Exploring the Impact of Psychiatric Nursing Placement on Undergraduate Nursing Students' Attitudes toward Mental Illness

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ABSTRACT

This study examined the impact of psychiatric nursing placement on student nurses' attitudes toward mental illness. A within group pre-post test quasi-experimental design was employed using 112 fourth year undergraduate nursing students of a Nigerian University undergoing psychiatric nursing posting at a psychiatric hospital, recruited through convenience sampling. The Attitude to Mental Illness Questionnaire (AMIQ) was administered at the beginning and end of the 8 weeks posting. Paired samples t-test analysis showed a significant reduction in the belief that mental illness could damage one's career, $t(111) = -5.44$, $p<.001$; increased comfort about being in presence of a mentally ill colleague at work, $t(111) = 6.55$, $p<.001$; increased ease inviting someone with mental health problems to dinner party, $t(111) = 6.11$, $p<.001$, and decreased belief about someone with mental health problems leaving spouse, $t(111) = -2.50$, $p<.001$. The results revealed significant change in the belief that someone with mental health problems could get into trouble with the law, $t(111) = -1.43$, $p<.001$. On influence of gender, the independent samples t-test results showed that there was no difference in the belief of both gender that mental illness could damage one's career, $t(112) = .43$, $p>.05$; feeling comfortable with mentally ill colleague, $t(112) = 1.53$, $p>.05$; feeling comfortable with someone having mental health problems in a dinner party, $t(112) = 1.12$, $p>.05$; belief in the likelihood of someone with mental health problems leaving spouse, $t(112) = .86$, $p>.05$, and likelihood of getting into trouble with the law, $t(112) = -.84$, $p>.05$. The implication of these findings on nursing education was discussed.

Keywords: Psychiatric posting, Nursing students, Attitude, Exploring, Mental illness, and Impact.

INTRODUCTION:

Mental illness refers to a wide range of disorders characterized by emotional disturbance, abnormal behaviour and impaired functioning (Funk, 2016). Globally, one in three persons suffer from mental illness during their lifetimes (Vigo *et al*., 2016), with higher prevalence where the populations are faced with overwhelming existential challenges (Naslund *et al*., 2021; Javed *et al*., 2021). The evidence indicates that 80% of people living with mental illness worldwide reside in low and middle-income countries (Rathod *et al*., 2017; Alloh *et al*., 2018).

Furthermore, depression which is one of the commonest mental health problems globally has been estimated to become the third and second highest cause of disease burden in many LMICs and middle-income countries, respectively by the year 2030 (Rathod *et al*., 2017). Given the rising prevalence of traumatic conditions and the deteriorating humanitarian problems including hunger, poverty, internal displacement and diseases in many of the LMICs and middle-income countries, it is likely that the 2030 projections regarding mental health problems may be outstripped. Due to the poor understanding

of mental illness as a public health challenge, the concept has been bedevilled with misconceptions, myths, and stigma (Labinjo *et al*., 2020), often associated with negative attitudes including prejudicial stereotypes, social distancing, discrimination and abuses from the public (Gureje *et al*., 2005; Obembe *et al*., 2013; API-EpiAFRIC, 2020). Mental health - related stigma encourages suboptimal treatment & human rights violations, associated with poor outcomes (WHO, 2013; Javed *et al.*, 2021).

According to Pathare and colleagues, (2018), over 90% of persons experiencing mental health problems in LMICs lack access to standard (evidence-based) treatment. Thus, stigma remains a major challenge to quality mental healthcare delivery, particularly in LMICs where, as earlier stated, a disproportionate share of the world's mental health burden exist (Naslund *et al*., 2021). It is, however, ironic that majority of those who perpetrate stigmatization against mental illness are well trained medical/health professionals including Nurses rather than the psychiatrically uninformed public (Gureje *et al*., 2005; Rao *et al*., 2009; Högberg *et al*., 2012; Poreddi *et al*., 2015; Armiyau, 2015). For instance, a study revealed that 60% of Nigerian Nurses hold misconceptions about mental illness and exhibit negative attitudes towards mentally ill individuals (Obembe *et al*., 2013). Additionally, nurses across various jurisdictions have been found to hold more negative views and manifest stronger resentment towards mentally-ill individuals than the uninformed general public (Chambers *et al.*, 2010; Bennet *et al*., 2015; Emrich *et al*., 2003; Corrigan *et al*., 2015). Considering that Nurses constitute the largest group of health professionals directly involved in patients' care (WHO, 2007), and their attitude impact illness experience and therapy outcomes, these revelations are concerning. The path to becoming a professional nurse entail formal education through enrolment in an accredited School of Nursing or University where student nurses spend between 3 to 5 years and pass mandatory qualifying examinations. Research findings indicate that students carry along into the nursing institutions previously held negative beliefs, misconceptions & stereotypes about mental illness (Poreddi *et al*., 2014; 2015; Hastings *et al*., 2015; Bennet *et al*., 2015). These pre-conceived notions are believed to have significant influence on the attitudes of the students towards mentally ill persons and their future career choices. Most nursing

students have shown least preference for the psychiatric nursing speciality after graduation (Markstrom *et al*., 2009; Hoekstra *et al*., 2010; Stevens *et al.*, 2013), likely due to lack of interest arising from the misconceptions about mental illness. Arguably, the negative views of student nurses which influence their attitudes can be significantly addressed by introducing relevant mental health contents including theory and clinical exposure into the nursing education curriculum.

