, scope of practice, challenges on this area.

1.3 Operational definition

Knowledge:

The term "knowledge" can refer to a theoretical or practical understanding of a subject. In this study knowledge means the information, and skills acquired through experience or education; the theoretical or practical understanding of mental health.

Attitude:

It may be defined that is a manner of thinking, feeling, or behaving that reflects a state of mind or deposition. In this study attitude means the physiotherapists' feeling or opinion about mental health management, or a way of behaving that is caused by this. It's often very difficult to change people's attitudes.

Perception:

Perception is the capacity to see, listen, or ended up mindful of something through the senses or the way in which something is respected, understood or interpreted. Here participant share his/her own thought or feelings about mental health condition management at CRP.

Mental Health:

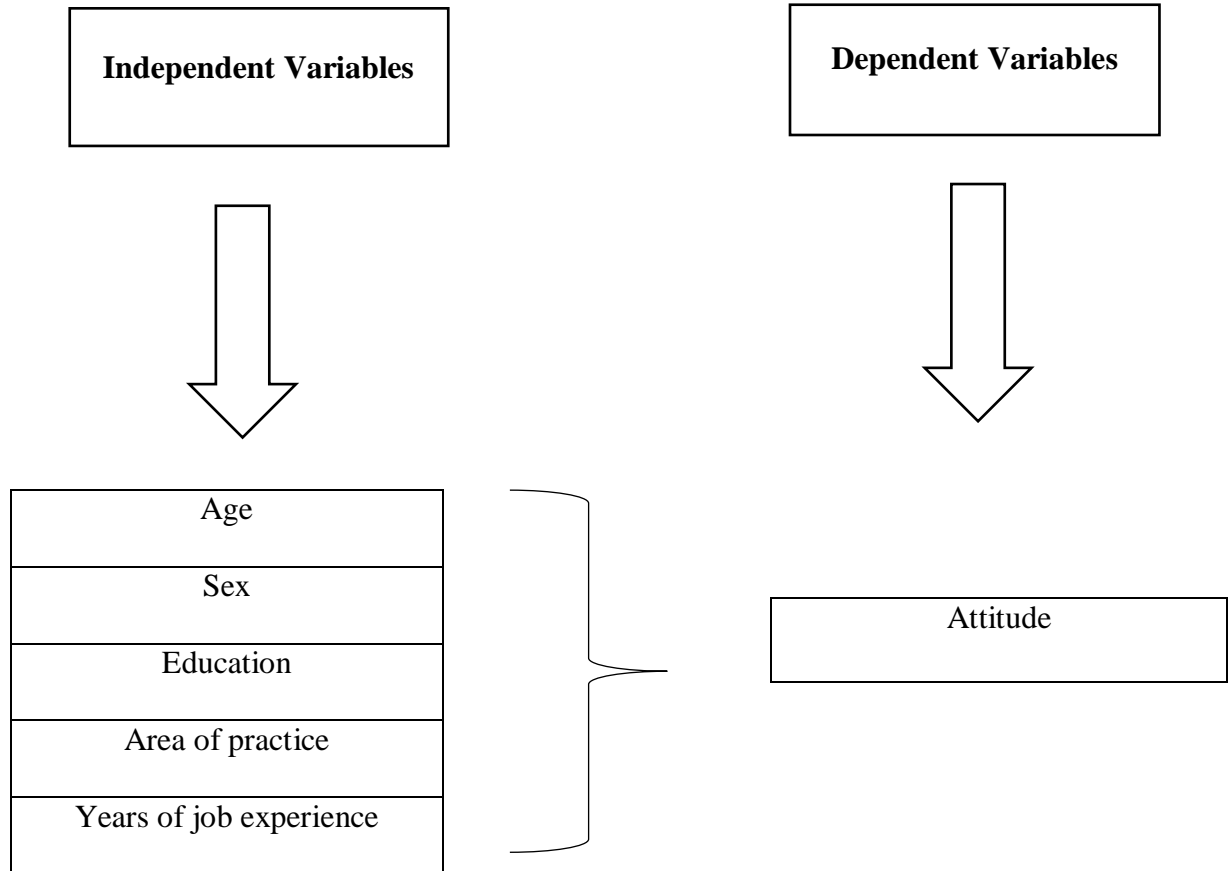
The term mental health refers to a person's cognitive, behavioral, and emotional well-being. In this study the disorders that affect person's mood, thinking and behavior in relation to the physical pain are known as mental health condition. Here mental illness include depression & anxiety disorders related to physical pain.

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 program approved by a nationally recognized institute.

1.4 List of variables



1.5 Aim of the study

This study was aimed to elucidate about the knowledge, attitude and perception of physiotherapists' about mental health at Centre for the Rehabilitation of the Paralyzed.

1.6 Study Objectives

1.6.1 General Objective:

To understand physiotherapists' knowledge, attitude and perception toward mental health at CRP.

1.6.2 Specific Objectives:

1. To identify the demographic information
2. To know the knowledge of physiotherapists about mental health
3. To understand physiotherapists' attitude toward mental health
4. To know the perception of physiotherapists' about role of physiotherapy in mental health
5. To find out the importance and recommendation for guideline to manage the patient with mental illness from physiotherapists' view.
6. To reveal the association between participant's demographic information and their attitude.

1.7 Research Question:

What is the knowledge, attitude and perception of physiotherapists about mental health in Centre for the Rehabilitation of the Paralyzed?

Mental disorders constitute a major public health problem and contribute to 13% of the global burden of disease measured as disability adjusted life years. Low and middle income countries have higher burden of mental disorders than economically developed countries (Bass et al., 2012). Mental health concern becomes a mental illness when ongoing signs and symptoms cause frequent stress and affect your ability to function. It refers to a wide range of mental health conditions or disorders that affect your mood, thinking and behavior. Mental illness does not discriminate; it can affect anyone regardless of your age, gender, geography, income, social status, race/ethnicity, religion/spirituality, sexual orientation, background or other aspect of cultural identity. While mental illness can occur at any age. Mental illness is a relative term. Its meaning depends on what society demands of the individual in learning, skills, and social responsibility (Auerbach et al., 2018).

There is no absolute measurement for mental retardation. At one time the different types were classified only according to the apparent severity of the mental illness. Since the most practical standard was intelligence, the degree of retardation was based on the score of the patient on intelligence tests such as the intelligence quotient (IQ). The average person is considered to have an IQ of between 90 and 110, and those who score below 70 are considered mentally ill. Today most health care providers use the following classifications: for IQ's from 50 to 70, mild; 35 to 50, moderate; 20 to 35, severe; under 20, profound. Whatever classifications are used, it is agreed that IQ measurements are only one part of the factors to be considered in determining mental illness. Others, such as the client's adaptability to surroundings, the services and training available, and the amount of control shown over his or her emotions, are also very important. About 85 % of patients considered mentally ill are in the least severe, or mild, group. Those in this group do not usually have obvious physical defects and thus are not always easy to identify as mentally ill while they are still infants (WHO, 1996).

According to American Psychiatric Association, 2018, there are nearly 300 mental disorders. Some of the main groups of mental disorders are: mood disorders (such as depression or bipolar disorder), anxiety disorders, personality disorders, psychotic

disorders (such as schizophrenia), eating disorders, trauma-related disorders (such as post-traumatic stress disorder), substance abuse disorders. Mood disorder is a mental health class that health professionals use to broadly describe all types of depression and bipolar disorders. Generally, everyone with a mood disorder has ongoing feelings of sadness, and may feel helpless, hopeless, and irritable. Without treatment, symptoms can last for weeks, months, or years, and can impact quality of life. This makes the feelings harder to manage. Sometimes, life's problems can trigger depression. Being fired from a job, getting divorced, losing a loved one, death in the family, and financial trouble, to name a few, all can be difficult and coping with the pressure may be troublesome. These life events and stress can bring on feelings of sadness or depression or make a mood disorder harder to manage (Pierce et al., 2021).

Anxiety is a feeling of nervousness, worry, or unease that is a normal human experience. Anxiety is a normal response to a threat or to psychologic stress. Normal anxiety has its root in fear and serves an important survival function. When someone is faced with a dangerous situation, anxiety triggers the fight-or-flight response. Anxiety is considered as a disorder when substantially it changes people's daily behavior, including leading them to avoid certain things and situations. Anxiety disorders are more common than any other category of mental health disorder and affect about 15% of adults in the United States. Personality disorders in general are pervasive, enduring patterns of perceiving, reacting, and relating that cause significant distress or functional impairment. 9 Personality disorders vary significantly in their manifestations, but all are believed to be caused by a combination of genetic and environmental factors (Tanjin, 2019).

Psychotic disorders client are lose contact with reality and experience a range of extreme symptoms that usually includes: Hallucinations—hearing or seeing things that are not real, such as voices. Delusions—believing things that are not true. However, these symptoms can occur in people with other health problems, including bipolar disorder, dementia, substance abuse disorders, or brain tumors (Kessler & Frank, 1997). Trauma- and stressor-related disorders involve exposure to a traumatic or stressful event. Two of the trauma-related disorders are acute stress disorder (ASD) and posttraumatic stress disorder (PTSD). In acute stress disorder, people have been through a traumatic event, experiencing it

directly eg; as a serious injury or the threat of death or indirectly eg, witnessing events happening to others, learning of events that occurred to close family members or friends. People have recurring recollections of the trauma, avoid stimuli that remind them of the trauma, and have increased arousal. Symptoms begin within 4 weeks of the traumatic event and last a minimum of 3 days but, unlike posttraumatic stress disorder, last no more than 1 month. Mental disorders have serious negative effect on survival, and when present with chronic diseases as co-morbid condition, serious mental disorders may reduce life expectancy by about 20 years (John & Barnhill., 2018).

The undergraduate medical student population had significant shortcomings in knowledge and attitude pertaining to psychiatric disorders, more glaring in the initial years of education. A comparatively positive opinion was obtained regarding psychiatry as a subject and psychiatrists as professionals, which may reflect the changing trends and concepts, both in society and medical community (Aruna et al. 2016, p. 70). Knowledge measures mainly investigated the ability of illness identification, and factual knowledge of mental disorders such as terminology, etiology, diagnosis, prognosis, and consequences. Stigma measures include those focused on stigma against mental illness or the mentally ill; self-stigma; experienced stigma; and stigma against mental health treatment and help-seeking. Help-seeking measures included those of helpseeking attitudes, intentions to seek help, and actual help-seeking behaviors (Wei et al., 2015).

