

## Exploring mental health through the eyes of physiotherapy students: Revealing knowledge and attitudes towards mental health roles

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Article Info	Abstract
<p><b>Research Article</b></p> <p>Received: 9 July 2024 Revised: 14 September 2024 Accepted: 17 September 2024</p> <p><b>Keywords:</b> Mental health knowledge schedule, Mental illness clinicians' attitudes, Mental illness stigma, Physiotherapy students</p>	<p>The social stigma associated with mental illness leads to a reluctance to seek help and can negatively impact the therapeutic connections between individuals with mental illness and healthcare practitioners. With the rising prevalence of mental health illness, physiotherapy students will encounter a growing number of these patients during their undergraduate education. A cross-sectional online survey was done on undergraduate physiotherapy students using the Mental Health Knowledge Schedule and Mental Illness Clinicians' Attitudes scores. All participants demonstrated moderate knowledge and a favorable attitude toward mental health. Final-year students had more awareness and a better attitude towards mental health than the other students. Physiotherapy undergraduates with clinical experience tend to see psychiatry and individuals with mental illness more positively.</p>

### 1. Introduction

Mental health disorders impact approximately 1 in 5 people (Kessler et al., 2007). They are the main contributor to the worldwide burden of diseases, with the majority population between the ages of 10 and 29 (Whiteford et al., 2013). According to the World Health Organization's Mental Health Action Plan, by 2020, care coverage for severe mental diseases must increase by at least 20% (Saxena & Setoya, 2014). The attainment of this target depends critically on reducing the treatment gap in China and India, the two most populous nations in the world (Patel et al., 2016). In India, the current prevalence of mental morbidity in adults is 10.56%; at any given time, one in ten persons is reported to have one or more mental morbidities (Gautham et al., 2020).

Individuals who have severe mental illness have higher rates of morbidity and mortality, and their life expectancy can be shortened by up to 20 years compared to the general population (Arnoldy et al., 2014). Individuals who suffer from severe mental health disorders typically have poorer physical health than those who do not (Galletly et al., 2012; Richardson et al., 2005). Suitable primary care for these comorbidities must be provided for these individuals (Griswold et al., 2008). There is a lack of physical activity among those with mental illness despite research demonstrating the advantages of physical activity and its application in the management and treatment of this population (Bredin et al., 2013; Vancampfort et al., 2012). Physiotherapists play an essential role in managing individuals with mental illnesses to control their physical health comorbidities (Heywood et al., 2022). Physical health comorbidities related to the musculoskeletal, cardiorespiratory, and neurological systems for which physical therapy is either the preferred treatment method or a crucial part of care (Connaughton & Gibson, 2016). People with mental illnesses can achieve a higher quality of life with physiotherapy (Torales et al., 2017). This is accomplished in two primary ways: by enhancing the patient's physical well-being and by reducing the patient's psychological impairment (Pope, 2009). As a part of the multidisciplinary healthcare team, physiotherapists are crucial

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in educating patients about mental health issues and making appropriate referrals for additional specialized care (Andrew et al., 2019). Even after it was proposed globally that primary mental healthcare should include physical therapy interventions, physiotherapists' role remains underutilized (Lee et al., 2017). The World Confederation for Physical Therapy (WCPT) has recognized the value of achieving individuals' and communities' physical, social, emotional, and spiritual needs in professional practice. It has also formed the International Organization of Physical Therapy in Mental Health as a working group within the WCPT ("Standards of Physiotherapy Practice," 1994).

Physiotherapy programs equip graduates with the information and abilities to diagnose and manage musculoskeletal issues, a vast spectrum of neurological disorders, pain, acute and chronic cardiorespiratory problems, and other preventable diseases. Students are also trained to identify and discern potential bio-psychosocial variables that could impact treatment (Daluiso-King & Hebron, 2022). Physiotherapy programs in India have no uniform curriculum and limited interest in mental health and psychiatry. So, insufficiently trained graduates might, therefore, rely on their own experiences, preconceptions, and prejudices to direct interactions and support patients with mental health comorbidities. In contrast to physical ailments, mental disorders are frequently more stigmatized, according to research. (Corrigan et al., 2001). Recovery of patients may be hampered by physiotherapists' stigma and negative attitudes concerning mental illness (Probst & Peuskens, 2010). Therefore, physiotherapists must have the knowledge and an optimistic attitude to handle these patients confidently (Vancampfort et al., 2018).

