ATTITUDE AND ASSOCIATED FACTORS AMONG STUDENTS OF BHPI AND PRACTITIONERS OF CRP TOWARDS PERSON WITH PHYSICAL DISABILITY SUFFERING FROM ADDITIONAL MENTAL ILLNESS

By

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"ATTITUDE AND ASSOCIATED FACTORS AMONG STUDENTS OF BHPI AND PRACTITIONERS OF CRP TOWARDS PERSON WITH PHYSICAL DISABILITY SUFFERING FROM ADDITIONAL MENTAL ILLNESS"

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SUPERVISOR'S STATEMENT

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DECLARATION

- This work has not previously been accepted in substance for any degree and is not concurrently submitted in candidature for any degree.
- This dissertation is being submitted in partial fulfillment of the requirements for the degree of MSc in Rehabilitation Science.
- This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by giving explicit references. A Bibliography is appended.
- I confirm that if anything identified in my work that I have done plagiarism or any form of cheating that will directly awarded me fail and I am subject to disciplinary actions of authority.
- I confirm that the electronic copy is identical to the bound copy of the Thesis.

Signature 

Sristi Poudel

Date: 21/03/2021

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ABBREVIATIONS

ATP	Attitude towards Psychiatry Scale
BHPI	Bangladesh Health Professionals Institute
CRP	Center for Rehabilitation of the Paralyzed
MH	Mental Health
MI	Mental Illness
MICA	Mental Illness: Clinicians Attitude Scale
OT	Occupational Therapy
PT	Physiotherapy
PWD	Person with Disability
PWMI	Person with Mental Illness
SLT	Speech and Language Therapy
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
WHO	World Health Organization

ABSTRACT

Background: Besides the physical disability, there is also involvement of emotional distress among PWDs which has negative impact on individual physical and psychological relationship with their environment. The perception of health professionals greatly impact the treatment outcome of those individual. **Objectives:** The aim of this study was to measure the attitude of students of BHPI and practitioners of CRP towards person with physical disability additionally suffering from mental illness and determine the associated factors influencing their attitude. **Method:** A cross-sectional study was conducted among 150 respondents. 76 were students from Bangladesh Health Professions Institute and 74 were practitioners from Centre for rehabilitation of the paralyzed from physiotherapy, occupational therapy and speech & language therapy professions. Attitude of student's was measured by ATP 30 scale while that of practitioner's was measured using MICA 4 scale. Analysis was done with the help of SPSS version 22 using parametric and non-parametric tests. The confidence interval was set at 95%. **Results:** Overall, students had shown positive attitude while practitioners had shown negative attitude towards PWD suffering from mental illness. Unfavorable perceptions in many areas of mental health field was prevalent. **Students:** More positive attitude was found among physiotherapist and more negative attitude among occupational therapist. More number of speech and language therapist students had somewhat positive attitude. Dealt with patients having MI and wish to help the person were highly significant with attitude of students. **Practitioners:** Physiotherapists hold more negative attitude while OT and SLTs have equal ratio of positive: negative attitude. Factors such as changes in beliefs after clinical experience (0.004) was significantly associated with their attitude. **Conclusion:** Attitude towards psychiatry can be improved when all levels of health care organization feel its importance and take necessary action. Various strategies and actions can be adopted such as high quality undergraduate courses, adequate clinical placement through direct contact/exposure with PWMI along with proper supervision by clinical psychiatrists to promote positive attitude.

Keywords: Attitude, Person with disability, Psychiatry, Mental health & Illness, Health care students & Professionals

CHAPTER I INTRODUCTION

1.1 INTRODUCTION

According to World Health Organization, mental health refers to "state of well-being in which individual identify their potential, can cope with normal stresses of life, can work productively and contribute to their community". As per WHO (2008), mental disorder contributes to 13% to the global burden of disease worldwide (Islam & Biswas, 2015). It is accountable for years of disability by 32% and disability adjusted life years by 13%. It is one of the common problem worldwide usually affecting the population with disabilities (Tough, Siegrist, & Fekete, 2017). According to the Shaw Mind Foundation, UK researchers have estimated that 30% of people with long term physical problem or disability have also been suffering from mental disorders and the most commonly they are exposed to risk of anxiety and depression.

Mental problem is often faced by 11% of population with physical and multiple disabilities, with most commonly occurring prevalence of depression (38%) and anxiety (17%). Current report by the 1997 National Survey Mental Health and Wellbeing reveals that overall prevalence of mental disorder for person with physical disability is 11% carried out of 390 sample while 18% for the general population (Hagiliassi, n.d.).

Mental disorders are considered as one of the chief causes for disability and ill-health due to which over 450 million people are being affected. Stigma or negative attitude has been one of the noted reasons for person with mental disorders to avoid treatment or help (Teh, King, Watson, & Liu, 2014). As compared to the western countries, person with mental illness in Asian context has to suffer high tendency of stigma and discrimination (Lauber & Rossle, 2007). In the context of Bangladesh also, mental health is overlooked in the field of medical science. Population with mental illness were 16.01% as per the study done by National Institute of Mental Health and World Health Organization, Bangladesh (2003-2005) (Sarker et. al., 2014).

Despite the diagnosis of mental illness lies in the field of psychiatrist, treatment process such as assessment, treatment strategies and intervention includes other

professionals also (Novac and Kapolnek, 2001). Readiness to pursue help from professionals for a severe mental health problem and being able to disclose the personal problems were found to be associated with future help seeking behavior and use of treatment among general population. Over the past decades, development of positive attitude towards mental health problems as well as use of mental health services mostly among young generation has been known (Mojtabai et al., 2016).

Similarly, from many studies it is known attitude among occupational therapy student regarding mental illness was one of the negative influencing factors to determine their choice of mental health practice. Lyons and Hayes (1993) found that occupational therapy programs have not been able to achieve the goals of framing student's attitude. In comparison to other course or areas, negative perceptions are found more on mental health occupational therapy course. Interest in course work influenced students positively to practice in field of disability and lack of interest in course work in mental health negatively influence in avoidance of practice in mental health field. There has been many research done to address attitude towards people with mental illness but less had addressed attitude of occupational therapy students as well as research done is inconsistent and incomplete (Penny, 2002).

Much work was done to determine the attitude and experiences among medical students and nurses previously and many results revealed that their attitude depends on their individual experiences and opinion regarding mental illness and care but there has not been sufficient study to identify the experience among rehabilitation students towards person with physical as well as mental disability. Students receive education to identify and focus on bio-psychosocial aspects of health to improve practice in these areas but minimal training and consideration has been given to identify and manage mental health problems. In physiotherapy programs, there is a limited curriculum in the mental health field which could be factor that they may not achieve sufficient knowledge and skills to deal with the patient and provide best holistic treatment (Connaughton & Gibson, 2016). It is necessary to figure out the attitude of physiotherapy students as they can benefit the patient's physical and mental health (Dandridge, Stubbs, Roskell, & Soundy, 2014). Apparently, negative attitude causes hazard and obstacle during clinical practice leading to non-compliance. It is necessary to determine the issue as health care providers with

stigmatization attitude and prejudices cannot deliver quality health care and emotional support to patient.

Typically, speech and language therapists do not apply their services for person with mental illness and we can't find any articles published related to this area of topic. Hence, speech and language problems associated with this sample have not been adequately presented in research studies. As, person with mental illness develops multiple symptoms including communication difficulties as one of the initial symptoms, the services provided by speech and language therapist can also be beneficial for person with mental illness (Novac and Kapolnek, 2001). In mental health services, speech pathologists also have a major role as there is well built connection between mental health disorder and communication disorder (The Speech Pathology Australia, 2010).

Lack of knowledge, skills and stigmatization attitude in workplace are regarded as the main source of stigma towards mental illness in health care. Lack of adequate skills and training contributes for poor patient-provider relationship as well as poor quality care, treatment and outcomes while in other hand stigma leads to poor physical care for person with mental illness. Report has been continuously received from individuals who have experienced mental illness regarding the insufficiency of the physical health care from health care professionals while seeking for non-mental health concerns. Due to the stigma and poor quality knowledge among health care professionals, most of the patient's physical symptoms is considered as symptoms due to their poor mental health (Knaak, Mantler and Szeto, 2017).

1.2 JUSTIFICATION OF THE STUDY

Evidence shows that stigma and prejudice against mental illness among health care professionals and health care students is also high despite general populations (Svensson et al, 2014). It has been identified that persons with mental problems suffer from lot of stigma and they are highly rejected by others because of their problem including health care professionals and students (Dandridge, Stubbs, Roskell, & Soundy, 2014).

So, considering this issue, as there was not any research conducted in this area in BHPI, I thought that further study is required to investigate the attitude of rehabilitation students as well as professional's attitude towards person with mental illness as it can negatively influence the patients' treatment and rehabilitation process. Similarly, mental health is new field for rehabilitation professionals. However, they come in contact with many patients suffering from psychiatric disorders along with other chronic illness and need to deal with them. In order to remove negative attitude and facilitate rehabilitation process, it is necessary to examine the view of rehabilitation professionals towards mental illness so that possible approach can be adopted. As, the negative attitude of people towards psychiatric problems is still prevailing in our country Nepal, I was highly interested to perform the research in same area in Bangladesh.

1.3 RESEARCH HYPOTHESIS

Research hypothesis: If there are negative educational & exposure factors and/or negative perceptions & beliefs in study sample of rehabilitation students and practitioners, there will be a negative attitude towards persons with physical disability suffering from additional mental illness.

Null Hypothesis: If there are positive educational & exposure factors and/or positive perceptions & beliefs in study sample of rehabilitation students and practitioners, there will be a positive attitude towards persons with physical disability suffering from additional mental illness.

1.4 OPERATIONAL DEFINITION

Attitude: Tendency to have positive or negative response on something or someone such as belief, object, person or situation.

Physical disability: restriction or inability of a person to perform activities in a range considered normal for human being resulting due to loss or impairment in body structure and function

Mental disability: any deviation from mental health that disturbs mood, thinking and behavior

BHPI students: bachelor and master level students studying PT, OT and SLT in BHPI

Practitioners: staffs working in CRP as physiotherapist, occupational therapist and speech & language therapist

CHAPTER II LITERATURE REVIEW

PT: In a cross-sectional study conducted among 181 physiotherapy undergraduate degree students at UK institutions in 2014 in order to assess their attitude towards working with people with a MI as well as their educational and personal experiences, result revealed that 71% of the students have received less than 4 hours teaching on MI and 76% demanded further education on mental health. Only 7 % of students have been exposed to mental health placement and 35.3% do not know anyone with mental illness. Majority i.e. 72% students have only received training of mental health of less than 4 hours during their whole course. Students have more concerns regarding treatment method, interaction with patient and safety. The study also addressed that knowledge and skills regarding mental health among many UK undergraduate physiotherapy students have been inadequate. The study suggests that exploratory research need to be done in future to determine associations between hours taught, clinical exposure and personal experience (Dandridge, Stubbs, Roskell, & Soundy, 2014).

Another study was conducted at University of Notre Dame Australia among pre and post clinically experienced physiotherapy students to measure the attitude towards psychiatry and mental health. Findings revealed the response rate of 89%. Among them, 93% of clinically experienced students and 66% of pre-clinical students have contacted patients with co-morbid mental illness at least 3-4 times per week. Students with clinical placement showed more positive attitude than those who do not have placement and attitude was found more positive in female students in comparison to male. This study suggests inclusion of all programs in future research as well as prospective study to explore impact of clinical experience on attitude towards mental health (Connaughton & Gibson, 2016).

In a study conducted among 219 Flemish physiotherapy students and 112 general students to identify the attitudes towards psychiatry, results revealed moderately positive attitudes. Significant difference was found between PT and non-medical students. More positive attitude was found among female students than male. Positive attitude was highly associated with previous experience with mental illness as well as after completion of

psychiatry course. The study showed that physiotherapy course should focus to enhance positive attitude so that effective treatment could be provided for the persons with mental illness (Probst & Peuskens, 2010).

A mixed-methods research design combining focus groups, interviews and an online survey was done among eighty-eight Australian registered physiotherapists in order to know their perception about delivering physiotherapy assistance to person with severe and enduring mental illness. The results revealed that physiotherapists can play vital role in providing treatment for physical conditions in those persons additionally suffering from severe and enduring mental illness. The barriers were found to be insufficient education in mental health sector, limited confidence for dealing with people with SPMI, health system structure and stigmatizing attitude towards people with SPMI. Thus the study suggested that physiotherapists should seek interest and involve in mental health training opportunities that exist, curriculum should be expanded in mental health course in undergraduate and postgraduate education as well as health system barriers should be identified and managed (Andrew et al., 2019).

A mixed method design was carried out among 153 physiotherapists in KwaZulu-Natal province of South Africa using focus group interview in order to determine the knowledge, attitude and perceptions of PT towards mental health and whether their undergraduate training has been valuable to help them treat PWMI. Result reported that females had more ATP scores in comparison to males. In addition, PTs also revealed that they received less training on mental health at an undergraduate level (Hooblaul, Cobbing & Daniels, 2020).

OT: In a longitudinal study done among 36 occupational therapy students to measure attitude towards people with mental and somatic disability in 2002, results revealed that there was marked differentiation in attitude towards people with mental and somatic disability. Attitudes was found to be more favorable at the completion of course than at the start of course but less in compared towards person with physical disability. Academic course was found to be one of the factors for improving the attitude who initially had negative attitude. Findings of the study showed that various strategies need to be applied in occupational program so that quality care of all persons with disabilities and mental illness can be achieved by reducing the stigma associated with it. Study suggested that

there is need of further research to be done among large representative samples (Penny, 2002).

All kinds of health care: A pre-posttest study was done among 456 students including nurses, social workers, occupational therapists, physiotherapists, psychologists and public health workers in vocational University programs in Sweden in order to analyze the outcome of instructional intervention on attitude towards person with mental disorder. The result showed that there was difference in attitude among different student groups. Also, education brought improvement in their factor of being fearful with people with mental problems and they developed optimistic attitude regarding person with mental illness in their community. The study suggested further research on educational interventions to evaluate the change in attitude in depth (Gyllensten, et.al, 2011).

A cross sectional survey was done in Sweden among 1101 students in 2014 studying in 8 various university programs among nurses, occupational therapists, physiotherapists, physicians, psychologists, public health workers and social workers in order to explore their attitudes toward people with schizophrenia. Results identified that majority of students from five university programs perceived schizophrenic persons as a threat to others. Those students who knew person with schizophrenia and had past history of having experiences in mental health sector had more positive attitude towards them. Thus this study suggested that training for personal contact with person with schizophrenia plays vital role in developing positive attitude towards them populations (Svensson et al, 2014).

A cross-sectional descriptive study was conducted among 154 medical and 168 nursing undergraduate students at a university in India to determine their attitude towards mental illness. Results revealed that most of the medical students i.e. 54.5% and 64.8% nursing students have positive attitude towards mental illness. Nursing students were found to be more benevolent and less pessimistic towards mental illness while medical students possess positive attitude in separatism and stigmatization domains. Hence this study suggested to conduct further education interventional study to develop more positive attitude (Poreddi et al.,2017).

A qualitative study was conducted in UK in 2017 among 24 health care providers hired by an NHS (National Health Service) trust where 13 people worked in mental health

while 11 in other health care department in order to investigate health care provider's understanding of and attitude regarding mental problem and revelation in workplace. The results revealed that participants had many experiences with workmates with mental disorder and supporting characteristics among participants is different for those conditions. Although they have positive attitude towards colleagues with mental illness in their workplace, results also indicated that the worry of stigma and discrimination from colleagues discourage them from revealing their mental illness (Waugh et al., 2017).