The first national survey on mental health conducted in 2003-2005 demonstrated that 16.1 % of the adult population had some form of mental disorder and that the prevalence of mental disorders was higher among women (19%) than men (12.9%) (Islam et al., 2015). In other words, in Bangladesh women are more vulnerable to mental illness than their male counterparts. There is widespread stigma against people with mental illness in Bangladesh. There are many myths and superstitions surrounding the cause and outcome of mental illness. Mental disorders are primarily viewed as the result of being possessed by evil spirits rather than as illnesses that can be treated. Consequently, victims of mental illnesses are most often neglected, subjected to delayed care-seeking and abused (Adams, 2013). A community-based survey conducted in 2009 found the prevalence of mental disorders among children at 18.4% (Gausia, et al., 2009). The overall prevalence of psychiatric

disorders in this rural area was 16.5%. Depressive disorders and anxiety disorders constituted about one-half and one-third of the total cases, respectively. A significantly higher prevalence of mental disorders was found in the economically poor respondents, those over 45 years of age, and women from large families (Hosain et al., 2007).

There is growing evidence of the global impact of mental illness. Mental health problems are among the most important contributors to the burden of disease and disability worldwide. Five of the 10 leading causes of disability worldwide are mental health problems. They are as relevant in low-income countries as they are in rich ones, cutting across age, gender and social stigma. Furthermore, all predictions indicate that the future will see a dramatic increase in mental health problems. It has been estimated that 20% of the adult working population has some type of mental health problem at any given time (Helsinki et al., 1999).

Mental health problems affect functional and working capacity in numerous ways. Depending on the age of onset of a mental health disorder, an individual's working capability of working may be significantly reduced. Mental disorders are usually one of the three leading causes of disability for example, mental health disorders are a major reason for granting disability pensions. Disability not only affects individuals but also impacts on the entire community. The cost to society of excluding people with disabilities from taking an active part in community life is high. This exclusion often leads to diminished productivity and losses in human potential. The United Nations estimates that 25% of the world's population is adversely affected in one way or another as a result of disabilities. For example, analysis of Tanzanian survey data has revealed that households with a member who has a disability have a mean consumption less than 60% of that of the average household. People with disabilities, particularly psychiatric disabilities, face numerous barriers in obtaining equal opportunities – environmental, access, legal, institutional and attitudinal barriers which cause social exclusion (Colton et al., 2006).

For people with mental illness, social exclusion is often the hardest barrier to overcome and is usually associated with feelings of shame, fear and rejection. It is clear that mental illness imposes a heavy burden in terms of human suffering, social exclusion, stigmatization of the mentally ill and their families and economically. Unfortunately, the

burden is likely to grow over time as a result of ageing of the global population and stresses resulting from social problems and unrest, including violence, conflict and natural disasters (Burton et al., 2000).

Physiotherapy management includes the prescription of physical activity for patients. There is evidence that shows that physical activity enhances the effectiveness of psychological therapies (Probst & Skjaerven, 2017) and quality of life of PLWMI (Richardson et al., 2005). The most common form of physical activity is exercise. The benefits of exercise for PLWMI are improved mood, sleep patterns, cognitive function, self-esteem, quality of life, relief from stress, increased energy and reduction in cholesterol levels, and these benefits can help with weight reduction (Bhatia et al., 2013). Therefore, physiotherapists can play an important role in improving mental as well as the physical health of patients (Kaur et al., 2013). Numerous studies highlight the close relationship between mental and physical health, but integrating this into clinical settings has been very slow, and physiotherapy has not been seen as a worthwhile strategy (Probst et al., 2017).

Physical activity has a positive effect on depression in preventing the onset of depressive episodes as well as the acute and long-term treatment of episodes that do occur. The physical training is beneficial when conducted parallel to customary treatment with drugs and other forms of therapy, such as cognitive and interpersonal therapy. Whether this beneficial effect is mediated through positive thoughts and emotions, increased confidence and selfcontrol. Or through improved physical functional capacity and/or changes in brain neurotransmitters or endorphins is not known (Khan et al., 2011).

There is evidence that improvements in body function (including balance and flexibility) are associated with a feeling of greater safety and increased self-esteem in patients. Also, an improvement in posture can benefit self-image and elevate mood, as well as decrease pain in different body sites (such as the back or neck). Finally, there is also strong evidence to suggest that an adequate exercise regimen effectively improves the wellbeing of people with depression and anxiety. Taking into consideration that anxiety disorders are among the most prevalent psychiatric conditions worldwide and that their disabling nature is often underestimated, it is necessary that all psychiatrists, psychologists and other health professionals be able to offer therapeutic alternatives to this challenging group of patients.

Currently, the treatment of anxiety disorders is based on psychotropic drugs, psychotherapy and, in addition, physiotherapy (Torales et al., 2017). A study conducted in Nigeria reports that there is a need for the integration of physiotherapy management into mental health, and physiotherapists are seen as an important member of the mental health team (Gbiri et al., 2011).

In South Africa, eight universities offer physiotherapy undergraduate programmes and the curricula reflect that the focus of teaching is primarily on the physical aspect of health with limited focus on mental health. There is no evidence, however, on the knowledge, attitudes and perceptions of physiotherapists in KwaZulu-Natal province towards mental health and their perceived preparedness to manage PLWMI (Hooblaul et al., 2020).

Severe mental illnesses (SMI), defined as schizophrenia-spectrum disorders, bipolar disorder (BD) and major depressive disorder (MDD), are leading causes of years lived with global disability and are of considerable public health importance. In addition to the impact of the mental health symptoms and reduced daily life functioning, people with SMI are at increased risk of premature mortality by between 10–20 years compared to age- and sex-matched controls. While suicide accounts for a concerning portion of the early mortality, there is increasing recognition that physical disorders account for approximately 70% of these premature deaths (Nielsen et al., 2013). Of notable concern, cardiovascular and metabolic diseases appear to greatly increase the risk of early death in those with SMI which is of particular importance, given the high prevalence of these diseases in SMI. People with SMI are also at increased risk of various other physical comorbidities, such as respiratory disease, poor bone. Moreover, people with SMI typically experience pronounced cognitive impairment, which often worsens over time and for which treatment approaches remain limited (Carbon et al., 2014).

In the general population, there is evidence that physical activity is equally effective as frontline pharmacological interventions, such as statins and beta-blockers, in preventing cardiovascular disease mortality (Naci et al., 2013). Moreover, there is consistent evidence that physical activity and exercise can decrease the risk of developing cardiovascular and metabolic disease and reduce inflammatory parameters, such as C-reactive protein, which are commonly raised in people with severe mental illness (Köhler et al., 2017). Moreover,

there is evidence that aerobic exercise is effective in improving cognitive function in the general population (Voelcker et al., 2013) including potentially increasing hippocampal volume (Firth et al., 2018). In addition, a recent global meta-analysis has demonstrated that higher levels of PA confers protection from the development of depressive symptoms and major depressive disorder (MDD) (Firth et al., 2018).

Current treatment for mental health symptoms and functioning largely revolves around psychotropic medication (Leucht et al., 2013) and/or psychotherapeutic interventions (Huibers et al., 2016). Whilst both of these dominant approaches, alone and in combination, have demonstrated treatment efficacy on mental health symptoms (Huhn et al., 2014). Their impact on the rising physical health burden in this population is limited, and psychotropic medication may even have an adverse relationship with cardiometabolic/physical health (Correll et al., 2015). In addition, antipsychotic medication has been associated with reduced grey matter volume in people with schizophrenia while psychotherapeutic interventions appear to have limited efficacy for cognitive impairment in this population (Cella et al., 2017).

3.1 Study Design

In this study a mixed study design was used to find out the objectives of the study. The researcher selected both qualitative and quantitative methodology for this study, because it is helpful to find out the knowledge, attitude and perceptions of people in particular settings and to understand their perspective. To know the physiotherapists' knowledge and perception the researcher used the approach of qualitative method.

To understanding the physiotherapists' attitude the researcher conducted the quantitative method because the quantitative methods are appropriate if the issue is known about, relatively simple and unambiguous. Quantitative research studies answered specific research questions by producing statistical evidence to prove a point. To find these questions answer quantitative study is the best to collect information. The intention of mixed study design was to explore both the qualitative and quantitative outcome together and thus the comprehensive benefits can be achieved.

3.2 Study Site

Data was collected from the physiotherapist who are working at Centre for the Rehabilitation of the Paralyzed (CRP), Savar, Dhaka.

3.3 Study 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 all the physiotherapists in the CRP is the population.

3.4 Study Sample

The physiotherapists who were completed at least Bachelor in Physiotherapy (B.Sc.) from Government approved university or received higher education and who are practicing clinically in CRP was selected for sample to carry out the study. Participants have also required one year clinical experience for the study

3.5 Sampling Technique

Purposive sampling technique was used to conduct this research. The participants were selected for this study purposively.

3.6 Sample Size

25 participants were taken as sample from physiotherapy department, CRP, Savar, Dhaka.

3.7.1 Inclusion Criteria

- ✓ Physiotherapist who has obtained at least Bachelor degree (B.Sc.).
- ✓ Physiotherapist who are working in CRP
- ✓ Both male and female physiotherapist will be included.

3.7.2 Exclusion Criteria

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

3.8 Data Collection & Measurement Tools

A) Demographic parts: This part containing personal information of the participants which will be related to the research.

B) Quantitative Questions: This is a likert-type scale which is used for measuring the participant's attitude. In this part ATP-30 question was used which is developed in Canada in the 1980s to measure medical students attitudes toward psychiatry and demonstrate changes in attitude after exposure to psychiatry through curriculum. The tool has been shown to be both reliable and valid. It consists of 30 statements (15 positively phrased and 15 negatively phrased) about mental illness and treatment; psychiatric patients, psychiatric institutions, and psychiatrists; and teaching, knowledge, and career choice. Participants are asked to rank their response to the statements using a 5-point Likert-type scale (ranging from 1 = strongly agree to 5 = strongly disagree). Scores for the positively phrased questions are reversed by subtracting them from 5; all item scores are summed to arrive at a total score out of 150. Higher scores indicate more positive attitudes; a score of 90 is considered

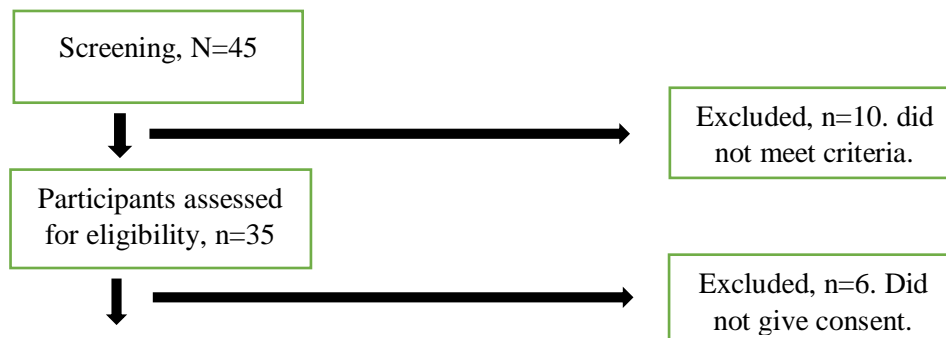
neutral (Burra et al., 1982). There is currently no specific tool for physiotherapy, but the ATP-30 is considered general rather than dedicated to a specific group. Participants were also asked how often they have treated people with comorbid mental illness after graduation and if they faced any trouble.