More than half of the physicians and medical students surveyed believed that individuals suffering from drug and alcohol addiction and schizophrenia were unpredictable and dangerous (Knaak et al., 2017). According to another study, pregnant distressed women were stigmatized by healthcare workers, who felt uncomfortable around antenatal depressed women (Gawley et al., 2011). Research on physiotherapy students' attitudes toward psychiatry conducted in Belgium, South Africa, and Australia revealed scores deemed to be moderately positive when assessed (Connaughton & Gibson, 2016; Gunduza et al., 2023; Probst & Peuskens, 2010). Physiotherapists in the United Kingdom have voiced concerns about the lack of training and expertise in mental health specializations and how it affects their ability to manage the psychosocial components of their patient's care (Hemmings & Soundy, 2020). There is currently little information available about Indian physiotherapy students' perceptions and attitudes toward psychiatry and people with mental illness. Therefore, our study aimed to ascertain the knowledge and attitudes of physiotherapy students regarding mental health.

## **2. Literature review**

Physiotherapists, even those working in primary care, may encounter patients with complex mental health issues. Psychological co-morbidity may be present in specific somatic ailments under physiotherapy's purview, such as chronic obstructive pulmonary disease, cerebrovascular disease, or cardiovascular disease. Numerous research has uncovered several aspects of physiotherapy students' attitudes toward their mental health.

A study investigated how Flemish physiotherapy students felt about psychiatry and mental health (Probst & Peuskens, 2010). Positive attitudes toward psychiatry were moderate. There was a slight but noteworthy difference between physiotherapy and non-medical students (Cohen's  $d=0.31$ ). Compared to their male colleagues, female students exhibited a more favorable opinion toward psychiatry. More positive attitudes were linked to prior experience with mental illness. Positive attitudes rose following the completion of a psychiatry course. The knowledge and attitudes of third- and fourth-year physiotherapy students on mental health were evaluated in a cross-sectional descriptive study (Gunduza et al., 2023). Senior students showed greater knowledge and a better attitude toward mental health, whereas all students showed an acceptable level of knowledge and a favorable attitude toward mental health. A study intended to investigate the experiences and attitudes of student physiotherapists regarding treating patients with mental illness (Dandridge et al., 2014). It was discovered that students were worried about their lack of understanding of mental disease conditions and how to treat affected patients (Connaughton & Gibson, 2016). A cross-sectional investigation of Australian physiotherapy students' attitudes toward mental disease and psychiatry discovered positive opinions regarding psychiatry and mental health. Students who had finished their clinical experience had a noticeably more positive attitude, and women were much more optimistic than men.

There is a substantial knowledge gap regarding physiotherapy students in India, even though numerous studies have examined the attitudes and understanding of physiotherapy students toward mental health in nations like Belgium, South Africa, and Australia. Since mental health education is more deeply ingrained in healthcare curricula in Western and developed countries, the majority of research to date has been done in these areas. On the other hand, because Indian physiotherapy programs do not require standardized mental health education, students

may not have had much exposure to mental health-related subjects. The present study tries to fill the knowledge gap in the existing literature by exploring the mental health and attitudes of Indian physiotherapist students.

### 3. Methodology

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#### 3.1. Study design

Researchers employed a quantitative, descriptive, cross-sectional design with an online survey. Between March 23, 2024, and April 25, 2024, all data was collected using Google Forms. The Google form link contained an information page, consent, demographic form, Mental Health Knowledge Schedule (MAKS), and Mental Illness Clinicians Attitudes version 4 (MICA-4) scales. The Institutional Ethics Committee of Vivekanand Global University, Jaipur, Rajasthan, India, approved the study.

#### 3.2. Participants

Students pursuing bachelor's degrees in physiotherapy were included. Convenience sampling was employed in the study. Colleges and universities offering physiotherapy degrees in Jaipur, Rajasthan, India, were contacted. Initially, the faculty members of the corresponding colleges and institutions were provided a survey link. The students were then given the survey link during class by faculty and invited to complete it during their observation. This is how the 100% response rate was achieved; only students who were eager to participate received forms.

#### 3.3. Questionnaire

Knowledge of mental health and attitudes regarding the role of physiotherapy in influencing mental health attitudes were the study's primary outcomes. The students' attitudes were ascertained using the MICA-4, and their knowledge was evaluated using the MAKS questionnaire.

The MAKS originated in the United Kingdom (UK) to assess stigma-related mental health knowledge (Evans-Lacko et al., 2010). Items 1 through 6 of the 12-item MAKS evaluated knowledge in the following areas: (1) help-seeking, (2) recognition, (3) support, (4) employment, (5) treatment, and (6) recovery. Items 7 through 12 tested respondents' understanding of diagnosing mental health issues. On a five-point Likert scale, 1 represents complete disagreement, and 5 represents complete agreement. A higher score denotes more excellent knowledge. The total score is the sum of all the elements and ranges from 12 to 60. "3" was the code for the "Don't know" option. For MAKS, the internal consistency, "Cronbach's alpha," is 0.56. The MAKS's Kayser-Meyer-Olkin (KMO) index was 0.632. For the MAKS, the total variation explained by the factors was 31.58% (Ben Amor et al., 2023).

The MICA-4 scale, which is self-administered, evaluates attitudes toward psychiatry and individuals with mental illness (Siddiqua & Foster, 2015). It uses a six-point Likert scale—strongly agree, agree, agree to some extent, disagree to some extent, disagree, and strongly disagree for the questions. Every response is given a suitable numerical value. The responders' possible scores range from 16 to 96. The total points that the responders received form the basis of the analysis. An increased scale value indicates a higher degree of stigmatization. The attitudes that underpin MICA are centered around a few themes: students' perceptions of psychiatry and mental health; individuals with mental illness's ability to recover; individuals with mental illness danger; students' comfort levels around individuals with mental illness; students' disclosure of their personal experiences with mental health; diagnostic overshadowing; and discriminatory behavior directed towards individuals with mental illness. The scale has demonstrated strong internal consistency in prior psychometric testing, with Cronbach's alpha values of  $\alpha = 0.72$  (Gabbidon et al., 2013) and  $\alpha = 0.79$  (Kassam et al., 2010), as well as test-retest reliability (concordance) of 0.80 (95%CI: 0.68–0.91) (Kassam et al., 2010).

#### 3.4. Statistical analysis

Following the proper arrangement of the collected data into an MS Excel spreadsheet, any potential errors were verified. Following error checking, the analysis was conducted using IBM SPSS Statistics for Windows, Version 27.0 (IBM Corp., Armonk, NY, USA). The demographic data was summarized using statistical tests such as means, standard deviations, frequencies, and proportions. Means and standard deviations were employed to summarize the total knowledge and attitude scores.

#### 4. Result

A total of 288 students participated in the survey, with 163 (56.6%) males and 125 (43.4%) females. The average age of the participants was  $20.01 \pm 1.99$ . The participants had an average MICA 4 score of  $43.28 \pm 12.62$  and an average MAKS score of  $44.55 \pm 4.68$ . Table 1 provides a comprehensive breakdown of the demographic characteristics of the participants in the study. Table 2 displays the findings of MAKS, indicating the percentage of responses from 288 participants across different statements related to mental health. 34.7% of respondents expressed a firm agreement with the statement that the majority of individuals with mental health issues aspire to have paid employment. Similarly, a majority of the participants (51.7%) expressed a high conviction in their ability to provide appropriate guidance to a friend dealing with a mental health issue, advising them to seek professional assistance.

Table 3 represents the responses of 288 participants on several statements relating to mental health attitudes and perceptions of MICA4. A considerable number (70.5%) agreed with the statement that they only learn about mental health when necessary and would not seek out further material on the topic. There was a significant degree of agreement (80.9%) that working in the mental health area is as respectable as other health and social care fields. The findings demonstrate a range of attitudes towards mental health, including a combination of stigma, acknowledgment of the significance of treatment and support, and a willingness to interact with coworkers who experience mental health difficulties. Table 4 illustrates disparities in scores between different academic year groups on measures: MICA 4 and MAKS. With more academic years, Bachelor of Physiotherapy (BPT) program graduates tend to score higher on MAKS and lower on MICA4 scales. This indicates that students in this program may have improved understanding and attitudes about mental health due to moving through the academic curriculum.

Table 1. Descriptive statistics

Variable	n	%	Mean	Standard Deviation
<i>Gender</i>				
Male	163	56.6	-	-
Female	125	43.4	-	-
<i>Age</i>	288	-	20.01	1.99
<i>Academic level</i>				
UG 1 <sup>st</sup> Year	149	51.7	-	-
UG 2 <sup>nd</sup> Year	67	23.3	-	-
UG 3 <sup>rd</sup> Year	38	13.2	-	-
UG 4 <sup>th</sup> Year	34	11.8	-	-
MICA 4 Score	288	-	43.28	12.62
MAKS Score	288	-	44.55	4.68

Table 2. Scores obtained from the mental health knowledge schedule questionnaire (n = 288)

	Scale no*					
	6	5	4	3	2	1
Most people with mental health problems want to have paid employment	34.7	32.6	19.1	3.8	3.1	6.7
If a friend had a mental health problem, I know what advice to give them to get professional help	51.7	31.3	7.6	2.4	2.1	4.9
Medication can be an effective treatment for people with mental health problems	42	33.4	11.5	6.3	3.1	3.7
Psychotherapy (e.g., talking therapy or counseling) can be an effective treatment for people with mental health problems	59.4	23.3	8	4.1	1.4	3.8
People with severe mental health problems can fully recover	36.8	33.3	15.6	5.6	3.1	5.6
Most people with mental health problems go to a healthcare professional to get help	36.1	28.5	14.2	12.5	2.8	5.9
Do you think each condition is a type of mental illness? Check one box only						
Depression	48.3	25.3	14.2	4.9	3.1	4.2
Stress	40.3	34	13.2	3.8	5.2	3.5
Schizophrenia	46.2	24.3	14.9	7.3	2.1	5.2
Bipolar disorder (manic depression)	42.7	28.5	18.1	2.8	2.4	5.5
Drug/ substance addiction	41.3	27.5	14.6	8.3	4.5	3.8
Grief	34.4	32	18.4	5.4	3.5	6.3

\* 6-Agree strongly, 5-Agree slightly, 4-Neither agree nor disagree, 3-Disagree slightly, 2-Disagree strongly, 1-Don't know

Table 3. Scores obtained from mental illness clinicians' attitudes scale 4 (n = 288)

	Scale no*					
	6	5	4	3	2	1
I just learn about mental health when I have to, and would not bother reading additional material on it	25	45.5	15	3.1	8	3.4
People with a severe mental illness can never recover enough to have a good quality of life.	20.1	31.9	14.3	5.2	20.5	8
Working in the mental health field is just as respectable as other fields of health and social care.	39.6	41.3	11.1	1	5.2	1.8
If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	19.1	35.8	18.4	5.9	16	4.8
People with a severe mental illness are dangerous more often than not.	23.6	37.8	19.1	8.3	7.6	3.5
Health/social care staff know more about the lives of people treated for a mental illness than do family members or friends.	27.4	42.7	20.5	3.1	4.9	1.4
If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	23.6	36.1	15.6	6.9	14.9	2.9
Being a health/social care professional in the area of mental health is not like being a real health/social care professional.	22.9	30.2	16	3.5	19.4	8
If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their instructions.	41.3	34.7	10.4	1.4	6.3	5.9
I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	30.9	39.9	14.3	6.3	6.3	2.3
It is important that any health/social care professional supporting a person with a mental illness also ensures that their physical health is assessed.	35.1	41.7	16	0.7	4.2	2.3
The public does not need to be protected from people with a severe mental illness.	20.8	30.2	17.7	9	13.2	9.1
If a person with a mental illness complained of physical symptoms (such as chest pain) I would attribute it to their mental illness.	21.5	31.3	21.2	7.6	13.9	4.5
General practitioners should not be expected to complete a thorough assessment for people with psychiatric symptoms because they can be referred to a psychiatrist.	23.6	41.3	21.9	2.8	6.6	3.8
I would use the terms 'crazy', 'nutter', 'mad' etc. to describe to colleagues people with a mental illness who I have seen in my work.	5.6	19.8	7.3	9.6	30.6	27.1
If a colleague told me they had a mental illness, I would still want to work with them.	27.8	42.4	19.4	2.8	3.8	3.8

\* 6- Strongly agree, 5-Agree, 4- Somewhat agree, 3- Somewhat disagree, 2-Disagree, 1- Strongly disagree

Table 4. Differences in scores between the year groups

	n	MICA 4		MAKS		
		Mean	Standard Deviation	Mean	Standard Deviation	
Academic Level	BPT 1 <sup>st</sup> Year	149	47.53	13.21	40.79	4.78
	BPT 2 <sup>nd</sup> Year	67	44.95	13.18	42.18	5.01
	BPT 3 <sup>rd</sup> Year	38	42.37	10.39	45.60	2.19
	BPT 4 <sup>th</sup> Year	34	41.27	11.22	49.64	3.65

## 5. Discussion

Stigmatizing beliefs and actions are documented in the literature on healthcare across a range of healthcare settings (Knaak et al., 2017). Therefore, this study evaluated undergraduate physiotherapy students' mental health-related knowledge and attitudes concerning mental health patients and health care. The results demonstrated that students studying physiotherapy have a basic knowledge of mental health, and they also displayed favorable attitudes regarding mental disease. This is a noteworthy finding, considering the prevalence of mental illness and physiotherapists' role in health care for persons with comorbid mental and physical conditions. This study's results align with previous research conducted in South Africa and Australia (Connaughton & Gibson, 2016; Gunduza et al., 2023). To the author's knowledge, this is the first study on physical therapy students from India. Compared to their colleagues in senior year, junior students knew less about mental health and had a more pessimistic outlook on it.

This is congruent with a study done on physiotherapy students, which discovered that students with prior experience with mental illness had more positive sentiments toward it than those without (Probst & Peuskens, 2010).

The high knowledge (MAKS) scores in the study revealed that undergraduate students had a good understanding of mental illness; the high score could be related to the increasing attention to mental health in the revised physiotherapy curriculums adopted in various institutions in India. Providing physiotherapists with undergraduate and graduate-level mental health education can significantly increase their comprehension of mental disease and workforce capacity (Hooblal et al., 2023). According to UK research, 75% of physiotherapy students said they needed more mental health education, and the majority (71%) had received less than four hours of training (Dandridge et al., 2014). One reason why physiotherapists feel unprepared to treat patients with mental illness is a need for more knowledge (Driver et al., 2017; Hooblal et al., 2020).