A qualitative study was conducted in Canada in 2019 among 18 students studying dental surgery, dietetics, medicine, nursing, occupational therapy, pharmacy, physical therapy, psychology and speech-language pathology each 2 students from nine healthcare programs at a Canadian University. It was done to explore their understanding, view and behavioral response towards individual with mental problems focusing on positive and negative general perceptions toward mental problems; contact experiences with mental problems; mental problems in a healthcare context; and learning about mental problems in health care school. Results revealed that they had well-balanced understanding related to psychiatry and optimistic response towards PWMI. While some of them showed stigmatizing attitudes and revealed they were not fully prepared to handle those type of mental illness due to limited academic learning. When participants were asked regarding their contact with mental illness, they revealed several experiences such as self-experience, having a loved one with mental illness or knowing/meeting someone at school, workplace or during volunteer experiences who have suffered from some kind of mental problems. Participations faced different barriers while treating the people with mental illness in comparison to the treating people with physical illness in the healthcare setting. More negative perceptions was found on treating mental illness than physical illness. Some common mental illnesses such as anxiety and depression were familiar to most participants while many had less experience for handling patients with severe mental illness. Hence, they felt having lack of ability to provide treatment and support for individual with MI. Therefore this study suggests to conduct in-depth analysis of the education being taught on mental health and the experiences that each faculty had encountered so that it would be helpful to determine the correlation existing between health care program teachings and

the knowledge, attitude and behavioral responses of healthcare students (Riffel & Chen, 2019).

A cross-temporal meta-analysis study was conducted in 2019 in Taiwan among health care providers and students from 1996 to 2016 in order to measure difference in attitude toward mental problems in health care providers and students. Studies investigating the beliefs or attitudes of professionals or students in healthcare fields such as medical, nursing, social work, psychology, pharmacy, occupational therapy and physical therapy were covered. Results revealed that social distance and attitudes toward mental illness have been positively improving over time. The study further informed that anti-stigma programs and courses have positive impact to reduce negative attitude and reduce the social distance from mentally ill people. It further focused that upcoming study should point on tracking and assessing the trends nationally as well as globally (Lien, Lin, Tsai, Lien, & Wu, 2019).

A broad exploration of the literature was carried out in 2018 from 47 articles from 7 countries in between 1996 to 2014 by using library databases in order to explore health professional's attitude towards patient with mental illness. Result revealed expanding shift in several countries among health care provider's negative attitudes towards the mentally ill. Also it indicated the necessity for further study in order to investigate relevant approach and method to improve attitude among health care professionals (Alshahrani, 2018).

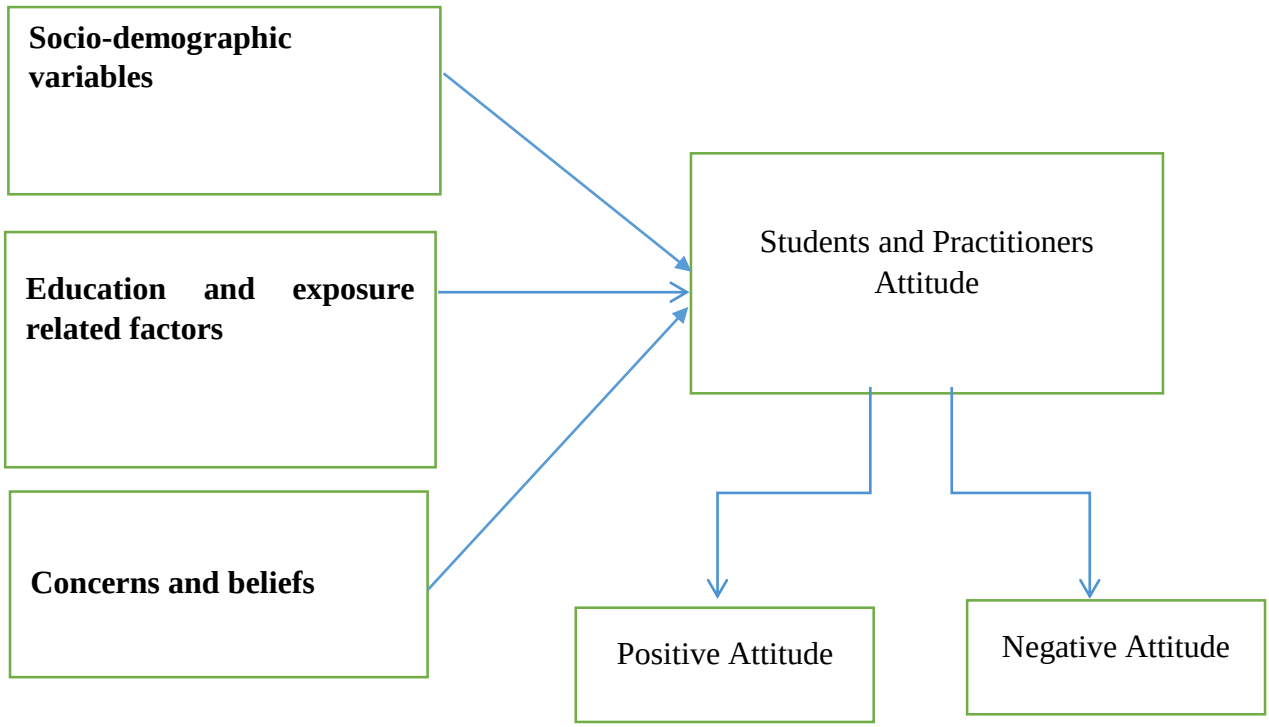
Physicians: A cross-sectional study was carried out in Riyadh in 2019 among 380 participants using Revised Depression Attitude Questionnaire in order to investigate non-psychiatric physicians' attitudes towards depression. Study explained that the non-psychiatric physicians in Riyadh have favorable attitude in professional confidence towards person with depression. However, participants had less preference to work with PWMI while comparing to physical illness as well as they lack the confidence to work with patients having suicidal tendency. This result points a gap lack of post-graduate mental health training and lack of adequate clinical supervision in management of psychiatric cases.

This study suggested that it is very important to know the attitude of medical practitioners so that it will be helpful for quality service delivery and to assess training needs for them (Aldahmashi, Almanea, Alsaad, Mohamud, & Anjum, 2019).

A cross-sectional study was conducted in Keele University among 239 general practitioners using ATP-30 scale in order to measure their attitude towards psychiatry. Results revealed positive attitude of general practitioners towards psychiatry. Those with more experience on psychiatry field and engaged in training tend to have more positive attitude (Thompson, Dogra & McKinley, 2010).

CHAPTER III RESEARCH METHODOLOGY

3.1 Conceptual Framework



PREDICTIVE VARIABLE

Socio-demographic variables such as Age, Gender, Course, Level, Profession, Year of experience, Religion, Domicile, Marital Status, family income, Fathers & mothers education, No of family members and family members graduate above or below

Education and exposure related factors such as Undertaken at least one mental health placement, setting, knowing someone with mental illness, view towards them, Wish to help the person, total teaching hours, exposure, delivery of session, demand of further education and type of education

Concerns and beliefs such as Engagement with patient, understanding of range of mental illness, concerns regarding safety, knowledge on treatment methods required, view towards negative characteristics of PWMI and the belief on treating PWMI in future

RESPONSE VARIABLE

Student's and practitioner's attitude

3.2 STUDY OBJECTIVES

3.2.1 GENERAL OBJECTIVES

- To explore the attitude and associated factors among students of BHPI and practitioners of CRP towards person with physical disability in addition with mental illness.

3.2.2 SPECIFIC OBJECTIVES

- To measure the attitude among students of BHPI and practitioners of CRP towards persons with physical disability additionally suffering from mental illness
- To study associations between attitude of students and practitioners with socio-demographic variables
- To study associations between attitude with factors like education & exposure
- To study associations between attitude with factors like concerns & beliefs

3.3 STUDY DESIGN

A cross sectional quantitative design was used to collect information from participants in order to measure the attitude of rehabilitation students and practitioners of CRP and BHPI respectively and associated factors in Bangladesh. As the study was to measure attitude and associated factors, we believe that cross sectional study was appropriate method for this purpose. Quantitative data of various variables and their relationship can be obtained from this method.

3.4 STUDY POPULATION

Study population were BHPI students including physiotherapy, occupational therapy and speech and language therapy from bachelor level as well as practitioners of CRP working as physiotherapist, occupational therapist and speech & language therapist.

3.5 STUDY AREA/SITE

Study was conducted in BHPI classrooms and various clinical departments at CRP, Bangladesh. CRP and BHPI was chosen for data collection area as CRP is the main center for many person with disabilities in Bangladesh working for more than 30 years while BHPI is the largest institution providing education to variety of programs related to disability. So, students and professionals get high opportunity to be in contact with PWDs.

3.6 STUDY PERIOD

The study was conducted from July, 2019 to December, 2019**.**

3.7 SAMPLE SIZE

Since the study was not based on prevalence, the following formula was used to calculate the sample size with p value of 0.5, confidence level 95% and 5% error level.

Total number of students = 200

Total number of practitioners = 119

Total population (N) =319

Level of confidence = 95%

z at 95% level of confidence = 1.96

Error (α) = 5% = 0.05

p = 0.5

Now,

Sample size (n) = $N/\alpha^2 N + \not{z}^2$ (p) (1-p) = 182

Then,

We have partitioned the total target sample observations into two equal part

Calculating samples from each group = 50% of total = 50/100×182 = 91 from each group

Now,

Proportion of sample from group of students:

OT= 4^{th} year = 91×38/ 200 = 17.29 = 17

OT = 3^{rd} year = 91×37/200 = 16.8 = 17

PT= 4^{th} year= 91×38/200= 17.29 =17

SLT= 4^{th} year= 91×29/200= 13.19= 13

SLT= 3^{rd} year= 91× 28/200= 12.74= 13

MPT= 1^{st} year= 91×15/200=6.8= 7

MPT= 2^{nd} year= 91×15/200=6.8= 7

Proportion of sample from group of practitioners:

OT= 91×42/119= 32.11= 32

PT= 91×66/119= 51

SLT= 91×11/119= 8.41=8

3.8 INCLUSION AND EXCLUSION CRITERIA

Inclusion Criteria

We have included bachelor level students studying physiotherapy, occupational therapy and speech and language therapy course as well as practitioners of CRP working as physiotherapist, occupational therapist and speech and language therapist who were selected by stratified random sampling method.

Exclusion Criteria

We have excluded respondents who were absent at the time of study and who did not give consent.

3.9 SAMPLING TECHNIQUE

Participants were recruited from OT, PT and SLT students from bachelor levels studying in BHPI as well as practitioners of CRP working as physiotherapist, occupational therapist and speech and language therapist by using stratified random sampling method which is probability type of sampling. At first, stratified sampling method was used to divide population into different strata and then simple random sampling method was used to select samples from different strata using lottery method. Participants were chosen as per inclusion criteria.

Program	**No of sample size**	**Total no selected**
Students		
Physiotherapy	17	17
Occupational therapy	34	**33**
Speech & language Therapy	26	26
MPT	14	**0**
Practitioners		
Physiotherapist	51	**38**
Occupational Therapist	32	**30**
Speech & language therapist	8	**6**

Reasons for selection of participants less than sample size:

- Students
  - 1 student from OT was not present at the time of data collection
  - MPT had placement and had gone tour at the time of data collection. Hence, could not reach them.
- Practitioners
  - Most of them have left the job in CRP
  - Remaining were not willing to participate so could not include them in the study

3.10 DATA COLLECTION TOOL/MATERIALS

At first, literature review was done to find the valid and reliable scale needed to measure the attitude among participants that were used in previous studies. Currently there is no specific tool for PT and SLT, but the ATP-30 is considered general rather than dedicated to a specific group. It was used in a Flemish study of physiotherapy students in 2010. Hence, ATP 30 and MICA scale were chosen to use in this study as they were valid, reliable tool and were mostly used in previous studies. After the scales were found, permission was taken from respective authors to use those scales. Then self-structured questionnaire for socio-demographic detail and associated factors were developed consulting with experts and with the help of previous similar studies. Then a pilot study was conducted prior to data collection and necessary correction was done on tools. Validity and reliability of tool was maintained. After that, tools were finalized by consulting with supervisor and research expert. Overall there were four sections in data collection tool. There were two separate tools, one for students and next for practitioners with relevant close ended questionnaires.

Section I: include socio-demographic details

Section II: include self-structured questionnaire related to education and exposure factors

Section III: include self-structured questionnaire related to concerns and beliefs

Section IV: ATP 30 scale and MICA 4 scale

ATP 30: ATP 30 scale was developed in Canada by Burra et al in 1982. It is used to measure student's attitude towards mental illness. The ATP-30 has shown good validity and reliability and has been used in various international studies with a Cronbach's alpha of 0.831. It consists of 30 statements in which 14 items are positively phrased and 16 items are negatively phrased. It has overall 7 domains consisting of mental illness and treatment, psychiatric patients, psychiatric institutions, psychiatrists, teaching, knowledge and career choice. It consists of 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 6; all item scores are summed to arrive at a total score out of 150. Higher scores indicate more positive attitudes; a score of 74 is considered neutral.

MICA 4: MICA 4 scale was developed and validated in 2010 at the Health Services and Population Research Department, Institute of Psychiatry, King's College, London. It is used to measure practitioner's attitude towards mental illness. It consists of 16 items with 5 domains such as view of mental illness and psychiatry, disclosure, distinguishing mental and physical health, knowledge of mental illness and psychiatry and patient care for person with mental illness. It consists of 6 point likert scale(ranging from strongly agree to strongly disagree).For items 3,9,10,11,12 and 16 items scores are as follows: Strongly agree=1, agree=2, somewhat agree=3, somewhat disagree=4, disagree=5 and strongly disagree=6. Other than 3,9,10,11,12 and 16, all items are reversed as follows: strongly disagree=1, disagree=2, somewhat disagree=3,somewhat agree=4,agree=5 and strongly agree=6. The scores for each item are summed to produce a single overall score. A score of 50 is considered neutral. A high overall scores indicate a more negative attitude. A lower score indicates less negative attitude towards mental illness and psychiatry.

In MICA 4 scale, the two middle categories are 'somewhat agree' and 'somewhat disagree while in ATP these two categories are one 'neutral'. The other answer categories of MICA and ATP are the same.

DATA MANAGEMENT AND ANALYSIS

Data analysis was done using SPSS version 24. Descriptive statistics (frequency, percentage, mean, median and standard deviation) and inferential statistics were used to analyze quantitative data. Normal distribution of data was checked using skewness and kurtosis value and data distribution chart. Parametric tests (t-test, ANOVA, Pearson correlation) were used for normally distributed data while non-parametric tests (Mann-Whitney, Kruskal wallis) were used for non-normally distributed data in order to assess the association between different variables with responsive variable. Mean and standard deviation were also calculated. Data presentation was done using tables, pie chart and bar diagrams. P value of <0.05 was considered significant.

3.11 QUALITY CONTROL AND QUALITY ASSURANCE

At first, it was ensured that the study population understands English language well as the questionnaire was in English version. As the study population were bachelor level students and professionals were also proficient in English so language translation was not necessary. Prior to data collection, pilot survey was carried out to ensure that questionnaire does not contain double meaning and ambiguous questions that may confuse respondents and decrease the validity of the study. Face validity of the questionnaire was ensured. Then, after data collection, data was kept in safe place anonymously regarding patients identity. The collected data were reviewed and recorded in SPSS program so that there was less chance of errors during data analysis.

3.13 ETHICAL CONSIDERATION

Following the standard procedure for ethical consideration, the study was conducted after the approval from Institutional Review Board Committee of CRP. At first, proposal was submitted to the concerning authority after getting approval from course coordinator of the Department of Masters in Rehabilitation Science and supervisor. Written permission was taken from the respective authority to conduct the research.

Informed consent was taken from all the participants before data collection. The purpose of the study was clearly explained in an understandable language to the respondents. Participants were not forced to participate in the study if they were not willing to do so. No incentive or reward was given to the participants. Confidentiality was maintained throughout the study. Information obtained was used only for study purpose.

CHAPTER IV RESULT OF DATA ANALYSIS

4.1 Socio-demographic Variables

4.1.1 Types of Sample

Type of sample shows that 50.7% were students while 49.3% of the respondents were practitioners.

