

ATTITUDE TOWARD MENTAL ILLNESS: A COMMUNITY BASED SURVEY

UROOSA TALIB¹, NASIR MEHMOOD², ASHFAQUE AHMED³, QUDSIA TARIQ⁴

^{1,2,3}Karwan-e-Hayat (Institute of mental health), Karachi, Pakistan.

⁴Department of Psychology, University of Karachi, Pakistan.

Submitted: October 12, 2023

Accepted: March 29, 2024

CORRESPONDENCE: **NASIR MEHMOOD**

E-mail: nasir.mehmood@keh.org.pk

ABSTRACT

OBJECTIVES

To evaluate the literate and informally educated community person's attitude toward Psychiatric disorders and individuals with mental health challenges in Karachi, Pakistan.

STUDY DESIGN

Descriptive study was used to develop a comprehensive picture of the prevalent trends against the psychiatric illness and patients.

PLACE AND DURATION OF STUDY

The time frame was from May 2022 to August during which the data was gathered from different communities of Karachi City in Pakistan.

METHOD

Descriptive survey method was used for data collection, collecting responses from diverse locations within the city of Karachi through the use of the Attitude Scale for Mental Illness (ASMI) by using Convenience sampling technique. In total, 189 people from the community, both formally educated and non-formally educated, were included.

RESULTS

For the Separatism, Restrictiveness, and Stereotyping subscales, similar positive results of literate people and informal educated people agreed with the statement, while the Pessimistic Prediction subscale showed significant differences. A greater proportion of individuals with informal education (72.5%) than literate (51.2%) felt ($\chi^2=8.204$, $p<0.005$). Stigmatisation sub-scale: it had a pleasant response that over two-thirds of literate (74.1%) and informal educated people (79%) disagree. On the Benevolence sub-scale: almost half of the literate (45.6%) and more than half of informal educated community people (61.3%). They also concurred that there exists a bias against individuals who suffered because of mental illness ($\chi^2=8.103$, $p<0.357$).

CONCLUSION

Literate and informal educated people showed similar positive attitudes to certain ASMI subscales towards people with a mental illness, but on other hand both groups also showed negative attitudes towards Patients and Psychiatric Illness on some of the ASMI subscales. These warrant additional investigation, including the exploration of the impacts of educational interventions.

KEYWORDS

Attitude; Beneficence; Mental Disorders; Optimism; Stereotyping; Stigma.

INTRODUCTION

Mental health and its related issues have become a global concern. Especially after COVID-19 people across the world need mental health support more than ever, the reasons could include economic challenges along with political unrest and climate change. Globally, despite increasing evidence highlighting the significance of mental health in economic, social, and human capital domains, mental health problems, mental health professionals, services, and the overall notion of mental well-being often face adverse publicity. Based on this, they are the cause of Stigma in public perception.^[1-3] Stigma toward people with mental disorders exists worldwide, along with trained mental health professionals in the general population.^[4-6] Various researches highlight the fact that mental illness is more stigmatised than physical illness^[7] the stigma associated with mental illness remains a significant obstacle for individuals grappling with mental health issues.^[8] Stigma and discrimination linked to mental illness, as exhibited by both current and prospective mental health practitioners, contribute to the underutilisation of mental health services.^[9] Numerous investigations involving medical students, healthcare professionals, and the general populace have identified deficiencies in understanding and stigmatisation concerning individuals with psychiatric conditions.^[10-15] Several global studies have identified knowledge gaps and stigmatisation regarding mental health among professionals and the wider community.^[16-20]

Mental illness encompasses not only severe conditions like psychosis but also includes more prevalent disorders such as depression and anxiety, among others. Research has indicated that attitudes toward mental illness exhibit greater stigma in developing Asian and African societies compared to Western cultures.^[21] Public Attitudes towards the mental illness can greatly impact the perceptions of the society and the way they would treat patients and their families attitudes may be characterised as embracing, compassionate, biased, critical, and receptive or narrow-minded.^[22] Numerous individuals refrain from seeking mental health services because of their reluctance towards identification as a "mental patient" and their desire to evade the repercussions associated with stigma.^[23] Indeed, adverse attitudes towards mental illness seem to exacerbate the complete well-being of people experiencing mental disorders.^[24] The beliefs and attitudes individuals hold regarding mental illness significantly influence how they engage with, offer opportunities to, and provide support for individuals dealing with mental health challenges.^[25]