- C) **Qualitative Questions:** An open ended questionnaire was used to collect qualitative data from the participants. In this study 3 open ended questions are used which is related to participants knowledge and perception toward mental health management
- D) **Other tools:** Some other necessary materials like pen, pencil, white paper, clip board & note book will also be needed.

3.9 Data Collection Procedure

In this study data were collected by conducting face to face interviews by a semi-structured questionnaire. The interview was recorded by using a tape recorder by taking permission from the physiotherapists. With open ended question and likert-type question participants get more freedom to express their knowledge, opinions and their attitude. That face to face interview helps the researcher to observe the participants facial expression and nonverbal expression during interview period. Before starting the formal interview, researcher ensured a quiet place by contacting with the regarding authority and built connection with the participants and made them comfortable for interview. The researcher explained the research question and aim of the study. Then the researcher used information sheet and consent form to take the permission of the participants. Next researcher asked questions. The interview conducted during daytime and the duration was approximately 30 minutes for each participant.

Flow Diagram



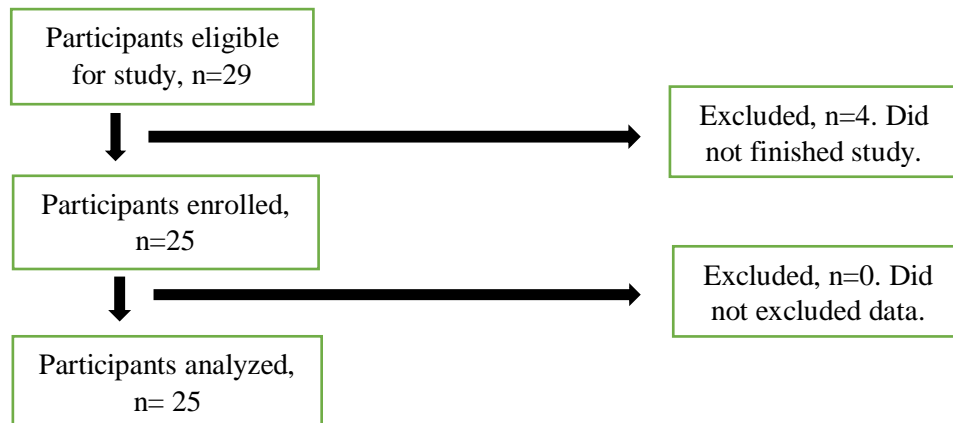


Figure-1: Flow diagram of data collection

Total 45 physiotherapists were assessed for the study from the physiotherapy department. Then 10 participant were excluded because they did not match the criteria. The remaining 35 participants were assessed for data collection. 6 participants excluded because they did not give consent for the study, and 4 person did not finished the study. Finally 25 participant’s data were enrolled for the analyzed.

3.10 Duration of data collection

2 month: From April 1, 2023 to June 30, 2023

3.11 Pilot Study

Before the start of collecting final data, a pilot study was conducted with 2 participants. Carrying out pilot study is a preparation of starting final data collection. The pilot study helped the researcher to make the plan on how the ways can be for collecting data.

3.12 Data Analysis

At first in data analysis, the researcher listened to the interviews several times from the tape recorder and then the interviewed data was transcript in English. The researcher checked the transcript to make sure that all the data was available in the transcript.

The qualitative data was analyzed by QCA. This data was analyzed by 3 stages: coding, categorizing and generating theme. After that, the investigator read all data repeatedly to find out the actual meaning of the participants’ expressions of what they wanted to say and

organized them. Then major categories were found from the interview questions. The researcher was arranging all the information according to the categorization. Under these categories, the researcher coded all the information from the interviewed transcript. After finishing the tabulation of coding, the researcher detected some important codes that made the themes of the study. At last, themes were identified and emerged as a process of interpretation. The demographic information and the ATP-30 questionnaire were analyzed by SPSS software. The researcher will try to identify the correlation between the dependent variable and independent variable. To find the attitude there is a Likert-type scale designed to measure medical students' attitudes to psychiatry-the ATP-30 (Attitudes Toward Psychiatry-30 items) are described. The bar chart, pie chart and other diagrams were made from Microsoft Excel software.

3.13 Ethical Consideration

The researcher has maintained some ethical considerations: Researcher has followed the Bangladesh Medical Research Council (BMRC) guideline & WHO research guideline. At first a research proposal was presented to the IRB by the researcher. The necessary information were approved by Institutional Review Board and take the permission to do this research (CRP/BHPI/IRB/03/2023/711). Then the researcher has taken the permission for data collection from the head of the physiotherapy department. The participants were informed before to invite participation in the study. A written consent form used to take the permission of each participant for the study. All the participants and authority were informed about the purpose of the study. All the interviews were taken in a comfort feeling and confidential place. Researcher ensures the confidentiality of participants and share the information only with research supervisor. Participants were also informed that their information might be published but their name and address would not be used in any way in the research project to preserve confidentiality. The researcher was committed not to share the information given with others except the research supervisor. These resources were predisposed of after completion of the research project. The members also informed that they would not be harmed due to being a participant of the study.

4.1 Demography

Table 1: Demographic information of participants

Variables	Mean	SD
Participant's Age	31.32	5.06
Years of job experience	3.08	0.862

4.1.1 Age:

Among 25 participants, most of the participants' age were 27 years 20% (n=5) . Age group 28 years are 16% (n=4), 34 years 12% (n=3). There were several age groups among participants. The participants with 25-29 years were 48% (n=12), 30-34 years were 32% (n=8), 35-39 years were 12% (n=3), 40-49 years were 8% (n=2).

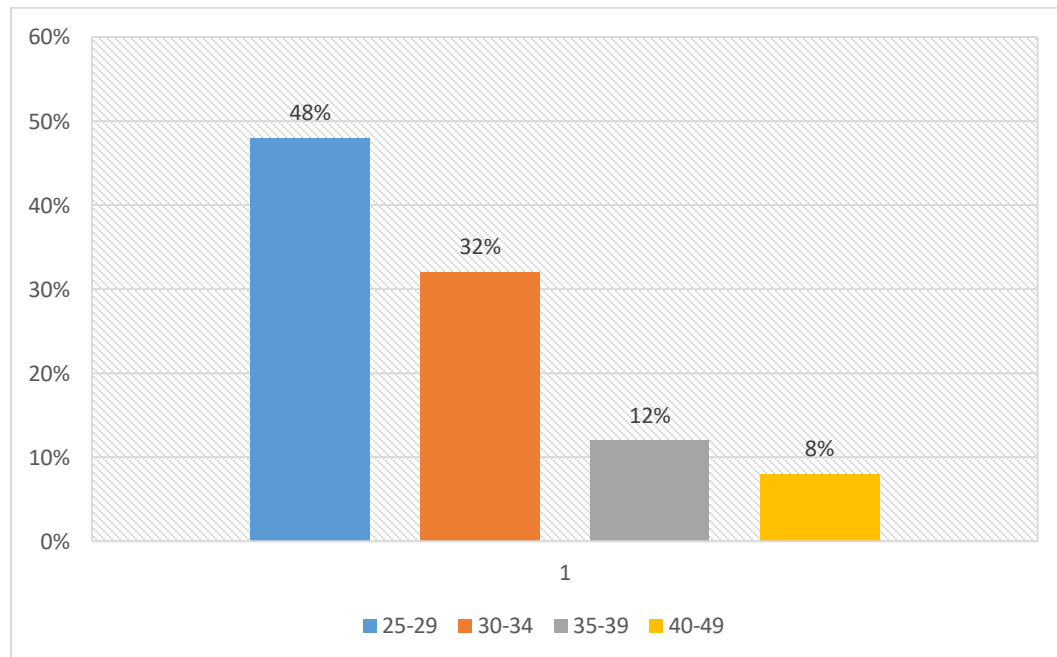


Figure 2: Age group of the participants

4.1.2 Gender:

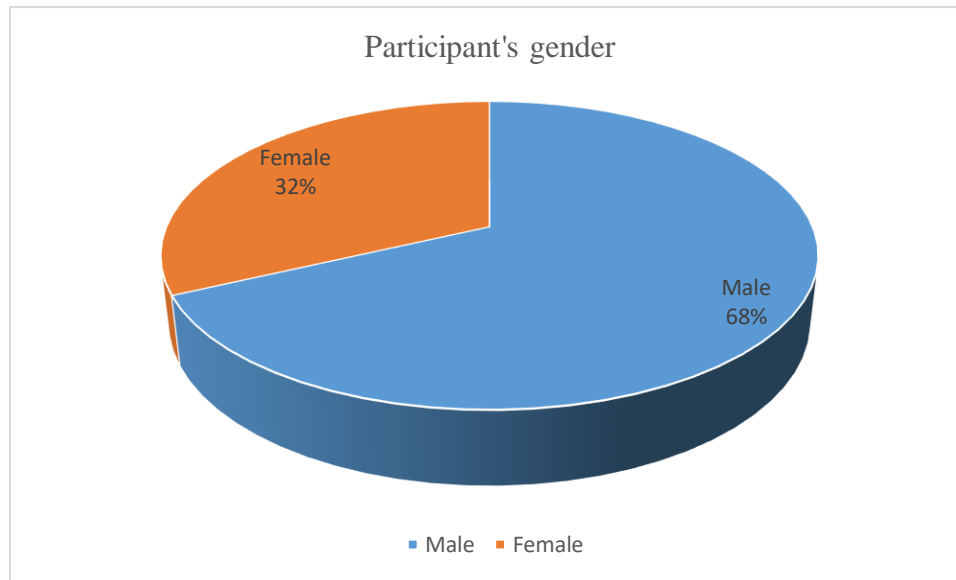


Figure-3: Gender of the participants

The most of the participants were male. In this study Data showed that male were 68% (n=17), and female were 32% (n=8).

