

Knowledge and attitude towards mental illness among undergraduate students – A cross sectional study

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ABSTRACT

Introduction: Knowledge and attitudes towards mental illness significantly influence how societies perceive, treat, and support individuals with mental health challenges. Awareness involves understanding various mental health conditions, recognizing stigma and discrimination, and knowing available support resources such as counselling, helplines, and support groups. Globally, people with psychiatric disorders often face stereotypes and prejudice, largely due to insufficient knowledge and stigma. Promoting empathy, avoiding judgmental language, and fostering positive attitudes from an early age can create a more supportive environment. **Aim** is to assess the knowledge and attitude towards mental illness among undergraduate students. **Methodology:** A cross-sectional study was conducted among 135 undergraduate students at selected degree college in Mangaluru, Karnataka. Participants were selected using simple random sampling (lottery method). Data were collected using a semi-structured questionnaire. **Results:** Among the participants, 63% had an average and 37% a high level of knowledge about mental illness. Positive attitudes were noted in Separatism (55.6%), Restrictiveness (51.1%), Pessimistic Prediction (54.8%), and Stigmatization (69.6%), while negative attitudes predominated in Stereotyping (65.2%) and Benevolence (56.3%). Knowledge level was significantly associated with stereotyping, restrictiveness, benevolence, and pessimistic prediction ($p \leq 0.010$). Religion, type of family, and residence were significantly associated with knowledge ($p \leq 0.010$), while gender, religion, and residence were significantly associated with specific attitude subscales ($p \leq 0.026$). **Conclusion:** The findings highlight the need for early mental health education to enhance knowledge and foster positive attitudes, enabling young people to respond to mental health challenges with empathy and compassion.

Keywords: Knowledge, Attitude, Mental Illness, Undergraduate students, Stigma and discrimination.

Introduction

According to the World Health Organization (WHO), mental health is a state of well-being in which an individual realizes their potential, can cope with normal stresses of life, work productively, and contribute to the community [1]. Mental health literacy, defined as the knowledge, beliefs, and attitudes about mental disorders that aid in their recognition, management, and prevention, plays a key role in shaping public perceptions and behaviours [2]. Lower mental health literacy, compared to physical health literacy, contributes to stigma, discrimination, and reluctance to seek help [3].

Globally, more than 450 million people live with mental or behavioural disorders, yet a large proportion especially in low and middle-income countries remain untreated due to low community awareness, stigma, and limited access to services [4]. Mental illness is one of the most stigmatized conditions, with individuals often labelled, stereotyped, and discriminated against [5–7]. Negative attitudes, often rooted in misinformation (such as linking mental illness with violence) [7], lead to social exclusion, reduced quality of life, and hindered recovery [8–10].

Despite technological advancements, few studies in India have examined public attitudes and mental health literacy, particularly among youth [3]. This is concerning, as young people although more exposed to information via media often hold negative stereotypes, with over 70% perceiving individuals with mental illness as dangerous, violent, or unpredictable [11–14]. Given that attitudes formed during youth can persist into adulthood [15], early education on mental health is critical to reduce stigma and foster inclusion.

The present study was undertaken to assess the knowledge and attitudes towards mental illness among undergraduate students, and to explore their association with socio-demographic variables.

Objectives:

1. To assess the knowledge and attitudes towards mental illness among undergraduate students.
2. To examine the relationship between knowledge and attitudes towards mental illness.
3. To determine the association between knowledge and attitudes and selected socio-demographic variables.

Research Methodology

A descriptive cross-sectional study was conducted among first-year undergraduate students from non-science streams at a selected degree college in Mangaluru, Karnataka. A sample of 135 students aged above 18 years was selected using simple random sampling (lottery method).

Data Collection Tools: The questionnaire comprised three sections:

1. **Socio-demographic profile.**
2. **Knowledge assessment** – a self-structured, validated questionnaire with eight items assessing basic knowledge of mental illness.
3. **Attitude assessment** – the *Attitude Scale for Mental Illness* (ASMI), a validated self-report tool with 34 items across six subscales: Separatism, Stereotyping, Restrictiveness, Benevolence, Pessimistic Prediction, and Stigmatization. Responses were recorded on a 5-point Likert scale (1 = totally disagree to 5 = totally agree).