Each segment of society, including the youth and various community groups, has its distinct perspectives on mental illness. Communities, in particular, hold significant potential for the development of comprehensive mental health initiatives due to their influential role in shaping societal norms and values.^[26] Therefore, comprehending the attitude and belief system surrounding individuals with mental issues within communities is essential for mitigating negative perceptions.^[27]

Third world countries are at high risk of mental illnesses, due to various economic and geopolitical factors. Unfortunately, Pakistan is in no different position than other developing countries. Over 20 million Pakistanis, constituting approximately 10% of the nation's population, grapple with various mental health issues.^[28] This encompasses common disorders like depression, a severe mood disorder affecting individuals worldwide, with an estimated prevalence of 4.4%.^[29] In Pakistan, prevalence rates for mental health conditions vary from 22% to 60%, with estimates in Karachi, a densely populated city of 14.9 million, averaging approximately 47%.^[29,30] The elevated prevalence of mental health problems may be linked to insufficient 'mental health literacy,' as proposed by Jorm.^[17] While mental health issues are widespread, a study by Nisar et al^[31] in Karachi revealed the prevalence of stigma and negative perceptions surrounding individuals with mental illness among their relatives. Therefore, the objective of the present study was to evaluate the attitudes toward mental illness among both literate and informally educated individuals within the Karachi community. The hypothesis posited variances would exist in the attitudes of literate and informally educated people. The data derived from this study could be valuable in discerning community people's misconceptions and investigating their attitudes toward mental illness. Since the descriptive research method is being used, it can further increase the scope of exploring future research perspectives.

METHOD

This study employed a descriptive survey methodology to conduct its research, to gauge the public opinion. This study was conducted in different communities of Karachi City to gather the public opinion.

A convenience sampling method was utilised to gather the data on 189 community-literate and informal-educated people, both men and women, age ranging from 15 years to 50+ years participated in the study. Participants were recruited from different areas of Karachi city.

The research project's proposal received approval from the Research Ethics Committee (REC) as (D-RD_2021_01_05, dated 02-04-21) at the Karwan-e-Hayat (Institute for Mental Health Care). Each participant provided informed oral consent to participate after being briefed about the study's objectives and their rights to decline or withdraw participation at any stage. The research adhered to ethical guidelines and standards for conducting research involving human participants.

MEASURES

Demographic Questionnaire

Every participant was mandated to complete a demographic survey, covering details such as age (measured in years), level of education, and current place of residence.

Attitudes Scale for Mental Illness (ASMI)

Attitude Scale for Mental Illness (ASMI) questionnaire with six sub scales namely; Separatism, Stereotyping, Restrictiveness, Benevolence, Pessimistic prediction and Stigmatization. This was a 5-point Likert scale with 34 items to rate participants' responses from totally disagree (1) to totally agree.⁽⁵⁾ The lower scores indicate positive attitudes toward persons with mental illness.^[32]

The SPSS software version 20, was used. Descriptive statistics, including frequencies and percentages, were employed to summarise the data. Inferential statistics, specifically the chi-square test, were used for data interpretation and description of the students' attitudes toward mental illness.

RESULTS

Table 1
Socio-Demographic features of the Participants.

Demographic Data	Literate	Informal education
Gender		
Male	84(66.1%)	40(64.5%)
Female	43(33.9%)	22(35.5%)
Age in Years		
15-30	54(42.5%)	13(21%)
31-40	37(29.1%)	7(11.3%)
41-50	14(11%)	15(24.2%)
51 and above	22(17.3%)	27(43.5%)

Overall, 189 community people participated in the study, male 84(66.1%) and 43 females (33.9%) were encompassed in this study. Their ages spanned from 15 to 60 years.

Table 2
Attitude of Participants toward Mental illness

Factors	Statement	Participants			X2	P-value
		Response	Educated	Informal education		
Separatism	People with mental illness have unpredictable behaviour	Disagree	40(31.5%)	8(12.9%)	7.917	0.005
		Unsure	5(3.9%)	2(3.2%)		
		Agree	82(64.5%)	52(83.9%)		
	If people become mentally ill once, they will easily become ill again	Disagree	32(25.1%)	9(14.6%)	11.391	0.004
		Unsure	31(24.4%)	6(9.7%)		
		Agree	64(50.4%)	47(75.8%)		
	If a mental health facility is set up in my street or community, I will move out of the community	Disagree	76(59.8%)	33(53.2%)	0.748	0.422
		Unsure	23(18.1%)	13(21%)		
		Agree	28(22%)	16(25.8%)		
	Even after a person with mental illness is treated, I would still be afraid to be around them	Disagree	82(64.6%)	37(59.6%)	0.43	0.535
		Unsure	7(5.5%)	4(6.5%)		
		Agree	38(29.9%)	21(33.9%)		
	It is difficult to deal with a patient with mental illness during attack	Disagree	19(14.9%)	18(29%)	5.34	0.05
		Unsure	17(13.4%)	6(9.7%)		
		Agree	91(71.6%)	38(61.3%)		
Restrictiveness	Every one faces the possibility of becoming mentally ill	Disagree	14(11%)	13(21%)	3.365	0.115
		Unsure	21(16.5%)	9(14.5%)		
		Agree	92(18.1%)	40(64.5%)		

	I should be careful about what I say or do with a mentally ill	Disagree	4(3.1%)	6(9.7%)	6.42	0.04
		Unsure	5(3.9%)	6(9.7%)		
		Agree	118(92.9%)	50(80.7%)		
	After mentally ill patients are treated and rehabilitated, individuals should make friends of them	Disagree	7(5.5%)	9(14.6%)	5.735	0.017
		Unsure	9(7.1%)	7(11.3%)		
		Agree	111(87.4%)	46(74.1%)		
	Individuals get irritable/upset if they come across with a person with mental illness within the same room	Disagree	32(25.1%)	16(25.8%)	0.034	0.994
		Unsure	26(20.5%)	12(19.4%)		
		Agree	69(54.3%)	34(54.8%)		
Stereotyping	It is easy to identify patients with mental illness	Disagree	41(32.3%)	24(38.7%)	0.794	0.389
		Unsure	28(22%)	13(21%)		
		Agree	58(45.6%)	25(40.3%)		
	Care and support of family and friends can help rehabilitate patients with mental illness	Disagree	5(2.4%)	7(11.3%)	4.673	0.185
		Unsure	9(7.1%)	2(3.2%)		
		Agree	113(89%)	53(85.5%)		
	Patients with mental illness have some strange behaviour	Disagree	19(14.9%)	13(21%)	1.434	0.448
		Unsure	10(7.9%)	3(4.8%)		
		Agree	98(77.2%)	46(74.2%)		
	A mentally ill cannot enjoy a normal life	Disagree	60(47.2%)	23(37.1%)	2.258	0.141
		Unsure	14(11%)	6(9.7%)		
		Agree	53(41.8%)	33(53.2%)		
	A mentally ill is always upset and irritated	Disagree	48(37.8%)	18(29%)	2.665	0.139
		Unsure	15(11.8%)	5(8.1%)		
		Agree	64(50.4%)	39(62.9%)		
	Individuals should not laugh at the mentally ill patient even though he/she acts strangely	Disagree	7(5.5%)	7(11.3%)	5.23	0.039
		Unsure	6(4.7%)	7(11.3%)		
		Agree	114(89.8%)	48(77.4%)		
Pessimistic Prediction	It is difficult for those who have a mental illness to get the same pay for the same job as equal with healthy ones	Disagree	42(33.1%)	10(16.2%)	8.204	0.005
		Unsure	20(15.7%)	7(11.3%)		
		Agree	65(51.2%)	45(72.5%)		
	It is difficult for the mentally ill to return to the community even after being treated	Disagree	67(52.8%)	19(30.7%)	10.534	0.001
		Unsure	22(17.3%)	10(16.1%)		
		Agree	38(29.9%)	33(53.2%)		
	It is difficult for a mentally ill to dream or plan for his/her future	Disagree	68(53.5%)	29(46.8%)	3.03	0.191
		Unsure	17(13.4%)	5(8.1%)		
		Agree	42(33%)	28(45.1%)		
Stigmatisation	A mentally ill should be punished for his misbehaviour	Disagree	90(70.8%)	44(71%)	2.733	0.57
		Unsure	19(15%)	5(8.1%)		
		Agree	18(14.2%)	13(20.9%)		
	It is seldom for people who are successful at work to have a mental illness	Disagree	56(44.1%)	22(35.5%)	7.251	0.031
		Unsure	50(39.4%)	19(30.6%)		
		Agree	21(16.5%)	21(33.8%)		
	It is shameful to have a mental illness	Disagree	94(74.1%)	49(79%)	0.915	0.366
		Unsure	12(9.4%)	6(9.7%)		
		Agree	21(16.5%)	7(11.3%)		
	people with mental illness should not disclose their illness to others	Disagree	39(30.7%)	20(32.3%)	0.254	0.881
		Unsure	12(9.4%)	7(11.3%)		
		Agree	76(59.8%)	35(56.4%)		
Benevolence	Corporations and community (including the government) should offer jobs to people with mental illness	Disagree	21(16.6%)	14(16.1%)	1.155	0.384
		Unsure	6(4.7%)	2(3.2%)		
		Agree	100(78.7%)	46(74.2%)		
	A patient after being treated for mental illness can return to his/her former job College	Disagree	13(4.7%)	9(14.5%)	0.858	0.361
		Unsure	17(13.4%)	9(14.5%)		
		Agree	97(76.4%)	44(71%)		
	People are prejudiced towards people with mental illness	Disagree	23(17.1%)	14(22.5%)	8.103	0.357
		Unsure	46(36.2%)	10(16.1%)		
		Agree	58(45.6%)	38(61.3%)		

Table 2 presents the comparison of results of responses to the ASMI scale among literate individuals and those with informal education. In the Separatism sub-scale, a higher percentage of literate individuals (59.8%) did not agree with the statement "If a mental health facility is set up in my street or community, I will move out of the community," compared to informal educated individuals (53.2%) ($\chi^2=0.748, p<0.422$). However, there was an agreement between literate (64.5%) and informal educated individuals (83.9%) on the statement "People with mental illness have unpredictable behaviour."

In the Restrictiveness sub-scale, both literate and informal educated individuals responded similarly to statements, except for the statement "After mentally ill patients are treated and rehabilitated, individuals should make friends with them," where a higher percentage of literate individuals (87.4%) agreed compared to informal educated individuals (74.1%) ($\chi^2=5.735, p<0.017$).

Regarding the Stereotyping sub-scale, a higher percentage of literate individuals (45.6%) agreed with the statement "It is easy to identify those who have a mental illness" compared to informal educated individuals (40.3%) ($\chi^2=0.794, p<0.389$). However, only a small percentage of literate individuals (2.4%) disagreed with the choice "Care and support of family and friends can help rehabilitate patients with mental illness," compared to informal educated individuals (11.3%) ($\chi^2=4.673, p<0.185$).

The Pessimistic Prediction sub-scale showed a higher percentage of informal educated individuals (72.5%) felt that "It is difficult for those who have a mental illness to get the same pay for the same job as healthy individuals" compared to literate individuals (51.2%) ($\chi^2=8.204, p<0.005$). Regarding the Stigmatisation sub-scale, a notable percentage of both literate (74.1%) and informal educated individuals (79%) disagreed with the statement "It is shameful to have a mental illness" ($\chi^2=0.915, p<0.366$).

In the Benevolence sub-scale, fewer than half of literate individuals (45.6%) agreed that "People are prejudiced towards people with mental illness," while more than half of informal educated individuals (61.3%) agreed with this statement ($\chi^2=8.103, p<0.357$).

DISCUSSION

Some very interesting findings came forth through this study, as past studies of community attitudes toward mental illness have yielded both positive attitudes and negative attitudes as outcomes. In the present study, considering the separatism sub-scale, literate and non-formally educated people had negative attitudes towards 3 out of 5 statements, but there is a significant difference in the results of literate and non-formally educated people. Only 2 statements related to separatism were showing positive attitudes in both groups. A similar mix of positive and negative responses was received in the Stereotyping and Stigma subscales.

Although the results showed a positive attitude in the subscales of restrictiveness, Pessimistic and benevolence, some statements resulted in significant differences between educated and non-formally educated people.

The findings of the current study revealed negative attitudes towards mental illness and individuals with mental illness across domains, such as Separatism, Stigma, and Stereotyping. These results are consistent with previous research on stigma and mental illness.^[33] Moreover, individuals with mental illness face stigma not only from society but also from mental healthcare practitioners.^[34]

Significant differences were noted only in the Separatism subscale, with informal educated individuals exhibiting more negative attitudes compared to literate individuals. This disparity may stem from a lack of understanding about the nature of mental illness among informal educated individuals. However, no significant differences were observed in the Stereotypes and Stigma subscales between the two groups, possibly due to a general lack of mental health awareness in our society. Stereotypes and societal prejudices contribute to stigmatisation and discrimination against individuals with mental illness. Negative stereotypes prevalent in the community regarding mental illness may significantly impact the treatment of individuals with mental health conditions. Therefore, for a better society, it is important to work on improving these negative stereotypes.

According to current findings, there was a significant difference observed between the literate and informal education community people in the pessimistic prediction subscale. A higher percentage of informal educated people (72.5%) than literate (51.2%) The belief that individuals with mental illness face difficulties in obtaining equal pay for the same job as healthy individuals was found to be significant ($\chi^2=8.204$, $p<0.005$). This result aligns with previous studies conducted by Singh et al[35] and Kermodé et al[36], indicating a pervasive pessimism regarding career and employment prospects for individuals with mental illness.

On the Benevolence sub-scale, 45.6% of literate and 61.3% of informal educated community people agreed that 'people are prejudiced towards people with mental illnesses. This study revealed a greater level of Benevolence among informally educated individuals. It is possible that exposure to certain experiences may contribute to this heightened sense of Benevolence. However, without additional research to support these findings, providing a definitive explanation is challenging. Further investigation is necessary to better understand and elucidate the reasons behind this observation.

In general, individuals with higher levels of education tend to hold more positive attitudes towards individuals with mental illness. However, they also exhibit more restrictive attitudes compared to those with lower levels of education. This may

suggest that highly educated individuals have higher expectations regarding social responsibility and therefore may be less trusting of individuals with mental illness. On the other hand, individuals with lower levels of education could benefit from interventions provided by rehabilitation workers, which could enhance their understanding and foster more compassion towards individuals with mental illness.

Despite the overall positive shift in attitudes observed in the community, there still exist restrictive, stereotyping, pessimistic, and non-stigmatizing attitudes towards individuals with mental illness. These attitudes can serve as barriers to seeking mental health treatment. Hence, community interventions should particularly focus on reaching individuals with lower levels of education to address these barriers effectively. Providing fundamental mental health education and enhancing public awareness with accurate information about mental illness can diminish the stigma surrounding mental health conditions. Moreover, such efforts can contribute to alleviating the burden of mental illness within the community.

Limitations

Several limitations were encountered in this study. Firstly, the convenience sampling method may have introduced bias into the sample, limiting the generalizability of the findings. Additionally, the reliance on self-report measures, such as the ASMI, may have led to social desirability bias, where participants provide responses they perceive as socially acceptable rather than reflecting their true attitudes. Moreover, the study did not assess the impact of cultural factors on attitudes towards mental illness, which could influence the results.

CONCLUSION

Literate and informal educated people showed similar positive attitudes to certain subscales towards people with a mental illness, but on other subscales, both groups showed negative attitudes regarding individuals with mental illness.

Recommendations

Based on the findings and limitations of the study, several recommendations can be made. Future research should employ more rigorous sampling methods, such as random sampling, to enhance the representativeness of the sample. Additionally, mixed-methods approaches could provide a more comprehensive understanding of attitudes towards mental illness by incorporating qualitative data collection methods. It is also recommended to conduct longitudinal studies to explore changes in attitudes over time and to assess the effectiveness of interventions aimed at reducing stigma and improving mental health literacy in the community.

FUNDING

Karwan-e-Hayat took the initiative and funded the project.

