Stigma associated with and attitude regarding mental health help-seeking among undergraduate nursing students in Karachi, Pakistan

Salima Farooq  
Aga Khan University

Yasmin Parpio  
Aga Khan University

Saadia Sattar  
Aga Khan University

Zahra Ali  
University of Karachi

Shirin Rahim  
Aga Khan University

Ghazal Peerwani (ghazal.peerwani@tabbaheart.org)  
Tabba Heart Institute

Research Article

Keywords: Nursing students, Depression stigma, Attitude toward Seeking Professional Psychological Help, Pakistan

DOI: https://doi.org/10.21203/rs.3.rs-710107/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Abstract

Background Globally, the prevalence of mental illness amongst university students is a major concern; same is the case with nursing students. Unaddressed mental illness stigma contributes towards hiding of symptoms hampers timely identification of the disease, and leads to reluctance in attitude towards seeking help. This study determined personal and perceived depression stigma and attitude towards help-seeking behaviors and its associated factors, among undergraduate nursing students at a private nursing institution in Karachi, Pakistan. Methods We conducted a cross-sectional study by recruiting 246 first and second-Year undergraduate nursing students using consecutive sampling. Data were collected using the Depression Stigma Scale (DSS) and the Attitude toward Seeking Professional Psychological Help Scale (ATSPPHS), along with a demographic questionnaire. Chi-square test, Fischer's exact test and student T test were used to determine significance of difference of each response between first and second year students. Multiple linear regression was employed to determine predictors of DSS and ATSPPHS. Approval was obtained from the university's Ethics Review Committee. Results The study findings revealed that the mean scores of the personal and perceived stigma scales were 29.7 ± 4.9 and 24.3 ± 6.1, respectively. The mean score of ATSPPHS was 16.5 ± 3.8. The participants reported a mean openness score of7.8 ± 2.6 and a value scale score of 8.7 ± 3.0. A history of psychiatric illness, current living arrangements, and personal depression stigma were found to be significant predictors of ATSPPHS. The year of study was a significant predictor of personal depression stigma whereas both years of study and the current living arrangements were significantly associated with perceived depression stigma. Conclusion Attitude towards seeking help for mental illness was significantly influenced by personal and perceived stigma. Moreover, previous history of psychiatric illness and living arrangements also predicted attitudes towards seeking help. In order to encourage positive attitudes towards seeking help for students’ well-being, it is essential to destigmatize mental health issues by adapting context-based, individualized, and group mental health interventions.

Introduction

Mental health challenges are a major public health concern worldwide (1). According to the World Health Organization (WHO), nearly 322 million people are suffering from mental illness globally, and nearly half of them are in South-East Asia (2). It is predicted that depression will be the second leading cause of death and disability by 2020 (3).Numerous people with depression not only struggle with the disability itself but also with discrimination due to the social stigma around the illness. Mainly self and social stigma and associated negative attitudes are the important predictors for low mental health help-seeking behaviors (4). One's perceptions, attitude, gender, age, marital status, mental health literacy, accessibility are also other factors influencing help-seeking behaviors (5).

Social stigma can be referred to as a society’s negative attitude towards any person or phenomenon, whereas ‘personal stigma’ denotes ‘one's own discriminating perceptions of others’(6) ). Both, Personal and social stigma can hamper the identification of symptoms, thereby, reducing help-seeking (7).Moreover, Social and personal stigma negatively impacts one's self-esteem, efficiency, psychological
resilience, aspirations in life, goals, academic achievements, hopes, employment opportunities, and help-seeking behavior for mental health issues and the overall quality of life (8, 9). Stigma is a socio-cultural concern, particularly in Asia where mental illness is often associated with supernatural phenomena, like witchcraft and possession by a jinn or evil spirit availability of services, affordability, and

or a test from God, or a form of punishment for sin (10), wherein people prefer faith healers over health professionals for its treatment (11). It is also observed that people belonging to eastern cultures often express their psychological distress in terms of physical symptoms due to fear of eastern cultures often

Stigma is equally prevalent in health professionals as in the general population (8, 9, 13, 14) including nursing students, who have been reported to hold moderate to high levels of stigma towards people with mental illness (15, 16). This is a source of concern as nursing students’ negative attitudes towards mental illness may impact on patients’ quality of care and safety (17).