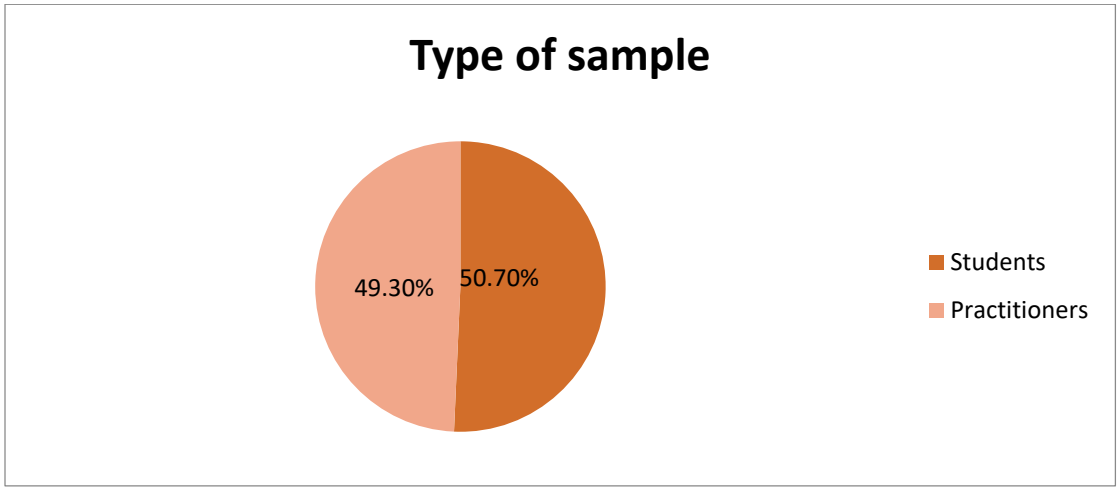


Figure 4.1.1: Type of Sample

4.1.2 Age

In this study, among total of 76 students, all of them belong to age group 19-29 while among total of 74 practitioners, 55.4% belong to 19-29 age group, 35.1% to age group 29-39 and very few i.e. 9.5% from age group 39-49.

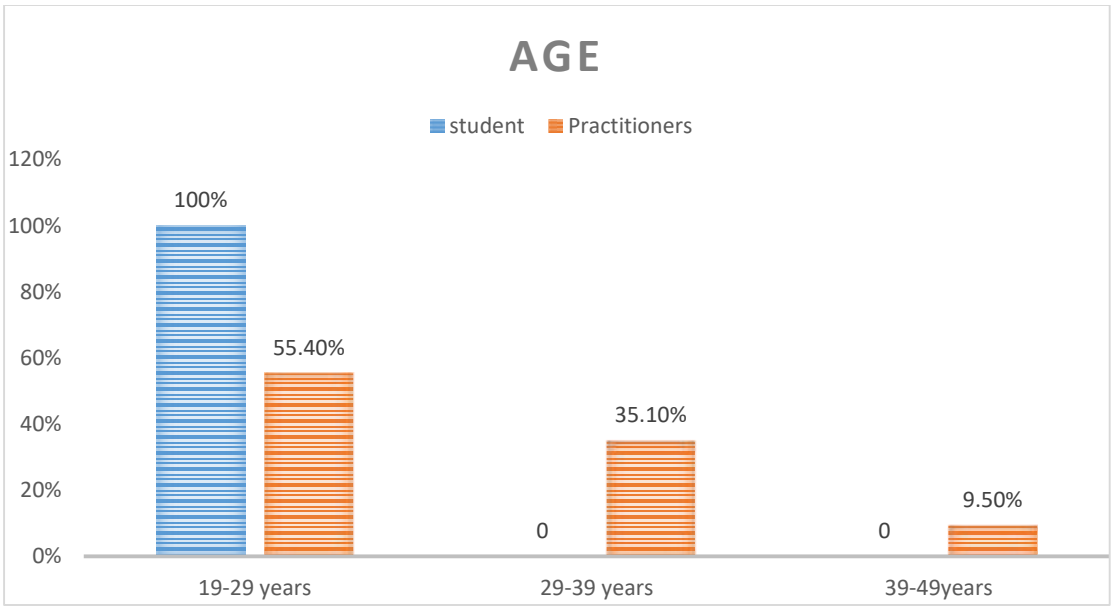


Figure 4.1.2: Age of Respondents

Table 4.1.1: Descriptive Statistics of Age

Age	Maximum-Minimum	Mean	S.D.
Students	26-20	22.51	1.332
Practitioners	42-23	29.59	4.673

The average age of students is 22.51 and standard deviation is 1.332. Likewise mean age of practitioners is 29.59 while the standard deviation is 4.673.

4.1.3 Gender

In this study, percentage of female were more in both groups.

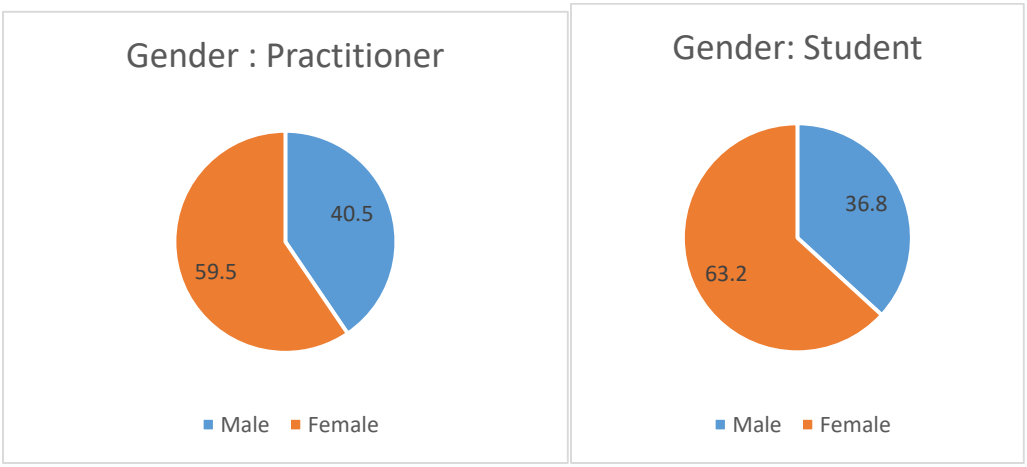


Figure 4.1.3: Gender

4.1.4 Course of Students

From total students sample, n= 76, 33(43.4%) respondents were from occupational therapy course and 26(34.2%) were from Speech & Language therapy course, and 17(22.3%) were from physiotherapy course.

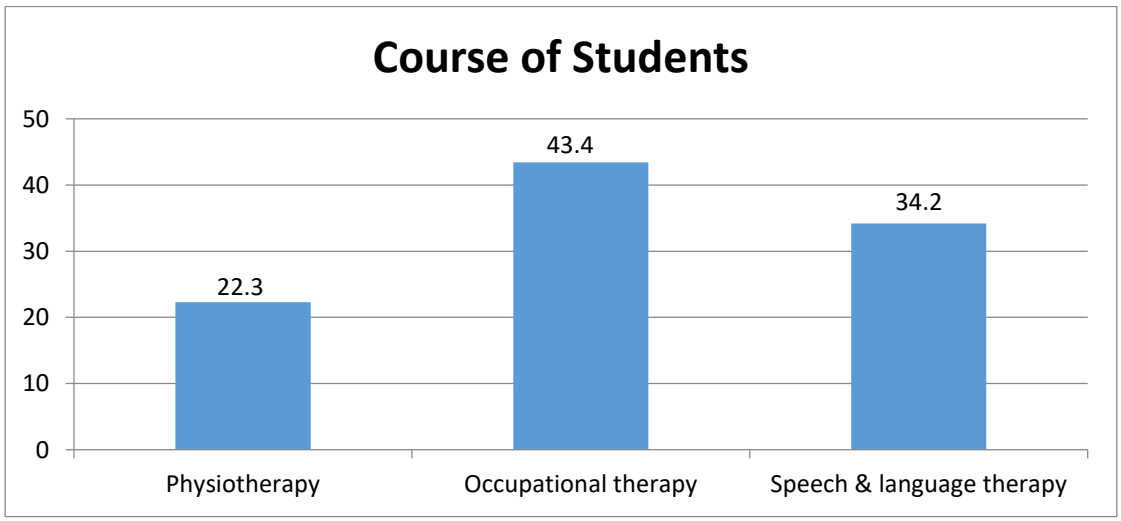


Figure 4.1.4: Course of Students

Table 4.1.2 Distribution of Students according to the Level of Course

VARIABLES	FREQUENCY(N)	PERCENTAGE (%)
Level of Course (Student)		
3rd year SLT	13	17.1
4th year SLT	13	17.1
3rd year OT	17	22.3
4th year OT	16	21.0
4th year PT	17	22.3

Above table shows that 22.3% of OT students were from 3rd year, 22.3% of PT students from 4th year, 21.05% OT students from 4th year and 17.1% of SLT students each from 3rd and 4th year.

4.1.5 Profession

Likewise, following bar diagram shows that among practitioners, most of the respondents i.e. 38(51.3%) were physiotherapist, 30(40.5%) were from occupational therapist and only 6(8.1%) were from speech & language therapist.

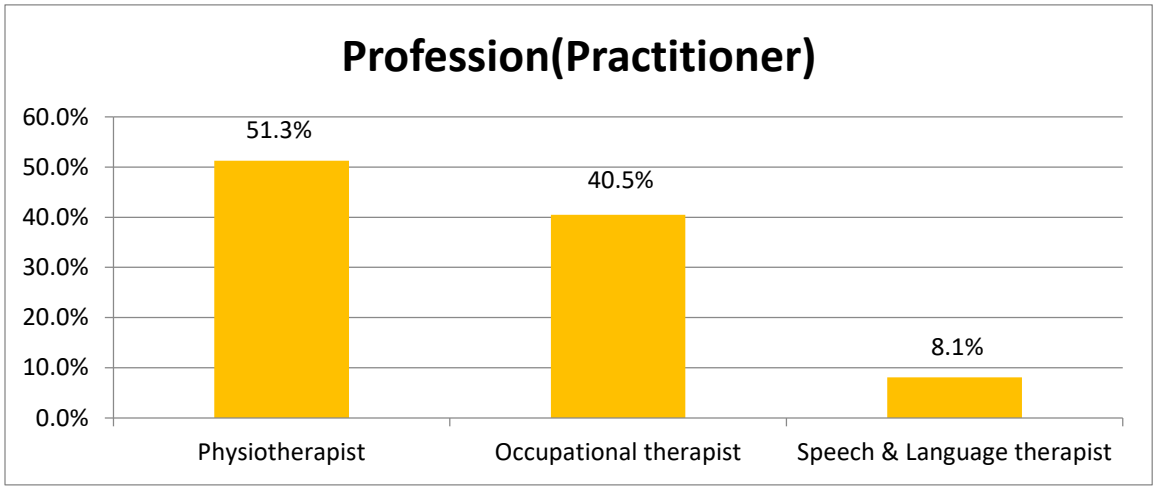


Fig 4.1.5: Profession of Practitioner

4.1.6 Experience of Practitioner

From total sample of practitioners, PT and OT has almost similar result of job experience below 7 years i.e. 71.7% and 70% respectively while all of the SLT has job experience below 7 years. 23.7% of PT and 20% of OT have job experience between 7 - 14 years. Only 5.30% of PT and 10% of OT have job experience between 14-21 years. Mean and standard deviation of job experience of PT, OT and SLT are 63.85(months) and 60.93 respectively.

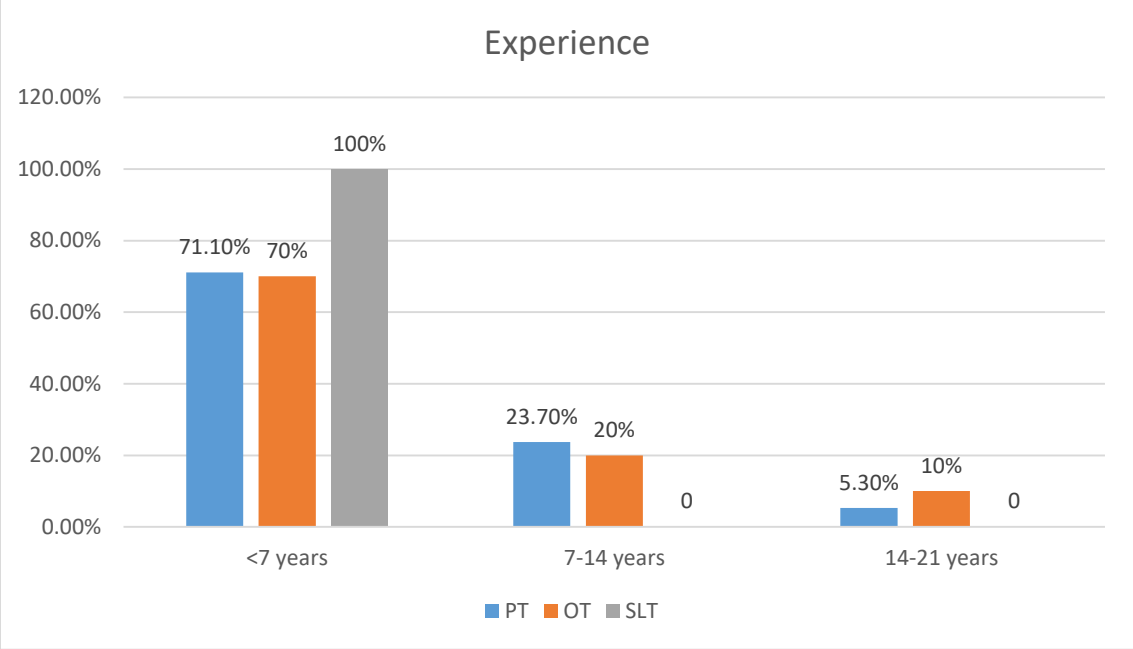


Fig 4.1.6: Experience of Practitioner

Table 4.1.3 Distribution of Respondents according to Socio-demographic Variables

VARIABLES		GROUP	
		Student (n, %) (n=76)	**Practitioner (n,%) (n=74)**
Religion	Islam	**70(92.1)**	**61 (82.4)**
	Hindu	5(6.6)	11 (14.8)
	Buddhism	1(1.3)	0
	Christian	0	2 (2.8)
Marital status	Married	5(6.6)	**56 (75.7)**
	Unmarried	**70(92.1)**	18 (24.3)
	Separated	1(1.3)	0
Residence	Urban	**39(51.3)**	**29(39.1)**
	Semi-urban	21(27.6)	22(29.8)
	Rural	16(21.1)	23(31.1)
Family type	Nuclear	**54(71.1)**	**43(58.1)**
	Joint	22(28.9)	31(41.9)

Above table shows the distributions of variables according to type of respondents. Most of the students (92.1%) and practitioners (82.4%) followed Islamic religion in comparison to other religion believers. Most of the practitioners i.e. 75.7% were married while 92.1% of students were unmarried. The percentage of students and practitioners living in urban area was higher in comparison to other residence area. Most of the students (71.1%) and practitioners (58.1) belongs to nuclear family.

4.1.7 Family Income

Following figure 4.1.9 shows the family income of respondents. While comparing family income, most of the students i.e. 55.30% have family income between 25-50tk while most of the practitioners i.e. 40.5% have family income below 25tk. 24% data was missing as respondents could not remember their family income. Among students, mean and standard deviation of family income were 41901.41 and 22954.71 respectively. While among practitioners, mean of income was 34534.88 and standard deviation was 75094.33.

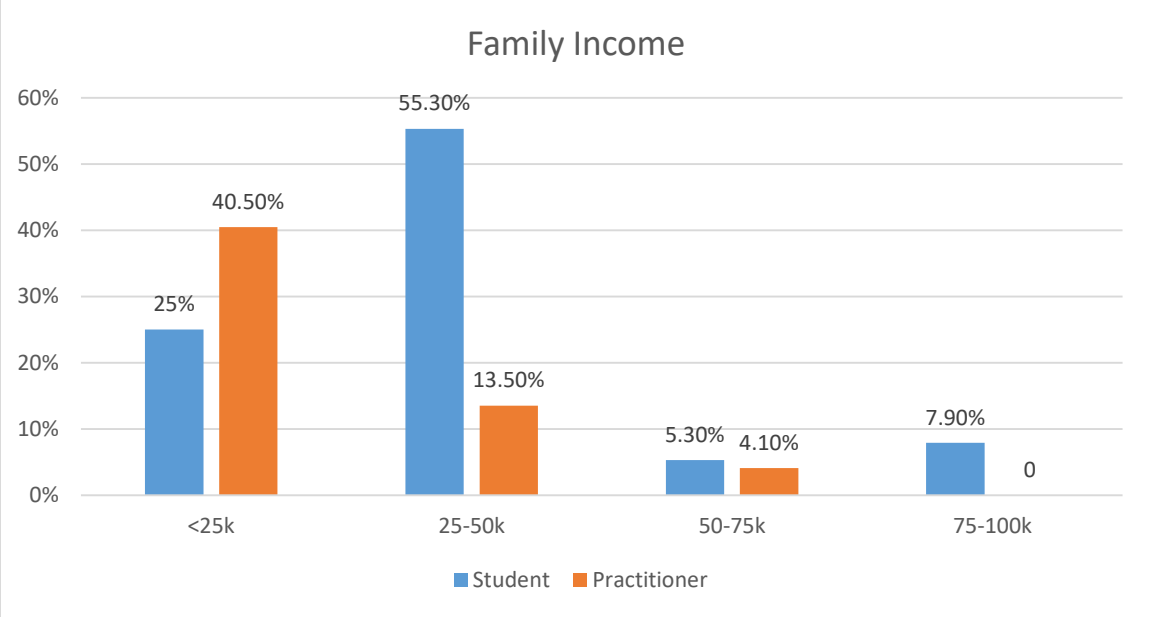


Fig 4.1.7: Family Income

Table 4.1.4: Distribution of Respondents according to Socio-demographic Variables

VARIABLES	STUDENT (n, %)	PRACTITIONER (n, %)
No of Family Members		
<5	30(39.5)	20(27.0)
5-6	30(39.5)	25(33.8)
7-8	11(14.5)	11(14.9)
8+	5(6.60)	18(24.3)
No of Family Members Graduated Or Above		
0-4	69(90.8)	72(97.3)
4-8	7(9.20)	1(1.35)
No of Family Members Below SSC Level		
0-5	73(96.05)	70(94.6)
5-10	3(03.94)	3(4.05)

Above table shows distribution as per socio-demographic variables among both group. Among total of students, 39.5% had family members below 5 and 6.6% had family members above 8. 90.8% of family members who have been graduated or above were below 4 in number whereas 9.2% of family members were between 4- 8 in number. Majority i.e. 96.05% of family members having education below SSC level were below 5 in numbers whereas 3.94% were between 5-10 in numbers. Similarly among total of practitioners, 27% had family members below 5 and 24.3% had family members above 8. Majority have number of graduated family members below 4 while only 1.35% have 4-8 graduated family members. Likewise, 94.6% of family members having education below SSC level were below 5 whereas only few (4.05%) were 5-10 in number.

Table 4.1.5 Distribution of Variables according to Attitude

VARIABLES	STUDENTS			PRACTITIONERS		
	Positive (%)	**Negative (%)**	**Neutral (%)**	**Positive (%)**	**Negative (%)**	**Neutral (%)**
Gender						
Male	46.4	46.4	7.2	43.3	50	6.7
Female	**47.9**	45.8	6.3	**45.5**	45.5	9
Marital status						
Married	**60**	40	0	44.6	46.4	8.9
Unmarried	47.1	45.7	7.1	44.4	50	5.6
Separated	0	100	0	-	-	-
Course/Profession						
PT	**70.6**	29.4	0	42.1	**47.4**	10.5
OT	27.3	**69.7**	3	46.7	46.7	6.6
SLT	**57.7**	26.9	15.4	**50**	50	0
Level of course						
3rd year OT	23.5	**70.6**	5.9	-	-	-
4th year OT	31.3	**68.7**	0	-	-	-
3rd year SLT	**53.8**	38.5	7.7	-	-	-
4th year SLT	**61.5**	15.4	23.1	-	-	-
4th year PT	**70.6**	29.4	0	-	-	-
Experience						
Below 7 years	-	-	-	44.4	**48.1**	7.5
7-14 years	-	-	-	40	**53.3**	6.7
14-21 years	-	-	-	**60**	20	20

Above table 4.1.12 demonstrates the comparison of attitude of students and practitioners with different variables listed above. At first, talking about the gender, slightly positive attitude is found more among female than male in both the groups. Married participants have more favorable attitude than unmarried among students while similar

attitude was noticed in both groups among practitioners. Likewise among students, more positive attitude is found among physiotherapist and more negative attitude is found among occupational therapist. More number of speech and language therapist students have also positive attitude in comparison to OT. Among practitioners, negative attitude is found more among PT than OT and SLT. The ratio of positive to negative attitude is same among OT and SLT. The attitude increases as the level of education increases in all programs (PT, OT and SLT). Among professionals too, attitude tends to become more positive as their working experience increases.

Table 4.1.6 Distribution of Variables according to Attitude

VARIABLES	STUDENTS			PRACTITIONERS		
	Positive (%)	**Negative (%)**	**Neutral (%)**	**Positive (%)**	**Negative (%)**	**Neutral (%)**
Living area						
Rural	43.8	**56.2**	0	**52.2**	34.8	13
Urban	46.2	46.2	7.6	44.8	**51.7**	3.5
Semi urban	**52.4**	38.1	9.5	36.4	**54.5**	9.1
Religion						
Islam	45.7	**47.1**	7.1	45.9	44.3	9.8
Hindu	**80**	20	0	36.4	**63.6**	0
Buddhism	0	**100**	0	-	-	-
Christian	-	-	-	50	50	0

Attitude is more positive among students living in semi- urban areas while it's found more positive among practitioners living in rural area. Similarly, Hindu students have more favorable attitude than Muslim and Buddhists while Hindu has more negative attitude in comparison to Islam and Christian among practitioners.

4.2 Education and Exposure related Factors

Table 4.2.1: Distribution of Respondents according to Setting and Working in Mental Health Setting

VARIABLES	STUDENT (N, %)	PRACTITIONER (N, %)
Setting		
Inpatient	25(32.9)	17(23.0)
Outpatient	3(03.9)	2(2.70)
Both	6(07.9)	4(5.40)
School	2(02.7)	0
NIMH	1(01.3)	2(2.70)
Not applicable	39(51.3)	49(66.2)
Working in Mental health setting		
Yes	18(24.3)	34(44.7)
No	56(75.7)	42(55.3)

Above table shows the setting of placement from total of students and practitioners. Among students, almost half of them (51.3%) did not have any placement and 32.9% were exposed in inpatient setting, 3.9% in outpatient, 7.9% in both unit, 2.7% in school and only 1.3% in NIMH. Likewise among practitioners, most of them (66.2%) did not have any exposure in mental health setting and 23% were exposed in inpatient unit, 2.7% in outpatient unit, 5.4% in both while 2.7% in NIMH. Similarly, 24.3% of students and 44.7% of the practitioners have worked in mental health setting.

4.2.1 Hours of Teaching on mental health in different programs

Following bar diagram shows the distribution of hours of teaching according to three different programs. All the PT and SLT students have less than 100 teaching hours on mental health while only OT have teaching hours of 100-200.

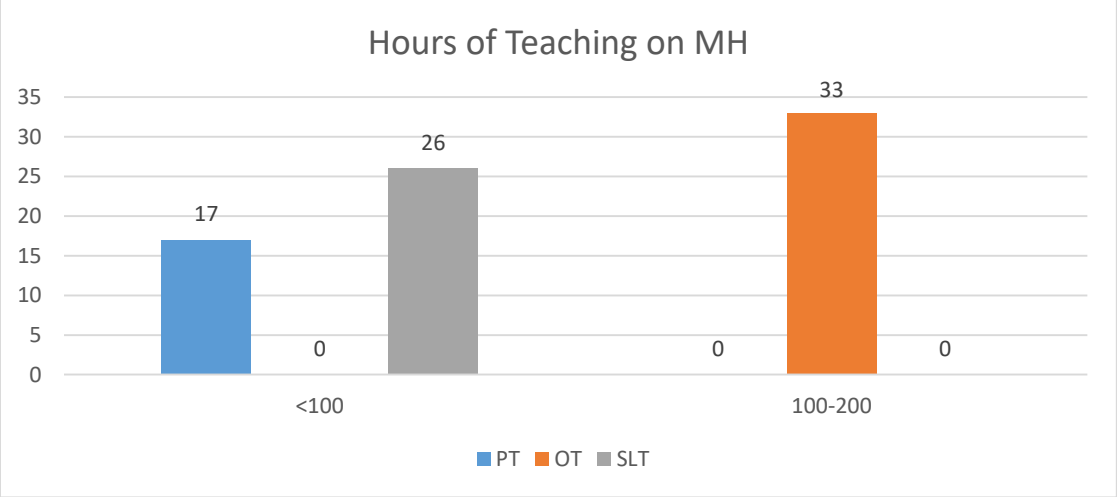


Fig 4.2.1 Teaching hours on mental health

4.2.2 Method of Learning about MH

Following bar diagram shows the method of learning about mental health among students and practitioners. Students learned mostly through lecture and placement. Likewise, practitioners also mostly learned through lecture, placement and present job.

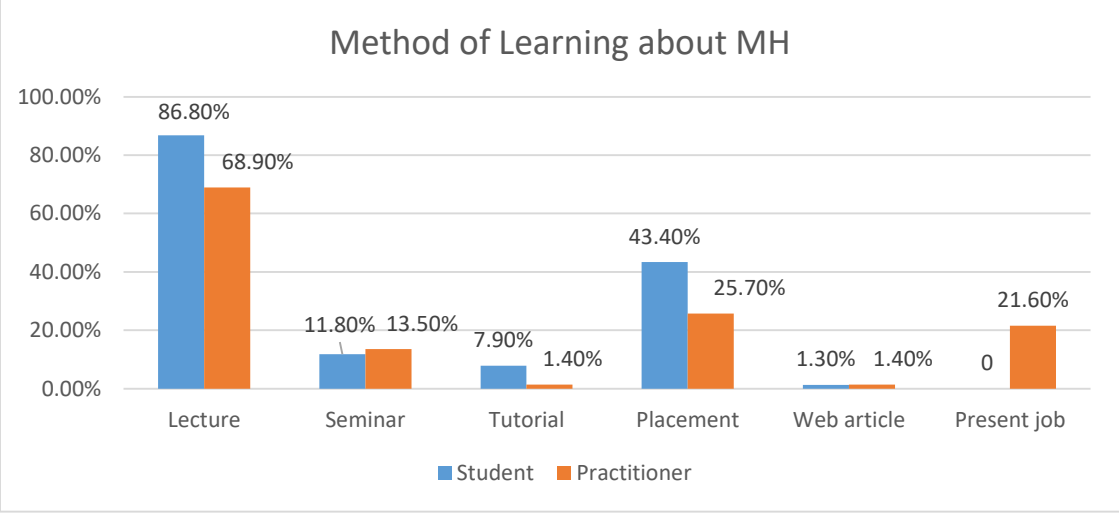


Fig 4.2.2: Method of Learning about MH

4.2.3 Enough Training in Student Life

The result shows that most of the practitioners i.e. 74.3% don't have enough training during their study period (student life).

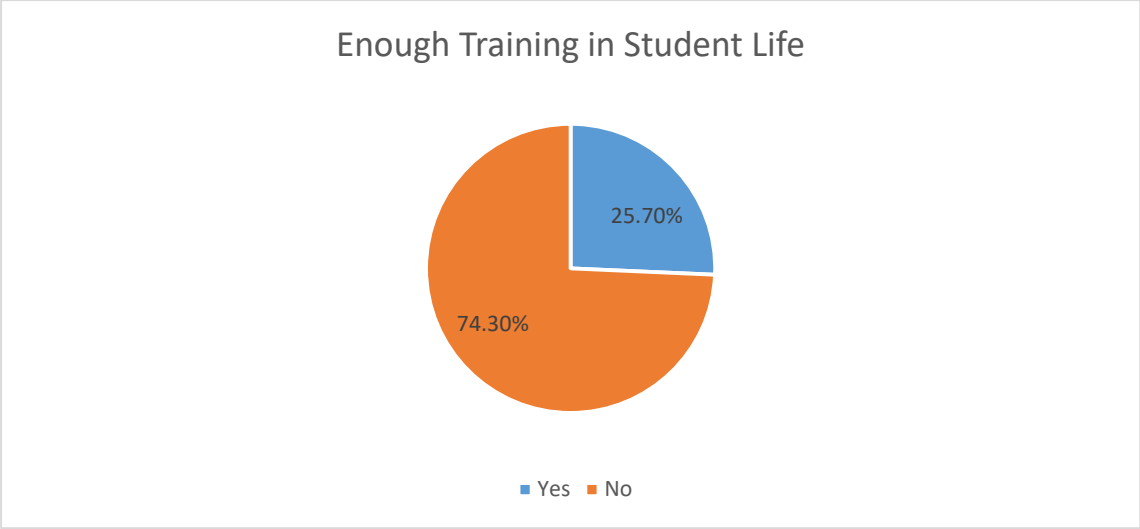


Fig 4.2.3 Enough Training in Student Life

4.2.4 Want Further Education on MH

Following pie chart indicates that 49.6% students and 50.4% practitioners are interested to have further education on mental health.

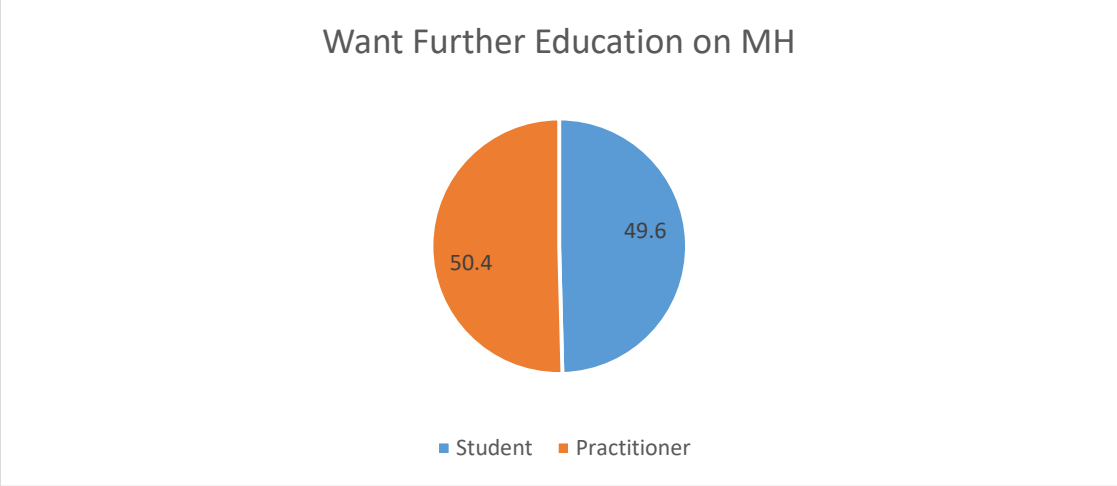


Fig 4.2.4: Further Education on MH

4.2.5 Method of Further Education on MH

Following figure shows the method of further education that the respondents want. Among the total of respondents, 39.5% want to have further education on mental health through placement whereas most of the practitioners (56.8%) prefer further education through seminar.

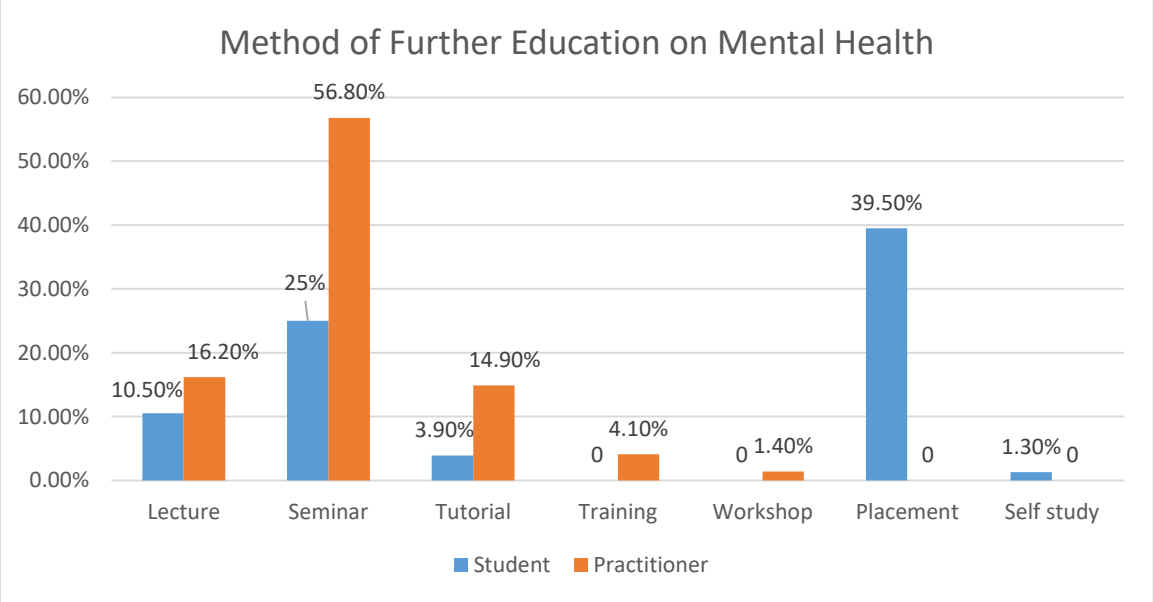


Fig 4.2.5: Method of further education

Table 4.2.2: Distribution of Respondents according to Education and Exposure related Factors

VARIABLES		GROUP	
		Student (n, %) (n=76)	**Practitioner (n, %) (n=74)**
At least one placement in mental health setting	Yes	**38(60.3)**	25(39.7)
Wish to help person with mental illness	Yes	46(48.9)	48(51.1)
Wanted further education on mental health	Yes	60(49.6)	61(50.4)
Change in view after dealing with PWMI	Yes, positively	34(47.9)	37(52.1)
	Yes, negatively	1(100.0)	0
	Not sure/ not dealt longer time or more frequently	41(52.6)	37(47.4)
Dealt someone with MI among patient	Yes	48(47.5)	53(52.5)
Dealt someone with MI among family	Yes	7(36.8)	**12(63.2)**
Dealt someone with MI among friends	Yes	14(50.)	14(50.0)
Not feeling ease/comfortable being with that person	Yes	21(50.0)	21(50.)
Not understanding patients behavior at all	Yes	**30(60.0)**	20(40.0)
Being somewhat afraid of being alone with that person	Yes	10(47.6)	11(52.4)
Not knowing what to do/react on sudden changes in behavior	Yes	17(54.8)	14(45.2)
Not knowing how to start conversation with that person	Yes	**7(63.6)**	4(36.4)

Above table represents distributions of variables according to type of respondents. While comparing the variable of having at least one placement in mental health the percentage is higher among students i.e. 60.3%. Respondent who have dealt with someone with MI among family are higher in number among practitioners than compared to students .60% of the students have problem in understanding patient's behavior which is more than

among practitioners. Most of the students (63.6%) don't know how to start conversation with MI patient as compared to practitioners.

Table 4.2.3 Distribution of Respondents according to Education and Exposure related Factors (Within Course)

VARIABLES	STUDENTS			PRACTITIONERS		
	PT n=17	OT n=33	SLT n=26	PT n=38	OT n=30	SLT n=6
Placement in MH setting	1	**33**	4	1	**24**	0
Dealt with mental illness						
1) among patients	3	**32**	13	25	25	3
2) among family	1	1	5	7	4	1
3) among friends	5	7	2	11	2	1
Not feeling ease with MI patient	10	0	10	15	6	0
Feeling afraid with them	12	0	10	4	7	0
Not understanding patients behavior at all	11	0	10	12	6	2
Don't know how to react on sudden behavior changes	12	0	10	4	8	2
Don't know how to start conversation with them	11	1	10	0	4	0
Want further study	12	31	17	32	23	6
Working in mental hospital/ward	16	4	22	1	17	0

Above table represents the results of variables based on the classification of different programs among student and practitioner group. All OT students (33) have done placement in mental health setting as well as most of the OT practitioners (24) have done placement in comparison to SLT practitioners who do not have any placement on MH. Similarly, most

of the OT students (32) have dealt with MI patients during their study period in comparison to other program students. Except OT students, few of the PT and SLT students do not feel ease with MI patients, feel afraid with them, don't understand patients behavior and don't know how to react on sudden changes in behavior while among practitioners, the result is same among PT and OT. Majority of the OT students and all of the SLT practitioners want to have further study on MH while most of other groups also want the same.

Table 4.2.4 Distribution of Variables according to Attitude

VARIABLES	STUDENTS			PRACTITIONERS		
	Positive (%)	Negative (%)	Neutral (%)	Positive (%)	Negative (%)	Neutral (%)
Placement/Clinical	34.2	63.2	2.6	40.0	52.0	8.00
Working in mental hospital/ward	35.3	61.8	2.9	38.9	50.0	11.1
Dealt with PWMI						
Patients	29.2	60.4	10.4	47.2	47.2	5.6
Family	28.6	57.1	14.3	33.4	58.3	8.3
Friends	50.0	50.0	0.00	50.0	50.0	0.0

Placement or clinical experience in mental health setting has shown to result in negative attitude among both groups. Similarly, students and practitioners who have work in mental hospital/ward also have the similar result. Those students who have dealt with patients with MI and who have family history of MI have more negative attitude and similar results are observed among practitioners too for family history.

4.3 Perceptions and Beliefs

Table 4.3.1 Distribution of Student Group according to Perception and Beliefs (n=76)

Perception and Beliefs	PT(n=17)	OT(n=33)	SLT(n=26)	Total (N=76)
Have enough knowledge to approach the patient	1(3.2%)	20(64.5%)	10(32.3%)	31
Effective communication as required	5(10.4%)	27(56.3%)	16(33.3%)	48
Have sufficient content	8(25.0%)	9(28.1%)	15(46.9%)	32
Sufficient clinical exposure	7(30.4%)	10(43.5%)	6(26.15)	23
Have sufficient knowledge on all kinds of mental illness	8(36.4%)	5(22.7%)	9(40.9%)	22
Have sufficient knowledge on aim and scope of treatment	6(18.2%)	19(57.6%)	8(24.2%)	33
Have knowledge on patients' responses and reactions to physical treatment	10(23.8%)	23(54.8%)	9(21.4%)	42
Need of own safety	11(17.5%)	27(42.9%)	25(39.7%)	63
Need of other patient's safety	10(20.4%)	24(48.9%)	15(30.7%)	49
Need of patient's own safety	8(17.0%)	16(34.0%)	23(48.9%)	47
Need of safety of treatment itself	3(15.0%)	11(55.0%)	6(30.0%)	20

The above table reveals perception and beliefs among student groups such as OT, PT and SLT. The result shows that most of OT students have enough knowledge to approach the patient, effective communication, sufficient clinical exposure, have sufficient knowledge on aim and scope of treatment as well as patients' responses and reactions to physical treatment in comparison to PT and SLT. Similarly the response of OT students who believe that own safety is needed as well as for other patients needed and need of safety of treatment itself is higher in comparison to PT and SLT students. However, most

of the SLT students (48.9%) think that patient's need their own safety in comparison to OT and SLT.

Table 4.3.2: Distribution of Student Group according to Perception and Beliefs n=76

Perception and Beliefs	PT(n=17)	OT(n=33)	SLT(n=26)	Total(N=76)
Proper knowledge on how to provide best physical treatment for patient with MI in the rehabilitation setting	4(15.4%)	17(65.4%)	5(19.2%)	26
Unsure about the benefits of physical treatment	6(33.3%)	7(38.9%)	5(27.8%)	18
Don't have enough skills needed	5(25.0%)	4(20.0%)	11(55.0%)	20
Patient's ability to consent or comply with treatment is weak if they have mental illness	5(16.1%)	15(48.4%)	11(35.5%)	31
Most patients show aggressive and violent behavior	7(25.0%)	9(32.1%)	12(42.9%)	28
Most patients show unpredictable behavior or mood swings	5(13.9%)	12(33.3%)	19(52.8%)	36
Characteristics depends on severity of the mental illness	8(13.3%)	31(51.7%)	21(35.0%)	60
Most patients having mental illness are dangerous for everyone	0	3(50.0%)	3(50.0%)	6

The above table reveals perception and beliefs among student groups such as OT, PT and SLT. The result shows that most of the OT students have proper knowledge on how to provide best physical treatment to patient with MI in the rehabilitation setting in comparison to PT and SLT. 55% of SLT students don't have enough skills. However, most

of SLT students think that most patients show aggressive and violent behavior as well as unpredictable behavior or mood swings as compared to OT and PT. While, most of OT students i.e. 51.7% think that characteristics depends on severity of the mental illness.

Table 4.3.3: Distribution of Practitioner Group according to Perception and Beliefs n=74

Perception and Beliefs	PT(n=38)	OT(n=30)	SLT(n=6)	Total(N=74)
Have enough knowledge to approach the patient	18(54.5%)	14(42.4%)	1(3.0%)	33
Effective communication as required	22(48.9%)	20(44.4%)	3(6.7%)	45
Have sufficient content	13(38.2%)	19(55.9%)	2(5.9%)	34
Sufficient clinical exposure	8(42.1%)	11(57.9%)	0	19
Have sufficient knowledge on all kinds of mental illness	9(39.1%)	13(56.5%)	1(4.3%)	23
Have sufficient knowledge on aim and scope of treatment	5(26.3%)	13(68.4%)	1(5.3%)	19
Have knowledge on patients' responses and reactions to physical treatment	28(56.0%)	22(44.0%)	0	50
Need of own safety	27(47.4%)	27(47.4%)	3(5.3%)	57
Need of other patient's safety	20(51.3%)	15(38.5%)	4(10.3%)	39
Need of patient's own safety	15(46.9%)	14(43.8%)	3(9.4%)	32
Need of safety of treatment itself	6(35.3%)	9(52.9%)	2(11.8%)	17

The above table reveals perception and beliefs among practitioner groups such as OT, PT and SLT. The result shows that most of the OT practitioners have sufficient content on MH, sufficient clinical exposure, have sufficient knowledge on all kinds of mental illness as well as on aim and scope of treatment in comparison to PT and SLT. However, most of

the PT has enough knowledge to approach the patient, effective communication and have knowledge on patients' responses and reactions to physical treatment as compared to others. Similarly the response of the PT who believe that other patient's safety and patients own safety is needed is preferable as compared to others. While 52.9% OT think that safety of treatment itself is needed.

Table 4.3.4: Distribution of Practitioner Group according to Perception and Beliefs n=74

Perception and Beliefs	PT(n=38)	OT(n=30)	SLT(n=6)	Total(N=74)
Proper knowledge on how to provide best physical treatment for patient with MI in the rehabilitation setting	19(48.7%)	19(48.7%)	1(2.6%)	39
Unsure about the benefits of physical treatment	2(40.0%)	3(60.0%)	0.00	5
Don't have enough skills needed	14(60.9%)	6(26.1%)	3(13.0%)	23
Patient's ability to consent or comply with treatment is weak if they have mental illness	9(45.0%)	9(45.0%)	2(10.0%)	20
Most patients show aggressive and violent behavior	8(53.3%)	6(40.0%)	1(6.7%)	15
Most patients show unpredictable behavior or mood swings	14(51.9%)	10(37%)	3(11.1%)	27
Characteristics depends on severity of the mental illness	26(46.4%)	26(46.4%)	4(7.1%)	56
Most patients having mental illness are dangerous for everyone	3(60.0%)	2(40.0%)	0.00	5

The above table reveals perception and beliefs among practitioner groups such as OT, PT and SLT. The result shows that the response of both PT and OT**'s** who have proper knowledge on how to provide best physical treatment to the patients with MI in the

rehabilitation setting is similar i.e. 48.7%. However, 60.9 % of the PT's don't have enough skills that are needed. Most of the PT's think that majority of the patients show aggressive and violent behavior as well as unpredictable behavior or mood swings as compared to OT and SLT. Likewise, 60% of the PT's think that most patients having mental illness are dangerous for everyone.

4.4 ATP 30 Scale and MICA 4 Scale

Table 4.4.1 Distribution of Students according to Domain Psychiatric Patients and Psychiatric Illness

DOMAINS	Agree%	Disagree%	Neutral%
Psychiatric Patients			
ATP 27. If we listen to them, psychiatric patients are just as human as other people.	84.2	5.3	10.5
ATP 29. Psychiatric patients are often more interesting to work with than other patients.	75.0	3.9	21.1
Psychiatric Illness			
ATP 12. Psychiatric illness deserves at least as much attention as physical illness.	81.6	6.6	11.8
ATP 18. It is interesting to try to unravel the cause of a psychiatric illness.	59.2	6.6	34.2

The above table shows the respondents responses related to psychiatry patients and psychiatric illness where they showed positive attitude to psychiatric patients. Likewise, among items related to psychiatric illness, most of the respondents agreed about the point "Psychiatric illness deserves at least as much attention as physical illness".

Table 4.4.2 Distribution of Students according to Domains Psychiatrists and Psychiatric Training of ATP Scale

DOMAINS	Agree%	Disagree%	Neutral%
Psychiatrists			
ATP 2. Psychiatrists talk a lot but do very little.	15.8	69.8	11.8
ATP 7. Psychiatrists seem to talk nothing but sex.	13.1	77.6	9.2
ATP 15. Psychiatrists tend to be at least as stable as the average doctor.	50.0	3.9	46.1
ATP 17. Psychiatrists get less satisfaction from their work than other specialists.	59.2	6.6	34.2
ATP 19. There is very little that psychiatrists can do for their patients.	17.1	65.8	17.1
ATP 22. At times it is hard to think of psychiatrists as equal to other doctors.	48.7	29.0	22.4
Psychiatric Training			
ATP 9. Psychiatric teaching increases our understanding of medical and surgical patients.	46.1	31.6	22.4
ATP 10. The majority of students report that their psychiatric undergraduate training has been valuable.	64.5	13.1	22.4

The above table shows the responses of respondents related to psychiatrists and psychiatric training. These show favorable attitude towards psychiatrists in most of the items. However, most of them believe that psychiatrists get less satisfaction from their work than other specialists as well as it is hard for them to think psychiatrists as equal as to other doctors. Also, majority of the student reports that their psychiatric undergraduate training has been valuable.

Table 4.4.3 Distribution of Students according to Domains Psychiatric Branch of ATP Scale

DOMAINS	Agree%	Disagree%	Neutral%
Psychiatric Branch			
ATP 3. Psychiatric hospitals are little more than prisons.	52.6	21.1	26.3
ATP 11. Psychiatry is a respected branch of medicine.	69.7	7.9	22.4
ATP 13. Psychiatry has very little scientific information to go on.	21.1	23.7	55.2
ATP 20. Psychiatric hospitals have a specific contribution to make to the treatment of the mentally ill.	52.6	7.9	39.5
ATP 23. These days psychiatry is the most important part of the curriculum in medical schools.	86.9	7.9	5.3
ATP 24. Psychiatry is so unscientific that even psychiatrists can't agree as to what its basic applied sciences are.	9.20	63.1	27.6
ATP 26. Most of the so-called facts in psychiatry are really just vague speculations.	13.1	40.8	46.1
ATP 28. The practice of psychiatry allows the development of really rewarding relationships with people.	82.9	3.9	13.2
ATP 30. Psychiatry is so amorphous that it cannot really be taught effectively.	11.9	31.6	56.6

The above table reveals the responses of respondents related to psychiatric branch. Most of them think that psychiatric hospitals are little more than prisons. However, they show respect towards psychiatry and feel the importance of psychiatry in curriculum as well as in care of mentally ill patients. Most of them gave positive response to this point

"The practice of psychiatry allows the development of really rewarding relationships with people".

Table 4.4.4 Descriptive Statistics of Students according to Domains Psychiatric Career Choice and Psychiatric Treatment of ATP Scale

DOMAINS	Agree	Disagree	Neutral
Psychiatric Career Choice			
ATP 1. Psychiatry is unappealing because it makes so little use of medical training.	13.1	64.4	22.4
ATP 4. I would like to be a psychiatrist.	31.6	35.5	32.9
ATP 6. On the whole, people taking up psychiatric training are running away from participation in real medicine.	35.5	22.4	42.1
ATP 21. If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded.	39.4	30.3	30.3
Psychiatric Treatment			
ATP 5. It is quiet easy for me to accept the efficacy of psychotherapy.	48.7	6.6	44.7
ATP 8. The practice of psychotherapy basically is fraudulent since there is no strong evidence that it is effective.	14.5	51.3	34.2
ATP 14. With the forms of therapy now at hand most psychiatric patients improve.	69.8	3.9	26.3
ATP 16. Psychiatric treatment causes patients to worry too much about their symptoms.	27.7	47.4	25.0
ATP 25. In recent years psychiatric treatment has become quite effective.	85.6	9.2	5.3

The above table shows the responses of respondents towards psychiatric career choice and psychiatric treatment. 64.4% did not agree the point "Psychiatry is unappealing

because it makes so little use of medical training". While most of them believe that if they were asked what they considered to be the three most exciting medical specialties, psychiatry would be excluded. However, most of them agreed that psychiatric treatment has become quite effective in recent years.

Table 4.4.5 Distribution of Practitioners according to Domains: View of Mental Illness and Psychiatry and Disclosure of MICA 4

DOMAIN	Agree%	Disagree%
View of Mental Illness and Psychiatry		
MICA2. People with a severe mental illness can recover enough to have a good quality of life.	36.5	63.5
MICA5. People with a severe mental illness are dangerous more often than not.	81.1	19.0
MICA8. Being a health/social care professional in the area of mental health is not like being a real health/social care professional.	41.9	58.2
MICA10. I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	82.4	17.6
MICA12. The public does not need to be protected from people with a severe mental illness.	33.8	66.2
MICA15. I would use terms 'crazy', 'nutter', 'mad' etc. to describe to colleagues people with a mental illness who I have seen in my work.	33.8	66.2
MICA16. If a colleague told me they had a mental illness, I would still want to work with them.	90.5	9.5
Disclosure		
MICA4. If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	66.2	33.8
MICA7. If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	32.5	67.6

The above table reveals the responses of respondents related to the view of mental illness & psychiatry and disclosure. Most of the practitioners think that people with a severe mental illness are dangerous and most of them feel as comfortable talking to a person with a mental illness as talking to a person with a physical illness. 90.5% would still want to

work with a colleague although they have mental illness. If they had a mental illness, most of them would like to admit it to their colleagues but not to friends due to fear of being treated differently.

Table 4.4.6 Distribution of Practitioners according to Domains: Distinguishing Mental and Physical Health and Knowledge of Mental Illness and Psychiatry of MICA 4 Scale

DOMAINS	Agree%	Disagree%
Distinguishing mental and physical health		
MICA11. It is very important that any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed.	94.6	5.4
MICA14. General practitioners should not be expected to complete a thorough assessment for people with psychiatric symptoms because they can be referred to a psychiatrist.	68.9	31.2
Knowledge of Mental Illness and Psychiatry		
MICA1. I just learn about mental health when I have to, and would not bother reading additional material on it.	89.2	10.8
MICA3. Working in the mental health field is just as respectful as other fields of health and social care.	87.8	12.2
MICA13. If a person with a mental illness complained of physical symptoms (such as chest pain) I would attribute it to their mental illness.	44.6	55.4

The above table shows the responses of respondents related to distinguishing mental & physical health and knowledge of mental illness & psychiatry. Majority of the practitioner think that it is very important that any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed. While most of them would learn about mental health when they had to, and would not bother reading additional material on it. However, most of them feel honor to work in mental health field as like as other fields of health and social care.

Table 4.4.7 Distribution of Practitioners according to Domains: Patient Care for Person with Mental Illness of MICA 4 Scale

DOMAINS	Agree%	Disagree%
Patient Care for Person with Mental Illness		
MICA6. Health/social care staffs know more about the lives of treated for a mental illness than do family members or friends.	39.2	60.8
MICA9. If a senior colleague instructed me to treat people with a mental illness in a respectful manner, I would not follow their instructions.	58.1	42.0

The above table represents the responses of respondents related to care of patient with mental illness where most of them did not agree to the point "Health/social care staffs know more about the lives of people treated for a mental illness than do family members or friends".

Table 4.4.8 Descriptive Statistics of Overall Scores of ATP-30 and MICA-4 Scales

Scale	N	Minimum	Maximum	Mean	S.D.
ATP 30 scale					
Total score	76	46	97	74.03	10.82
Positive Domain score		21	55	33.60	6.13
Negative Domain score		24	70	40.42	8.83
Domain 1: Psychiatric Patients		2	7	3.99	1.18
Domain 2: Psychiatric Illness		2	7	4.13	1.24
Domain 3: Psychiatrists		7	24	14.92	3.37
Domain 4: Psychiatric Training		2	8	5.14	1.65
Domain 5: Psychiatric Branch		13	32	22.14	4.12
Domain 6: Psychiatric Career Choice		7	17	11.80	1.97
Domain 7: Psychiatric Treatment		6	18	11.89	2.64
MICA 4 scale					
Total score	74	38	65	50.54	5.73
Positive Domain score		9	24	16.17	2.94
Negative Domain score		19	51	34.36	5.81
Domain 1: View of Mental Illness and Psychiatry		13	28	21.27	3.18
Domain 2: Disclosure		2	11	6.00	2.57
Domain 3: Distinguishing mental and physical health		3	11	6.04	1.89
Domain 4: Knowledge of Mental Illness and Psychiatry		4	15	9.67	1.77
Domain 5: Patient Care for Person with Mental Illness		2	11	7.55	1.96

The above table represents the overall mean scores of ATP and MICA scale.

ATP 30: It was applied to determine the attitude of students with mean 74.02, standard deviation=10.82. Minimum score was 46 and maximum score was 97 out of total 150. The median ATP score was 74 indicating the neutral point. MICA score was applied to determine the attitude of practitioners. Minimum score was 38 and maximum score was 65 out of total 96. In ATP, negative domain mean score (33.60) is higher than positive domain mean score which reflects the response in negative domains being higher i.e. 40.42. Among 7 domains such as psychiatric patients, psychiatric illness, psychiatrists, psychiatric training, psychiatric branch, psychiatric career choice and psychiatric treatment, mean score is found higher in psychiatric branch (22. 14) while it's lower in psychiatric patients (3.99).

MICA 4: It was applied to determine the attitude of professionals with mean 50.54, standard deviation=5.73. Minimum score was 38 and maximum score was 65 out of total 96.The median MICA score was 50 indicating the neutral point. The mean score of negative domain is higher than positive domain i.e. 34.36. Among 5 domains such as view of mental illness & psychiatry, disclosure, distinguishing mental & physical health, knowledge of mental illness & psychiatry and patient care for person with mental illness, highest mean score is found on view of mental illness and psychiatry (21.27) while lowest mean score is found on disclosure (6.00) and distinguishing physical and mental health (6.04).

Table 4.5.1 Association of ATP-30 mean scores using Mann- Whitney U test n=76

Variable	Category	Mean Rank	Mann-Whitney value	P value
Gender	Male	41.18	597	0.42
	Female	36.94		
Family type	Nuclear	38.69	584	0.90
	Joint	38.05		
Working in mental health setting	Yes	31.90	489.5	**0.01***
	No	43.85		

Significance level *p<0.05

Above table shows the result of Mann- Whitney U test applied to find the association between gender, family type and working in mental health setting with mean scores of ATP 30 scale. The test was performed if gender, family type and working in mental health setting have any influence in the attitude of students. It may be noticed that the results revealed that the working in mental health setting is significantly associated with attitude as its p value is <0.05. This may be due to the fact that more the exposure with MI, the attitude towards them get influenced. On the other hand gender and family type have no significant impact.

Table 4.5.2 Association of MICA 4 mean scores using t- test n=74

Variable	Category	Mean±SD	t	F	P value
Gender	Male	51.30±5.21	0.941	0.037	0.35
	Female	50.02±6.05			
Family type	Nuclear	51.2±5.62	1.102	0.360	0.27
	Joint	49.7±5.84			
Working in mental health setting	Yes	50.0±6.38	0.458	0.000	0.65
	No	50.7±5.54			

Likewise t test was applied to find association of various variables with MICA score in order to assess attitude among practitioners towards MI there is no any significant association found.

Table 4.5.3 Association of ATP-30 mean scores using Kruskal Wallis test

Variable	Category	Mean rank	K value(df)	P value
Course	PT	50.29	13.5(2)	**0.001***
	OT	28.26		
	SLT	43.79		
Level of course	3rd year SLT	42.65	13.6(4)	**0.009***
	4th year SLT	44.92		
	3rd year OT	27.24		
	4th year OT	29.34		
	4th year PT	50.29		
Setting of placement	Inpatient	2.18	14(5)	0.610
	Outpatient	23.33		
	school	16.75		
	Inpatient and outpatient	13.25		
	NIMH	15.50		
Dealt with patients having MI	Yes	30.24	18.3(2)	**0.000***
	No	52.29		
	I am not sure	53.44		
Wish to help person with MI	Yes	31.83	15.3(2)	**0.000***
	No	36.45		
	Not applicable	31.72		
Delivery of sessions	Clinical specialist	36.65	17.3(5)	**0.004***
	Lecturer with special interest	51.10		
	General lecturer	57.31		
	Book	18		
	All 3	25.44		
	Clinical specialist + General lecturer	65.50		
Self-belief of treating patient with MI	Frequently	31.27	10(3)	**0.019***
	Sometimes	49		
	As per patient's demand	33.16		
	Never	49.72		

Significance level *p<0.05

In the above table, Kruskal Wallis test were applied to find the association for the variables course, level of course, setting of placement, dealt with patients having MI, wish to help person with MI, delivery of sessions and self-belief of treating patient having MI with ATP 30 mean score. The result shows that all the factors except setting of placement

were significantly associated with attitude as their p value was <0.05 such as course (0.001), level of course(0.009), delivery of sessions(0.004) and self - belief of treating patient with MI(0.019). Dealt with patients having MI(0.000) and wish to help those person(0.000) were highly significant because those who have dealt with the patients having MI, they get the opportunity to interact with the MI patient and during that period they develop different perception regarding their health status and behavior as a result influencing their attitude positively or negatively. Those who wish to help the person with MI and believe that they will treat those person with MI holds positive attitude. Course is significantly associated as course contents in different programs may impact the attitude of students. Likewise, with the upgrade in level of course, knowledge, skills and attitude also get changed. Similarly, the knowledge, perception of the person who have delivered the MH session to the students may also directly or indirectly influence their attitude.

Table 4.5.4 Association of MICA-4 mean scores using ANOVA test

Variable	Category		Sum of Squares	df	Mean square	F	Sig
Fathers Education	No formal education SSC HSC Bachelor Masters or above Below SSC	Between Group Within Group	287.169 2107.210	5	57.434 30.988	1.853	0.114
Change in Beliefs after clinical experience	Yes No May be Don't know	Between Group Within Group	407.040 1987.338	3	135.680 28.391	4.779	**0.004***

Significance level *p<0.05

Above table shows ANOVA test applied to find association of different variables with MICA scale. Among them, the result revealed that changes in beliefs after clinical experience (0.004) was significantly associated with the scale as its p value was <0.05. On the other hand, father's education have no significant impact.

Table 4.5.5 Association between groups of changes in beliefs after clinical experience using Post Hoc test

Change in Belief after Clinical Experience(I)	Change in Belief after Clinical Experience(J)	Mean Difference(I-J)	Std. Error	Sig.	Lower Border	Upper Border
Yes	No	-5.8785	2.0880	**0.031***	-11.37	-0.38
	May be	-4.1285	1.3509	**0.016***	-7.68	-0.57
	Don't know	0.7047	3.2054	0.996	-7.73	9.14
No	Yes	5.8751	2.0880	**0.031***	0.38	11.37
	May be	1.7500	2.1360	0.845	-3.87	7.37
	Don't know	6.5833	3.6072	0.270	-2.91	16.07
May be	Yes	4.1285	1.3509	**0.016***	0.57	7.68
	No	-1.7500	2.1306	0.845	-7.37	3.87
	Don't know	4.8333	3.2368	0.447	-3.68	13.35
Don't know	Yes	-0.7047	3.2054	0.996	-9.14	7.73
	No	-6.5833	3.6072	0.270	-16.07	2.91
	May be	-4.8333	3.2368	0.447	-13.35	3.68

Significant level * p<0.05

The above table represents Post Hoc test that is applied to find the association within groups of change in beliefs after clinical experience. The results reveal that yes, there will be change in belief after clinical experience is associated with there will be no change in belief (0.031) and maybe there will be change in belief (0.016) but not significant with don't know whether there will be change in belief or not.

Table 4.5.6 Association of ATP 30 mean scores of using Pearson Co-relation test

Variable	r value	p value(2 tailed)
Study hours	-0.326	**0.004***
Age	0.176	0.129
Family income	0.119	0.325

Significant level *p<0.05

The above table represents Pearson Co-relation coefficient and the p value of the test statistic t for testing r correlation coefficient to find association between study hours, age and family income with mean scores of ATP scale. The result revealed that study hours is significantly associated with ATP scale that is the attitude of students as p value is <0.05 i.e. 0.004. But since r value is negative, it denotes there is negative co-relationship between study hours and attitude as r=-0.326. With increase in study hours, ATP score decreases i.e. attitude becomes negative meaning there exists inverse relationship between two variables. With the increase in study hours, students get to know in depth about the mental conditions and behavior of mentally ill patients due to which they may develop negative attitude towards them.

Table 4.5.5 Association of MICA 4 mean scores using Pearson Co-relation test

Variable	df	r value	p value
Age	74	-0.019	0.873
Family income	74	-0.262	0.089
Family members	74	-0.046	0.698

From this table it is clear that there is no significant relationship between mean scores of MICA 4 scale and age or with family income or even with family members.

CHAPTER V DISCUSSION

So far, we know that this is the first study done in Bangladesh that majorly emphasizes the attitude among rehabilitation students and practitioners of BHPI and CRP towards person with physical disability additionally suffering from mental illness and further explores the associated factors influencing their attitude. Respondents were selected from variety of programs such as physiotherapy, occupational therapy and speech & language therapy. Many studies have been done in western and eastern countries to explore attitude of medical students but there are only a very few articles till date that have emphasized on rehabilitation students in developing countries like Nepal, Bangladesh, India and so on. This is the only study that have explored and compared the attitude of specifically three groups who are the one to be mostly exposed with patients suffering from psychiatric disorders along with other chronic physical illness. This study only included students who had completed their course on mental health content and/or those who have done placement in mental health setting.

Overall, students had shown positive attitude towards PWD suffering from mental illness whereas practitioners had shown negative attitude. They have positive attitude in some aspects but unfavorable perceptions in many areas of mental health field was prevalent. As this study involves students as well as working professionals, the findings has been vague. Among students of three different programs, more positive attitude was found among physiotherapist and more negative attitude was found among occupational therapist. Huge number of speech and language therapist students had also positive attitude in comparison to negative attitude. There was significantly higher positive attitude towards mental illness as the length of study hours decreases. Although OT students have received 200 hours training in mental health content and all of them have done at least one placement in mental setting which is higher in respect to PT and SLT, their attitude still remains negative. So we could say that only training is not enough for changing attitude. Also adequate clinical exposure is necessary. Not only placement but enough supervision and practice is needed to contribute to positive attitude. Those students who have dealt with patients with MI and who have family history of MI have more negative attitude and the result is similar among

practitioners too. Placement or clinical experience in mental health setting has shown to result in negative attitude among both groups. Similarly, students and practitioners who have worked in mental hospital/ward also have the similar result.

Similarly, among practitioner's group, more positive attitude was found among SLT while more negative attitude was found among PT. OT hold little difference in attitude with respect to SLT. Hence, while comparing among student and practitioner group, result is quite different. Since PT students possess more positive attitude but the case is different for PT practitioners as they showed more negative attitude. Likewise, more negative attitude was found among group of OT students while SLT practitioners hold more positive attitude in comparison to other groups. Due to the unavailability of other similar study, comparison of result was not possible. But we could say, there may be various barriers contributing to difference in their attitude among different groups. It should be further explored in future study.

Demographic findings of the study revealed that most of the respondents are young adults having mean age of 26.01 which indicates that the younger population are more active group. Majority of the experience level of practitioners is also below 7 years. The sample observation are mostly female in both groups which demonstrates the labor situation in respect to the profession that indicate a consistent work with Svensson et.al to measure attitudes of university students towards people with schizophrenia (Svensson et.el,2014). Likewise, positive attitude was found higher among female participants in comparison to male which is consistent to the study done among Flemish physiotherapy students using same scale though there is only little difference. Many other studies but not all, have also revealed the same result (Probst and Pseukens, 2010). As with the increase in ATP score, attitude also becomes more positive but in our study, mean score of ATP 30 is 74.03 which is very less in comparison to the result of study done in South Africa using same scale among PTs in which mean ATP score was 103.7(Hooblaul, Cobbing & Daniels, 2020).So we can say, attitude seems to be more stigmatizing in our study sample in comparison to Africa. This may be due to different culture, perception, knowledge in Bangladesh in comparison to South Africa.

The study examines the perception and beliefs of participants regarding their education and exposure as these factors have big influence on attitude. While comparing

the result of student and practitioners, the result is almost similar in both group. OT students and most of the OT practitioners perceive that they have enough knowledge, skills, clinical exposure and communication ability in MH field in comparison to other groups. This makes us clear that the course content is adequate in this program for being skilled professional in MH field. However, SLT group do not have any exposure in MH field but believe that they have sufficient knowledge which means that their skills can be improved through enough clinical exposure. While PT students had not dealt with MI patients but they have some knowledge on mental disorder and mental health. PT practitioners perceive that they have lack of knowledge and ability to deal with MI patients. This result is similar in context with the study done in UK among PT students in which they expressed not having enough knowledge and skills to approach mentally ill patients (Dandridge, Stubbs, Roskell, & Soundy, 2014). Although they can approach the patient and communicate effectively, PT practitioners do not feel ease being with MI patient. This may be due to lack of clinical practice and less interaction with MI patient.

Also, most of the practitioners have not received enough training about mental health in their student life which express that the curriculum content were inadequate which is similar to the results of the study done in South Africa among PTs (Hooblaul, Cobbing & Daniels, 2020). So the study suggests that the curriculum related to MH of each program should be revised and made sufficient theoretically and practically to improve the skills and competency of students or future professionals. All the PT students and SLT practitioners want to have further study on MH likewise most of the other groups also want the same. They choose seminar as the most effective learning method for their education. Hence, it would be better to conduct seminar programs on various mental health related topics involving students and professionals equally so that they will be able to learn effectively according to their interest and program will be able to bring a lot of change and benefits in clinical practice.

While asked about the point “Psychiatric illness deserves at least as much attention as physical illness”, most of the students agreed on it. They believe that psychiatrists get less satisfaction from their work than other specialists as well as it is hard for them to think psychiatrists as equal as the other doctors. Most of them believe that if they were asked what they considered to be the three most exciting medical specialties, psychiatry would

be excluded. Majority of them report that their psychiatric undergraduate training has been valuable. Although they hold some stigmatizing attitudes in some points, at the same time they show respect towards psychiatry and feel importance of psychiatry in curriculum as well as in care of mentally ill patients.

As the previous study done in Notre Dame among physiotherapy students found some positive impact with clinical placement which is contradictory to this study as attitude declined with frequency of clinical placement and dealing with any kinds of patient, family members and friends having mental illness (Cannaughton and Gibbson, 2016). One possible reason may be due to difference in country context as well as different Asian culture, characteristics of participants, differences between educational concepts, profession, pattern of lectures & clinical exposure and personality of participants. Likewise, similar contradictory result was found among medical students using same scale (Desai et al., 2019). One study stated that although the attitude can be positively influenced by clinical exposure but the change may be transient or not be persistent for longer duration. Attitude may be influenced by family and educational environment, personal beliefs, social circle as well as media they are exposed to (Chavda and Desai, 2018). This may be the reason for not being positively influenced despite of placement in this study. There was significantly higher positive attitude towards mental illness as the level of course increases (p Val=0.009) which is supported by the study done by Tesfamariam et al. among secondary school students. The possible reason behind it may be the advancement of course content with the upgrade of level. In the same study, difference in attitude according to the educational level of student's father was found which is contradictory with this study (Tesfamariam et al., 2018). Hence this study suggests further exploratory research to confirm the result. Students working in mental hospital/ward is significant and in addition attitude was highly significant who have dealt with people having MI. However result showed more negative attitude among those who have already dealt. It may be because those who have dealt with the patients having MI, they get the opportunity to interact with the MI patient and during that period they develop different perception regarding their health status and behavior as a result influencing their attitude positively or negatively. But the findings is contradictory to the study done among health care students which states that those who have previous direct contact with individuals outside of healthcare service have

positive impact onwards (Riffel and Chen, 2019). Likewise changes in beliefs after clinical experience was significantly associated with positive attitude of practitioners. Attitude tends to become more positive as their working experience increases. More positive attitude was found on those students who wish to help person having MI. So it is clear that the person having positive attitude also possess wish to help person having MI. Delivery of sessions related to mental health and student's self-belief towards treating person with MI were also significant with attitude.

Similarly, in a study done in Riyadh among physicians, they were found to be holding positive attitude and confident in handling patient with depression which is opposite to this study as most of the professionals lack this ability ((Aldahmashi et al., 2019). Most of the practitioners think that people with a severe mental illness are dangerous more often than not. If they had a mental illness, most of them would like to admit it to their colleagues but not to friends due to fear of being treated differently. Most of them did not agree to the point "Health/social care staffs know more about the lives of people treated for a mental illness than do family members or friends". At the same time, they perceive any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed and working in the mental health field is just as respectful as other fields of health and social care. They also holds mixed attitude just like students.

PT practitioners acknowledge that MI patient's behavior vary with the severity of illness but they believe there is need of own as well as safety of other patients too. On the other hand, their concern is they lack the adequate knowledge and skills for the better management of MI patient which is similar with the results of the study done among physiotherapists (Andrew et al., 2019).

This study could not compare the significant results of attitude between students and practitioners as different tool was used for two different groups. Since same tool was not reliable for measuring the attitude of two different groups, ATP 30 was used for assessing attitude among students and MICA 4 was used for assessing the attitude among practitioners. Hence, development of new version of scale applicable for both groups is recommended for comparison.

Thus, this study suggests to do further research on barriers (either personal or workplace) that may have put impact for professionals on proper management of PWMI. Course

curriculum related to mental health content should be revised and organized in each programs. There should be adequate clinical placement & exposure for students in each programs and clinical specialists should provide proper guidance and supervision to students to make them skilled for better management of MI patients. Likewise, every health care organization should organize mental health and anti-stigma programs/seminars along with modernizing education for their health care staffs to develop positive attitude among professionals.

STRENGTHS

The main strength of this study is that this is the first study done in Bangladesh that gives insight about the attitude of present and future rehabilitation professionals towards people with disability in addition with mental illness and also different factors associated with their attitude. The information from this study can be used as a baseline data for further research in same area. The results of the study is generalizable in nature as it consists of adequate sample size. The design of the study is exploratory which helps to address various factors influencing the attitude.

LIMITATIONS

Major limitation of this study is due to its multiple choice questionnaire, though easy to analyze, it makes the results concise as participants thought is limited and they cannot freely express their view points. Furthermore, expected sample size got shrunk due to absence of respondents as well as their unwillingness to participate in the study. As the separate scale were used for measuring the attitude of student and practitioners, their association could not be compared. Another limitation is the study is not experimental in nature due to which comparison of attitude before and after intervention was not possible.

CHAPTER VI CONCLUSION AND RECOMMENDATION

Psychiatry is the new branch of medical science for many health care students and professionals. Although within the recent years, psychiatry has got much attention but still it has not reached the stage of full acceptance by general population as well as many health care professionals. With the help of this study we came to know, overall participants showed positive attitude towards PWDs additionally suffering from mental illness. Although students and practitioners have basic knowledge on psychiatry and psychiatric illness, still they hold stigmatizing attitude in many aspects of mental health. Most of them believe that if they were asked what they considered to be the three most exciting medical specialties, psychiatry would be excluded. Among students, more positive attitude was found on PT while among group of practitioners, more positive attitude was found on SLT in comparison to other groups. Although most of the participants have some contact with people with mental illness either in the family or with patients or friends, their attitude still remains negative. This indicates that there is a lot more to improve in the mental health field. Most of them want to learn about mental health through seminar. Attitude towards psychiatry can be improved when all levels of health care organization feel its importance and take necessary action. It is very crucial that mental health should be given as much emphasis as physical health which is the main root for development so that development of positive attitude is possible. Various strategies and actions can be adopted such as high quality undergraduate courses, adequate practical placement through direct contact/exposure with PWMI along with proper supervision by clinical psychiatrists. This may promote better patient-therapist relationship and quality patient care & outcome. Further experimental study should be done to identify the impact of clinical posting among students.

RECOMMENDATIONS

The study suggests future research can be done based on qualitative design so that participants can give their viewpoints freely and more information can be collected. Secondly, sample can be collected from different institutions and from different programs rather than rehabilitation program so that more generalization of the study is possible. As this study is exploratory which is the strength of this study but experimental research can be conducted using different interventions so that we can compare the change in attitude with each intervention and apply the result practically.

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APPENDIX I: INFORMATION SHEET

I am Sristi Poudel, a student of Masters in Rehabilitation Science, 5th batch, conducted under Bangladesh Health Professional Institute, Savar, Dhaka. As per the requirement of the degree, I am here to carry out my thesis entitled "**ATTITUDE AND ASSOCIATED FACTORS AMONG STUDENTS OF BHPI AND PRACTITIONERS OF CRP TOWARDS PERSON WITH PHYSICAL DISABILITY SUFFERING FROM ADDITIONAL MENTAL ILLNESS".** In this regard, I would like to invite you to take part in the study.

Your participation in this study is solely voluntary. You can without any reason, withdraw your participation from this study at any time whenever you want. Taking part in this study work causes you no potential risks. Your answer will be recorded in this questionnaire which will take approximately 30 and all your valuable information will be confidential and used only for the academic purpose. You will not be paid for your participation. Moreover, if you withdraw your participation before the data collection is completed, then all your information and data will be kindly returned to you or destroyed. If you have any question now or later regarding the study, please feel free to ask the person stated below.

Sristi Poudel

Masters in Rehabilitation Science

BHPI, CRP-Chapain, Savar, Dhaka-1343

Cell Phone: 01572140637

Email: srishtipaudel06@gmail.com

APPENDIX II: INSTITUTIONAL REVIEW BOARD FORM

BANGLADESH HEALTH PROFESSIONS INSTITUTE

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

Ref:

Date: 11/09/2019

CRP-BHPI/IRB/09/19/1322

To,
Sristi Poudel
M.Sc. in Rehabilitation Science (MRS)
Session: 2018-2019, Student ID 181 180124
BHPI, CRP-Savar, Dhaka-1343, Bangladesh

Subject: Approval of thesis proposal **"Attitude and associated factors among students of BHPI and practitioners of CRP towards person with physical disability suffering from additional mental illness"** by ethics committee.

Dear Sristi Poudel,
Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned thesis, with yourself, as the Principal Investigator" The Following documents have been reviewed and approved:

S.N	Name of Documents
1	Thesis Proposal
2	Questionnaire (English version)
3	Information sheet & consent form

The study involves use of The ATP 30 scale for Measuring Medical Students' Attitudes to Psychiatry and MICA-4 and standardized questionnaires to identify the attitude of students and practitioners towards person with physical and mental disability as well as associated factors that may take 25-30 minutes to fill in the questionnaire. Since, there is no likelihood of any harm to the participants; the members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at l0 AM on 18th February, 2019 at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and 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
Assistant Professor, Dept. of Rehabilitation Science
Member Secretary, institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-l343, Bangladesh

APPENDIX III: PERMISSION LETTER

To,
The Principal,
Bangladesh Health Professions Institute (BHPI),
CRP, Savar, Bangladesh

Date: 14/09/2019

Subject: Application for granting permission to collect data from students of BHPI

Respected sir,
I would like to inform you that I am Sristi Poudel, student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI). I have to conduct a thesis entitled, **"Attitude and associated Factors among Students of BHPI and Practitioners of CRP towards Person with Physical and Mental Disability"**, under the honorable supervisor, **Prof. Dr. Md. Forhad Hossain, Department of Statistics, Jahangirnagar University, Dhaka, Bangladesh**. The purpose of the study is to measure the attitude of students and practitioners towards person with physical and mental disability and the associated factors to their attitude.

The study involves use of ""The ATP 30 scale" for measuring the attitude of students and standardized questionnaires to determine the associated factors that may take 25-30 minutes to fill it. There is no likelihood of any harm to the participants and /or participation in the study may benefit the participants or other stakeholders. Outcome may be used to adapt interventions that may help to improve their attitude and aid for better rehabilitation practice enhancing better treatment for person with physical and mental disability. Related information will be collected from the participants. Data collectors will receive informed consent from all participants. Any data collected will be kept confidential.

Permitted

Therefore, I would be very grateful if u grant me the permission to collect data from students of BHPI studying physiotherapy, occupational therapy and speech & language therapy course.

Sincerely,

Sristi Poudel
MRS 5thBatch
Student of M.Sc. in Rehabilitation Science (MRS)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommended for approval
Md. Forhad Hossain
14/09/2019
Muhammad Millat Hossain
Assistant Professor
Project & Course Coordinator
Dept. of Rehabilitation Science
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Updated thesis title: "Attitude and associated factors among students of BHPI and practitioners of CRP towards person with physical disability suffering from additional mental illness"

Md. Forhad Hossain
Approved by

APPENDIX III: PERMISSION LETTER

Date: 14/09/2019

To,
The Head of Programs,
CRP, Savar, Bangladesh

Subject: Application for granting permission to collect data from rehabilitation practitioners of CRP

Respected sir/mam,
I would like to inform you that I am Sristi Poudel, student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI). I have to conduct a thesis entitled, **"Attitude and associated Factors among Students of BHPI and Practitioners of CRP towards Person with Physical and Mental Disability"**, under the honorable supervisor, **Prof. Dr. Md. Forhad Hossain, Department of Statistics, Jahangirnagar University, Dhaka, Bangladesh**. The purpose of the study is to measure the attitude of students and practitioners towards person with physical and mental disability and the associated factors to their attitude.

The study involves use of "The ATP 30 and MICA-4"scale for measuring the attitude of students and rehabilitation practitioners and standardized questionnaires to determine the associated factors that may take 20-25 minutes to fill it. There is no likelihood of any harm to the participants and /or participation in the study may benefit the participants or other stakeholders. Outcome may be used to adapt interventions that may help to improve their attitude and aid for better rehabilitation practice enhancing better treatment for person with physical and mental disability. Related information will be collected from the participants. Data collectors will receive informed consent from all participants. Any data collected will be kept confidential.

Therefore, I would be very grateful if u grant me the permission to collect data from practitioners practicing in CRP as physiotherapist, occupational therapist and speech & language therapist.

Sincerely,

Sristi Poudel
MRS 5thBatch
Student of M.Sc. in Rehabilitation Science (MRS)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommended
21/09/2019

Recommended & forwarded
17/09/19
Muhammad Millat Hossain
Assistant Professor
Project & Course Coordinator
Dept. of Rehabilitation Science

Updated title : "Attitude and associated factors among students of BHPI and practitioners of CRP towards person with physical disability suffering from additional mental illness"
Approved
She will collect data from here. please help her. Thanks
21-9-19
Approved by

Hesneara Perveen
Head of Department
Department of Paediatric
CRP Savar Dhaka

APPENDIX IV: INFORMED CONSENT FORM

VOLUNTARY PARTICIPATION

Your participation in this research is solely voluntary. You can without any reason, withdraw your participation from this study at any time. If you would like to participate then you will be asked to sign this consent form. You can still withdraw your participation even after you sign the consent form. Taking part in this study work causes you no potential risks and all your valuable information will be confidential and used only for the academic purpose. Moreover, if you withdraw your participation before the data collection is completed, then all your information and data will be kindly returned to you or destroyed.