Data Collection Procedure: The study objectives were explained, an information sheet was provided, and written informed consent was obtained. Anonymity and confidentiality were maintained. Questionnaires were administered to consenting participants, and incomplete responses were excluded from analysis.

Statistical Analysis: Descriptive statistics (frequency, percentage, and 95% confidence intervals) summarized knowledge and attitude scores. Associations between knowledge, attitude, and socio-demographic variables were examined using the Chi-square test, with $p < 0.05$ considered statistically significant.

Results

Table 1 Socio –demographic details

Variables	Classification	Frequency(n)	Percentage
Gender	Male	60	44.4
	Female	75	55.6
Age in years	18	17	12.6
	19	23	17
	20	73	54.1
	21	19	14.1
	22	3	2.2
Religion	Muslim	61	45
	Christian	40	30
	Hindu	34	25
Fathers Education	Upto10 th	18	13.3
	PUC	34	25.2
	Degree	61	45.2
	PG and above	22	16.3
Mothers Education	Upto10 th	10	7.4
	PUC	34	25.2
	Degree	44	32.6
	PG and above	47	34.8
Type of family	Nuclear	100	74
	Joint	35	26
	Urban	68	50

Place of Residence	Rural	67	50
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Of the 135 participants, 56% were female and 44% male. The majority (54.1%) were aged 20 years, followed by 19 years (17%), 21 years (14.1%), 18 years (12.6%), and 22 years (2.2%). The mean age was 19.76 years.

Religious distribution showed 45% Muslim, 30% Christian, and 25% Hindu participants. Fathers' education levels included degree (45.2%), PUC (25.2%), PG and above (16.3%), and up to 10th (13.3%). Mothers' education levels were PG and above (34.8%), degree (32.6%), PUC (25.2%), and up to 10th (7.4%).

Most participants (74%) belonged to nuclear families, while 26% were from joint families. Rural and urban representation was equal at 50% each.

Table 2: Basic knowledge regarding mental illness among the participants 135

Knowledge questions	Yes	No n (%)
Are mental illness legal medical illness?	126(93.3%)	9(6.7%)
Does contact with patients with mental illness lead to strange behaviour?	16(11.9%)	119(88.1%)
Do you think recovered patients with mental illness are employed productively?	22(16.3%)	113(83.7%)
Does the risk of mental illness increase in people who?		
a) Have less sexual desire	12(8.9%)	123(91.1%)
b) Have a busy and hectic life style	75(55.6%)	60(44.4%)
c) Frequently complain of tiredness	35(25.9%)	100(74.1%)
d) Have a failed romantic relationship	93(68.9%)	42(31.1%)
e) Have a traumatic childhood	126(93.3%)	9(6.7%)
f) Have a lot of tension	129(95.6%)	6(4.4%)
Do you think older people less prone to mental illness?	9(6.7%)	126(93.3%)
Do you think children do not suffer from mental illness?	6(4.4%)	129(95.6%)
Do you think women are less prone for mental illness?	6(4.4%)	129(95.6%)
Mental illness is due to:		
a) Heredity factors	127(94.1%)	8(5.9%)
b) Social circumstances	127(94.1%)	8(5.9%)

c) Poor nutrition	8(5.9%)	127(94.1%)
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The findings show that most participants (93.3%, n=126) recognized mental illness as a legitimate medical condition, while 6.7% (n=9) disagreed. A majority (88.1%, n=119) did not believe people in contact with patients behave strangely, though 11.9% (n=16) thought otherwise.

Regarding employability, 83.7% (n=113) felt recovered patients are not employed productively, while 16.3% (n=22) believed they are. Most participants did not consider decreased sexual desire (91.1%, n=123) or frequent tiredness (74.1%, n=100) as risk factors. However, they identified a busy lifestyle (55.6%, n=75), failed romantic relationships (68.9%, n=93), traumatic childhood (93.3%, n=126), and high tension (95.6%, n=129) as potential risk factors.

