ORIGINAL ARTICLE

STIGMA OF MENTAL ILLNESS IN MEDICAL STUDENTS

ANUM HAIDER, RAZA UR REHMAN, ZOOBIA RAMAZAN, M. SHAFI MANSURI, RAHAT USMAN
Dow Medical college, Dow University of Health Sciences Karachi

CORRESPONDENCE: DR. ANUM HAIDER, E-mail: anum.haider@duhs.edu.pk

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ABSTRACT

OBJECTIVE
To determine the levels of stigma related to public (perceived public stigma) and Self (personal stigma) for mental illness among medical students.

STUDY DESIGN
Cross sectional study

PLACE AND DURATION OF THE STUDY
Dow Medical college, Dow University of Health Sciences Karachi, during Jan- April 2015

SUBJECTS AND METHOD
Total 300 subjects, 150 from 4th year and 150 from 5th year were selected through Consecutive sampling. Data was collected by principal investigator in classroom after brief presentation for filling up the questionnaire (The perceived public stigma scale and The personal stigma scale) and semi-structured Proforma including the demographica details of the subject and stigma scores.

RESULTS
A total of 300 medical students were participated in the study. The mean levels of Perceived public sigma and Personal stigma were calculated to be 35.73 ± 8.9 and 9.0 ± 3.68 respectively. (p= <0.001).

CONCLUSION
This study has found significant stigma levels in medical students. The mean perceived public stigma level is found to be higher than personal stigma level in this population that indicates they have an inflated view about public's stigmatizing attitude towards mental illness.

KEY WORDS
Mental illness, Discrimination-Devaluation scale, Perceived public stigma, Personal stigma.

INTRODUCTION

The Stigma comprised of negative views, behaviours and attitudes on the basis of certain attributes of an individual such as mental disorder, ethnicity, drug misuse or physical disability. It is comprised on three main elements: Stereotypes, prejudice and discrimination.[1-5]

The widespread studies have found mental illness to be the most stigmatizing all over the world .The most negative responses are found to be with Schizophrenia, mania, alcohol and drug addiction, for perceived dangerousness, unpredictability, character weakness and incurability of such patients.[1,6-9] Unfortunately health professional's concepts about mental illness are almost alike of lay persons.[7-8,10]

Various factors contribute to the development and maintenance of stigma include cultural, religious, historical, spiritual, ethnic and familial, that expound the delay in approaching mental health services.[2,4,6-8,11,12]

Lifetime mental disorders have their onset in young age in approximately 75% of cases and develop negative psychosocial consequences not only in persons suffering from mental illness but also in their families and communities as well in terms of social withdrawal, reduced self esteem, lack of productivity, poor education, employment, housing.[1-3,6]

Studying mental illness stigma in medical students is preferable than general population because of their less chances of error in understanding medical terminology and concepts of illness.[7] It is therefore very important to address this youth population to destigmatise the society.[1,9]

The aim of this study is to determine the mean perceived public stigma and personal stigma levels related to mental illness in medical students in Karachi Pakistan. In comparison to western countries less work done in Pakistan pertinent to this area.[7]

Previous western study measured, 2.82±0.66 and 1.90± 0.64 as the mean levels of perceived public stigma and personal stigma respectively.[6] Each type of stigma has its role in contributing to barrier in help seeking and adversely affecting the sufferer's life.[13] In Pakistan there is a high demand of young updated Psychiatrists because of their limited number and increasing rate of mental health problems due to economical, political and psychosocial adversities and high rate of crime and terrorism.[1,10,14] In this scenario, medical students can play a crucial role if their negative attitude towards psychiatry and people with mental illness would get change. It may also change their perceptions about their own mental health problems that they face during their tough years of medical education and increase their acceptability to receive appropriate care from mental health services.

OPERATIONAL DEFINITIONS:

MENTAL ILLNESS:

It is defined as any problem of mind, characterized by alteration in mood (e.g. feeling sad, irritable or anxious) thinking (e.g. suspiciousness, hopelessness or suicidal ideations) or behavior (e.g. self-harm, social withdrawal or aggression) and associated with distress or impaired functioning (e.g. lack of personal care or poor work performance).

PERCEIVED PUBLIC STIGMA FOR MENTAL ILLNESS

It is defined as a perception of an individual for public (other members of society) about holding discriminatory attitudes towards people with mental illness (e.g. persons with mental illness are not trustworthy, not as intelligent as normal person or considered as a last priority for availing job) and blocking their access to employment, educational opportunities, health care or housing. In this study, It is operationally defined as score on self-administered perceived public stigma scale. Higher scores correspond to a higher perceived stigma.

