□ **ORIGINAL ARTICLE**

**STIGMA OF MENTAL ILLNESS IN MEDICAL STUDENTS**

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# ABSTRACT OBJECTIVE



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

# STUDY DESIGN

Cross sectionalstudy

# PLACE AND DURATION OF THE STUDY

Dow Medical college, Dow University of Health Sciences Karachi, duringJan-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 attitudetowardsmentalillness.

# KEYWORDS

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.'·'·' Unfortunately health professional'sconcepts about mentalillnessarealmost alike of lay persons.'·'·"

Variousfactorscontribute to the development and maintenance of stigma include cultural,religious, historical, spiritual, ethnic and familial, that expound the delay in approaching mental health services.'-'...,·"·"

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.'·'·'

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.' It is therefore very important to address this youth population to destigmatisethesociety.'·'

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 thisarea.'

Previous western study measured, 2.82±0.66 and 1.90± 0.64 as the mean levelsof perceived public stigma and personal stigma respectively.' Each type of stigma has its role in contributing to barrier in help seeking and adversely affecting the sufferer's life." In Pakistan there is a high demand of young updated Psychiatrists because of their limited number and increasing rateof mental health problemsdue to economical, political and psychosocial adversities and high rate of crime and terrorism.'-"·" 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 toughyearsof medical education and increase theiracceptability to receive appropriate care from mental healthservices.

## 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 toa higher personal stigma

## MATERI AL 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.AII 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 upthequestionnaire (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 classrooms after brief presentation of the principle investigator.

The study questionnaire has been adapted after taking written permission from Lally J et al (2013).lt 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 S=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 < 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 singlemarital status, 289 (96.3%). The perceived public stigma scores were in the range of 10 pointsto the maximum upto59 points.The mean level of

perceived public stigma was 35.7 ± 8.9. While the personal stigma

scores were in the range ofO to 20 pointsof 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 otherbut the difference was statistically insignificant (p=0.26).

**Demographic Variables**

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| **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**

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| --- | --- | --- | --- |
| **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**

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| --- | --- | --- |
| 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 lmran N' 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", Javed Z' and Yousufzai A". 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'·". 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" has found higher perceived stigma and personal stigma among females for depression and males for anxiety. A study in India by Mahto RK"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." 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."·" 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."·"·"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."·"In my study the association of stigma with help seeking isnot further explored.

Patten SB, et al." 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"** and Kassam A" 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 theclass 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'sresponse.
  + The psychiatry prerotation medical students offirst, second and third year were not included in the study otherwise better comparisons would bedone.

### CLINICAL IMPLICATIONS

* + This study will encourage health professionals to improve their own attitude and behavior towards people with mental illness andto update their knowledge of mentalillness (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 actualneedsof 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 seriousif will not betimely addressed in terms of decline in academic performance as well as formation of health professionals with compromised clinical skills and discriminatory behavior towards patientsespecially suffering from mentalillness.