4.1.3 Marital status:

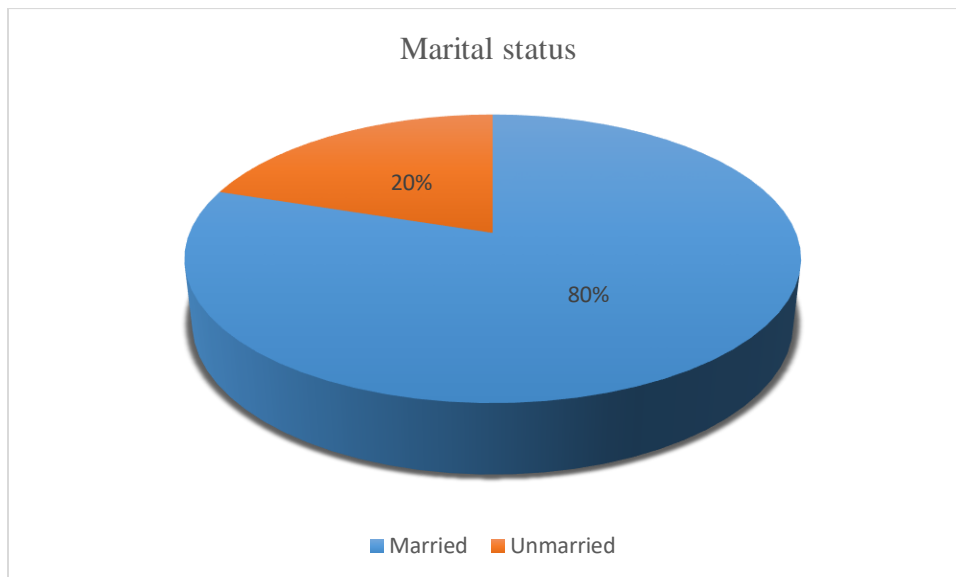


Figure 4: Marital status of the participants

In this study, most of the participants were married 80% (n=20).

4.1.4 Educational status

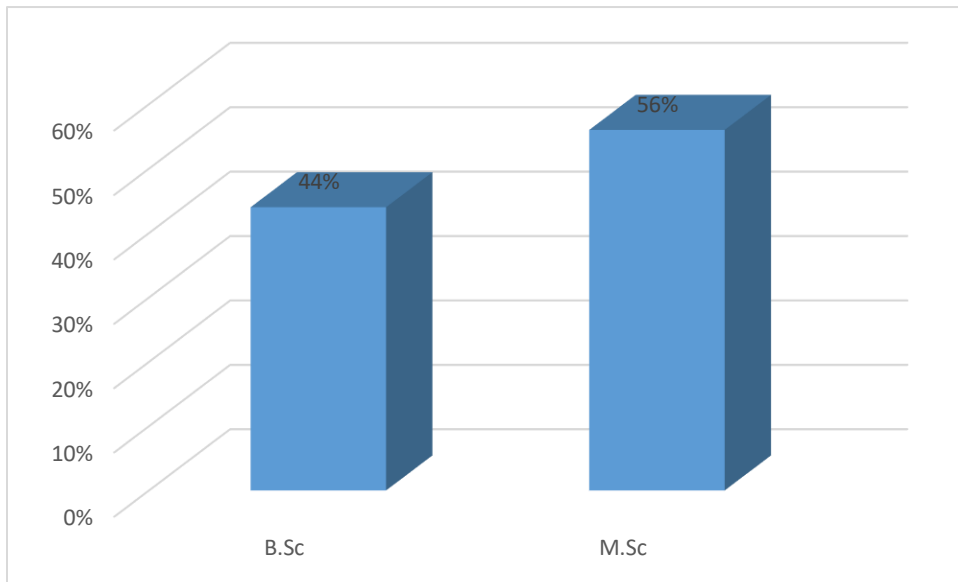


Figure 5: Educational status of the participants

About 56% participants were M.Sc (n=14) and 44% were B.Sc (n=11).

4.1.5 Years of job experience:

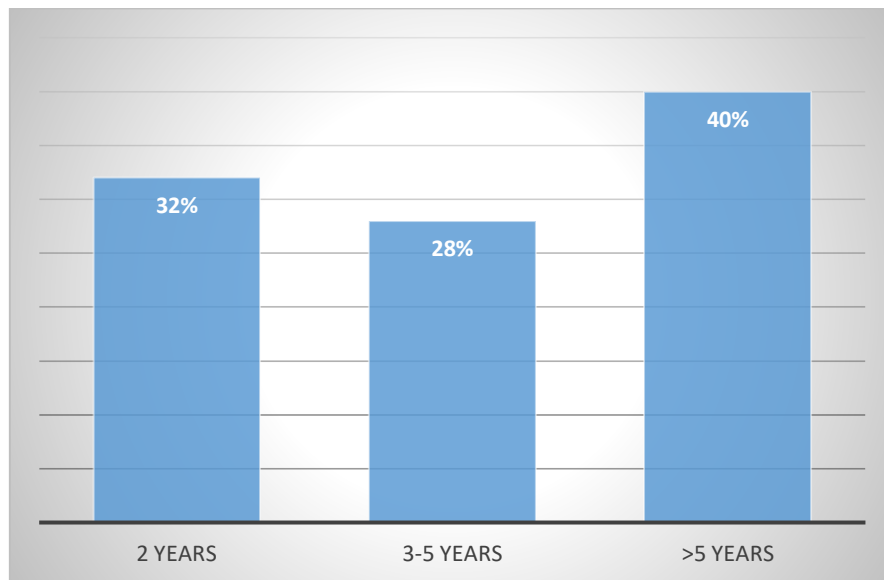


Figure-6: Job experience of the participants

In this study, 40% (n=10) participants were more than 5 years job experienced and 32% (n=8) participants were 2 years job experience.

4.1.6 Working area

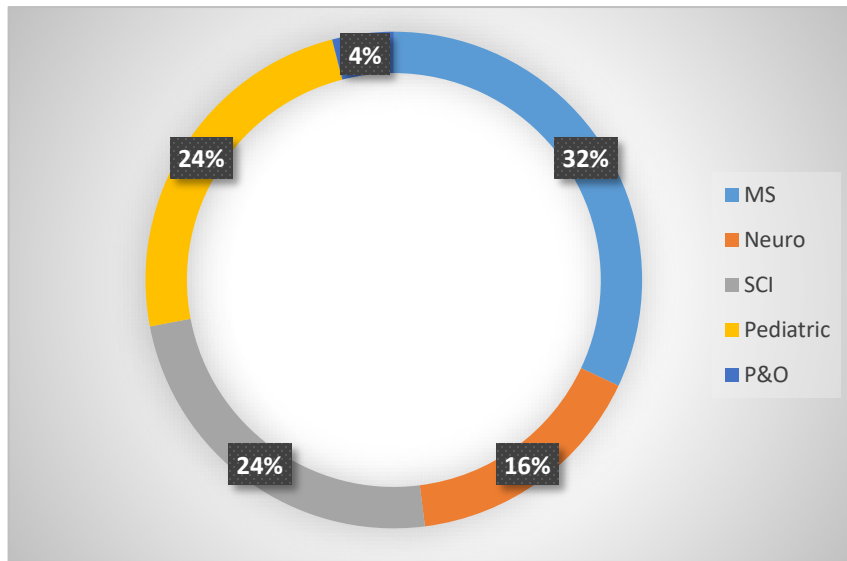


Figure 7: Working area of the participants

Participants from Musculoskeletal unit 32% (n=8), Neurology unit 16% (n=4), SCI unit 24% (n=6), Pediatric unit 24% (n=6), P&O unit 4% (n=1) were participated.

4.2 Attitude to psychiatry:

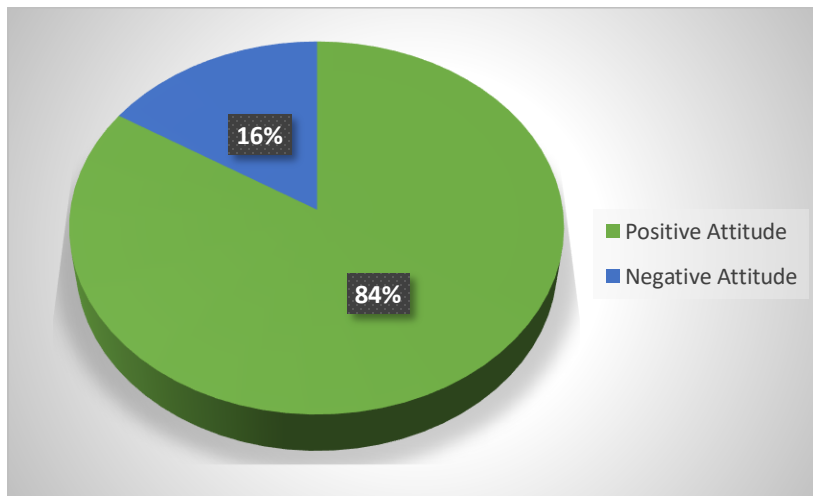


Figure 8: Participants attitude toward psychiatry

In this study the physiotherapists' attitude toward psychiatry is mostly positive 84% (n=21) and negative 16% (n=4).

4.3 Association between participants socio-demographic with their ATP score

Table 2: Association of physiotherapists' attitude with demography:

Socio-demography	ATP	
	Test value, χ^2	p value (α)
Age	61.842	.155
Gender	6.213	.831
Educational status	.022	.884
Years of job experience	33.408	.593

In this study the researcher found no association occurred between socio-demographic profile and ATP score which was mentioned in the 6th objective of the study. Here, the dependent variable was the ATP-30 scale score which is used to determine the attitude of the physiotherapists'. ATP score had no significant with the age where significant value is .155 ($p > 0.05$) which revealing there is no association between the participant's age group and ATP score. The value of gender and ATP score is .831, that means the null hypothesis has been accepted and alternative hypothesis is rejected. We can say that, there is no significant between the participant's gender and ATP score. Mean square between groups is 3.435 and the significant value is .884 which is more than .05, so there is no statistical significant difference between ATP Scores and education level. From the table, Chi-square value of physiotherapists' years of job experience and their ATP Score is 33.408 and p value is .593. As the p value is more than .05 the result shows that there is also no association in between physiotherapists' years of job experience and physiotherapists' ATP score.

Result of Qualitative Content Analysis:

Table-3: Summary of data analysis and result:

Objectives	Category	Theme
To know the knowledge of physiotherapists about mental health	1. Understanding of the mental health	1. Physiotherapists have a little to medium knowledge about mental health and they think mental health is an emotional, psychological and social well-being
To know the perception of physiotherapists' about their role in mental health	2. Physiotherapists' role in the management of mental health	2. Physiotherapist have a multiple role in the management of mental health condition
To find out the importance and recommendation for guideline to manage the patient with mental illness from physiotherapists' view	3. Guideline requirement in the management of mental health	3. Physiotherapist required an evidence based guideline
	4. Recommendation of the physiotherapists	4. Physiotherapist recommends various therapy to manage the mental health

Participant’s knowledge about mental health:

Knowledge can be defined as factual information acquired through learning. The collected data suggest that participants lacked self-reported knowledge about mental health. They expressed a need for structured undergraduate learning, which includes both theoretical and clinical components to enhance their knowledge of people living with mental illness.