PERSONAL STIGMA FOR MENTAL ILLNESS

It is defined as the person's own cognitive phenomenon, negative affects and behavioural acts towards people with mental illness (e.g. person with mental illness or who received treatment for mental illness is not acceptable as a close friend or a trustworthy citizen). In this study, It is operationally defined as score on self-administered personal stigma scale. This is derived from adapted D-D scale by taking its 4-items and replacing 'most people' with 'I'. Higher scores correspond to a higher personal stigma

MATERIAL AND METHOD

The study was conducted in Medical students of Dow medical college, Dow University of Health Sciences Karachi during Jan- April 2015.The Students of 4th and 5th year were approached. By using WHO sample size calculator, taking mean ± standard deviation of perceived public stigma (2.82 ± 0.66)6, margin of error (d = 0.33) and confidence interval 95%, the estimated sample size was at least, n = 300.All students who were present on the day of visit were included in the study and those who were unwilling or absent on that day were excluded. Total 300medical students , 150 from each academic year were enrolled in the study to fill up the questionnaire (The perceived public stigma and personal stigma scale) and proforma (demographic detail and stigma scores).

DATA COLLECTION PROCEDURE

The approval from the head of institute was obtained prior to commencement of data collection. All willing participants by their consent or agreement were approached. After brief introduction and assuring the confidentiality of information, questionnaires were distributed to fill up and return hand to hand. The students were approached in their respective class rooms after brief presentation of the principle investigator.

The study questionnaire has been adapted after taking written permission from Lally J et al (2013).It is the adaptation of the Discrimination-Devaluation scale (D-D)6. It is a self-administered scale divided into two parts, the perceived public stigma scale and personal stigma scale. These are five-point likert type scale, where 0=strongly agree and 5=strongly disagree. Few items are reversely scored, marked with '*' field. Higher scores correspond to a higher stigma level.

DATA ANALYSIS PLAN

All data was entered and analyzed into SPSS version 17.0. Mean and standard deviation (SD) were computed for continuous variables such as age, perceived public stigma score and personal stigma score. Frequency and percentages of categorical variables such as gender and marital status were calculated. Stratification with respect to age, gender, marital status and academic year was done to see the effect of these on outcome variables (i.e. perceived public stigma score and personal stigma score). Post stratification, t-test was applied taken p-value $\leqslant$ 0.05 as a level of significance.

RESULTS

Among total 300 medical students, The mean age was 22.89 ± 0.95yrs, majority of them were females, 246(82%). with single marital status, 289 (96.3%). The perceived public stigma scores were in the range of 10 points to the maximum up to 59 points. The mean level of perceived public stigma was 35.7 ± 8.9. While the personal stigma scores were in the range of 0 to 20 points of the total score. The mean level of personal stigma was 9.0 ± 3.68. There was no statistically significant difference found in comparison of perceived public stigma scores (p =0.1) and personal stigma scores (p =0.96) with gender. However the perceived public stigma score was found to be significantly associated with academic year but it remain statistically insignificant with personal stigma score. According to marital status and age distribution, this study could not found any significant difference due to small distribution in sample size.There were statistically significant difference found between perceived public stigma and personal stigma scores (p=<0.001) when both scores were compared. The both stigma scores (perceived public stigma and personal stigma) were also found to be positively correlated to each other but the difference was statistically insignificant (p=0.26).

Demographic Variables

Variables	Percentage
Age (Mean±SD)	22.8±0.95
Gender	
Male	18%
Female	82%
Marital status	
Married	3.7%
Single	96.3%
Perceived Public Stigma Score	35.7± 8.9 (59.5%)
Personal Stigma Score	9.0 ±3.68 (45%)

Association of Stigma Scores with Gender and Academic Year

Stigma Scores and Gender			
Stigma Type	Gender		p-VALUE
	Male	Female	
Perceived Public Stigma Score	36.1±9.2	33.9±7.27	0.1
Personal Stigma Score	9.01±3.79	9.04±3.67	0.96
Stigma Scores and Academic Year			
	Fourth	Fifth	
Perceived Public Stigma Score	37.1±9.3	34.3±8.4	0.006
Personal Stigma Score	9.3±3.95	8.8±3.4	0.23

Difference and Correlation Between Stigma Scores

Paired Difference	2.66±9.2	< 0.001
Correlation	0.128	0.20

DISCUSSION

Previous work in Pakistan has specified stigma in relation to different types of mental illness and had not focused on the prevalence of different kinds of stigma in this population and its impact on future help seeking behaviour of the sufferer with mental illness and the person who provides care to them as well as the health professional who is going to treat such sufferers. As Imran N[1] in her study on stigmatization of psychiatric illness has observed the attitudes of medical health professionals with respect to seven different mental illnesses; Schizophrenia, Depression, Mania, Anxiety/ Panic attacks, Alcohol addiction, Drug addiction and Dementia. Similar pattern of work can be seen in the studies of Naeem F[10], Javed Z[7] and Yousufzai A[11]. In this study the mental illness has been taken in general and stigma has been specified as perceived public stigma and personal stigma. This study has determined the higher level of perceived public stigma than that of personal stigma. The same finding has been mirrored in other cross-sectional studies[6,15]. This divergence may suggest that students have an inflated view of public stigma and this finding may serve as an opening for future initiatives to focus on reducing levels of perceived public stigma.