Almost all rejected the notion that older people (93.3%, n=126), children (95.6%, n=129), or women (95.6%, n=129) are less prone to mental illness. Furthermore, 94.1% (n=127) identified hereditary factors and social circumstances as causes, while 5.9% (n=8) did not. When asked if poor nutrition leads to mental illness, 94.1% (n=127) said it does not, while 5.9% (n=8) believed it does.

The mean knowledge score was 20.34. Participants scoring below the mean (<20) were classified as having average knowledge, and those above the mean (21–26) as having high knowledge. Most participants (63%) had average knowledge, while 37% demonstrated high knowledge of mental illnesses.

Table 3: Attitude of the participants towards people with mental illness as measured on Attitude Scale for Mental Illness (ASMI) n=135

Sub classes of attitude	Positive Attitude	Negative Attitude	Mean value	Standard deviation
Separatism	75(55.6%)	60(44.4%)	22.12	5.084
Stereotyping	47(34.8%)	88(65.2%)	9.86	3.492
Restrictiveness	69(51.1%)	66(48.9%)	9.01	3.376
Benevolence	59(43.7%)	76(56.3%)	24.86	6.928
Pessimistic Prediction	74(54.8%)	61(45.2%)	9.92	4.034
Stigmatization	94(69.6%)	41(30.4%)	5.79	3.062

Legend: In Separatism, cut-off value = 22.12; In Stereotyping, cut-off value = 9.86; In Restrictiveness, cut-off value = 9.0; In Benevolence, cut-off value = 24.86; In Pessimistic Prediction, cut-off value = 9.92; In Stigmatization, cut-off value = 5.79

The table summarizes participants' attitudes towards people with mental illness across subscales. In Separatism, 55.6% (n=75) showed a positive attitude and 44.4% (n=60) a negative attitude. In Stereotyping, 65.2% (n=88) had a negative attitude and 34.8% (n=47) a positive attitude. In Restrictiveness, 51.1% (n=69) were positive and 48.9%

(n=66) negative. In Benevolence, 56.3% (n=76) showed a negative attitude and 43.7% (n=59) a positive attitude. For Pessimistic Prediction, 54.8% (n=74) were positive and 45.2% (n=61) negative. In Stigmatization, 69.6% (n=94) had a positive attitude and 30.4% (n=41) negative. Overall, positive attitudes predominated in Separatism, Restrictiveness, Pessimistic Prediction, and Stigmatization, while negative attitudes were more common in Stereotyping and Benevolence.

Mean ($\pm$ SD) scores were: Separatism – 22.12 ± 5.084 ; Stereotyping – 9.86 ± 3.492 ; Restrictiveness – 9.01 ± 3.376 ; Benevolence – 24.86 ± 6.928 ; Pessimistic Prediction – 9.92 ± 4.034 ; Stigmatization – 5.79 ± 3.062 .

Table 4 Statistical comparison of attitude score with knowledge score n=135

Sub scales of attitude	Chi square value	P value	Interpretation
Separatism	0.192 ^a	0.661	NS
Stereotyping	18.810 ^a	0.001	Significant
Restrictiveness	13.867 ^a	0.001	Significant
Benevolence	6.597 ^a	0.010	Significant
Pessimistic prediction	16.689 ^a	0.001	Significant
Stigmatization	1.524 ^a	0.217	NS

Table 4 presents a statistical analysis comparing participants' knowledge levels with their attitudes toward mental illness. The findings indicate significant associations across the measured attitude subscales: Stereotyping: $p = 0.001$, Restrictiveness: $p = 0.001$, Benevolence: $p = 0.010$, Pessimistic Prediction: $p = 0.001$. These p-values suggest that higher levels of knowledge about mental illness are significantly correlated with more positive attitudes across these domains. The subscale separatism and stigmatization is not significantly associated with knowledge towards mental illness.

Table 5 Statistical comparison of level of knowledge regarding mental illness with socio-demographic variables n=135

Variables	Socio demographic variables	Chi square value	p value
Knowledge regarding Mental illness	Age	6.366 ^a	0.173
	Gender	1.836 ^a	0.175
	Religion	9.184 ^a	0.010
	Type of family	10.488 ^a	0.001
	Residence	6.560 ^a	0.010

Table 5 examines the relationship between various socio-demographic variables specifically age, gender, religion, type of family, and type of residence and participants' levels of knowledge. The findings indicate that a. religion $p = 0.010$, Type of family p -value of 0.001 and Type of residence p -value of 0.010 significantly associate with the knowledge levels. Conversely, variables like age and gender did not exhibit significant associations with knowledge levels, as their p -values exceeded 0.05.