Category 1: Understanding of the mental health

Table 4: Knowledge about mental health

Respondent code	Emotional, psychological and social well-being	Medium knowledge	Limited knowledge
1	✓		
2		✓	
3		✓	
4			✓
5	✓		
6		✓	
7	✓		
8			✓
9	✓		
10	✓		
11		✓	
12		✓	
13		✓	
14	✓		
15			✓
16		✓	
17			✓
18	✓		
19	✓		
20		✓	
21		✓	
22			✓
23		✓	
24	✓		
25		✓	

Theme 1: Physiotherapists have a little to medium knowledge about mental health and they think mental health is an emotional, psychological and social well-being.

According to WHO Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in. Mental health is a basic human right. And it is crucial to personal, community and socio-economic development. About 36% participants said mental health is state of emotional, psychological and social wellbeing.

“Mental health includes our emotional, psychological and social well-being. It effects how people react to stress, engage with other think, feel, act and make healthy choices. Mental health is important at every stage of life from childhood and adolescence through adulthood and components of overall health. The presence of chronic conditions can increases the risk for mental illness.” #Participant 1

“Mental health is our emotional, psychological and social well-being. Good mental health is when we feel positive about ourselves and core well. It is also include how we think and our behave. It is essential to realize that mental health is also used to refer to the absence of mental disease.” #Participant 2

“Mental health is important at every stage of life includes our emotional, psychological and social well-being, e.g. how we think, feel, act and how we handle stress, relate to others. Many factors contribute to mental health, e.g. biological factors, trauma or abuse and family history.” #Participant 3

Most of the participants (44%) have a medium knowledge about mental health. They express their thought or feelings about mental health from their daily life experience, patient handling.

“Mental health is a state of wellbeing by which a person relieve their daily stress to keep themselves fit and healthy.” #Participant 4

“Mental health is the science of mental illness, disorders and how to recover it” #Participant 5

As a health professional some of them had said the importance of the mental health and the relation of mental health with physical health.

“Mental health is a part of health. So, if anyone is unstable in psychological health his/her whole health would be hampered, though he/she is physically stable.” #Participant 6

There were few participants (20%) who could not clear their knowledge about mental health. They hardly express their opinion. Due to short syllabus in the undergraduate level some participants have not the clear concept of the mental health. Even some participants could not answered the question properly because they had passed their undergraduate level many years ago, they are out of touch in psychology and their instant memory had failed to answer.

“A good mental health is a state of person’s capability to free of tensions and life without stress” #Participant 7

“As I know about mental health, it is an important issue in our daily life. Avoiding mental health we cannot progress in furthermore” #Participant 8

“Mental health is a psychological issue that describe person’s quality of thinking, behavior” #Participant 9

Physiotherapists’ perception about their role in mental health

Category 2: Physiotherapists’ role in the management of mental health

Physiotherapists play an essential role in the management of mental health conditions by utilizing their expertise in physical activity, movement, and exercise to improve a person's overall well-being. While physiotherapists working in CRP are not mental health professionals, their interventions can have a positive impact on individuals experiencing mental health issues in various ways. Here are some confession by which physiotherapists contribute to the management of mental health conditions:

Table 5: Physiotherapists have a role in management of mental health condition

Respondent Code	Stress reduction	Motivation & Counselling	Chronic pain	Reduced physical activity	Secondary Health Issues	Monitoring Progress	Combination of mental health and physical health
1			✓				
2				✓			
3	✓						
4		✓					
5		✓					
6						✓	
7					✓		
8							✓
9				✓			
10		✓					
11							
12				✓			
13	✓						
14		✓					
15							✓
16					✓		
17				✓			
18				✓			
19	✓						
20				✓			
21		✓					
22							✓
23				✓			
24				✓			
25						✓	

Theme 2: Physiotherapist have a multiple role in the management of mental health condition.

Sub-theme 1: Stress Reduction

Physiotherapy can help reduce stress and depression in some individuals. While physiotherapy primarily focuses on improving physical function and mobility, it can have positive effects on mental health as well. Physiotherapy exercises and activities, such as aerobic exercises, stretching, and movement-based therapies, can stimulate the release of

endorphins. Endorphins are natural "feel-good" chemicals in the brain that can help reduce stress and improve mood. 3 participants agreed that physiotherapy helps to reduce stress of their clients.

“Physiotherapists can incorporate relaxation techniques, breathing exercises, and mindfulness practices into their treatment plans. These techniques can help patients manage stress and enhance their ability to cope with emotional challenges.” #Participant 1

“Physiotherapy techniques like massage and manual therapy can promote physical relaxation, which can, in turn, lead to mental relaxation and reduced stress.” #Participant 2

“Engaging in physiotherapy exercises and activities can provide a positive distraction from stressors and negative thoughts, promoting a sense of focus and engagement in the present moment.” #Participant 3

Sub-theme 2: Motivation and Counselling

Two of the participants said engaging in physical activity and achieving fitness goals can boost self-esteem and self-confidence, which are often compromised in individuals with mental health conditions.

“Yes. We have a great role. Because motivation and counselling is a one of the part of the physiotherapy.” #Participant4

“Physical pain create depression to the patient. In this case we provide counselling to the patient. We also motivated him to take physiotherapy session” #Participant5

Sub-theme 3: Chronic pain is often linked to mental health conditions

Chronic pain and depression commonly coexist in individuals. People who experience chronic pain are at a higher risk of developing depression, and those with depression are more likely to experience chronic pain. Research has shown that the prevalence of depression is higher in individuals with chronic pain compared to those without it. Chronic pain can lead to emotional distress, frustration, and a reduced quality of life. The constant pain can make it challenging for individuals to engage in activities they once enjoyed, leading to feelings of isolation and sadness. Over time, this emotional burden can contribute to the development of depression. Three participants said that physiotherapists

can address physical pain through various techniques such as manual therapy, stretching, and exercise, which can have a positive impact on mental well-being.

“Great question. Yes it’s badly need to be inclusion the physiotherapist themselves regarding mental health patient. As because physiotherapist are more consult with chronic physically ill patient. So physiotherapist can play an important role to improve mental illness.” #Participant 5

“From my point of view physiotherapists continuously work with mentally ill patient. But it is true that physiotherapist are not established a special clinic for mental health. Specially for chronic patient most of them are mentally upset about their health physical issue interlink with mental health.” #Participant 7

“Yes. We provides psychological support to the patient with chronic pain. We motivated the patient for maintain his/her exercise schedule and early recovery.” #Participant 8

Sub-theme 4: Reduced physical activity

Chronic pain may limit an individual's ability to engage in physical activities, leading to a more sedentary lifestyle. Physical inactivity is associated with an increased risk of depression and can also contribute to the maintenance of chronic pain by weakening muscles and reducing flexibility. Physiotherapists can design individualized exercise programs tailored to the specific needs and limitations of patients with mental health conditions. Regular physical activity has been shown to have numerous benefits for mental health, including reducing stress, anxiety, and depression while promoting relaxation and better sleep patterns. One participant said,

“Most of the chronic pain causes psychological disturbance. Like a patient with chronic back pain loss his functionality and cannot perform activity of daily life properly. We need to motivate the patient for early recovery. So we have to treat the patients mind also and thus we have a role.” #Participant 9

Sub-theme 5: Prevention of Secondary Health Issues

Mental health conditions can sometimes lead to physical health problems due to inactivity or unhealthy habits. Two of the participants said physiotherapists can help prevent or manage these issues by promoting a physically active lifestyle.

“Physiotherapist has a great role in mental health. Because in different cases mental health also affects physical pain.” #Participant 10

“Yes. As it drastically affects the improvement of physical health.” #Participant 11

Sub-theme 6: Monitoring Progress

Two participants agreed that, by regularly assessing patients' physical capabilities and progress, physiotherapists can identify improvements in functional abilities and physical health, which can positively influence mental health outcomes.

“For the rehabilitation a patient is attached with the physiotherapist in his daily living. Physiotherapist monitor the patient’s outcome every day. So the physiotherapist is one of the most important person to provide the mental support to the patient.” #Participant 12

“I strongly agree that physiotherapist has a great role to manage a patient with mental illness by monitoring, counselling” #Participant 13

Sub-theme 7: Combination of mental health and physical health

Mental health and physical health are deeply interconnected, and addressing both aspects is vital for promoting overall well-being and achieving a healthier, happier life. Healthcare providers should consider this interplay and take a holistic approach to patient care. The combination of mental health with physical health is referred to as the mind-body connection. It recognizes the interrelationship and interdependence between an individual's mental and emotional well-being (mental health) and their physical well-being (physical health). This connection highlights how one's mental state can influence their physical health, and vice versa. About 5 participants agreed that issue.

“Physical disabilities can impact a person's self-esteem, body image, and sense of independence, potentially contributing to mental health issues.” #Participant 14

“Mental health problems can lead to decreased adherence to medical treatments and prescriptions, impacting the management of physical health conditions.” #Participant 15

“Recognizing the link between mental and physical health is essential for providing comprehensive healthcare. Treating one aspect without considering the other may lead to suboptimal outcomes.” #Participant 16

“Of course. We have great role in mental health. There have a great combination of physical and mental health. Without mental health, the optimum goal will not achieve.” #Participant 17

“Physiotherapists help patients develop body awareness and a sense of connection between their physical and mental states. This can lead to a better understanding of the mind-body connection and its impact on overall well-being.” Participant 18

Category 3: Guideline requirement in the management of mental health

Table 6: Requirement of guidelines

Respondent Code	Required a guideline	Not required guideline
1	✓	
2	✓	
3	✓	
4	✓	
5	✓	
6	✓	
7	✓	
8		✓
9	✓	
10	✓	
11	✓	
12	✓	
13	✓	
14	✓	
15	✓	
16	✓	
17	✓	
18	✓	
19		✓
20	✓	
21	✓	

22	✓	
23		✓
24	✓	
25	✓	

Theme 3: Physiotherapist required an evidence based guideline

When managing mentally ill patients, physiotherapists should approach their care with sensitivity, empathy, and a comprehensive understanding of the patient's mental health condition. About 88% participants said that they require guidelines for them when working with mentally ill patients.

“Guideline is essential to treat the mental health condition patient for a physiotherapist at CRP. It is helpful for further research.” #Participant 1

“No. I think a guideline should established in mental health management.” #Participant 2

“Advanced guideline would provide some extra edge to the patient and enrich our service” #Participant 3

“Yes. We have guideline in physiotherapy practice guideline but we do not have any mental health management guideline” #Participant 4

“Yes. A guideline is very need for the gynecological physiotherapy. Because the mother is seen to be psychologically depressed in postpartum period.” #Participant 5

“Yes. An evidence based guideline is required for the managing the patient with mentally ill.” #Participant 6

Category 4: Recommendations of the physiotherapists

Physiotherapists can play a valuable role in managing mental health by incorporating specific approaches and techniques into their practice. Here are some recommendations for physiotherapists when working with patients to support their mental health.