### REFERENCES

1. Imran N, Haider I. The stigmatization of psychiatric illness: what attitudes do medical students and family physicians hold towards people with mentalillness.PakJ Med Sci 2007;23(3).
2. Desousa S, Marquis A,CurraIR, Queiros C.Stigmatising attitudes in relatives of people with Schizophrenia: a study using the attribution questionnaire AQ-27. Trends psychiatry psychother 2012;34(4):186-97.
3. Stier A, Hinshaw S. Explicit and implicit stigma against individualswith mentalillness.Aust psychol 2007;42(2):106-17.
4. Ciftci A, Jones N,Corrigan P.Mental health stigma in the muslim community.J Muslim Ment Health 2013;07(1).
5. King M, Dinos S,Shaw J,Watson R, Stevens S,Passetti F, et al.The stigma scale: Development of a standardized measure of the stigma of mentalillness.BrJ Psychiatry 2007;190:248-54.
6. Lally J, Conghaite A, Quigley S, Bainbridge E, Mcdonald C. Stigma of mental illness and help seeking intention in university students.PsychiatrOnline2013;37:253-60.
7. Javed Z, Naeem F, Kingdon D, lrfan M, lzhar N, Ayub M. Attitude of the university students and teachers towards mentally ill in Lahore Pakistan.J Ayub MedColl Abbottabad 2006;18 (3).
8. James B, Omoaregba J, Okogbenin E. Stigmatising attitudes towards persons with mental illness: a survey of medical students and interns from southern Nigeria. Ment Illness 2012;4:e8.
9. Corrigan P, Lurie B, Goldman H,Slopen N, Medasani K, Phelan S. How Adolescents perceive the stigma of mental illness and alcohol abuse. Psychiatr Serv 2005 May;56(5)
10. Naeem F, Ayub M, lzhar N, Javed Z, lrfan M, HaraIF, et al. Stigma and knowledge of depression: a survey comparing medical and non medical students and staff in Lahore Pakistan. Pak JMed Sci 2005 Apr-Jun;21(2):155-58
11. Yousafzai A, Siddiqui M, Bhutto N, Ahmed S, Zaman M. The medical students stigmatizing attitude towards psychiatric label.J Pak Psych Soc 2011 Jul-Dec;8(2).
12. Aina 0, Suleiman F, Oshodi 0, Olorunshola D. Medical students beliefs about treatment and rehabilitation of persons with mental illness. JNeurosci Behav Health 2010 Apr;2(2): 012-17.
13. Brohan E,Slade M, Clement S, Thornicroft G. Experiences of mental illness stigma, prejudice and discrimination: a review of measures. BMC Health Serv Res.2010 Mar25;10(1):1-80.
14. Karim S, Saeed k, Mubbashar MH, Jenkins R. Pakistan mental health country profile. Int Rev Psychiatry.2004 Feb-May;l 6(1- 2):83-92.
15. Pedersen ER, Paves AP. Comparing perceived public stigma and personal stigma of mental health treatment seeking in a young adult sample.Psychiatry Res.2014 Sep30;219(1):143-50.
16. Busby GJ,Bruce CP, Batterham PJ. Predictors of personal,

perceived and self stigma towards anxiety and depression. Epidemiol Psychiatr Sci.2015 Mar20:1-8.

1. Mahto RK,Verma PK,Verma AN,Singh AR,ChaudhuryS,Shantna

K. student's perception about mental illness. Ind Psychiatry J 2009Jul;l 8(2):92-6.

1. Muga F,Hagali M. What do final year medical students at the university of Papua New Guinea think of psychiatry? P NJ Med J. 2006Sep-Dec;49(3-4):126-36.
2. Cheng DR, Pool F, Nguyen TT, Woodman RJ, Parker JD. Stigma

and perception of psychological distress and depression in Australian trained medical students: results from an interstate medical school survey. Psychiatry Res. 2013 Oct30;209(3):684- 90.

1. Schenner M,Kohlbauer D, Gunther V. communicate instead of stigmatizing- does social contact with a depressed person change attitudes of medical students to psychiatric patients. Neuropsychiatr.2011;25(4):199-207.
2. Clement S, Schauman 0, Graham T, et al. what is the impact of mental health related stigma on help seeking? A systematic review of qualitative and quantitative studies. Psychol Med. 2015Jan;(l):11-27.
3. Hankir AK, Northali A, Zaman R. stigma in mental health

challenges in medical students. BMJ Case Rep. 2014 Sep2;2014.Pii:bcr2014205226.

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1. Gulliver A,GriffithsKM,Christensen H. barriers and facilitatorsto mental health help seeking for young elite athletes: a qualitative study. BMC Psychiatry 2012 Sep26;12:l 57.
2. Patten SB, Remillard A, Phillips L, et al. Effectiveness of contact­ based education for reducing mental illness-related stigma in Pharmacy students.BMC Med Educ.2012 DecS;l 2:120.
3. Economou M, Louki E, Peppou LE, Gramandani C, Yotis L, Stefanis CN. Fighting psychiatric stigma in the classroom: the impact of an educational intervention on secondary school student's attitudes to Schizophrenia. Int J Soc Psychiatry.2012 Sep;S8(5):544-S1.
4. Kassam A, Glazier N, Leese **M,** Loughran J, Thornicroft G. A controlled trial of mental illness related stigma training for medicalstudents.BMCMed Educ.2011Jul29;1l :51.