Previous studies have found inconclusive effects of gender and education on the prevalence of stigma in medical students. Busby GJ[16] has found higher perceived stigma and personal stigma among females for depression and males for anxiety. A study in India by Mahto RK[17]done in medical students has found in-discriminatory stigmatizing attitude among both male and female gender and has replicated the findings of another study by Muga F.[18] This study has mirrored the same results, however I am not in a position to draw any firm conclusion because it might happened due to already low proportion of male students in both academic years (Fourth year=19%, Fifth year=23%). Some Western studies pertinent to the relation of academic year on the level of stigma have found third year of medical school students to be most associated with stigma towards mental illness and found statistically insignificant difference of Psychiatry rotation in building their beliefs towards mental illness but has also emphasized the role of positive family history of mental illness and cultural factors in formulating such beliefs and attitudes.[18,19] In this study there is statistically significant difference observed in perceived public stigma scores between fourth and fifth year students, It was found to be higher in fourth year medical students. A possible reason for this might be the effect of psychiatric rotation that takes place in fourth year of medical school, It may has role in reducing students personal stigma by teaching to provide better knowledge of Psychiatry (mental illness) with respect to its pathophysiology, treatment and prognosis and as well as by exposing them to Patients with mental illness through visiting them in inpatient and outpatient units and may result in potentiating public stigma by listening to their histories and analysing about overall impact of public attitudes on their lives.Other factors that may be the important correlates of stigma and have been studied in previous studies are; to have someone in acquaintance with mental illness or experiencing mental health problem by oneself. Having a family member with psychiatric illness or becoming familiar to someone with mental illness may reduce the stigma while suffering personally from mental illness may heightened the stigma.[16,18-20]In my study such variables have not explored, that might have created bias in the study results by underestimating or overestimating the stigma scores.Stigma has a strong negative role on seeking help for mental health problems in medical students. Several studies are consistent with this finding.[21-23]In my study the association of stigma with help seeking is not further explored.

Patten SB, et al.[24] work regarding antistigma interventions has found contact-based education by exposing students to patients with mental illness, an effective tool in mitigating stigma. Economou M[25] and Kassam A[26] have emphasized the need to devise consistent antistigma programmes to target knowledge, attitude and behaviour separately.

STRENGTHS OF THE STUDY

- This study will play an important role to elaborate the seriousness of the subject and need for further research work and necessary implementation and to generate national data to compare with international studies to correlate the findings and associating factors.
- The good study population was targeted in terms of sample size and setting of the study.
- The structured and validated instrument was used to collect data.
- The self reported questionnaire was time saving.

LIMITATIONS

- The study findings cannot be generalized to rural medical students.
- Some variables (e.g. any past or current mental health problem or contact with a mentally ill person in acquaintance) were not addressed that might affect study results.
- There were disproportion in male and female sample but this limitation could not addressed because male students were hardly comprised on one fourth of the class population.
- Some terms in the Questionnaire were not culture friendly (e.g. date) that may offend the subject.
- The self reported Questionnaire might not ensure the correct understanding of the subjects and valid scoring.

- The mental illness was not specified in the questionnaire that might affect the participant's response.
- The psychiatry prerotation medical students of first, second and third year were not included in the study otherwise better comparisons would be done.

CLINICAL IMPLICATIONS

- This study will encourage health professionals to improve their own attitude and behavior towards people with mental illness and to update their knowledge of mental illness (Psychiatry).
- In medical school training there should be an integrated biological, psychological and social view of health care among students.
- Media can play a significant role in anti-stigma campaigns by highlighting the positive view point and success stories of patients suffered from mental illness and recovered to be an active and productive members in the community.
- There should be proper training of teachers and staff to teach in a noncritical, non-competitive, stress free and encouraging environment and to early identify and deal with mental health problems in students.
- There should be formal counseling sessions and activities for students to address their concerns and mental health issues.

RESEARCH IMPLICATIONS

- This study is a good start for series of research in this subject like level of stigma in students in other medical universities of Pakistan so that to get better conjugate results and comparison with western countries.
- It will also be forwarded to devise an effective anti-stigma programme according to actual needs of the population.

CONCLUSION

This study has found significant stigma levels in medical students. The mean perceived public stigma level is found to be higher than personal stigma level in this population that indicates they have an inflated view about public's stigmatizing attitude towards mental illness. It may lead to high level of self stigma towards mental illness and might endanger their future help seeking behavior for mental health problems. The consequences of this may be very serious if will not be timely addressed in terms of decline in academic performance as well as formation of health professionals with compromised clinical skills and discriminatory behavior towards patients especially suffering from mental illness.

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Sr.#	Author Name	Affiliation of Author	Contribution	Signature
1	**Anum Haider**	Dow Medical College, DUHS, Karachi	Conception, Literature, search, conduction, analysis and manuscript writing	
2	**Raza ur Rehman**	Dow Medical College, DUHS, Karachi	Analysis and critical review	
3	**Zoobia Ramazan**	Institute of Behavioural Science DUHS	Peer review	
4	**M. Shafi Mansuri**	Dow Medical College, DUHS, Karachi	Peer review	
5	**Rahat Usman**	Institute of Behavioural Science DUHS	Peer review	