

## Research report

# ATTITUDE TOWARDS MENTAL ILLNESS AMONG DOCTORS WORKING IN A TERTIARY CARE CENTRE: A CROSS-SECTIONAL STUDY

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### Abstract

**Background:** Stigma towards mental illness can limit patients from seeking help at the right time. Considering the disproportionate workforce of psychiatrists among the Indian population, a person needing psychiatric care may be first seen by a physician. This study assesses the attitude of doctors because they play a vital role in the pathway to the care of a psychiatric patient. **Methods:** It is a cross-sectional analytical study conducted in MOSC Medical College, Kolenchery, including all doctors, except those specialized in psychiatry. A semi-structured questionnaire and a 34-item Attitude Scale for Mental Illness (ASMI) were employed for assessing the attitude. Attitudes were studied using the independent sample t-test and Mann-Whitney U test. **Results:** Out of 188 doctors consisting of 152 (80.8%) clinicians and 36 (19.2%) non-clinicians, the majority had more than ten years of experience. The mean attitude score was 73.55 [Standard Deviation (SD) = 13.78] with 119 (63%) having negative attitude. The average attitude of clinicians was 72.48 (SD = 12.36) and non-clinicians was 78.02 (SD = 18.17), which did not show statistically significant difference ( $p = 0.086$ ). Non-clinicians were found to show more separatism ( $p = 0.05$ ). There was no statistically significant difference in attitude when gender and experience were considered. **Conclusion:** The study shows negative attitude of doctors, clinicians and non-clinicians alike, towards mental illness. This may be, in part, due to limited exposure to individuals with mental illness during undergraduate training. This study highlights the need to broaden undergraduate curriculum to include more exposure to mental illness.

**Keywords:** Attitude, doctors, mental illness, Psychiatry

### INTRODUCTION

According to the World Health Organization, health is not merely the absence of disease or infirmity, but a state of complete physical, mental and social well-being.<sup>1</sup> Mental health, however, has an additional challenge — stigma. More so than not, it is this stigma, sometimes more than the illness itself, that deprives them

from leading a good quality life.

Stigma can be defined as stereotypes or negative views attributed to a person or groups of people when their characteristics or behavior are viewed as different or inferior to social norms.<sup>2</sup> It was seen that schizophrenia, eating

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disorders, drug addiction had the greatest degree of stigmatizing views.<sup>3</sup> These negative views toward mental illness hinder patients from seeking help and ultimately cripples their recovery.<sup>4</sup> More so if such stigma is seen within the medical community. It was found that anticipated stigma from healthcare providers was a major factor hampering people with mental illness from seeking help.<sup>5,6</sup> It also resulted in strained doctor-patient relationships, early termination of treatment and has also shown to affect patient safety.<sup>5,7,8,9</sup> There are numerous studies assessing the attitude of medical students towards mental illness.<sup>10,11,12,13</sup> However, very limited research has been conducted on the attitude of doctors in India. The stigma surrounding mental illness is well-recognized in the West. On the other hand, there is insufficient data about the same in developing countries, such as India.<sup>14</sup> Out of the few conducted in the Indian setting, most showed a negative response.<sup>3,15,16</sup> This brings to light the need for more research and conclusive evidence about the current scenario among doctors in the country.

It is said that 970 million people in the world (as of 2019) suffer from a mental illness and it constitutes 13% of global burden of disease.<sup>17</sup> The estimated prevalence of mentally ill in India is 5.8%.<sup>18</sup> While the mental health workforce of psychiatrists is only 0.3 per 1,00,000 population.<sup>19</sup> Considering the shortage of psychiatrists in India, a person with a psychiatric illness may be first seen by another physician who then plays the role of educating the patient and family regarding the illness and referring them to a psychiatrist for treatment. It is said that 54% of people with diagnosable mental illnesses are seen in primary care settings.<sup>20</sup> This can be explained by the fact that many psychiatric illnesses initially present as somatic symptoms. For example, depression often presents as loss of appetite, sleep disturbances and general aches and pains. Hence it is necessary for physicians to possess a healthy attitude towards mental illness. Even a

doctor from a non-clinical speciality may face the need to educate a patient and their family, if not in a hospital or clinical setting, then in an informal setting, via friends or family. It is for this reason that we included, not just clinicians but non-clinical doctors as well.