Table 7: Recommendations of the physiotherapists

Respondent Code	A thorough assessment	Cognitive Behavioral Therapy	Group-based exercise programs	No recommendation
-----------------	-----------------------	------------------------------	-------------------------------	-------------------

1	✓		
2			✓
3		✓	
4			✓
5		✓	
6		✓	
7			✓
8			✓
9			✓
10			✓
11		✓	
12			✓
13			✓
14			✓
15			✓
16			✓
17		✓	
18			✓
19			
20	✓		
21			✓
22			✓
23		✓	
24			✓
25	✓		

Theme 4: Physiotherapist recommends various therapy to manage the mental health

Sub-theme 1: A thorough assessment

Assessment is a crucial step in diagnosing and treating mental illness. It provides a comprehensive understanding of the individual's mental health condition, helping healthcare professionals make accurate diagnoses and develop appropriate treatment plans. Conduct a holistic assessment that includes not only the patient's physical condition but also their mental health history and current emotional well-being. Take into account any stressors or triggers that may impact their mental health. About three participants required a thorough assessment to determine the mental health problems.

“A thorough assessment validates the individual's experiences, feelings, and struggles, helping them feel heard and understood.” #Participant 1

“An assessment will be helpful for the diagnosis & treatment plan” #Participant 2

Sub-theme 2: Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT) is a widely used and effective therapeutic approach for managing various mental health conditions. It is a goal-oriented, evidence-based form of psychotherapy that focuses on changing negative thought patterns and behaviors to improve emotional regulation and overall well-being. CBT can be utilized to treat a range of mental health conditions. 6 participants recommended this technique.

“By providing cognitive behavior therapy physiotherapist can assist the mentally ill patient and patient will get positive feedback. Thank you.” #Participant 3

“Cognitive behavior therapy focuses on challenging negative self-beliefs and developing social skills to reduce anxiety in social situations.” #Participant 4

Sub-theme 3: Group-based exercise programs

About five participants recommended group-based exercise programs led by physiotherapists. It provide opportunities for patients to interact with others, reducing feelings of isolation and fostering a sense of community and support.

“Participating in group exercise can act as a healthy distraction from daily stressors and negative thoughts.” #Participant 5

“Group-based exercise programs can reduce feelings of isolation and improve mood, promoting a sense of belonging and community.” #Participant 6

The study was aimed to investigate the knowledge, attitude and perception of physiotherapists' in CRP toward mental health management. The key findings of the study will be discussed in relation to the study aim. The findings suggests that the participants reporting a little to medium knowledge regarding mental health but they demonstrated a mostly positive attitude towards treating the patients with mental illness. The shortage of knowledge could contribute to the poor perceptions that many physiotherapists described in this study. We found there were more male participants than female. This difference in the number of male and female participants is because of lack of their interest to participation in the study.

Knowledge is characterized as factual knowledge obtained from the process of learning (Geer et al., 2006). A Study in South Africa among physiotherapists' indicates that participants did not possess self-reported understanding concerning mental health. They communicated a desire for a well-organized educational foundation during their undergraduate studies, encompassing both theoretical and practical aspects, to augment their comprehension of mental health (Marilyn et al., 2020). In this study we also find the little to medium of knowledge about mental health among physiotherapists'.

The research revealed the importance of incorporating both practical and theoretical instruction for effective student learning (Chetty et al., 2018). Similarly, Probst and Peusken (2010) reached a comparable conclusion, underscoring the need for more than just coursework to enhance attitudes; direct interaction with individuals experiencing mental illness is also imperative. Nations like Belgium, Norway, and Sweden provide education in mental health at both the undergraduate and postgraduate tiers. According to the physiotherapists in University of KwaZulu-Natal, possessing greater understanding concerning the causes, indicators, and manifestations of mental disorders, along with the potential impacts of medications, would empower them to approach patient care from a comprehensive standpoint and they have learnt about mental health through in-service training and years of working with PLWMI (Marilyn et al., 2020). Other study on physiotherapy students have similar findings and identify the need for more education

related to mental health (Connaughton & Gibson, 2016). Physiotherapists in this study also stated that having more knowledge about etiology, signs and symptoms of mental illness which is learnt by working with PLWMI but they didn't attend any in-service training.

As defined by Geer et al. (2006), attitude can be characterized as an emotion, feelings, or desire for knowledge. To know the physiotherapists' attitude toward psychology we used ATP (Attitude Toward Psychiatry) questionnaire which was also used in other study (Marilyn et al. 2020; Connaughton and Gibson,2016) which is the only other study to explore the knowledge, attitudes and perception of physiotherapists as well as those studies that have explored attitudes of physiotherapy students towards mental health.

This study's findings are in line with those of Connaughton and Gibson's (2016), the only other study to examine the knowledge, attitudes, and perception of physiotherapists as well as those studies that have examined attitudes of physiotherapy students toward mental health. But the participants in this study were professionals and had a generally positive attitude toward mental health, the attitude is similar to the study by (Connaughton and Gibson, 2016; Marilyn et al. 2020).

There was no significant difference in the ATP-30 scores between male and female participants, which differs from Connaughton and Gibson's (2016) study on physiotherapists and physiotherapy students (Bhise et al. 2016; Connaughton & Gibson 2016; Probst & Peuskens 2010). But the study Marilyn et al (2020) also found no significant difference in the ATP-30 scores between male and female participants which is similar to this study.

According to Marilyn et al (2020) A total of 21% of physiotherapists indicated that they attend to patients with concurrent mental health conditions on a weekly basis, a figure that falls below the 75% reported by Connaughton and Gibson (2016) in their research, where physiotherapists were found to address patients with co-existing mental illnesses at least once a week. In this study we find that more than seventy percent physiotherapists address a mentally ill patient in their working experience. The ongoing communication with PLWMI may have contributed to this more positive attitude. This result was comparable to that of Connaughton and Gibson (2016), who demonstrated that physiotherapists who often interacted with PLWMI had a more favorable attitude regarding mental health and

PLWMI. It was shown by Yildirim et al. (2015) and Probst and Peuskens (2010) that undergraduate physiotherapy students' attitudes might be positively influenced by mental health education.

The study is also has no expression of significant difference in ATP score relation to their job experience, which differs from the study of Marilyn et al (2020, p. 3). In their study they found there is relationship between their ATP score with job experience and the more clinical experience promote the more positive attitude.

According to Geer et al. (2006), perception is the act of interpreting data based on one's understanding of a certain topic. It is believed that this study is the first to examine physiotherapists' perspectives about their involvement in managing people with mental health conditions in Bangladesh. Through data collection in CRP, we were able to interpret the participants' perceptions. Most of them stated the opinion that they are compelled to apply what they know while treating PLWMI because of their fear and ignorance of mental health. This is similar to the study of Marilyn et al (2020). But some participants described mental health from their clinical experience and relation with the patient. The physiotherapists' who were working in neurology, spinal cord injury and pediatric unit described well in relation to the musculoskeletal unit because they were in psychological touch with the patient in their daily life. The study was also aimed to know the perception of physiotherapists' about their role in management of mental health condition. Most of the participants confess about their role in management in mental health condition. They agreed that by delaying the onset of depressive episodes and treating them both acutely and permanently when they do occur, physical activity helps depression which is similar to the study. Whether this beneficial effect is mediated through positive thoughts and emotions, increased confidence and self-control or through improved physical functional capacity which is also suggest in the study (Khan et al., 2011). Participants also agreed that some people may benefit from physiotherapy in reducing their stress and depression. Although physiotherapy primarily aims to increase physical function and mobility, it can also benefit mental health which is similar to the study (McConville et al., 2019). People with depression are more likely to experience chronic pain, while those with depression are more likely to experience chronic pain and this is related to the study of (Goesling et al.,

2018). This study also found the importance and recommendation for guideline to manage the patient with mental illness from physiotherapists' view. They suggest that cognitive behavioral therapy and group-based exercise programs should be widely used and it will be effective therapeutic approach for managing various mental health conditions. It is a goal-oriented, evidence-based form of psychotherapy that focuses on changing negative thought patterns and behaviors to improve emotional regulation and overall well-being. This has similarity to the study of (Gautam et al., 2020) & (Marzolini et al., 2009).

Limitations

It is important to acknowledge some limitations of this research topic. Small sample size in this study can be a limitation. Due to the fact that the data was only gathered from the CRP, Savar, it is possible that it does not accurately reflect all physiotherapists' perspectives throughout Bangladesh. Since the study period was brief, it was unable to gather an acceptable sample size. Research on physiotherapists' perspectives on mental health is scarce in the physiotherapy profession.

The fact that the ATP-30 instrument was used in this study may have contributed to another limitation because it was made for medical professionals and psychiatrists. There isn't presently a tool designed specifically for physiotherapy to measure how physiotherapists feel about mental health. Additionally, the physiotherapists participated in this study had a busy schedule that's why most of them were not able to fit to the interview smoothly and lasted with a brief which created some difficulties to the researcher.

6.1 Conclusion:

The knowledge, attitudes, and perceptions of physiotherapists toward mental health management have significant implications for patient care and the integration of mental health within physiotherapy practice. Enhancing the knowledge base, fostering positive attitudes, and addressing potential barriers can contribute to the delivery of comprehensive and patient-centered care for individuals with mental health conditions. According to our study, physiotherapists in CRP, Savar had little to medium self-reported understanding of mental health upon graduation. Despite the difficulties brought on by their limited undergraduate curriculum, physiotherapists have a positive attitude on mental health. As there is an alarming annual increase in the number of patients in Bangladesh presenting with mental health problems, physiotherapists will have increased interactions with PLWMI whilst in practice and need to be equipped with skills and knowledge to manage these patients. There is thus a need for a review of the undergraduate physiotherapy curriculum in Bangladesh to enhance the inclusion of mental health content in all curricula as well as to increase the number of postgraduate continual professional development activities related to physiotherapy in the management of PLWMI. Moreover, exploring the perspectives of patients and mental health professionals regarding the role of physiotherapists in mental health care could provide a comprehensive understanding of collaborative models and inter-professional dynamics.

6.2 Recommendation:

Future research should aimed at enhancing physiotherapists' knowledge, attitudes, and perceptions toward mental health management. Future research is encouraged to represent all physiotherapist in Bangladesh about inclusion mental health in their practice. For this further research should be conducted with a large numbers of participants including the physiotherapists working in private practice to compare our results with studies from other settings. This research also demand that there is a need a proper guideline for the physiotherapist to manage the PLWMI. For better management post-graduate courses about mental health should be run which will assist physiotherapists to ensure that they are equipped with the knowledge.