Discussion:

Knowledge towards mental illness

In this study, **63%** of participants demonstrated an average level of knowledge about mental illnesses, while only **37%** exhibited a high level of knowledge. A substantial majority—**93.3%** ($n = 126$)—recognized mental illnesses as legitimate medical conditions, with only **6.7%** ($n = 9$) expressing contrary views. When asked whether those in contact with individuals with mental illnesses would behave unusually, **88.1%** ($n = 119$) disagreed, whereas **11.9%** ($n = 16$) agreed. Additionally, **83.7%** ($n = 113$) believed that individuals who have recovered from mental illness are not productively employed, compared to **16.3%** ($n = 22$) who believed otherwise.

A similar study among medical undergraduates in Karnataka by Aruna et al. observed substantial knowledge deficits. Notably, only **31.9%** of first-year undergraduates provided factually accurate responses; a large proportion either held misconceptions or expressed uncertainty¹⁶.

In a study led by Wahl et al. focusing on middle school students in the U.S., knowledge about mental illness was found to be inconsistent, with critical gaps particularly around specific symptoms. Specifically, **65%** of these students were uncertain whether mental illness has a biological cause, and only **37%** believed that medication is effective for treatment¹⁷. Moreover, Puspitasari et al. conducted a cross-sectional study and reported that **50.35%** of students possessed good knowledge about mental health disorders, while **49.65%** had poor knowledge¹⁸.

The present study evaluated participants' attitudes using the Attitude Scale for Mental Illness (ASMI). The majority held positive attitudes in the domains of **separatism** (55.6%), **restrictiveness** (51.1%), **pessimistic prediction** (54.8%), and **stigmatization** (69.6%). Conversely, most participants displayed negative attitudes in **stereotyping** (65.2%) and **benevolence** (56.3%). Mean scores ($\pm$ SD) across subscales were as follows:

Similar study conducted by Puspitasari et al. (2020) found that **52.46%** of students held positive attitudes toward mental disorders, though many continued to harbor negative perceptions when approaching individuals with mental illness¹⁸. Similar study **Wahl et al.** similarly reported generally positive attitudes among students, albeit with substantial pockets of unfavorable views and reluctance toward close social engagement with individuals with mental illness¹⁷. **Sreeraj et al.** observed among nursing students higher mean scores in **stereotyping** (3.1 ± 0.8), **benevolence** (3.7 ± 0.6), and **pessimistic prediction** (3.4 ± 0.9), with comparatively lower scores in **separatism**, **restrictiveness**, and **stigmatization**. This pattern suggests students were more stereotypical and pessimistic but less stigmatizing and more open to social involvement¹⁹. **Poreddi et al.** compared medical and nursing undergraduates in India. Nursing students exhibited more positive attitudes in benevolence and lower pessimism, whereas medical students had more favorable attitudes in separatism and stigmatization domains²⁰.

In our study The statistical comparison of attitude score with the knowledge score reveals that, the subscales of the attitude like stereotyping ($p=0.001$), restrictiveness ($p=0.001$), benevolence ($p=0.010$) and pessimistic prediction ($p=0.001$) are significantly associated with the level of knowledge towards mental illness by showing the P value <0.05 . But no association was found among stereotyping subscale($p=0.661$) and stigmatization subscales($p=0.217$) with knowledge.

- **Puspitasari et al.** found significant positive correlations between perceptions and attitudes ($r = 0.56$; $p < 0.01$), as well as between knowledge and attitudes ($r = 0.24$; $p < 0.01$), reinforcing the association between higher knowledge levels and more positive attitudes¹⁸.

Conclusion

From the results, it is clear that most of the participants have average knowledge and only few of them possess good knowledge regarding mental illness. So, it's important to provide students with education about mental illness so that they can gain a better understanding of it and interact with individuals who have mental illness just like they do with anyone else. A comparatively positive attitude can be seen among the participants towards people with mental illness which is expected to improve overtime.

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