To bring about a change, we must first assess the attitude towards mental illness. The present study, of cross-sectional design, accomplishes this with the help of a pre-validated questionnaire – Attitude Scale for Mental Illness (ASMI). This is a concise tool that can be completed quickly by doctors, even during their busy schedules. Studies have found that there exists a strong negative public attitude towards mental illness which can be influenced and bettered by doctors.<sup>21</sup> Hence, this study focuses on the attitude of doctors not only because of the scarcity of information regarding the same but also because they play a vital role in the pathway to care and thereby the overall well-being of a psychiatric patient.

It is a widely known, and well-documented fact that there is a negative attitude associated with mental illness in the West, but there is inadequate data regarding the same in developing countries such as India.<sup>14</sup> Studies show that this negative attitude impedes the recovery of mentally ill and poses significant concern. The perceived stigma towards mental illness among doctors can hold people back from getting medical help and also stopping treatment the few times they actually do.<sup>4,5,6,7</sup>

In a study conducted in London, negative attitude was identified towards certain illnesses such as schizophrenia and personality disorders, and it was found that this is likely to contribute to the physical health disparity between patients with and without mental illness.<sup>22</sup> In a study conducted in Croatia, it was concluded that it was knowledge and not contact that affected the attitude towards mental illness as doctors showed significantly less restrictiveness towards the mentally ill as compared to nurses or the general public.<sup>23</sup> But

there is a lack of awareness regarding the sheer volume of psychiatric patients seen by non-psychiatric clinicians. For example, a recent study found that Japanese non-psychiatric physicians believed that taking care of depression was beyond the scope of their duty.<sup>24</sup> A study conducted in Netherlands observed that the attitude of surgeons was more negative as compared to that of physicians.<sup>25</sup> There are multiple other studies conducted outside India showing a negative attitude of doctors towards mental illness.<sup>26-29</sup>

There exist studies assessing the attitude of medical students towards mental illness in India and also the improvement of the same with psychiatry postings, but the attitude of doctors is rarely studied.<sup>10-14</sup> Out of the few studies, most showed negative response.<sup>3,15,16</sup> In a study conducted on private medical practitioners in Hyderabad, schizophrenia, eating disorders, drug addiction reflected a certain degree of stigmatizing perceptions.<sup>3</sup> The same study also found that female doctors held more stigmatizing opinions towards patients with eating disorders, depression, dementia and drug addiction. Similarly, a study conducted in a private medical college in Pondicherry indicated that only 25% of doctors and 4.9% of nurses showed an overall positive attitude.<sup>15</sup> In a study conducted in Mangalore, it was found that socially restrictive attitudes towards people with mental illness are prevalent among a substantial number of medical professionals and that personal acquaintance with individuals with mental illness was the only factor that reduced this.<sup>16</sup> Contradicting all this data, there are a few studies showing positive attitude of doctors towards psychiatric patients.<sup>30,31,32,33</sup> One such study, conducted in New Delhi, revealed that doctors show positive attitude towards those with alcohol dependence, depression and heroin dependence but had pessimistic views towards schizophrenics.<sup>30</sup>

Keeping these factors in mind, a cross-sectional study was conducted in our tertiary care center

with the aim of assessing the attitude of doctors towards mental illness. The objectives of the study were to evaluate the attitude towards mental illness among doctors and to compare the attitude of doctors from clinical and non-clinical specialties.

## MATERIALS AND METHODS

It is a cross-sectional study conducted in a tertiary care center within a span of 2 months, from May to June 2019. The study was conducted after obtaining clearance from Ethics and Research Committees. All doctors working in the tertiary care center who consented to the study were included, irrespective of their specialization. This included both clinical and non-clinical departments. We excluded doctors working in the Psychiatry department under the argument that our training and experience would have contributed to a positive attitude towards our patients.<sup>34</sup>

Sample size was calculated to be 188 based on the estimation of mean attitude scores (based on a similar study done in Pondicherry<sup>15</sup>) using the formula

$$n = \frac{Z_{1-\alpha/2}^2 \sigma^2}{(\mu d)^2} = \frac{1.96^2 \times 35^2}{25^2 \times 0.2^2} = 188$$

Where,

$\sigma$  - Anticipated Standard deviation

$\mu$  - Anticipated mean

d - Precision

$Z_{1-\alpha/2}^2$  - Statistical table value

## Procedure

After explaining the nature and purpose of the study, written informed consent was taken, and all those who did not consent were excluded. Completed questionnaires were collected and statistical analysis was done on the collected data.