- Akinpelu, A O, Gbiri, C A, Oyewole, O, Odole, A and Akinrogunde, O, 2011, 'Nigerian physiotherapists' perceptions of their profession's prestige and implications', *Hong Kong physiotherapy journal*, vol.29, no. 2, pp.71-78.
- Al Dhaheri, A S, Bataineh, M A F, Mohamad, M N, Ajab, A , Al Marzouqi, A, Jarrar, A H, Habib-Mourad, C, Abu Jamous, D O, Ali, H I, Al Sabbah, H and Hasan, H, 2021, 'Impact of COVID-19 on mental health and quality of life: Is there any effect? A cross-sectional study of the MENA region', *PloS one*, vol.16, no. 3, p.e0249107.
- Aruna, G, Mittal, S, Yadiyal, M B, Acharya, C, Acharya, S and Uppulari, C, 2016, 'Perception, knowledge, and attitude toward mental disorders and psychiatry among medical undergraduates in Karnataka: A cross-sectional study', *Indian journal of psychiatry*, vol.58, no. 1, p.70.
- Auerbach, R P, Mortier, P, Bruffaerts, R, Alonso, J, Benjet, C, Cuijpers, P, Demyttenaere, K, Ebert, D.D, Green, J G, Hasking, P and Murray, E, 2018, 'WHO world mental health surveys international college student project: prevalence and distribution of mental disorders', *Journal of abnormal psychology*, vol.127, no. 7, p.623.
- Barnhill, J W, 2018 ,*Approach to the psychiatric patient: Case-based essays*, American Psychiatric Pub.
- Bhatia, T, Mazumdar, S, Wood, J, He, F, Gur, R E, Gur, R C, Nimgaonkar, V L and Deshpande, S N, 2017, "A randomised controlled trial of adjunctive yoga and adjunctive physical exercise training for cognitive dysfunction in schizophrenia", *Acta neuropsychiatrica*, vol.29, no. 2, pp.102-114.
- Carbon, M and Correll, C U, 2014, 'Thinking and acting beyond the positive: the role of the cognitive and negative symptoms in schizophrenia', *CNS spectrums*, vol.19, no. 1, pp.35-53.

Cella, M, Preti, A, Edwards, C, Dow, T and Wykes, T, 2017, 'Cognitive remediation for negative symptoms of schizophrenia: a network meta-analysis', *Clinical psychology review*, vol. 52, pp.43-51.

Colton, C W, and Manderscheid, R W, 2006, 'PEER REVIEWED: congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states', *Preventing chronic disease*, vol. 3, no. 2.

Correll, C U, Detraux, J, De Lepeleire, J, and De Hert, M, 2015, 'Effects of antipsychotics, antidepressants and mood stabilizers on risk for physical diseases in people with schizophrenia, depression and bipolar disorder', *World psychiatry*, vol. 14, no. 2, pp.119-136.

Cuijpers, P, Cristea, I A, Karyotaki, E, Reijnders, M and Huibers, MJ, 2016, 'How effective are cognitive behavior therapies for major depression and anxiety disorders? A meta-analytic update of the evidence', *World psychiatry*, vol. 15, pp.245-258.

Firth, J, Stubbs, B, Vancampfort, D, Schuch, F, Lagopoulos, J, Rosenbaum, S and Ward, P B, 2018, 'Effect of aerobic exercise on hippocampal volume in humans: a systematic review and meta-analysis', *Neuroimage*, vol. 166, pp.230-238.

Funk, M, Drew, N and Knapp, M, 2012, 'Mental health, poverty and development', *Journal of public mental health*, vol. 11, no. 4, pp.166-185.

Gausia, K, Fisher, C, Ali, M and Oosthuizen, J, 2009, 'Antenatal depression and suicidal ideation among rural Bangladeshi women: a community-based study', *Archives of women's mental health*, vol. 12, pp.351-358.

Gautam, M, Tripathi, A, Deshmukh, D and Gaur, 2020, 'Cognitive behavioral therapy for depression', *Indian journal of psychiatry*, vol. 62, p.S223.

Geer, L A, Curbow, B A, Anna, D H, Lees, P S and Buckley, T J, 2006, 'Development of a questionnaire to assess worker knowledge, attitudes and perceptions underlying dermal exposure', *Scandinavian journal of work, environment & health*, pp. 209-218.

Goesling, J, Lin, L A and Clauw, D J, 2018, 'Psychiatry and pain management: at the intersection of chronic pain and mental health' *Current psychiatry reports*, vol. 20, pp.1-8.

Granados-Gámez, G, López Rodríguez, M D M, Corral Granados, A and Márquez-Hernández, V V, 2017, 'Attitudes and beliefs of nursing students toward mental disorder: the significance of direct experience with patients', *Perspectives in psychiatric care*, vol. 53, no. 2, pp.135-143.

Honea, R A, Vidoni, E, Harsha, A and Burns, J M, 2009, 'Impact of APOE on the healthy aging brain: a voxel-based MRI and DTI study' *Journal of Alzheimer's disease*, vol. 18, no. 3, pp.553-564.

Hooblal, M, Cobbing, S and Daniels, K J, 2020, 'The knowledge, attitudes and perceptions of physiotherapists in KwaZulu-Natal, South Africa, towards mental health', *The South African journal of physiotherapy*, vol. 76, no. 1, pp. 1-7.

Hosain, G M, Chatterjee, N, Ara, N and Islam, T, 2007, 'Prevalence, pattern and determinants of mental disorders in rural Bangladesh', *Public health*, vol. 121, no. 1, pp.18-24.

Huhn, M, Tardy, M, Spineli, L M, Kissling, W, Foerstl, H, Pitschel-Walz, G, Leucht, C, Samara, M, Dold, M, Davis, J M, and Leucht, S, 2014, 'Efficacy of pharmacotherapy and psychotherapy for adult psychiatric disorders: a systematic overview of meta-analyses', *JAMA psychiatry*, vol. 71, no. 6, pp.706-715.

Islam, A and Biswas, T, 2015, 'Mental health and the health system in Bangladesh: situation analysis of a neglected domain', *Am J Psychiatry Neurosci*, vol. 3, no. 4, pp.57-62.

Kessler, R C and Frank, R G, 1997, 'The impact of psychiatric disorders on work loss days', *Psychological medicine*, vol. 27, no. 4, pp.861-873.

Khan, K and Brukner, P, 2011, 'Clinical sports medicine', McGraw-Hill Medical.

Köhler, C A, Freitas, T H, Maes, M D, De Andrade, N Q, Liu, C S, Fernandes, B S, Stubbs, B, Solmi, M, Veronese, N, Herrmann, N and Raison, C L, 2017, 'Peripheral

cytokine and chemokine alterations in depression: a meta-analysis of 82 studies', *Acta Psychiatrica Scandinavica*, vol. 135, no. 5, pp.373-387.

Leucht, S, Cipriani, A, Spineli, L, Mavridis, D, Örey, D, Richter, F, Samara, M, Barbui, C, Engel, R R, Geddes, J R and Kissling, W, 2013, 'Comparative efficacy and tolerability of 15 antipsychotic drugs in schizophrenia: a multiple-treatments meta-analysis', *The Lancet*, vol. 382, no. 9896, pp.951-962.

Lund, C, Alem, A, Schneider, M, Hanlon, C, Ahrens, J, Bandawe, C, Bass, J, Bhana, A, Burns, J, Chibanda, D and Cowan, F, 2015, 'Generating evidence to narrow the treatment gap for mental disorders in sub-Saharan Africa: rationale, overview and methods of AFFIRM', *Epidemiology and psychiatric sciences*, vol. 24, p. 3, pp.233-240.

Mann, M, Hosman, C M, Schaalma, H P and De Vries, N K, 2004, 'Self-esteem in a broad-spectrum approach for mental health promotion', *Health education research*, vol. 19, no. 4, pp.357-372.

Marzolini, S, Jensen, B and Melville, P, 2009, 'Feasibility and effects of a group-based resistance and aerobic exercise program for individuals with severe schizophrenia: a multidisciplinary approach', *Mental Health and Physical Activity*, vol. 2, no. 1, pp.29-36.

McConville, J, Lewis, D, Chambers, R and Hased, C, 2019, 'Physiotherapy student experience of a mindful movement and a mindful stress-reduction intervention: A qualitative study', *New Zealand Journal of Physiotherapy*, vol. 47, no. 3.

Misajon, R, Hawthorne, G, Richardson, J, Barton, J, Peacock, S, Iezzi, A and Keeffe, J, 2005, Vision and quality of life: the development of a utility measure. *Investigative ophthalmology & visual science*, vol. 46, no. 11, pp.4007-4015.

Naci, H and Ioannidis, J P, 2013, 'Comparative effectiveness of exercise and drug interventions on mortality outcomes: metaepidemiological study', *Bmj*, vol. 347, pp. 5577.

Nielsen, R E, Uggerby, A S, Jensen, S O W and McGrath, J J, 2013, 'Increasing mortality gap for patients diagnosed with schizophrenia over the last three decades—a Danish nationwide study from 1980 to 2010', *Schizophrenia research*, vol.146, no. 1-3, pp.22-27.

Phillips, H N and Chetty, R, 2018, 'Enhancing teacher training skills by strengthening the teaching practice component', *Education+ Training*, vol. 60, no. 3, pp.251-262.

Pierce, B S, Perrin, P B, Tyler, C M, McKee, G B and Watson, J D, 2021, 'The COVID-19 telepsychology revolution: A national study of pandemic-based changes in US mental health care delivery', *American Psychologist*, vol. 76, no.1, p.14.

Probst, M and Peuskens, J, 2010, 'Attitudes of Flemish physiotherapy students towards mental health and psychiatry', *Physiotherapy*, vol. 96, no. 1, pp.44-51.

Probst & M, 2017, 'Physiotherapy and mental health' *Clinical physical therapy*, vol. 230, pp.59-68.

Salisbury, C, Montgomery, A A, Hollinghurst, S, Hopper, C, Bishop, A Franchini, A, Kaur, S, Coast, J, Hall, J, Grove, S and Foster, N E, 2013, 'Effectiveness of PhysioDirect telephone assessment and advice services for patients with musculoskeletal problems: pragmatic randomised controlled trial', *Bmj*, vol.346.

Tanjin, H, 2019, 'Evaluating the changes in occupational performance and satisfaction following occupational therapy for the client with mental illness', (Doctoral dissertation, Bangladesh Health Professions Institute, Faculty of Medicine, the University of Dhaka, Bangladesh.).

Torales, J, Barrios, I, Almirón, M and De la Cueva, R, 2017, 'Physiotherapy in the treatment of anxiety disorders', *International Journal of Culture and Mental Health*, vol. 10, no. 3, pp.298-299.

Vancampfort, D, Soundy, A, Stubbs, B, Probst, M and Skjaerven, L, 2017, Prescribing physical activity in mental health care settings.