Nursing students are often susceptible to mental illnesses due to academic stress, demanding clinical environment, and other psychosocial triggers, but they poorly recognize stigma within themselves and others. Consequently, most nursing students prefer dealing with their mental illnesses alone and are reluctant to share their concerns with their peers, social network, and family due to the fear of being stigmatized. Hence, the illness remains unaddressed and gets worse with time and delay (18). Multitude of studies have reported mental health stigma, age, academic year, vignette type, fear of judgment and suitability to train as nurses as factors significantly influencing attitude towards seeking professional help (19–21). Understanding of self and perceived stigma among nursing students and their attitude towards utilization of available mental health services and their associated factors is vital to formulate antistigma interventions (22) that not only address stigma but also bridge gaps in the available mental health services on the campus. Considering the dearth of published literature on the topic (1, 22, 23), the current study aimed to examine both the stigma and the attitude towards mental health help-seeking and its associated factors among undergraduate nursing students, at a private nursing institution in Karachi, Pakistan.

**Methodology**

A cross-sectional study was conducted among the undergraduate nursing students at the Aga Khan University Hospital, Karachi, Pakistan, in March, 2017. Using the consecutive sampling technique, a total of 246 Bachelors of Science Nursing (BScN) students of Year I and Year II were included, after taking their informed consent. Approval from the Institutional Ethics Review Committee was taken before the conduct of the study.

**Data Collection Instruments**

The Depression Stigma Scale (DSS) and the Attitude toward Seeking Professional Psychological Help Scale (ATSPPHS) were adopted for the present study. DSS measured the personal and perceived depression stigma. It comprised 18 items with two subscales: DSS-Personal (a measure of the
respondents’ attitudes towards depression) and DSS-Perceived (a measure of the respondents’ beliefs about the stigmatizing attitudes of others). Each subscale had 9 items using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The tool was deemed reliable as the internal consistency was reported to be from 0.76 to 0.82 (24). The range of score of each subscale was from 5 to 45, with higher scores indicating greater stigma.

ATSPPHS was used to assess the attitude of participants towards seeking help regarding mental health problems. This tool was based on 10 items, ranging from 1= Disagree to 4=Agree on the Likert scale. The scores of all negatively phrased items were reversed (items 2,4,8,9, and 10)(25). A higher score on this tool indicated a more positive attitude toward seeking help regarding mental health problems(26). The ATSPPHS scale was divided into openness scale and value scale. The instrument had good psychometric properties and a reliability index of 0.80 to 0.86, respectively(25, 27)Fischer & Farina, 1995).

**Data Collection Procedures**

Pilot testing was done with 20 senior undergraduate nursing students. As a result, items 8 and 9 were modified on the DSS-personal and DSS-perceived subscales as per the cultural context. Data was collected by expert psychologists who administered the tools to students in their classrooms. It took around 20-25 minutes to complete the questionnaire.

**Statistical Analysis**

All analyses were conducted by using Stata Version 14.0. A descriptive analysis was done, and results were presented as mean ± standard deviation for continuous variables and frequency with percentage for categorical variables. The normality of all data sets was determined using the Kolmogorov-Smirnov test. DSS and ATSPHHS were dichotomized into agreement and disagreement. In DSS, strongly agree and agree were considered as agree, whereas strongly disagree, disagree, and undecided were merged as disagree. Similarly, in the ATSPHHS scale agree and partly agree were merged as agree, and disagree and partly disagree were combined as disagree. The Chi²-Square/Fisher exact test of independence and the Independent Student t-test were used to assess the statistical significance for categorical and continuous variables, respectively. Multiple linear regression was used to assess the predictors of ATSPHHS, DSS-personal, and DSS-perceived in undergraduate nursing students, and regression coefficients, along with 95% confidence intervals, were reported. P-value ≤0.05 was considered significant.

**Results**

Data were analyzed for a total of 246 undergraduate nursing students in this study. The mean age of the participants was 20±1.2 years. Most of the participants were females (89.8%), living in a hostel (67.9%), single (95.9%), and belonged to the Northern Areas of Pakistan (57.7%). More than half of the participants (52.0%) were from BScN Year II, whereas, 48% of the respondents were from BScN Year I. A very small proportion of the participants reported having a family history of psychiatric illness (3.3%), suicidal history among immediate family (2.0%), and a diagnosed psychiatric illness(4.1%)(Table 1).
There was a significant mean difference in the ages of BScN Year I and II students (p-value <0.001). Whereas no significant difference was found between the students of BScN I and II with respect to gender (p-value: 0.99), marital status (p-value: 0.75), ethnicity (p-value: 0.54), and diagnosed mental illness (p-value: 1.0). Most of the students from BScN Year I were living in the hostel (p-value<0.06). Lesser number of participants from BScN year I had nuclear families (p-value :< 0.001), family history of mental illness (p-value: 0.07), and suicidal history of an immediate family member (p-value: 0.06) (Table 2).

**Attitude toward Seeking Professional Psychological Help (ATSPPH)**

The mean score of ATSPPH in this study was 16.5±3.8. There was no significant difference between the overall ATSPPH average score of BScN I and II students (p-value: 0.15)(Table 3).

The average score of the openness subscale of ATSPPH was 7.8±2.6. There was a significant difference in the openness subscale score between BScN I and II (p-value: 0.03) (Table 3). On the openness subscale, more than half (58%) of the participants stated the possibility of seeking psychological help in the future. Almost three-quarters of the respondents reported being confident about seeking psychological help at the time of emotional crises (74.8%) and mentioned the importance of professional help in an emotional problem (73.2%). Less than one-third of the respondents expressed disagreement with seeking psychological help during breakdown (31.3%) and after a long period of sadness (30.9%). A significant difference was seen between the BScN Year I and II students regarding the importance of professional help to resolve an emotional problem (p-value: 0.001) (Table 4).

The mean score of the value subscale of ATSPPH was 8.7±3.0. No significant difference was found between BScN I and II students with respect to the value scale (p-value: 0.76) (Table 3). A significant difference was found between BScN I and II students with respect to the item suggesting that seeking help from a psychologist is a poor way to get rid of emotional problems (p-value: 0.006) (Table 4). A substantial proportion of the participants showed disagreement with two notions: one, the person who resolves issues without psychological help is admirable (64.1%) and two, emotional difficulties get sorted out on their own (58.4%).

**Depression Stigma Scale (DSS)**

The mean overall depression stigma score was 54.0±8.5. There was no significant difference between the DSS score of BScN Year I and II (p-value: 0.78) (Table 3). The average score of DSS-personal was 29.7±4.9. There was a significant difference between the personal stigma scores of BScN I and II students (p-value: 0.006) (Table 3). The majority of the participants showed disagreement with the notions of avoiding depressed people in order not to become depressed themselves (81.7%), not telling anyone about their depression (87%), not studying/mingling with someone they knew was suffering from depression (89.4%), and not voting students with depression for a leadership role (84.1%). However,
slightly more than half of the participants agreed with the notion that depression was a sign of personal weakness (52.4%). Significant differences were found between BScN I and II only with regard to the notions of avoiding depressed people in order to not become depressed themselves (p-value: 0.01) and studying/mingling with someone suffering from known depression (p-value: 0.02) (Table 5).

The mean of the DSS-perceived subscale was 24.3±6.1, with a significant difference in the perceived stigma score between BScN I and II students (25.3 ± 5.5 vs. 23.3 ± 6.5 p-value: 0.01) (Table 3). More than half of the participants agreed with the notions that most people take depression as a sign of weakness (63.8%), people with depression can snap out of it if they want (52.0%), people with depression are dangerous (59.8%), and unpredictable (53.7%), people with depression won’t tell about it to anyone (56.1%) and most people will not vote a student with known depression for a leadership role (50.4%). A significant difference was seen between the BScN I and BScN II students regarding the item suggesting that most people with depression would not tell it to anyone (p-value<0.001) (Table 5).

**Predictors of ATSPHHS and DSS**

The history of psychiatric illness, current living arrangements, and DSS-personal were found to be significant multivariable predictors of ATSPHHS. The absence of psychiatric illness was associated with a lower mean ATSPHHS score (Adjusted β: -3.2, 95% CI: -5.6, -0.8). Students living with their parents had a 1.2 (95% CI: -2.1, -0.2) lower mean ATSPHHS score as compared to students living in hostels. With every unit increase in DSS-personal score, the mean ATSPHHS score was also found to increase by 0.1 (95% CI: 0.01, 0.2) (Table 6). Perceived depression stigma (β: 0.11 95% CI: 0.04, 0.19) was found to be associated with an increase in the ATSPHHS mean score on a univariate level however, it was not found to be significant after adjusting for other variables.

The year of study was the only significant predictor of personal depression stigma. Whereas, both years of study and current living arrangements were significantly associated with perceived depression stigma. BScN II students had higher personal stigma scores as compared to BScN I students (Crude β: 1.6 95% CI: 0.4, 2.8). In contrast, the BScN II students had lower perceived stigma scores as compared to BScN I students (Adjusted OR: -1.6 95% CI: -3.1, -0.2). Participants living with their parents had a 3.2 lower mean perceived depression stigma score as compared to the students living in hostels (95% CI: -4.8, -1.6) (Table 6).

**Discussion**

The current study examined help seeking attitudes towards mental illness and personal and perceived depression stigma and their predictors, among undergraduate nursing students.

The findings of the current study revealed low help-seeking attitude scores among undergraduate nursing students. Similar findings have been previously reported in the Chinese population (28). In contrast, Turkish and Australian University students reported a more positive help-seeking attitude (24, 29, 30). Plausible reasons for this negative help-seeking attitude could be the Asian culture, which views mental
illness as a private issue that should be kept secret (4, 31). Moreover, mental illnesses are often attributed to supernatural causes (4), resulting in most people preferring faith healers for treatment (32).

Previous history of psychiatric illness and living arrangements were found to be predictors of attitude towards seeking help in BScN students in this study. Similar findings have been reported by other studies conducted on Spanish and Indonesian nursing students suggesting that individuals with previously diagnosed psychiatric illness had better attitudes towards health-seeking as compared to those who did not have any mental illness (17, 33). One plausible explanation for this finding could be that the participants with previous psychiatric illness had experienced mental healthcare services and interacted with mental health professionals, which result in positive outcomes; hence, they were more open to seeking professional help than their counterparts (34). However, a conflicting finding was seen in a study conducted on Indonesian nursing students, which depicted that a personal history of psychiatric illness did not influence attitude towards health-seeking behavior, but knowledge of mental illness and experience with mentally ill persons did contribute to this attitude (17).

Moreover, the current living arrangement was another factor that significantly influenced health-seeking behavior in nursing students. Students who were living with their parents scored lower on the scale as compared to those living in the hostel. Likewise, a study conducted on French students from a similar age bracket, suggested that individuals who lived away from their parents or lived with friends and colleagues were more inclined to seek professional help for mental illness than those who were living with their parents (35). This could be because society often stigmatizes people who seek help for mental illness; hence parents might discourage their children from availing professional psychological services. However, living on campus and interacting with teachers or peers, who are less likely to stigmatize help-seeking behavior for mental illness, might positively influence this attitude in students (35, 36).

On analysis, it was also established that DSS-personal was independently predicting help-seeking attitudes. Corresponding to the current findings, similar findings have been reported among other college and university students (29, 37). Likewise, individuals may find it easier to view psychological treatment as a solution for others but not for themselves because of the fear of public stigma, leading to an overall low openness to help-seeking (38). Although personal and perceived stigmas are correlated with each other, personal stigma is believed to be a more direct barrier in help-seeking than perceived stigma. Hence, perceiving depression to be a personal weakness, unwillingness to seek psychotherapy, and a preference to deal with one's problems alone could be the most telling evidence of implicit resistance in help-seeking due to personal stigma (24).

Findings of our study also suggested higher mean scores of personal (29.7) and perceived stigma (24.3). However, the current study results are contrary to the previous studies, which reported higher perceived than personal stigma (39, 40). Similarly, mean scores for perceived and personal stigma were much higher in our study as compared to Australian adolescents (14.48 and 20.53) and USA students (12.7 and 21.7) (39, 40).
Both year of education and living arrangements were found to be contributing to perceived depression stigma, whereas, personal stigma was only predicted by year of education. Students living with their parents were found to have lower perceived stigma than those living in the hostel. In this regard, one of the previous studies depicted that if the parents are open to psychiatric help and do not stigmatize mental health, their children living with them will also not experience depression stigma (41). Another study on Arab adolescents also showed that respondents living with highly educated and aware mothers, had comparatively lesser perceived stigma (42). However, another study on Australian adolescents showed that living with parents increased the personal depression stigma but had no effect on the perceived depression stigma (43).

Year of education was found to significantly predict perceived as well as personal stigma. There was a significant difference in stigma between the two groups of participants, with year II students exhibiting more personal stigma than perceived stigma. Our study findings are in line with previous studies, where senior Spanish, Indonesian, and Australian nursing students reported low scores on stigma as opposed to the junior students (17, 44, 45). It could be that, more theoretical training and clinical exposure reduces overall perceived stigma among senior students (46) but they may also foster more negative personal attitudes regarding mental illnesses and people suffering from mental illness (47). These findings also indicate that although senior students may benefit from clinical and academic exposure in terms of an increase in their knowledge about mental illnesses, but this may not contribute to their individual implicit personal attitudes about the issue, resulting in low openness to professional help-seeking (48).

**Strengths and limitations**

To the best of our knowledge, this is the first study that aimed to determine both attitude towards health-seeking behavior and depression stigma and its associated factors in nursing students in Pakistan. The use of validated and reliable tools has enhanced the validity of the study findings. Yet another strength is the content validation and contextual changes made to ensure cultural and contextual relevance.

Multitudes of limitations were also associated with this study. Firstly, the subjectivity of the tools might have introduced non-differential misclassification bias. Secondly, the temporality of the relationship could not be established in this study due to the study design. Adopting consecutive sampling rather than random or systematic sampling, due to feasibility, might have affected the rigor of the study.

**Policy implications**

Our findings emphasized that there should be an anti-stigma policy at the institutional and national levels to limit stereotyping and discrimination against people with mental illness. In addition, youth friendly mental health services should be made accessible within all educational and training institutions.

**Education implications**

Innovative mental health interventions and engaging teaching pedagogy need to be incorporated into the curriculum to change the negative perceptions about mental illness. The orientation program can serve
as a good platform where students can be asked to ventilate their experiences. Peer support could be enforced; and senior students can be encouraged to share success stories about their battles, with new inductees. Moreover, it is recommended that instructors educate students about the value of the psychological methods of treatment and, their efficacy and clarify any misconceptions associated with this

**Conclusion**

Undergraduate nursing students scored low on attitude towards seeking professional help. The study revealed that both perceived and personal stigma predicted help-seeking attitudes in the students. In addition, other factors such as a history of psychiatric illness and current living arrangements were also found to be associated with ATSPHHS. A relatively high resistance to seeking psychological help among Year II nursing students was also seen, which may have negative implications for students’ wellbeing. Therefore, it is recommended that achievement-based academic models should be revised and context-based, individualized, and group mental health interventions should be adopted to curb stigma among trainee nurses.

**Abbreviations**

**DSS**
Depression Stigma Scale

**ATSPPHS**
Attitude toward Seeking Professional Psychological Help Scale

**WHO**
World Health Organization

**BScN**
Bachelors of Science Nursing

**CI**
Confidence interval

**Declarations**

**Ethics approval and consent to participate**

Approval from the Institutional Ethics Review Committee (Aga Khan University- Ethics Review Committee) was taken before the conduct of the study. Written informed consent was taken from all participants prior to recruitment.

**Consent for publication**

Not applicable
Availability of data and materials
The data used for analysis and findings of this study are available upon request to the corresponding author.

Competing interests
The authors declare no competing interests

Funding
None

Authors' contributions
Concept of idea-SF, Data collection-SF & SR, Data Analysis: SS, YP & GP, Manuscript development & review: All authors. All authors read and approved final manuscript.

Acknowledgements
None

Authors' information

Affiliations

School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan
Salima Farooq

School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan
Yasmin Parpio

Department of Medicine, Aga Khan University, Karachi, Pakistan
Saadia Sattar

Department of Psychology, Institute of Clinical Psychology, University of Karachi, Pakistan
Zahra Ali
Authors' Contributions

| First, middle and last name | Role in the manuscript writing |
|-----------------------------|--------------------------------|
| Salima Farooq               | SF contributed to the conception, supervised data collection, wrote the introduction and discussion part, and recommendation part, rewrite the abstract part, and cross-check table with result description, reference cross check |
| Yasmin Parpio              | Yasmin Nadeem Parpio, wrote methodology section, gave input in result and discussion section. |
| Saadia Sattar              | Data cleaning, analysis data, table formulation, wrote methodology and result section, align discussion part |
| Zahra Ali                  | Wrote Conclusion, paper, gave input in discussion session |
| Shirin Rahim               | Data collection supervision, reference formatting, |
| Ghazal Peerwani            | Data analysis, wrote result and discussion session and input in abstract. |

References

1. Wu X, Tao S, Zhang S, Zhang Y, Chen K, Yang Y, et al. Impact of screen time on mental health problems progression in youth: a 1-year follow-up study. BMJ open. 2016;6(11).
2. WHO. Depression and other common mental disorders: global health estimates. World Health Organization, 2017.

3. Farooq S, Khan T, Zaheer S, Shafique K. Prevalence of anxiety and depressive symptoms and their association with multimorbidity and demographic factors: a community-based, cross-sectional survey in Karachi, Pakistan. BMJ open. 2019;9(11):e029315.

4. Zalat MM, Mortada EM, El Seifi OS. Stigma and attitude of mental health help-seeking among a sample of working versus non-working Egyptian women. Community mental health journal. 2019;55(3):519-26.

5. Shi W, Shen Z, Wang S, Hall BJ. Barriers to professional mental health help-seeking among Chinese adults: a systematic review. Frontiers in psychiatry. 2020;11:442.

6. Yap MB, Wright A, Jorm AF. The influence of stigma on young people’s help-seeking intentions and beliefs about the helpfulness of various sources of help. Social Psychiatry and Psychiatric Epidemiology. 2011;46(12):1257-65.

7. Horsfield P, Stolzenburg S, Hahm S, Tomczyk S, Muehl H, Schmidt S, et al. Self-labeling as having a mental or physical illness: the effects of stigma and implications for help-seeking. Social Psychiatry and Psychiatric Epidemiology. 2019:1-10.

8. Pingani L, Catellani S, Del Vecchio V, Sampogna G, Ellefson SE, Rigatelli M, et al. Stigma in the context of schools: Analysis of the phenomenon of stigma in a population of university students. BMC psychiatry. 2016;16(1):1-7.

9. Hernandez SH, Morgan BJ, Parshall MB. Resilience, stress, stigma, and barriers to mental healthcare in US Air Force nursing personnel. Nursing research. 2016;65(6):481.

10. Dardas L, Simmons LA. The stigma of mental illness in Arab families: a concept analysis. Journal of psychiatric and mental health nursing. 2015;22(9):668-79.

11. Munawar K, Abdul Khaiyom JH, Bokharey IZ, Park MSA, Choudhry FR. A systematic review of mental health literacy in Pakistan. Asia-Pacific Psychiatry. 2020;12(4):e12408.

12. Ciftci A, Jones N, Corrigan PW. Mental health stigma in the Muslim community. Journal of Muslim Mental Health. 2013;7(1).

13. Sastre-Rus M, García-Lorenzo A, Lluch-Canut MT, Tomás-Sábado J, Zabaleta-Del-Olmo E. Instruments to assess mental health-related stigma among health professionals and students in health sciences: A systematic psychometric review. Journal of Advanced Nursing. 2019;75(9):1838-53.

14. Stull LG, McGrew JH, Salyers MP, Ashburn-Nardo L. Implicit and explicit stigma of mental illness: Attitudes in an evidence-based practice. The Journal of nervous and mental disease. 2013;201(12):1072.
15. Heim E, Henderson C, Kohrt B, Koschorke M, Milenova M, Thornicroft G. Reducing mental health-related stigma among medical and nursing students in low-and middle-income countries: a systematic review. Epidemiology and psychiatric sciences. 2020;29.

16. Vistorte AOR, Ribeiro WS, Jaen D, Jorge MR, Evans-Lacko S, Mari JdJ. Stigmatizing attitudes of primary care professionals towards people with mental disorders: a systematic review. The International Journal of Psychiatry in Medicine. 2018;53(4):317-38.

17. Sari SP, Yuliastuti E. Investigation of attitudes toward mental illness among nursing students in Indonesia. International Journal of Nursing Sciences. 2018;5(4):414-8.

18. Corrigan PW, Rao D. On the self-stigma of mental illness: Stages, disclosure, and strategies for change. The Canadian Journal of Psychiatry. 2012;57(8):464-9.

19. Pumpuang W, Seeherunwong A, Vongsirimas N. Factors predicting intention among nursing students to seek professional psychological help. Pacific Rim International Journal of Nursing Research. 2018;22(3):200-11.

20. Mitchell AE. Psychological distress in student nurses undertaking an educational programme with professional registration as a nurse: Their perceived barriers and facilitators in seeking psychological support. Journal of Psychiatric and Mental Health Nursing. 2018;25(4):258-69.

21. Picco L, Seow E, Chua BY, Mahendran R, Verma S, Xie H, et al. Help-seeking beliefs for mental disorders among medical and nursing students. Early intervention in psychiatry. 2019;13(4):823-31.

22. Pinto-Foltz MD, Logsdon MC, Myers JA. Feasibility, acceptability, and initial efficacy of a knowledge-contact program to reduce mental illness stigma and improve mental health literacy in adolescents. Social science & medicine. 2011;72(12).

23. Singh A, Mattoo SK, Grover S. Stigma associated with mental illness: conceptual issues and focus on stigma perceived by the patients with schizophrenia and their caregivers. Indian Journal of Social Psychiatry. 2016;32(2):134.

24. Coppens E, Van Audenhove C, Scheerder G, Arensman E, Coffey C, Costa S, et al. Public attitudes toward depression and help-seeking in four European countries baseline survey prior to the OSPI-Europe intervention. Journal of affective disorders. 2013;150(2):320-9.

25. Picco L, Abdin E, Chong SA, Pang S, Shafie S, Chua BY, et al. Attitudes toward seeking professional psychological help: Factor structure and socio-demographic predictors. Frontiers in Psychology. 2016;7:547.

26. Fischer EH, Farina A. Attitudes toward seeking professional psychological help: A shortened form and considerations for research. Journal of college student development. 1995.
27. Kim EJ, Yu JH, Kim EY. Pathways linking mental health literacy to professional help-seeking intentions in Korean college students. Journal of psychiatric and mental health nursing. 2020;27(4):393-405.

28. Chen P, Liu XJ, Wang XQ, Yang BX, Ruan J, Liu Z. Attitude Toward Seeking Professional Psychological Help Among Community-Dwelling Population in China. Frontiers in Psychiatry. 2020;11.

29. Hunt J, Eisenberg D. Mental health problems and help-seeking behavior among college students. Journal of adolescent health. 2010;46(1):3-10.

30. Seyfi F, Poudel KC, Yasuoka J, Otsuka K, Jimba M. Intention to seek professional psychological help among college students in Turkey: influence of help-seeking attitudes. BMC research notes. 2013;6(1):1-9.

31. Wynaden D, Chapman R, Orb A, McGowan S, Zeeman Z, Yeak S. Factors that influence Asian communities’ access to mental health care. International journal of mental health nursing. 2005;14(2):88-95.

32. Choudhry FR, Mani V, Ming LC, Khan TM. Beliefs and perception about mental health issues: a meta-synthesis. Neuropsychiatric disease and treatment. 2016;12:2807.

33. Granados-Gámez G, Lopez Rodriguez MdM, Corral Granados A, Márquez-Hernández VV. Attitudes and beliefs of nursing students toward mental disorder: the significance of direct experience with patients. Perspectives in psychiatric care. 2017;53(2):135-43.

34. Park S, Jeon M, Lee Y, Ko Y-M, Kim CE. Influencing factors of attitudes toward seeking professional help for mental illness among Korean adults. International Journal of Social Psychiatry. 2018;64(3):286-92.

35. Gasquet I, Ledoux S, Chavance M, Choquet M. Consultation of mental health professionals by French adolescents with probable psychiatric problems. Acta Psychiatrica Scandinavica. 1999;99(2):126-34.

36. Goh M, Xie B, Herting Wahl K, Zhong G, Lian F, Romano JL. Chinese Students’ Attitudes Toward Seeking Professional Psychological Help. International Journal for the Advancement of Counselling. 2007;29(3):187-202.

37. Lally J, O’Conghaile A, Quigley S, Bainbridge E, McDonald C. Stigma of mental illness and help-seeking intention in university students. The Psychiatrist. 2013;37:253-60.

38. Pedersen ER, Paves AP. Comparing perceived public stigma and personal stigma of mental health treatment seeking in a young adult sample. Psychiatry research. 2014;219(1):143-50.
39. Caelear AL, Griffiths KM, Christensen H. Personal and perceived depression stigma in Australian adolescents: magnitude and predictors. Journal of affective disorders. 2011;129(1-3):104-8.

40. Finkelstein J, Lapshin O. Reducing depression stigma using a web-based program. International journal of medical informatics. 2007;76(10):726-34.

41. Jeong YM, Park H. Influence of Parental Attitude Toward Psychiatric Help on Their Children’s Suicidal Ideation: A Convenience Sample Study on One South Korean Middle School. International journal of environmental research and public health. 2020;17(20):7656.

42. Dardas LA, Silva SG, Smoski MJ, Noonan D, Simmons LA. Personal and Perceived Depression Stigma among Arab Adolescents: Associations with Depression Severity and Personal Characteristics. Archives of Psychiatric Nursing. 2017;31(5):499-506.

43. Caelear AL, Griffiths KM, Christensen H. Personal and perceived depression stigma in Australian adolescents: Magnitude and predictors. Journal of Affective Disorders. 2011;129(1):104-8.

44. Foster K, Withers E, Blanco T, Lupson C, Steele M, Giandinoto J-A, et al. Undergraduate nursing students’ stigma and recovery attitudes during mental health clinical placement: A pre/post-test survey study. International Journal of Mental Health Nursing. 2019;28(5):1068-80.

45. Rodríguez-Almagro J, Hernández-Martínez A, Rodríguez-Almagro D, Quiros-García JM, Solano-Ruiz MDC, Gómez-Salgado J. Level of Stigma among Spanish Nursing Students toward Mental Illness and Associated Factors: A Mixed-Methods Study. Int J Environ Res Public Health. 2019;16(23):4870.

46. İnan FŞ, Günüşen N, Duman ZÇ, Ertem MY. The Impact of Mental Health Nursing Module, Clinical Practice and an Anti-Stigma Program on Nursing Students’ Attitudes toward Mental Illness: A Quasi-Experimental Study. Journal of Professional Nursing. 2019;35(3):201-8.

47. Samari E, Seow E, Chua BY, Ong HL, Abdin E, Chong SA, et al. Stigma towards people with mental disorders: Perspectives of nursing students. Archives of Psychiatric Nursing. 2018;32(6):802-8.

48. Lee E, Jeong YM, Yi SJ. Nurses’ Attitudes Toward Psychiatric Help for Depression: The Serial Mediation Effect of Self-Stigma and Depression on Public Stigma and Attitudes Toward Psychiatric Help. International journal of environmental research and public health. 2020;17(14):5073.

Tables

Tables 1-6 are available in the Supplementary Files.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.
• Stigmatables.docx