The questionnaire consists of two parts. The first part contains a semi-structured questionnaire on demographic variables including age, sex, designation, department of work and years of experience. The second part contains the ASMI.

Table 1– Demographic variables of doctors working in a tertiary care center

Demographic variables	Frequency (%) (N = 188)
Age in years (mean ± SD)	42.4 ± 12
<i>Gender</i>	
Females	94 (50.0)
Males	94 (50.0)
<i>Marital status</i>	
Married	157 (83.5)
Single	31 (16.5)
<i>Field of work</i>	
Clinical	152 (80.8)
Non- Clinical	36 (19.2)
<i>Designation</i>	
Junior Residents	7 (3.7)
PG Students	30 (16.0)
Senior Residents	20 (10.6)
Assistant Professor	60 (31.1)
Associate Professor	17 (9.0)
Additional Professor	5 (2.6)
Professors	49 (26.0)
<i>Years of experience</i>	
< 10 years	79 (42.0)
> 10 years	109 (58.0)
<i>Mental illness in friends/family</i>	
Yes	60 (32.0)
No	128 (68.0)

### ASMI

It is a modified version of the OMICC (Opinion About Mental Illness in Chinese Community) scale developed by Ng and Chan (2000). ASMI is a valid and reliable self-report that measures respondents' attitude to mental illness. Individual items with weak correlations were eliminated, leaving 33 items for analysis (Cronbach's Alpha = 0.866).<sup>35</sup> Using factor analysis, six factors were identified. These include: Benevolence, Separatism, Stereotyping, Restrictiveness, Pessimistic prediction and Stigmatization.

- Benevolence (8 items) — items to measure kindness towards people with mental illness.
- Separatism (10 items) — items to assess the respondent's attitude on discrimination.

- Stereotyping (4 items) — items that evaluate the over-generalization of people with mental illness to particular behavioral patterns and mannerisms.
- Restrictiveness (4 items) — items to gauge the questionable views on the rights of people with mental illness.
- Pessimistic prediction (4 items) — items to analyze the level of prejudice towards the mentally ill.
- Stigmatisation (4 items) — items to measure the discriminatory behavior towards the mentally ill.

Each item is scored on a 5-point Likert scale — strongly disagree, disagree, uncertain, agree and strongly agree. The score 1 and 2 for each is considered positive and 3, 4 and 5 is negative (except items for benevolence, where it is reversed). A score of 68 or less is considered positive and a score greater than 68 is considered negative. When individual domains are considered, a score greater than 8 is taken as negative for stereotyping, restrictiveness, pessimistic prediction and stigmatization, while a score greater than 20 and 16 is considered negative for separatism and benevolence respectively.<sup>15</sup>

### Statistical Analysis

All categorical variables such as attitude were summarized using frequency and percentage. Continuous variables were summarized using mean and standard deviation, if data followed normality, else, median and IQR were used. The difference between the attitude scores of clinicians and non-clinicians was studied using the independent sample t-test when the data were normally distributed, and if not, Mann-Whitney *U* test was used. The difference between attitude scores with respect to gender and experience was studied using the independent sample t-test (total score) and Mann-Whitney *U* test (domain scores). A *P* value of <0.05 was considered statistically significant and statistical analysis was performed using R software after entering the data into Microsoft Excel.

## Ethical Considerations

The protocol was approved by Ethics and Research Committee (Protocol number: MOSC/IEC/341/2019). Confidentiality was ensured by allotting subject identification numbers for each participant for maintaining anonymity. Written informed consent was obtained from the participants.

## RESULTS

### Descriptive Statistics

The total sample size studied comprised 188 doctors, out of which, 152 (80.8%) were clinicians and 36 (19.2%) were non-clinicians (anatomy, biochemistry, physiology, microbiology, pharmacology, pathology, forensic science and community medicine). The rest of the data is summarized in Table 1.

### Attitude Towards Mental Illness Among Doctors

We estimated the mean and standard deviation (SD) of attitude scores as the total scores were normally distributed. The mean attitude score is 73.55 (13.78). We also categorized attitude scores into two: positive (34 – 68) and negative (68 – 170). 119 (63%) doctors had a negative attitude, while only 69 (37%) had a positive attitude towards mental illness. We also calculated the scores for each domain (see Table 2).

### Comparison of Attitudes of Clinical and Non-Clinical Specialty Doctors

We have performed the independent sample t-test to check for any significant difference in the attitude scores between doctors of clinical and non-clinical specialties. The mean attitude score of clinicians was found to be 72.48 (SD =12.36) and that of non-clinicians was found to be 78.02 (SD = 18.17). There was a 6-unit difference in the mean attitude scores between these two groups, which was not statistically significant ( $p = 0.086$ ). A comparison of attitude scores between both genders and different

levels of experience was also done. Total scores were compared using the independent sample t-test while scores of each domain were compared using the Mann-Whitney  $U$  test. It was found that there is no statistically significant difference between the attitudes of the two groups (see Table 3).

There was no statistically significant difference ( $U$ -value = 3871,  $P$ -value = 0.14) between the median score for separatism among males which was 23 (IQR = 18, 26) and among females which was 24 (IQR = 20, 18). Both genders showed similar results under stereotyping with a median of 9 (IQR = 7,11), pessimistic prediction with a median of 13 (IQR =11,15) and stigmatization 6 (IQR = 5,8), which were not found to be statistically significant ( $U$  value = 4281,  $P$  value = 0.71;  $U$  value = 4416,  $P$  value = 0.99;  $U$  value = 4290,  $P$  value = 0.73 respectively). Both genders showed almost similar scores in restrictiveness with a median of 8 (IQR = 6,9) among males and 8 (IQR = 5,10) among females, which was not found to be statistically significant ( $U$  value = 4385,  $P$  value = 0.93). They also scored similarly under benevolence with a median of 13.5 (IQR = 10,16) among males and 13 (IQR = 11,16) among females which was also not found to be statistically significant ( $U$  value = 4336,  $P$  value = 0.82).

When the comparison of attitude scores between different levels of experience was assessed under the 6 domains, all 6 were found

Table 2: Distribution of positive attitude scores of each domain on the ASMI among doctors

Domains	Positive score	Number (%)
Separatism	10-20	57 (30.3)
Stereotyping	4-8	76 (40.4)
Restrictiveness	4-8	130 (69.1)
Benevolence	8-16	161 (85.6)
Pessimistic prediction	4-8	19 (10.1)
Stigmatization	4-8	156 (82.9)

Table 3: Comparison of total ASMI attitude scores between specialties, gender and years of experience among doctors

Groups	n	Mean (SD)	t-value (df=1)	P value
Clinicians	152	72.48 (12.36)	-1.76	0.086
Non-clinicians	36	78.08 (18.17)		
Males	94	72.68 (12.99)	-0.87	0.39
Female	94	74.43 (14.55)		
<10 years	79	72.76 (11.22)	-0.71	0.48
>10 years	109	74.13 (15.40)		

SD - Standard deviation, *df* - degree of freedom

to be of no statistical significance. Both groups scored almost similarly under separatism with a median of 24 (IQR = 21,26) among those with an experience of <10 years and 23 (IQR = 18.5,28) among those with an experience of >10 years. Both the groups showed similar results under stereotyping with a median of 9 (IQR = 7,11) among those with less experience and 9 (IQR = 7,12) among those with more experience (*U* value = 3937, *P* value = 0.31). The groups showed the same results under restrictiveness with a median of 8 (IQR = 6,9) among those with less experience and 8 (IQR = 6,10) among those with more experience (*U* value = 4080, *P* value = 0.54). The median score for benevolence was 13 (IQR = 10,15) among those with less experience and 13 (IQR = 11,16) among those with more experience (*U* value = 4153, *P* value = 0.68). When pessimistic prediction was assessed, the median score was 13 (IQR = 10,15) among those with less experience and 13 (IQR = 11,15) among those with more experience (*U* value = 4176, *P* value = 0.72). Both the groups scored very similarly under stigmatization with a median of 6 (IQR = 5,8). This was not found to be statistically significant (*U* value = 3961, *P* value = 0.34).