Voelcker-Rehage, C and Niemann, C, 2013, 'Structural and functional brain changes related to different types of physical activity across the life span', *Neuroscience & Biobehavioral Reviews*, vol. 37, no. 9, pp.2268-2295.

Watson, J B, Mednick, S A, Huttunen, M and Wang, X, 1999, 'Prenatal teratogens and the development of adult mental illness', *Development and psychopathology*, vol. 11, no. 3, pp.457-466.

Wei, Y, McGrath, P J, Hayden, J and Kutcher, S, 2015, 'Mental health literacy measures evaluating knowledge, attitudes and help-seeking: a scoping review', *BMC psychiatry*, vol. 15, no. 1, pp.1-20.

World Health Organization, 1996, ICD-10 guide for mental retardation (No. WHO/MNH/96.3), World Health Organization.

World Health Organization, 2007, WHO-AIMS report on mental health system in Uttarkhand, India.

Yildirim, C and Correia, A P, 2015, 'Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire', *Computers in human behavior*, vol. 49, pp.130-137.

Zubrick, S R, Silburn, S R, Burton, P and Blair, E, 2000, 'Mental health disorders in children and young people: scope, cause and prevention', *Australian & New Zealand Journal of Psychiatry*, vol. 34, no. 4, pp.570-578.

Appendix 1: IRB Application and Approval from BHPI

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 Kazi Abdur Rafi, student of B.Sc. in physiotherapy program at Bangladesh Health Professions Institute (BHPI) the academic institute of Centre for the Rehabilitation of the Paralyzed (CRP) under the Faculty of Medicine, University of Dhaka. As per the course curriculum, I have to conduct a dissertation entitled "**Physiotherapists' knowledge, attitude & perception toward mental health condition management at CRP**" under the supervision of Nadia Afrin Urme, Lecturer, Department of Physiotherapy, BHPI. The purpose of the study is to determine the knowledge, attitude & perception of physiotherapists toward mental health condition management at CRP. The study involves face-to-face interview by using semi-structured questionnaire to explore the physiotherapists' view, scope of practice, challenges on this area that may take 20 to 30 minutes to fill in the questionnaire and there is no likelihood of any harm to 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,

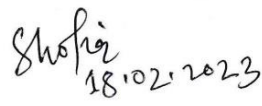
Dissertation presentation date: 9th January

Kazi Abdur Rafi
Kazi Abdur Rafi
4th Year B.Sc. in Physiotherapy
Session: 2017-2018 Student ID: 112170394
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the dissertation supervisor


13.2.2023
Nadia Afrin Urme
Lecturer, Department of Physiotherapy, BHPI.

Head, Department of Physiotherapy, BHPI


18.02.2023
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapaini, Savar, Dhaka-1343



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)

(The Academic Institute of CRP)

Ref:

CRP/BHPI/IRB/03/2023/711

Date:

13/03/2023

To
Kazi Abdur Rafi
B.Sc. in Physiotherapy,
Session: 2017-2018, DU Reg. No: 8651
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the dissertation proposal “Physiotherapists’ Knowledge, Attitude & Perception toward Mental Health Condition Management at CRP”- by ethics committee.

Congratulations

Dear

Kazi Abdur Rafi,

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 Nadia Afrin Urme, Lecturer, Department of Physiotherapy, and BHPI, 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 determine the knowledge, attitude & perception of physiotherapists toward mental health condition management at CRP. Should there any interpretation, typo, spelling, grammatical mistakes in the title, it is the responsibilities of the investigator. The study involves face-to-face interview by using semi-structured questionnaire to explore the physiotherapists’ view, scope of practice, challenges on this area that may take 20 to 30 minutes to fill in the questionnaire and there is no likelihood of any harm to the participants. Data collectors will receive informed consent from all participants and the collected data will be kept confidential.

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

Appendix 2: Data collection Permission

19 March, 2023

To

The Head of Department

Department of Physiotherapy

Bangladesh Health Professions Institute

Chapain, Savar, Dhaka-1343

Subject: Prayer for seeking permission to collect data for conducting a research project.

Sir,

With due respect and humble submission to state that I am Kazi Abdur Rafi, student of 4th year B.Sc. in Physiotherapy at Bangladesh Health Professions institute (BHPI). The Ethical committee has approved my research project entitled: **“Physiotherapists’ knowledge, attitude & perception toward mental health condition management at CRP”** under the supervision of Nadia Afrin Urme, Lecturer, Department of Physiotherapy, 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 department of Physiotherapy. So, I need your kind permission for data collection at department of Physiotherapy of CRP, Savar. I would like to assure that nothing of the study would be harmful for the participants.

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

Yours faithfully,

Abdur Rafi
Kazi Abdur Rafi

4th Year, B.Sc. in Physiotherapy

Class Roll: 30; Session: 2017-18

Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka, 1343.

*Forwarded,
Lead
19/3/2023*

*Recommended
Shafiq
22.03.23*
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

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

Appendix 3: Information and Consent Form

Information sheet (English)

Research Study Title: Knowledge, attitude & perception toward mental health among the physiotherapists at CRP.

Objectives: This study is being conducted

- To identify the demographic information
- To know the knowledge of physiotherapists about mental health
- To realize physiotherapists' attitude toward mental health
- To know the perception of physiotherapists' about role of physiotherapy in mental health
- To find out the importance and recommendation for guideline to manage the patient with mental illness from physiotherapists' view.

Participants of the study: In this study the physiotherapists who were completed at least Bachelor in Physiotherapy (B.Sc.) from Government approved university and who are practicing clinically in CRP with one year experience.

Data collection procedure: If you participate in this study, you will be asked to some personal and other related information regarding mental health management by using a questionnaire and tape record. This interview will take approximately 25-30 minutes of your time.

Benefits of participations: Participants will have the opportunity to reflect on, share and more aware of their thoughts and feelings about mental health condition management in your practice. Additionally, your participation and better statements are likely to help us find the answer to the research questions and in future study it may benefitted to the researcher and patients with mental illness.

Risks of participations: You will not face any risk or discomfort from your participation in the study.

Economic benefits: You will not be given any money or gifts to take part in this research.

Confidentiality: All information provided by you will be treated as confidential it will ensure that the source of information remains secret. Also, your name will not appear anywhere and no one except me will know about your specific answers.

Voluntary participation: Yours participation in this study is voluntary, so you may choose to participate or not. If you do not wish to continue, you have the right to withdraw from the study, without compensation, at any time.

Who to contact: If you have any query you may ask me now or later, even after the study has started. If you wish to ask questions later, you may contact any of the following:

Researcher:

Kazi Abdur Rafi

Contact no: 01536208348

E-mail: abdurrafi906@gmail.com

Or,

My research supervisor:

Nadia Afrin Urme

Lecturer, Department of Physiotherapy

Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka- 1343.

E-mail: afrinnadia4127@yahoo.com

Consent certificate

A) Participant or witness:

1. Did you understand the information sheet

yes/no

2. Do you have anything else to know?

yes/no (If yes,)

3. Do you understand that you will not benefit financially from this research?

yes/no

4. Are you allowed to ask questions?

yes/no

5. Do you consent to your information being recorded?

yes/no

6. Have you got enough time to decide?

yes/no

7. Are you consenting to participate in this study?

yes/no

Name of Participant _____

Signature of Participant _____ Date _____

B) Researcher:

I explained the above study precisely to the participant and he/she indicated his/her willingness to participate in the study.

Name of Researcher _____

Signature of Researcher _____ Date _____

Appendix 4: Questionnaire

Questionnaire

Title: Knowledge, attitude & perception toward mental health among the physiotherapists at CRP

Part –I: Personal Details

Name:

Age:

Sex:

Mobile Number:

Educational Status: B.Sc/M.Sc/Ph.D

Marital status: Married/Unmarried

Present working Unit:

Years of job experience: 1/2/3-5/>5

Present address:

Permanent address:

Part – II: Knowledge related questions

1. What do you mean by Mental Health? Please describe briefly your knowledge about it.

Answer:

Part – III: Attitude related questions

2. Have you ever treated a patient with mental illness? Yes/No

If yes, was there any abnormal behavior or anything that might stop you from treating the physical health of the patient? Yes/No

3. ATP-30 Questions: The Attitude to Psychiatry (ATP-30) questionnaire is also used to know about attitude of the physiotherapists.

3.1 Psychiatry is unappealing because it makes so little use of medical training.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.2 Psychiatrist talk a lot but do very little.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.3 Psychiatric hospitals are little more than prisons.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.4 I would like to be a psychiatrist.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.5 It is quite easy for me to accept the efficacy of psychotherapy.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree

3.6 On the whole, people taking up psychiatric training are running away from participation in real medicine.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.7 Psychiatrists seem to talk about nothing but sex.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.8 The practice of psychotherapy basically is fraudulent since there is no strong evidence that it is effective.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.9 Psychiatric teaching increases our understanding of medical and surgical patients.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.10 The majority of students report that their psychiatric undergraduate training has been valuable.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.11 Psychiatry is a respected branch of medicine.	A- Strongly Agree B- Agree C- Neutral (No opinion)

	D- Disagree E- Strongly Disagree
3.12 Psychiatric illness deserves at least as much attention as physical illness.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.13 Psychiatry has very little scientific information to go on.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.14 With the forms of therapy now at hand most psychiatric patients improve.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.15 Psychiatrists tend to be at least as stable as the average doctor.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.16 Psychiatric treatment causes patients to worry too much about their symptoms.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree

3.17 Psychiatrists get less satisfaction from their work than other specialists.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.18 It is interesting to try to unravel the cause of a psychiatric illness.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.19 There is very little that psychiatrists can do for their patients.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.20 Psychiatric hospitals have a specific contribution to make to the treatment of the mentally ill.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.21 If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.22 At times it is hard to think of psychiatrists as equal to other doctors.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree

	E- Strongly Disagree
3.23 These days psychiatry is the most important part of the curriculum in medical schools.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.24 Psychiatry is so unscientific that even psychiatrists can't agree as to what its basic applied sciences are.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.25 In recent years psychiatric treatment has become quite effective.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.26 Most of the so-called facts in psychiatry are really just vague speculations.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.27 If we listen to them, psychiatric patients are just as human as other people.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree

3.28 The practice of psychiatry allows the development of really rewarding relationship with people.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.29 Psychiatric patients are often more interesting to work with than other patients.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree
3.30 Psychiatry is so formless that it cannot really be taught effectively.	A- Strongly Agree B- Agree C- Neutral (No opinion) D- Disagree E- Strongly Disagree

Part – IV: Perception related questions

4. From your perspective, do you think physiotherapist has role in management of mental health condition? Explain your thought.

Answer:

5. Do you think any guideline is required for mental health condition management in physiotherapy practice at CRP? Do you have any recommendation?

Answer: