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Stigma towards people with mental illness and community mental health ideology among university students: A comparative study

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Abstract

The study examines the difference between the stigma among psychology and non-psychology students towards people with mental illness and to find out their ideology towards community mental health services. A cross-sectional study was conducted among university students. All together (N= 300) participants were recruited through the quota convenient sampling. CAMI (Community Attitude towards the Mentally Ill) scale was used in this research, assess four types of attitudes towards mental illness (i.e., Authoritarianism, Benevolence, Social restrictiveness, and Community mental health ideology). The findings of this study show a significant difference between the attitudes of psychology and non-psychology students. Both the subscales, authoritarianism and social restrictiveness conclude that non-psychology students showed more authoritative and restrictive behavior towards mentally ill people and are less oriented towards community mental health ideology as compared to psychology students. However, psychology students showed less benevolence as compared to non-psychology students towards mentally ill people. Additional findings indicated that the level of authoritarianism, social restrictiveness, and benevolence is high among males as compared to females. The study highlights the need for society to develop a plan and action to change stigma attached to mental illness at both institutional and community levels.

Keywords: Attitude, Mental health ideology, Mental illness, Stigma, Social restrictiveness.

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Contents

Contribution of this paper to the literature

Despite efforts to raise awareness, attitudes toward mental health persist. The study suggests the core issue is societal acknowledgment of the stigma. This prompts reflection on the ongoing challenge of fostering acceptance, emphasizing the need for continued efforts to integrate individuals with mental health issues into our communities.

1. Introduction

In 2017, an estimated 970 million people suffered from mental illness or substance use disorders (Dattani, Rodés-Guirao, Ritchie, & Roser, 2018). This equates to approximately 1 in 7 people worldwide, constituting an overall estimate of 15% (Dattani et al., 2018). Despite this pervasive prevalence, a substantial body of research consistently reveals that only a minority of individuals with mental illness receive treatment, resulting in a significant treatment gap on a global scale (Kohn, Saxena, Levav, & Saraceno, 2004). Despite the substantial impact of mental illnesses on the years lived with disability (YLDs), nearly 90% of the people who need help won't get it (Alonso et al., 2007; Demyttenaere et al., 2004; Sartorius, 2002). According to the World Health Organization (WHO), adequate treatments are available for mental illnesses, but almost one-third of affected individuals seek help from mental health professionals; the remaining hide their psychological issues due to stigma and discrimination (WHO, 2001). People with mental illneses are one of the most stigmatized populations. The concept of stigma is not novel and has persisted in the literature for centuries. Goffman was the first person who through his research took the medical profession's attention to its significance.He defined stigma as arising from an identity conflict. Goffman also saw stigma as a process through which other people's reaction spoils the identity of an individual, stigmatized people don't have full social acceptance from the society, and they keep on striving to adjust their social identities (Goffman, 1963). Similarly, stigmatization is often a consequence of labelling, when a person is being labelled, he incorporates that label into his self-concept and develops stigma (Bernburg, 2009). Those who stigmatize people with mental illness are afraid that patients will act aggressively or violently while interaction and may manifest unpredictable behavior resulting in harmful consequences (Barry, McGinty, Vernick, & Webster, 2013).

A cross-sectional study conducted in a center in southwest Ethiopia revealed a greater prevalence of stigma among rural residents towards individuals with mental illness (Girma et al., 2013). Similarly, a study conducted in India found that university students exhibit a negative attitude towards people with mental illness, going to the extent of endorsing the idea that women have a right to divorce their husbands if he gets hospitalized due to a severe mental illness (Mahto et al., 2016). Both researchers concluded that there exists a negative attitude towards people with mental illness, evident not only in the general population but also among students.

A multitude of factors exist that shape the society reactions to people with mental illness, insights are provided by the Framework Integrating Normative Influences on Stigma-FINIS (Pescosolido, Martin, Lang, & Olafsdottir, 2008) It clearly integrates a complex web of reasons shaping stigma at micro, meso and macro level such as media, social context of individual and disease characteristics itself.

The root of the term "ideology" dates back to the eighteenth century where it was referred to represent political beliefs. In the modern era, its usage has gone beyond this and does not only have negative interpretations. Community mental health ideology supports the idea of community-oriented care for people with mental illness who can live freely outside a hospital (Taylor & Dear, 1981). Inclusion or acceptance in a personal context can be defined as accepting the individual with mental illness as a family member, as a neighbor, a friend, approaching them to be a part of your community or a group. Researches show that the individual with mental health problems can be best treated when the families, close friends all are part of the treatment team, similarly, the cases in which individuals have severe mental illnesses, the involvement of families in their treatment reduces the rate of relapse and it also greatly assists recovery. This idea has progressed and implemented substantially in developed countries but is a nascent area of investigation in low- and middle-income countries like Pakistan. The implementation of the advanced model of de-centralization and de-institutionalization has shifted mental health services from mental asylums where patients were isolated and detached from the society to teaching hospitals with an intention to facilitate the sufferers (Afridi, 2008). This is growing further with an aim to integrate the treatment of mentally ill people in the community.

Around 50 million people in Pakistan are suffering from mental illnesses, affecting approximately 15 to 35 million adults, which makes up around 10 to 15 percent of the total population (Dawn, 2016). For a population of 180 million, in Pakistan, there are only 5 government-run psychiatric hospitals and less than 300 qualified psychiatrists (Arifeen, 2017). Although the last few decades have witnessed rapid and substantial improvement in mental health services in Pakistan, the circumstances have further gross areas of improvement.

Every cohort of society has its unique way of perceiving people with mental illness, particularly young adult's student's acumen is critical in reduction of stigma and implementation of community mental health ideology. Students belonging to various academic disciplines can play a paramount role in the prevention and treatment of mental illnesses as well as for their rehabilitation in the community by showing a positive attitude towards them and subsequently reducing the risk of relapse. Students are among the best cohort to be investigated for stigma and community mental health ideology as this is the best era of one's life when they are at the peak of exploring and developing their attitudes plus, they are getting prepared to be launched in professional life to provide their invaluable humanistic services related to their specific professional domains.

Stigma and discrimination have devastating effects on the lives of people with severe mental illness (Corrigan, Morris, Michaels, & Rafacz, 2012). Due to the stigmatization, people with mental illness do not seek help at an early stage which worsens the prognosis of illness and has massive impact on their functioning (Henderson, Evans-Lacko, & Thornicroft, 2013). An immense need exists to work on reducing the stigmatization of mental illness. As psychiatric facilities move toward a community mental health orientation, it appears cardinal to understand and measure this new nascent ideological perspective in local context (Baker & Schulberg, 1967). It is imperative to create an acceptance of mentally ill people in the society. To be precise the renewed focus on stigma research facilitates exploration of community mental health ideology.

This study holds an ambitious agenda aiming to uncover the student's [psychology versus non-psychology] attitude towards people with mental illness and their acceptance in the community. To the best of my knowledge, there is a dearth of research in this important area of mental health in Pakistan. Student's attitude is not as extensively researched as a general public attitude towards people with mental illness. This will ultimately help people with mental illness to be recognized as an integral component of community without any embarrassment.

1.1. Research Objectives

1. To determine the difference between the attitude of psychology and non-psychology students towards people with mental illness.
2. To compare the acceptance of community mental health services among psychology and non-psychology students.

2. Methodology

A cross-sectional study was conducted among university students in Karachi during September to December 2019. All together (N= 300) participants were recruited through the quota convenient sampling. Both male and female candidates aged between 18 to 28 years, enrolled in the undergraduate BS (Bachelor of Science in Psychology) and the non-psychology program [Business, Engineering, Media Studies, Humanities, Computer Sciences and Earth and Environmental Science], 3rd semester onwards at Bahria University Karachi Campus were eligible for the study. However, those who denied consent to do so, finds English not as their comfortable medium, current and past diagnoses of psychiatric disorders were excluded.

In this study, the CAMI (Community Attitude Towards the Mentally Ill) scale is used (Taylor & Dear, 1981). This scale consists of 40 statements about mental illness and people with mental health conditions. Participants responded using a Likert scale. The scale has four parts, each with 10 statements. Half of these statements are positive, and the other half are negative. Reverse scoring is done for negative items, and the cumulative score is determined for each sub-scale. Each part of the scale measures different things. 'Authoritarianism' looks at an oppressive attitude towards people with mental conditions. 'Benevolence' checks for sympathetic attitudes. 'Social Restrictiveness' measures if people think those with mental illness are a threat to society. 'Community Mental Health Ideology' looks at the idea of taking care of people with mental illness in the community. The term "mentally ill" in this research refers to people needing treatment for mental disorders but who can live independently outside a hospital. Permission to use the CAMI scale was freely granted on the website to be utilized for research purposes.

Other than the above-mentioned validated tool, basic demographic information about the participants was also collected.

Approval was obtained from the departmental ethical review committee (ERC). Research follows principles like getting permission from participants, keeping their information private, and making sure they join the study willingly.

For the current study, the collected data were imported and analysed through statistical techniques using SPSS (version 22). After computing the scores on the scale, reliability was checked. Inferential and descriptive statistics of the data were evaluated, as well as other tests used for analysis, including correlation, t-test analysis, and analysis of variance (ANOVA).

3. Results

For the computation of the results, a series of statistical analysis was conducted using the statistical package for Social Sciences (SPSS 22). Descriptive and inferential statistics were used.

Table 1. Frequency and percentage of demographic variables.

Variable	F (%)	M (SD)
N	300	300
Age		1.10(0.305)
18-23	269(89.7)	
24-28	31 (10.3)	
Gender		1.71(0.45)
Male	86 (28.7)	
Female	214 (71.3)	
Program enrolled		1.50(0.50)
Psychology	150 (50)	
Non-psychology	150 (50)	
Socioeconomic status		3.36(0.63)
Lower class	3 (1.0)	
Lower middle class	8 (2.7)	
Middle class	174 (58.0)	
Upper middle class	107 (35.7)	
Upper class	8 (2.7)	
Marital status		1.06(0.43)

Variable	F (%)	M (SD)
Single (Never married)	291(97)	
Married	5(1.7)	
Separated	3(1.0)	
Widower	1(.3)	
Semester of study		3.84(1.69)
3	36(12.0)	
4	34(11.3)	
5	65(21.7)	
6	46(15.3)	
7	44(14.7)	
8	75(25.0)	
Occupation		1.88(0.32)
Employed	35(11.7)	
Unemployed	265(88.3)	
Family type		1.45(0.43)
Nuclear	214(71.3)	
Joint	71(23.7)	
Extended	3(1.0)	
Living with friends	3(1.0)	
Alone	6(2.0)	
Others	2(.7)	
Ethnicity		3.45(2.64)
Urdu speaking	128(42.7)	
Bengali	6(2.0)	
Pathan	25(8.3)	
Sindhi	38(12.7)	
Memon	19(6.3)	
Punjabi	66(22.0)	
Hazaraywaai	2(.7)	
Tarheily	1(.3)	
Kashmiri	5(1.7)	
Gujrati	5(1.7)	
Arain	1(.3)	
Hindko	1(.3)	
Siraiki	3(1.0)	
Religion		1.01(0.99)
Islam	297(99.0)	
Hinduism	3(1.0)	
Current diagnosis of psychiatric disorder		2.00(0.00)
Yes	0	
No	300(100)	
Past diagnosis of psychiatric disorder		2.00(0.00)
Yes	0	
No	300(100)	
Family history of psychiatric disorder		1.94(0.22)
Yes	16(5.3)	
No	284(94.7)	

3.1. Demographic Information of Sample

Table 1 depicts the main demographic variables of the present study. It shows the distribution of the demographic variables into subcategories based on demographic information of the participants of the study (N=300).

Table 2. Descriptive analysis included mean, standard deviation, skewness, kurtosis, and ranges of the study variables.

Variables	Items	M	SD	SK	K	Ranges		α
						Actual	Potential	
CAMI	300	122.63	9.94	0.859	2.003	95-160	40-200	0.547
A	300	32.22	3.95	-0.066	0.269	18-43	10-50	
B	300	29.76	3.31	0.512	1.123	21-43	10-50	
SR	300	28.67	3.63	0.327	1.173	18-42	10-50	
CMHI	300	31.87	4.30	0.293	1.590	20-44	10-50	

Note: M= Mean, SD= Standard deviation, SK= Skewness, K= Kurtosis, CAMI= Community attitude towards mental illness, A=Authoritarianism, B=Benevolence, SC=Social restrictiveness, CMHI=Community mental health ideology, α = Cronbach alpha.

Table 2 represents Mean, Standard Deviation, Skewness value, Kurtosis value, Actual, Potential Ranges, and Cronbach alpha. The Value of Skewness and Kurtosis shows that the data is normally distributed. The Cronbach alpha of this scale is .547 which shows that this scale has moderate reliability.

Table 3. Mean, standard deviation and t-value for the variables of community attitude towards mental illness between psychology and non-psychology.

Variables	Program enrolled	N	M	SD	t	P	95%CL	
							LL	UL
Community attitudes toward mental illness	Psychology	150	119.96	8.05	-4.820	0.000	118.66	121.26
	Non-psychology	150	125.30	10.91			123.54	127.06
Authoritarianism	Psychology	150	31.44	3.91	-3.467	0.001	30.81	32.07
	Non-psychology	150	33.00	3.84			32.37	33.62
Benevolence	Psychology	150	28.93	2.65	-4.496	0.000	28.50	29.36
	Non-psychology	150	30.60	3.68			30.00	31.19
Social restrictiveness	Psychology	150	28.06	3.02	-2.194	0.004	27.57	28.55
	Non-psychology	150	29.27	4.06			28.61	29.92
Community mental health ideology	Psychology	150	31.52	2.78	-1.844	0.085	31.06	31.97
	Non-psychology	150	32.20	3.99			31.56	32.85

Note: Mental illness between psychology and non-psychology.

Table 3 exhibits that non-psychology students exhibit more authoritative and restrictive behaviour towards mentally ill individuals, while psychology students show more benevolence and are more oriented towards mental health facilities.

Table 4. Community attitudes toward mental illness among psychology and non-psychology students.

Population	CAMI		
	Ranges	F	%
Psychology	High	1	0.7
	Average	149	99.3
	Low	0	0
Non-psychology	High	7	4.7
	Average	143	95.3
	Low	0	0

Note: CAMI=Community attitudes toward mental illness.

Table 4 presents non-psychology students who showed a higher level of stigma as per subscales of CAMI as compared to psychology students.

3.2. Descriptive Analysis

Non-psychology students showed a higher level of stigma as per subscales of CAMI as compared to psychology students.

Table 5. The t-test between male and female for the variables of community attitudes toward mental illness.

Variables	Gender	N	M	SD	*t*	Df	P
CAMI	Male	86	126.13	11.29	3.961	298	0.000
	Female	214	121.22	8.99			
A	Male	86	33.30	4.14	3.039	298	0.003
	Female	214	31.78	3.79			
B	Male	86	31.04	3.62	4.370	298	0.000
	Female	214	29.25	3.03			
SR	Male	86	29.81	4.09	3.525	298	0.000
	Female	214	28.21	3.32			
CMHI	Male	86	31.97	4.08	0.360	298	0.719
	Female	214	31.81	3.17			

Note: N= Number of participants, M= Mean, SD= Standard deviation, t= t-test value, df= degree of freedom, P= Significance, CAMI=Community attitudes toward mental illness, A=Authoritarianism, B=Benevolence, SC=Social restrictiveness, CMHI=Community mental health ideology.

3.3. Additional Analysis

According to the results in Table 6, the Variable of the study Community Attitudes toward Mental Illness and its subdomain including Authoritarianism, Benevolence, Social restrictiveness, are statistically significant on the variable of gender (Sig: CAMI=0.000, A=0.003, B=0.000, SR=0.000, CMHI=0.719). Only the subdomain community mental health ideology is not statistically significant on the variable of gender.

Table 6. The T-test between Male and Female for the Variables of Community Attitudes toward Mental Illness

Subscale	Gender	N	M	SD	*t*	df	P
CAMI	Male	86	126.13	11.29	3.961	298	0.000
	Female	214	121.22	8.99			
A	Male	86	33.30	4.14	3.039	298	0.003
	Female	214	31.78	3.79			
B	Male	86	31.04	3.62	4.370	298	0.000
	Female	214	29.25	3.03			
SR	Male	86	29.81	4.09	3.525	298	0.000
	Female	214	28.21	3.32			
CMHI	Male	86	31.97	4.08	.360	298	0.719
	Female	214	31.81	3.17			

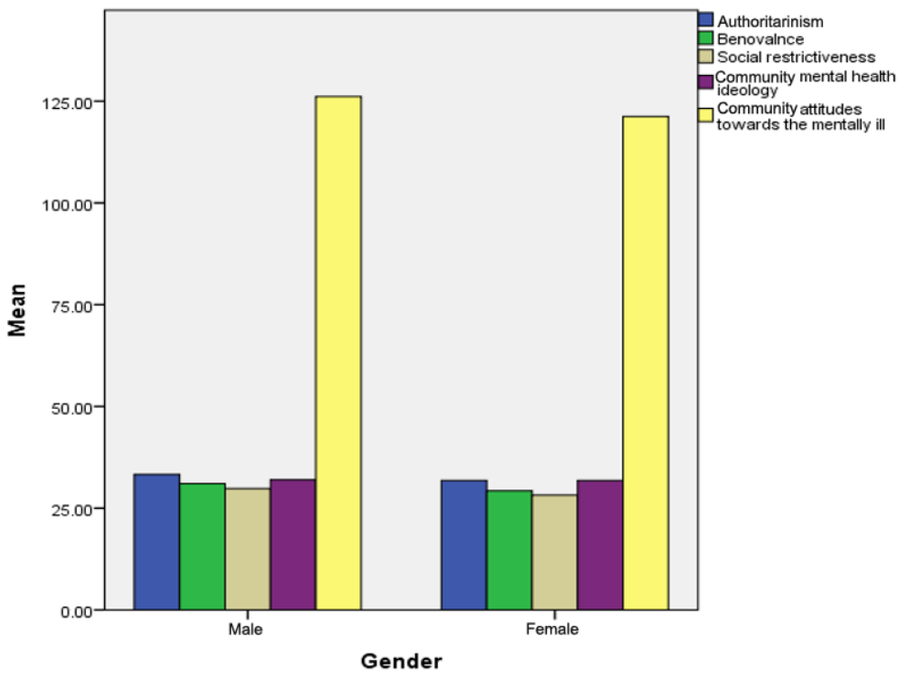

Figure 1. Bar graph representing gender difference among the variables of CAMI.

Figure 1 illustrates that the level of authoritarianism, social restrictiveness, and benevolence is high among males as compared to females. However, both males and females are almost equally oriented towards community mental health ideology.

4. Discussion

This study has investigated stigma among university students pertinent to the mentally ill and the mental illness together with their beliefs regarding the psychiatric patient re-orientation in the community. The stigma impacts grossly on persons with mental illness, contributes to be a barrier in their rehabilitation, that's why worthy of investigation along with the nascent emerging area of community contact with the mentally ill and mental health facilities in residential neighborhoods. Overall, in this study, the attitudes and beliefs grossly differ between psychology and non-psychology students as per subscales of CAMI, favorable opinions are expressed by the psychology professionals. The stereotypy among non-psychology specialties regarding the mentally ill to be kept behind the locked doors, out casted from the society, be treated as a child is widely supported by other studies and consistent with our findings (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000). As non-psychology cohort has a stigmatizing authoritative view about mentally ill and the mental illness, so it is understandable to be more socially restricted towards them. This finding is partially supported by another survey conducted among mental health professional's vs the public in which professionals have restrictive view less than the general public but still that persists (Nordt, Rössler, & Lauber, 2006). The desire for social distancing also reported by another survey was stemming from perceived dangerousness (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999).

Another survey conducted in Nigeria among university teaching hospital also supports both negative conceptions of authoritarianism and social restrictiveness (Ukpong & Abasiubong, 2010).

The existence of both stereotypies, authoritarianism and social restrictiveness may emerge in part from a lack of knowledge about mental illness which leads to less acceptance of the mentally ill and mental health facilities. One of the predominant components of authoritative view is a lack of will power among mentally ill. This belief gradually unfolds the expectation to improve their psychological affliction through their own efforts rather than any external help offered to them (Weiner, Perry, & Magnusson, 1988). Rejection in the form of social restriction from mentally ill transpired from attribution of accountability of their own illness as well as perception of uncertainty and aggression (Angermeyer & Dietrich, 2006). While this seems to paint a fairly grim picture among non-psychology cohort, psychology students have less authoritative and socially restrictive view which is immensely painted by the data that being familiar with mental illness reduces the discriminatory response (Corrigan et al., 2012). Psychology is among one of the helping professions for mental wellbeing so the difference in the level of stigma among different specialties is legitimate.

Psychology students showed less benevolence as compared to non-psychology which may be attributable to the fact that psychology trainees are mentored to be more empathetic towards these individuals as empathy facilitates the deeper understanding of patient's problems. The high benevolence is also supported by the research which interestingly also reveals that being benevolent does not guarantee the acceptance of these individuals in community facilities or treating them as normal individuals are treated (Song, Chang, Shih, Lin, & Yang, 2005).

Community mental health ideology is highly supported by the psychology students which is consistent with the available literature that professionals who work closely with mentally ill patients or have more awareness about them have more encouraging and supportive attitude towards them (Vibha, Saddichha, & Kumar, 2008).

Another study conducted in China indicates that mental health professionals were more supportive of community-based treatment and biopsychosocial causation then the general public contributed by their training and experience (Sun et al., 2014). Additional findings shed light on the differences in the gender community attitude towards the mentally ill which indicated that the level of authoritarianism, social restrictiveness, and benevolence is high among males as compared to females. However, both males and females are almost equally oriented towards community mental health ideology. In the light of the study findings, we recommend regular

conduction of CMEs [continuing medical education] activities including seminars, lectures, workshops regarding the psychoeducation about mental illness [true nature of the disorder and low frequency of dangerous behavior], correcting the myths and introducing facts in the light of recent evidence-based research among young adults. More studies involving a larger sample size should be conducted across diverse academic domains in various universities of the country to assess stigma and then subsequently measures to reduce it. At an individual level challenging our own prejudices, avoid stigmatizing language and be advocates for change-improving the autonomy of patients, their involvement in society may be helpful. At a community level enhancing contact of people with mental illness with the general public. This study also has some limitations few academic domains are included for comparison with psychology students. The expressed attitudes of students belonging to different academic courses in the study may not translate into any behavioral change [it's a simple cross-sectional survey, not an interventional study].

5. Conclusion

Stigma and discrimination against the mentally ill are rampant even in a cohort which was expected to be knowledgeable. There is immense need in Karachi to develop a plan and action to change stigma attached to mental illness at both institutional and community levels.

References

Afridi, M. I. (2008). Mental health: Priorities in Pakistan. *The Journal of the Pakistan Medical Association*, *58*(5), 225-226.

Alonso, J., Codony, M., Kovess, V., Angermeyer, M. C., Katz, S. J., Haro, J. M., . . . Vilagut, G. (2007). Population level of unmet need for mental healthcare in Europe. *The British Journal of Psychiatry*, *190*(4), 299-306. https://doi.org/10.1192/bjp.bp.106.022004

Angermeyer, M. C., & Dietrich, S. (2006). Public beliefs about and attitudes towards people with mental illness: A review of population studies. *Acta Psychiatrica Scandinavica*, *113*(3), 163-179. https://doi.org/10.1111/j.1600-0447.2005.00699.x

Arifeen, M. (2017). *Mental health problems in Pakistan overlooked. Pakistan Gulf Economist.* Retrieved from https://www.pakistangulfeconomist.com/2017/01/23/mental-health-problems-pakistan-overlooked/

Baker, F., & Schulberg, H. C. (1967). The development of a community mental health ideology scale. *Community Mental Health Journal*, *3*(3), 216-225.

Barry, C. L., McGinty, E. E., Vernick, J. S., & Webster, D. W. (2013). After newtown—public opinion on gun policy and mental illness. *New England Journal of Medicine*, *368*(12), 1077-1081. https://doi.org/10.1056/nejmp1300512

Bernburg, J. G. (2009). Labeling theory. In M. D. Krohn, A. Lizotte, & G. P. Hall (Eds.), Handbook on Crime and Deviance. In (2nd ed., pp. 187-207): Springer. https://doi.org/10.1007/978-1-4419-0245-0_10.

Corrigan, P., Morris, S., Michaels, P., & Rafacz, J. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services*, 963-973. https://doi.org/10.1176/appi.ps.201100529

Crisp, A. H., Gelder, M. G., Rix, S., Meltzer, H. I., & Rowlands, O. J. (2000). Stigmatisation of people with mental illnesses. *The British Journal of Psychiatry*, *177*(1), 4-7. https://doi.org/10.1192/bjp.177.1.4

Dattani, S., Rodés-Guirao, L., Ritchie, H., & Roser, M. (2018). *Mental health. Our World in Data.* Retrieved from https://ourworldindata.org/mental-health

Dawn. (2016). *50m Pakistanis suffering from mental disorders. Dawn*. Retrieved from https://www.dawn.com/news/1288880/50m-pakistanis-suffering-from-mental-disorders

Demyttenaere, K., Bruffaerts, R., Posada-Villa, J., Gasquet, I., Kovess, V., & Lepine, J. P. (2004). WHO world mental health survey consortium prevalence, severity, and unmet need for treatment of mental disorders in the world health organization world mental health surveys. *Journal of the American Medical Association*, *29*(21), 2581-2590. https://doi.org/10.1001/jama.291.21.2581

Girma, E., Tesfaye, M., Froeschl, G., Möller-Leimkühler, A. M., Müller, N., & Dehning, S. (2013). Public stigma against people with mental illness in the gilgel gibe field research center in Southwest Ethiopia. *PloS One*, *8*(12), e82116.

Goffman, E. (1963). *Stigma and social identity in Stigma: Notes on the management of spoiled identity*. Englewood: Prentice Hall.

Henderson, C., Evans-Lacko, S., & Thornicroft, G. (2013). Mental illness stigma, help seeking, and public health programs. *American Journal of Public Health*, *103*(5), 777-780. https://doi.org/10.2105/ajph.2012.301056

Kohn, R., Saxena, S., Levav, I., & Saraceno, B. (2004). The treatment gap in mental health care. *Bulletin of the World health Organization*, *82*(11), 858-866.

Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health*, *89*(9), 1328-1333. https://doi.org/10.2105/ajph.89.9.1328

Mahto, R. K., Verma, P. K., Verma, A. N., Singh, A. R., Chaudhury, S., & Shantna, K. (2016). Students' perception about mental illness. *Industrial Psychiatry Journal*, *18*(2), 92-96. https://doi.org/10.18535/jmscr/v4i12.117

Nordt, C., Rössler, W., & Lauber, C. (2006). Attitudes of mental health professionals toward people with schizophrenia and major depression. *Schizophrenia Bulletin*, *32*(4), 709-714.

Pescosolido, B. A., Martin, J. K., Lang, A., & Olafsdottir, S. (2008). Rethinking theoretical approaches to stigma: A framework integrating normative influences on stigma. *Social Science & Medicine*, *67*(3), 431-440. https://doi.org/10.1016/j.socscimed.2008.03.018

Sartorius, N. (2002). Latrogenic stigma of mental illness. *British Medical Journal*, *324*(7352), 1470–1471.

Song, L.-Y., Chang, L.-Y., Shih, C.-Y., Lin, C.-Y., & Yang, M.-J. (2005). Community attitudes towards the mentally ill: The results of a national survey of the Taiwanese population. *International Journal of Social Psychiatry*, *51*(2), 162-176. https://doi.org/10.1177/0020764005056765

Sun, B., Fan, N., Nie, S., Zhang, M., Huang, X., He, H., & Rosenheck, R. A. (2014). Attitudes towards people with mental illness among psychiatrists, psychiatric nurses, involved family members and the general population in a large city in Guangzhou, China. *International Journal of Mental Health Systems*, *8*(1), 1-7. https://doi.org/10.1186/1752-4458-8-26

Taylor, S. M., & Dear, M. J. (1981). Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin*, *7*(2), 225-240. https://doi.org/10.1093/schbul/7.2.225

Ukpong, D. I., & Abasiubong, F. (2010). Stigmatising attitudes towards the mentally ill: A survey in a Nigerian university teaching hospital. *South African Journal of Psychiatry*, *16*(2), 56-60. https://doi.org/10.4102/sajpsychiatry.v16i2.238

Vibha, P., Saddichha, S., & Kumar, R. (2008). Attitudes of ward attendants towards mental illness: Comparisons and predictors. *International Journal of Social Psychiatry*, *54*(5), 469-478. https://doi.org/10.1177/0020764008092190

Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology*, *55*(5), 738-748. https://doi.org/10.1037/0022-3514.55.5.738

WHO. (2001). *Mental disorders affect one in four people.* Geneva: NMH Communications.