CONFLICT OF INTEREST





None

REFERENCES

1. Beddington J, Cooper CL, Field J, et al. The mental wealth of nations. *Nature*. 2008;455(7216):1057-1060. doi:10.1038/4551057a
2. Sartorius N, Schulze H. Reducing the stigma of mental illness: A report from the Global Programme of the World Psychiatric Association. Cambridge: Cambridge University Press; 2005.
3. SadikS, BradleyM, Al-HasoonS. et al. Public perception of mental health in Iraq. *Int J Ment Health Syst*. 2010; 4:26. doi:https://doi.org/10.1186/1752-4458-4-26
4. Alonso J, Buron A, Bruffaerts R, et al. Association of perceived stigma and mood and anxiety disorders: results from the World Mental Health Surveys. *Acta Psychiatr Scand*. 2008;118(4):305-314. doi:10.1111/j.1600-0447.2008.01241.x
5. Ogunsemi OO, Odusan O, Olatawura MO. Stigmatising attitude of medical students towards a psychiatry label. *Ann Gen Psychiatry*. 2008; 7:15. doi: https://doi.org/10.1186/1744-859X-7-15
6. Thornicroft G, Brohan E, Rose D, Sartorius N, Leese M; INDIGO Study Group. Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet*. 2009;373(9661):408-415. doi:10.1016/S0140-6736(08)61817-6
7. Lee S, Lee MT, Chiu MY, Kleinman A. Experience of social stigma by people with schizophrenia in Hong Kong. *Br J Psychiatry*. 2005; 186: 153 - 157. doi:10.1192/bjp.186.2.153
8. Ciftci A, Jones N, Corrigan PW. Mental health stigma in the Muslim community. *Journal of Muslim Mental Health*. 2013; 7 (1) : 1 7 – 3 2 . doi : 10.3998/jmmh.10381607.0007.102.
9. Esters IG, Cooker PG, Ittenbach RF. Effects of a unit of instruction in mental health on rural adolescents' conceptions of mental illness and attitudes about seeking help. *Adolescence*. 1998;33(130):469-476.
10. Chawla JM, Balhara YP, Sagar R, Shivaprakash. Undergraduate medical students' attitude toward psychiatry: a cross-sectional study. *Indian J Psychiatry*. 2012;54(1):37-40. doi:10.4103/0019-5545.94643
11. Trivedi JK, Dhyani M. Undergraduate psychiatric education in South Asian countries. *Indian J Psychiatry*. 2007;49(3):163-165. doi:10.4103/0019-5545.37314
12. Murthy RS, Khandelwal S. Undergraduate training in Psychiatry: World perspective. *Indian J Psychiatry*. 2007;49(3):169-174. doi:10.4103/0019-5545.37316
13. Jadhav S, Littlewood R, Ryder AG, Chakraborty A, Jain S, Barua M. Stigmatization of severe mental illness in India: Against the simple industrialization hypothesis. *Indian J Psychiatry*. 2007;49(3):189-194. doi:10.4103/0019-5545.37320
14. Kuruvilla PK, John JK. Knowledge and attitude about psychiatric illness among interns. *Indian J Psychiatry*. 1991;33(1):11-15.
15. Armstrong G, Kermod M, Raja S, Suja S, Chandra P, Jorm AF. A mental health training program for community health workers in India: impact on knowledge and attitudes. *Int J Ment Health Syst*. 2011;5(1):17. doi:10.1186/1752-4458-5-17
16. Gureje O, Lasebikan VO, Ephraim-Oluwanuga O, Olley BO, Kola L. Community study of knowledge of and attitude to mental illness in Nigeria. *Br J Psychiatry*. 2005;186:436-441. doi:10.1192/bjp.186.5.436
17. Jorm AF. Mental health literacy. Public knowledge and beliefs about mental disorders. *Br J Psychiatry*. 2000;177:396-401. doi:10.1192/bjp.177.5.396
18. Kitchener BA, Jorm AF. Mental health first aid training for the public: evaluation of effects on knowledge, attitudes and helping behavior. *BMC Psychiatry*. 2002;2:10. doi:10.1186/1471-244x-2-10
19. Dominic IU, Festus A. Stigmatizing attitudes towards the mentally ill: A survey in a Nigerian university teaching hospital. *S Afr J Psychiatr*. 2010;16(2). doi: https://doi.org/10.4102/sajpsy.2010.16i2.23856-60.
20. Attitudes to Mental Illness - 2011, Survey report [Internet]. NHS England; 2011 [cited 1st October 2023]. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/attitudes-to-mental-illness/attitudes-to-mental-illness-2011-survey-report
21. Coker EM. Selfhood and social distance: toward a cultural understanding of psychiatric stigma in Egypt. *Soc Sci Med*. 2005; 61 (5) : 9 2 0 - 9 3 0 . doi:10.1016/j.socscimed.2005.01.009
22. Shives LR. History And Trends in Psychiatric-Mental health nursing. In: *Basic Concepts of Psychiatric-Mental Health Nursing*. 7th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2008. p. 6–25.
23. CorriganPW, Rüschn. Mental Illness Stereotypes and Clinical Care: Do People Avoid Treatment Because of Stigma? *Psychiatric Rehabilitation Skills*. 2002; 6 (3) : 3 1 2 – 3 3 4 . doi : https://doi.org/10.1080/10973430208408441
24. Abo El magd MH, Al Zamil L. Medical Non-Medical Female Students' Attitudes toward Mental Illness and Psychiatric Patients at Umm Al Qura University. *Life Sci J* 2013;10(2):882-888. doi:10.7537/marslsj100213.124