Attitude refers to an individual's emotional state, sentiment, or inclination toward learning (Geer et al., 2006). The attitudes of health professionals towards individuals with mental health disorders have a significant impact on their subsequent treatment and interactions (Dandridge et al., 2014; Hansson et al., 2013). Fourth-year physiotherapy students exhibited a more positive disposition towards mental illness than all other students, a finding consistent with previous research (Gunduza et al., 2023; Probst & Peuskens, 2010). In addition, a study done on physiotherapy students in Belgium provided evidence that students' attitudes toward patients with psychiatric illnesses improved after obtaining training in these conditions. This suggests a correlation between knowledge and attitudes, which aligns with our findings (Probst & Peuskens, 2010). The mean MICA-4 score of 43.28 in our study aligns closely with the results obtained from surveys conducted on medical students in Australia (43.5), medical students in Chile and Spain (40.17), and a global study involving medical students from 65 countries (40.5) (Babicki et al., 2021; Lyons & Janca, 2015; Masedo et al., 2021). Positive attitudes can influence how health professionals view and treat patients' mental illnesses (Ghuloum et al., 2022). It appears from our data that students studying physiotherapy are less likely to stigmatize mental health conditions. However, as the curriculum varies nationwide, this result cannot be applied to all colleges. In this study, final-year students also had superior attitudes and knowledge, so we recommend that academic institutions adjust their health sciences curricula to incorporate mental health rotations early in the curriculum instead of only in the last year. Physiotherapy programs must emphasize empathy training and patient mindset comprehension to reduce stigma, particularly concerning mental illnesses. This will ensure that stigmatizing attitudes do not become ingrained and interfere with future patient care.

This study is the first of its kind in Indian physiotherapy students, with results shedding light on a critical concern. The participants were recruited from different years of the undergraduate program with almost equal proportions of both genders, which allowed for investigating variances in attitude. The use of a validated technique to measure stigma generated accurate estimates of attitudes toward mental illness. Two limitations were observed in this investigation. One significant constraint of our study is that the data we used were obtained from a sample of volunteers rather than a randomly selected representative sample. Second, our results may be suggestive, but they are not necessarily generalizable to the total population of Indian physiotherapy students owing to the small sample size. Future research should establish the link between various sociodemographic characteristics and mental health knowledge and attitudes of Indian physiotherapy students, utilizing a larger sample size.

## **6. Conclusion**

This study offers insights into the mental health-related knowledge and attitudes among undergraduate physiotherapy students in India. The findings reveal that while students generally possess an essential awareness of mental health and exhibit good attitudes towards mental illness, there are considerable variances between junior and senior pupils. Junior students are likely to have less knowledge and more negative attitudes compared to their older colleagues, suggesting a possible need for early intervention and instruction in mental health within the physiotherapy curriculum. This study contributes to the growing body of literature on mental health education and stigma reduction in healthcare settings, notably among physiotherapy students in India.

### *6.1. Theoretical implications*

Concentrating mainly on physiotherapy students, this study focused on the population often overlooked in mental health research. This study contributes to the theoretical understanding of healthcare professionals' knowledge and attitudes about mental health that already exists. It confirms the relationship between knowledge and attitudes by reiterating that education and clinical experience shape knowledge and positive attitudes regarding mental health.

## 6.2. Practical implications

Since senior students showed superior knowledge and attitudes than junior students, the study emphasizes the necessity to include mental health education sooner in the physiotherapy curriculum. It is recommended that academic institutions include mental health rotations and offer specialized courses on mental illness to promote empathy and understanding among students.

## 6.3. Limitations and future research directions

A convenience sample of volunteers was used in the study, which means that the attitudes and knowledge of all Indian physiotherapy students may not be fully represented. To improve the generalizability of the results, larger, randomly selected samples should be used in future research. The study's applicability to other regions was limited by its location in Jaipur, India. Conducting the survey again in other parts of India will give researchers a more comprehensive picture of how students studying physiotherapy perceive mental health in that nation.

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### ***Author contribution statements***

The authors equally contributed to the research design and implementation, analysis, and the manuscript's writing.

### ***Disclosure statement***

The authors reported no potential competing interest.

### ***Ethical committee approval***

This research has ethics committee approval from Vivekananda Global University, Jaipur, Rajasthan, India, with a 20/2/2024 date and 34/AHS/20/2/24 number. All responsibility belongs to the author.