The scores of the two groups under each

domain was compared. Independent sample *t*-test was used for separatism and pessimistic prediction while Mann Whitney *U* test was used for the rest (stereotyping, restrictiveness, benevolence and stigmatization), based on whether the data were normally distributed or not. Out of the six domains compared, there was a difference of almost 3 units in the mean scores for separatism between the two groups. This was found to be just short of being statistically significant (*P* value = 0.05). There was no significant difference in scores in the other domains (see Table 4).

## DISCUSSION

In this study, we have assessed the attitude of doctors towards mental illness in a tertiary care center and the data shows that approximately 2/3 of the participants had a negative attitude. This may be, to a certain extent, due to the limited training and exposure to psychiatric illnesses during undergraduate education. A study conducted in Croatia, concluded that it was knowledge and not contact that affected the attitude towards mental illness, as doctors showed significantly less restrictiveness towards the mentally ill as compared to nurses or the general public.<sup>23</sup> When compared to the general population, medical and other paramedical professionals are expected to have a more scientific approach and attitude to illnesses, which they acquire through their medical training. Hence, the problem could be with our undergraduate curriculum which prescribes only a short period of psychiatric training.

There exist multiple studies that show an improvement in the attitude of medical students in India towards mental illness with more psychiatry postings.<sup>10-14</sup> This brings to light, the need to broaden the undergraduate program to include more experience and training in psychiatry.

The study also compared the attitude scores of doctors in clinical and non-clinical specialties. Even though there was no difference in the

Table 4: Comparison of attitude scores of each domain between clinicians and non-clinicians

Attitude score	Clinicians	Non-clinicians	Test performed ( <i>df</i> = 1)	P-value
†Separatism	23.03 (5.53)	25.67 (7.35)	Independent sample t-test	0.05*
§Stereotyping	9 (7,11)	10 (9,12.75)	Mann Whitney U-test	0.82
§Restrictiveness	8 (6,9)	8 (6.25,10)	Mann Whitney U-test	0.54
§Benevolence	13 (10.25,16)	14 (10.25,16)	Mann Whitney U-test	0.27
†Pessimistic Prediction	13 (3,2)	12 (3.18)	Independent sample t-test	0.13
§Stigmatization	6 (5,8)	6 (5,8)	Mann Whitney U-test	0.902

\* - P value = 0.05, † - mean (SD), § - Median (IQR)

overall attitude scores of clinicians and non-clinicians, the latter is revealed to show more separatism than the former. That is, non-clinicians may discriminate against those with mental illness - more than clinicians. This could be due to the limited patient contact and interaction they are exposed to on a day-to-day basis in hospital settings. The study findings highlight the need to create awareness about mental illness among doctors in the form of workshops and seminars.

A study conducted on private medical practitioners in Hyderabad found that female doctors held more stigmatizing opinions towards patients with eating disorders, depression, dementia and drug addiction.<sup>3</sup> However, contrary to such belief, gender and experience showed no significant difference in attitude scores. This shows that experience (outside psychiatry) does not play a significant role in attitude but maybe knowledge of the subject does. Also, a study in Mangalore found that personal acquaintance with the mentally ill was the only factor that reduced socially restrictive attitudes towards those with mental illness.<sup>16</sup>

The limitations of this study are - firstly, the questionnaire grouped together the different types of psychiatric illnesses into a single term - 'mental illness'. Secondly, for each statement only points 1 and 2 were considered positive. This might have led to the overestimation of the negative attitude.

## CONCLUSION

This study reveals that the majority of doctors in a tertiary care center show a negative

attitude towards mental illness. This emphasizes the need to incorporate more training in psychiatry during undergraduate education, in addition to creating awareness among doctors. Furthermore, the study also showed that, even though the total attitude scores were more or less the same, non-clinicians show more separatism towards mentally ill, when compared to clinicians. The findings also revealed that experience and gender show no significant difference in attitude.

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