CONSENT

I have read and I understand that this research is carried for the academic purpose and I am fully aware of my right to withdraw my participation from this survey at any time I wish with no cost at all. I understand that a copy of this consent will be given to me. I voluntarily agree to take part in this research.

Participant's Signature: ..... Date: .....

Researcher's Signature: ..... Date: .....

APPENDIX V: QUESTIONNAIRES (ENGLISH VERSION)

Questionnaire for Practitioners of CRP

Note well: When talking about mental illness in this Questionnaire, it refers to all types of Mental Illness, but only to those who are showing clear clinical symptoms at the time of physical treatment.

Some of the main groups of mental disorders:

- *mood disorders e.g. depression*
- *anxiety and stress disorders*
- *personality disorders*
- *dementia*
- *autism, ADHD, schizophrenia*
- *eating or sleep disorders*
- *trauma-related disorders (such as post-traumatic stress disorder)*
- *substance abuse disorders*
- *mental retardation*

Please put tick marks (✓) in the suitable options below.

Section I (Socio-demographic variables)

1. Age .....
2. Gender: ☐ Male ☐ Female
3. Which professions are you from?

☐ Physiotherapist ☐ Occupational therapist ☐ Speech and Language therapist

4. Years of experience.....(in months)
5. Religion .....
6. Original residence in childhood: ☐ Urban ☐ Semi-urban ☐ Rural
7. Marital status

☐ Married ☐unmarried ☐ Divorced ☐ separated ☐widowed ☐ widower

8. What is your childhood family type? ☐Nuclear ☐ Joint
9. Number of family members in childhood? ……..
10. Family income in childhood? ……
11. Number of family members graduate or above during childhood? .....
12. Number of family members having education level SSC during childhood? .....
13. Education level?

Father	**Mother**
☐ No formal education	☐ No formal education
☐ SSC	☐ SSC
☐ HSC	☐ HSC
☐ Bachelor	☐ Bachelor
☐ Masters or above	☐Masters or above
☐ Other……..(specify)	☐Other……..(specify)

Section II (Education and Exposure Related Factors)

1. Have you ever had at least one placement in mental health department/ward in your student life?

   ☐ Yes ☐ No ☐ Not identified

2. If yes, what was the setting for that?

   ☐ Inpatient ☐ Outpatient ☐ Other ……... (specify)

3. From where did you learn about mental health?(you can tick more than 1 answer if appropriate)

   ☐ From a lecture ☐ From a seminar ☐ From a tutoria ☐Present job
   ☐ From placement in MH hospital/ward
   ☐ Others …… (specify)

4. Have you already dealt with someone who has clear symptoms of any kind of mental illness, either in:

   a. Your practice (in patients): ☐Yes ☐ No ☐ I am not sure
   b. Your family: ☐Yes ☐ No ☐ I am not sure
   c. Your friends ☐ Yes ☐ No ☐ I am not sure

5. **Only if yes,** did you wish and try to help that person with his mental problem, apart from help in physical problems? ☐ Yes ☐ No

6. Did your view have changed after longer time or more frequently dealing with someone with mental illness?

☐Yes, positively ☐Yes, negatively ☐I am not sure/I have not dealt longer time or more frequently

7. **Only if you already have dealt with** someone who has clear symptoms of any kind of mental illness; could you indicate if you have experienced any of the following challenges if you had to be engaged with him/her? *(you might tick more than 1 answer if appropriate)*

☐ not feeling at ease/ not feeling comfortable being with that person
☐ not understanding the person's behavior at all
☐ being somewhat afraid of being alone with that person
☐ not knowing what to do or how to react on sudden changes in behavior
☐ not knowing how to start a conversation with that person

8. Do you perceive that you have had enough /proper training regarding severe mental health during your course in student life? ☐ Yes ☐ No
9. If you have acquired more information on severe mental health within your professional practice, in which manner?

☐Colleagues ☐Seniors ☐Professional ☐seminars/course ☐ others……..(specify)

10. Do you want further education on mental health?

☐ Yes ☐ No ☐ Not decided yet

11. How do you want to get further education/ experience?

☐Lecture ☐ Seminar ☐ Tutorial ☐Others……..(specify)

Section III (Perception and Beliefs)

1. Are you, or have you been working in a mental hospital or mental ward?

   ☐ Yes ☐ No

2. **If you are treating patients for physical problems/physical disability and at time you notice that they also show clear and severe mental symptoms; do you feel:**

A. Being able to deal with mental patients in a clinical setting within the role of a professional

   i. I have enough knowledge and skills to approach the patient ☐ Yes ☐ No

   ii. I can communicate effectively as per patient's need ☐Yes ☐ No

B. Perception of mental health content in your course;

   i. Content is sufficient enough to improve the knowledge and skills on me, as a student, for treating such patients ☐ Yes ☐ No

   ii. There is sufficient clinical exposure on mental health issues ☐ Yes ☐ No

C. Your general understanding on the range of mental illness and disorders

   i. I have sufficient knowledge on all kind of mental health conditions ☐ Yes ☐ No

   ii. I have sufficient knowledge on aim and scope of treatment ☐ Yes ☐ No

   iii. I have knowledge on patients' responses and reactions to physical treatment ☐Yes ☐ No

D. Perception regarding safety during treatment of mentally ill patient (you might tick more than 1 answer if appropriate)

   i. ☐ There is need of my own safety during the treatment.

   ii. ☐ There is need of other patients' safety during the treatment

   iii. ☐ There is need of patient's own safety during treatment

   iv. ☐ There is need of safety of treatment itself

E. Knowledge regarding the treatment of the individual patient with mental illness? (you might thick more than 1 answer if appropriate)

i. ☐ I have proper knowledge on how to provide best physical treatment for patient with mental illness in the rehabilitation setting

ii. ☐ I am unsure about the benefits of physical treatment in rehabilitation setting

iii. ☐ I don't have the skills needed during physical treatment of the mentally ill patient

iv. ☐ I expect that the patient's ability to consent or comply with treatment is weak if they have mental illness

F. Your opinion about the attitude/characteristics of a mental patient? (you might tick more than 1 answer if appropriate)

i. ☐ Most patients show aggressive and violent behavior

ii. ☐ Most patients show unpredictable behavior or mood swings

iii. ☐ Characteristics depends on severity of the mental illness

iv. ☐ Most patients having mental illness are dangerous for everyone

G. How often do you believe that you will treat patients with mental illness?

☐ Frequently ☐ Sometimes ☐ As per patient's demand ☐ Never

H. Do you think that your beliefs will change once you start clinical practice?

☐ Yes ☐ No ☐ May be ☐ Don't know

Section IV MICA-4 scale

Please tick (✓) the answers in one box only which you think most appropriate for you. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist.

S. N.	Items	Strongly agree	Agree	Somewhat	Somewhat disagree	Disagree	Strongly disagree
1.	I just learn about mental health when I have to, and would not bother reading additional material on it.						
2.	People with a severe mental illness can never recover enough to have a good quality of life.						
3.	Working in the mental health field is just as respectful as other fields of health and social care.						
4.	If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.						
5.	People with a severe mental illness are dangerous more often than not.						
6.	Health/social care staffs know more about the lives of people treated for a mental illness than do family members or friends.						
7.	If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.						
8.	Being a health/social care professional in the area of mental health is not like being a real health/social care professional.						

9.	If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their instructions.						
10.	I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.						
11.	It is very important that any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed.						
12.	The public does not need to be protected from people with a severe mental illness.						
13.	If a person with a mental illness complained of physical symptoms (such as chest pain) I would attribute it to their mental illness.						
14.	General practitioners should not be expected to complete a thorough assessment for people with psychiatric symptoms because they can be referred to a psychiatrist.						
15.	I would use terms 'crazy', 'nutter', 'mad' etc. to describe to colleagues people with a mental illness who I have seen in my work.						
16.	If a colleague told me they had a mental illness, I would still want to work with them.						

Questionnaire for Students of BHPI

Note well: When talking about mental illness in this Questionnaire, it refers to all types of Mental Illness, but only to those who are showing clear clinical symptoms at the time of physical treatment.

Some of the main groups of mental disorders:

- *mood disorders e.g. depression*
- *anxiety and stress disorders*
- *personality disorders*
- *dementia*
- *autism, ADHD, schizophrenia*
- *eating or sleep disorders*
- *trauma-related disorders (such as post-traumatic stress disorder)*
- *substance abuse disorders*
- *mental retardation*

Please put tick marks (✓) in the suitable options below.

Section I (Socio-demographic variables)

1. Age .....
2. Gender: ☐ Male ☐ Female
3. What is your course?
   ☐ Physiotherapy ☐ Occupational therapy ☐ Speech and Language therapy
4. What is your level of course?
   ☐3rd year Bachelor ☐4th year Bachelor ☐1st year master ☐2nd year master
5. Religion .....
6. Original residence in childhood: ☐ Urban ☐ Semi-urban ☐ Rural
7. Marital status
   ☐ Married ☐unmarried ☐ Divorced ☐ separated ☐widowed ☐ widower

8. What is your family type? ☐Nuclear ☐ Joint
9. Number of family members ? …….
10. Family income? ……
11. Number of family members graduate or above? .....
12. Number of family members having education level SSC?.....

13. Education level?

Father	**Mother**
☐ No formal education	☐ No formal education
☐ SSC	☐ SSC
☐ HSC	☐ HSC
☐ Bachelor	☐ Bachelor
☐ Masters or above	☐Masters or above
☐ Other……..(specify	☐Other……..(specify)

Section II (Education and Exposure Related Factors)

1. Have you ever had at least one placement in mental health department/ward?
   ☐ Yes ☐ No ☐ Not identified
2. If yes, what was the setting for that?
   ☐ Inpatient ☐ Outpatient ☐ Other …….. (specify)
3. From where did you learn about mental health?(you can tick more than 1 answer if appropriate)
   ☐ From a lecture ☐ From a seminar ☐ From a tutorial
   ☐ From placement
   ☐ Others …… (specify)
4. Have you already dealt with someone who has clear symptoms of any kind of mental illness, either in:
   i) Your study period (in patients): ☐Yes ☐ No ☐ I am not sure
   ii) Your family: ☐Yes ☐ No ☐ I am not sure
   iii) Your friends ☐ Yes ☐ No ☐ I am not sure
5. **Only if yes,** did you wish and try to help that person with his mental problem, apart from help in physical problems? ☐ Yes ☐ No

6. Did your view have changed after longer time or more frequently dealing with someone with mental illness?

☐Yes, positively ☐Yes, negatively ☐I am not sure/I have not dealt longer time or more frequently

7. **Only if you already have dealt with** someone who has clear symptoms of any kind of mental illness; could you indicate if you have experienced any of the following challenges if you had to be engaged with him/her? *(you might tick more than 1 answer if appropriate)*

☐ not feeling at ease/ not feeling comfortable being with that person
☐ not understanding the person's behavior at all
☐ being somewhat afraid of being alone with that person
☐ not knowing what to do or how to react on sudden changes in behavior
☐ not knowing how to start a conversation with that person

8. How many hours of training have you received regarding mental health till now during your course? .....
9. Who delivered the sessions regarding mental health?

☐Clinical specialist ☐Lecturer with special interest ☐General lecturer

☐others……..(specify)

10. Do you want further education on mental health?

☐ Yes ☐ No ☐ Not decided yet

11. How do you want to get further education/ experience?

☐Lecture ☐ Seminar ☐ Tutorial ☐Placement ☐

Others……..(specify)

Section III (Perception and Beliefs)

1. Are you, or have you been working in a mental hospital or mental ward?

☐ Yes ☐ No

2. If you are treating patients for physical problems/physical disability and at time you notice that they also show clear and severe mental symptoms; do you feel:

A. Being able to deal with mental patients in a clinical setting within the role of a student

i. I have enough knowledge and skills to approach the patient ☐ Yes ☐ No

ii. I can communicate effectively as per patient's need ☐Yes ☐ No

B. Perception of mental health content in your course;

i. Content is sufficient enough to improve the knowledge and skills on me, as a student, for treating such patients ☐ Yes ☐ No

ii. There is sufficient clinical exposure on mental health issues ☐ Yes ☐ No

C. Your general understanding on the range of mental illness and disorders

i. I have sufficient knowledge on all kind of mental health conditions ☐ Yes ☐ No

ii. I have sufficient knowledge on aim and scope of treatment ☐ Yes ☐ No

iii. I have knowledge on patients' responses and reactions to physical treatment ☐ Yes ☐ No

D. Perception regarding safety during treatment of mentally ill patient (you might tick more than 1 answer if appropriate)

i. ☐ There is need of my own safety during the treatment.

ii. ☐ There is need of other patients' safety during the treatment

iii. ☐ There is need of patient's own safety during treatment

iv. ☐ There is need of safety of treatment itself

E. Knowledge regarding the treatment of the individual patient with mental illness? (you might thick more than 1 answer if appropriate)

i. ☐ I have proper knowledge on how to provide best physical treatment for patient with mental illness in the rehabilitation setting

ii. ☐ I am unsure about the benefits of physical treatment in rehabilitation setting

iii. ☐ I don't have the skills needed during physical treatment of the mentally ill patient

iv. ☐ I expect that the patient's ability to consent or comply with treatment is weak if they have mental illness

F. Your opinion about the attitude/characteristics of a mental patient? (you might tick more than 1 answer if appropriate)

v. ☐ Most patients show aggressive and violent behavior

vi. ☐ Most patients show unpredictable behavior or mood swings

vii. ☐ Characteristics depends on severity of the mental illness

viii. ☐ Most patients having mental illness are dangerous for everyone

G. How often do you believe that you will treat patients with mental illness?

☐ Frequently ☐ Sometimes ☐ As per patient's demand ☐ Never

H. Do you think that your beliefs will change once you start clinical placement?

☐ Yes ☐ No ☐ May be ☐ Don't know

Section IV The ATP 30 scale for measuring Attitude Towards Psychiatry

A Strongly Agree
B Agree
C Neutral
D Disagree
E Strongly Disagree

Please mark (✓) the answers which you think most appropriate for you.

S.N.	ITEMS	A	B	C	D	E
1.	Psychiatry is unappealing because it makes so little use of medical training.					
2.	Psychiatrists talk a lot but do very little.					
3.	Psychiatric hospitals are little more than prisons.					
4.	I would like to be a psychiatrist.					
5.	It is quite easy for me to accept the efficacy of psychotherapy.					
6.	On the whole, people taking up psychiatric training are running away from participation in real medicine.					
7.	Psychiatrists seem to talk about nothing but sex.					
8.	The practice of psychotherapy basically is fraudulent since there is no strong evidence that it is effective.					
9.	Psychiatric teaching increases our understanding of medical and surgical patients.					
10.	The majority of students report that their psychiatric undergraduate training has been valuable.					
11.	Psychiatry is a respected branch of medicine.					
12.	Psychiatric illness deserves at least as much attention as physical illness.					
13.	Psychiatry has very little scientific information to go on.					
14.	With the forms of therapy now at hand most psychiatric patients improve.					

15.	Psychiatrists tend to be at least as stable as the average doctor.					
16.	Psychiatric treatment causes patients to worry too much about their symptoms.					
17.	Psychiatrists get less satisfaction from their work than other specialists.					
18.	It is interesting to try to unravel the cause of a psychiatric illness.					
19.	There is very little that psychiatrists can do for their patients.					
20.	Psychiatric hospitals have a specific contribution to make to the treatment of the mentally ill.					
21.	If I were asked what I considered to be the three most exciting medical specialties, psychiatry would be excluded.					
22.	At times it is hard to think of psychiatrists as equal to other doctors.					
23.	These days psychiatry is the most important part of the curriculum in medical schools.					
24.	Psychiatry is so unscientific that even psychiatrists can't agree as to what its basic applied sciences are.					
25.	In recent years psychiatric treatment has become quite effective.					
26.	Most of the so-called facts in psychiatry are really just vague speculations.					
27.	If we listen to them, psychiatric patients are just as human as other people.					
28.	The practice of psychiatry allows the development of really rewarding relationships with people.					

29.	Psychiatric patients are often more interesting to work with than other patients.					
30.	Psychiatry is so amorphous that it cannot really be taught effectively.					