25. Kobau R, Zack MM. Attitudes toward mental illness in adults by mental illness-related factors and chronic disease status: 2007 and 2009 Behavioral Risk Factor Surveillance System. *Am J Public Health.* 2013;103(11):2078-2089. doi:10.2105/AJPH.2013.301321
26. Mahto RK, Verma PK, Verma AN, Singh AR, Chaudhury S, Shantna K. Students' perception about mental illness. *Ind Psychiatry J.* 2009;18(2):92-96. doi:10.4103/0972-6748.62267
27. Vijayalakshmi P, Reddy D, Math S, Thimmaiah R. Attitudes of undergraduates towards mental illness: A comparison between nursing and business management students in India. *South African Journal of Psychiatry.* 2013;19(3):8. doi:10.4102/sajpsychiatry.v19i3.398.
28. WHO, Ministry of Health, Pakistan. WHO-aims report on Mental Health System in Pakistan [Internet]. World Health Organisation; 2009 [cited 1st October 2023]. Available from: <https://extranet.who.int/mindbank/item/1305>
29. Depression and other common mental disorders [Internet]. World Health Organization; 2017 [cited 1st October 2023]. Available from: <https://www.who.int/publications-detail-redirect/depression-global-health-estimates>
30. Altaf A, Khan M, Shah SR, et al. Sociodemographic Pattern of Depression in Urban Settlement of Karachi, Pakistan. *J Clin Diagn Res.* 2015;9(6):VC09-VC13. doi:10.7860/JCDR/2015/12611.6093
31. Nisar M, Mohammad RM, Fatima S, Shaikh PR, Rehman M. Perceptions Pertaining to Clinical Depression in Karachi, Pakistan. *Cureus.* 2019;11(7):e5094. doi:10.7759/cureus.5094
32. Poreddi V, Thimmaiah R, BadaMath S. Medical and nursing students' attitudes toward mental illness: An Indian perspective. *Invest Educ Enferm.* 2017;35(1):86-94. doi:10.17533/udea.iee.v35n1a10
33. Hinshaw SP, Stier A. Stigma as related to mental disorders. *Annu Rev Clin Psychol.* 2008;4:367-393. doi:10.1146/annurev.clinpsy.4.022007.141245
34. Chambers M, Guise V, Välimäki M, et al. Nurses' attitudes to mental illness: a comparison of a sample of nurses from five European countries. *Int J Nurs Stud.* 2010;47(3):350-362. doi:10.1016/j.ijnurstu.2009.08.008
35. Singh AJ, Shukla GD, Verma BL, Kumar A, Srivastava RN. Attitude of Indian urban adults towards mental illnesses. *Indian J Public Health.* 1992;36(2):51-54.
36. Kermode M, Bowen K, Arole S, Pathare S, Jorm AF. Attitudes to people with mental disorders: a mental health literacy survey in a rural area of Maharashtra, India. *Soc Psychiatry Psychiatr Epidemiol.* 2009;44(12):1087-1096. doi:10.1007/s00127-009-0031-7

AUTHOR(S) CONTRIBUTION / UNDERTAKING FORM

Sr. #	Author(s) Name	Author(s) Affiliation	Contribution	Signature
2	Uroosa Talib	Karwan e Hayat Institute for Mental Health Care	Review & Supervised the project	
1	Nasir Mehmood	Karwan e Hayat Institute for Mental Health Care	Paper writing & Data analysis	
3	Ashfaq Ahmad	Karwan e Hayat Institute for Mental Health Care	Data collection	
3	Qudsia Tariq	University of Karachi	Review the project	

COPYRIGHT
Copyright ©2024 JPPS. Published by Pakistan Psychiatric Society. Re-use permitted under CC BY-NC. <http://creativecommons.org/licenses/by-nc/4.0/>This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