In many countries, mandatory psychiatric placement is a vital component of the nursing education curriculum. This programme offers nursing students opportunity for robust experiential exposure in settings where effective mental health-psychiatric nursing care is provided to patients with various mental health problems. For example, Nigerian nursing students undertake 8 weeks psychiatric nursing placement, and are required to carry out supervised care to patients during the period. The over-arching objective is to enable the students familiarize themselves with mental healthcare settings, change their perspectives, and consequently develop healthy attitude towards people faced mental health problems. This is in tandem with research evidence that pre-conceived negative beliefs about mental illness can be reduced among student nurses by providing them the opportunity to directly engage with psychiatric patients (Gamez *et al*., 2017; Sari *et al*., 2018; Stuhlmiller *et al*., 2019; Gandhi *et al*., 2019; Cingol *et al*., 2020; Lim *et al*., 2020). However, the established empirical position regarding the impact of the psychiatric posting (above cited) has been contradicted by other studies that failed to show significant association between psychiatric exposure and positive attitudes towards mental illness (Schafer *et al*., 2011; Gyllensten *et al*., 2011; Al-Awadhi *et al*., 2017; Çingöl *et al*., 2020). Notably, some other studies (e.g., Callaghan *et al*., 1997; Thongpriwan *et al*., 2015) have argued that psychiatric nursing exposure in formal treatment settings can increase the formation of negative attitudes towards mental illness among student nurses, thus questioning the validity of the placement programme. It is important to recognize that studies undertaken to examine the psychiatric nursing posting programme and attitudes of student nurses towards mental illness predominantly come from developed western countries whereas not much is known in LMICs where mental illness-related stigma remains more prevalent (Obembe *et al*., 2013; Nas-

lund *et al*., 2021). For example, despite the re-ported alarming rate of mental illness in Nigeria (Alabi & Kanabe, 2021) and the revelation that an average of 14,000 nurses are produced yearly (Abubakar, 2020), there are very few Psychiatric Nurses catering to the needs of over 200 million people at an estimated ratio of 4 per 100,000 people (Eaton *et al*., 2017). This statistics seems to suggest lack of interest in the psychiatric nursing speciality (Hoekstra *et al*., 2010; Stevens *et al*., 2013) which, presumably, explains the high prevalence of negative attitudes towards mental illness among nurses in Nigeria (Obembe *et al*., 2013). Given the above, therefore, it is imperative to systematically examine the psychiatric placement programme to ascertain whether its objective of changing student nurses' attitudes towards mental illness is being met.

Consequently, this study aimed to investigate the attitude of fourth year undergraduate nursing students with a view to evaluating the influence of the psychiatric nursing placement programme on their attitudes towards mental illness. Specifically, the study examined the influence of the psychiatric nursing posting on the attitude of nursing students towards mental illness, and the influence of gender in the attitudinal change. Findings have implication for nursing education, global mental health care, and existing literature.

MATERIALS AND METHODS:

Design/participants

This study employed a within group quasi-experimental design which compares baseline and outcome measures following 8 weeks psychiatric nursing placement. Participants were fourth year undergraduate nursing students undergoing the mandatory 8 weeks psychiatric nursing posting at the Neuro-Psychiatric Hospital, RumuigboPort Harcourt, and Rivers State, Nigeria. The Neuro-Psychiatric Hospital, Rumuigbo-PortHarcourt, Rivers State, established in 1977, serves as a regional clinical training hub for medical and health students of universities, colleges and nursing institutions in the Niger Delta Region of Nigeria. Participants in this study consisted of 7 male and 105 female who met the following inclusion criteria: (a) a fourth year undergraduate nursing student undergoing the psychiatric nursing posting programme without previous similar experience (b) aged 18 years and above, (c) willingness to participate. The participants were selected using convenience sampling method. During the placement period, the student nurses had direct contact with psychiatric patients and carried out supervised routine nursing care and psycho-social activities involved in the care of both in-patients and out-patients at the hospital.

Instrument

The study used the Attitude to Mental Illness Questionnaire (AMIQ) to measure the student nurses attitude towards mental illness. A section was created by the researchers in the questionnaire to obtain information regarding participants' socio-demographic characteristics and previous psychiatric exposure. The Attitude to Mental Illness Questionnaire (Luty *et al*., 2006) is a short (5-item) self report questionnaire used to assess individuals' attitude towards mental illness. The five items represents occupational ability, co-worker preference, inviting to social gathering, ability to maintain personal relationships, and risks of legal problems. Each of the items are subjected to a 5-point likert scale response system with scores ranging from -2 to +2 being the minimum and maximum scores, respectively. Items 1, 4 and 5 are reversed scored and scores on the five questions are added to give a total score ranging from -10 to +10. Higher scores indicate more positive attitude towards the person being perceived or viewed. The scale has reliability coefficient with Cronbach's alpha as 0.933 (Luty *et al*., 2006). Notably, the AMIQ construct validity has strong construct validity in comparison with Corrigan's 21 items Attribution Questionnaire validated for measuring stigmatisation towards mentally ill individuals (Corrigan *et al*., 2003; Luty *et al*., 2006). The instrument has been used successfully with Nigerian samples (Abedin *et al*., 2020; Bakare *et al*., 2021).

Procedure

The students were approached individually to solicit their participation by the researchers and a Senior Psychiatric Nurse (who served as research assistant) upon their arrival at the hospital. Additionally, leaflets containing explanations about the study and assurance of confidentiality were distributed to them. Those who accepted to participate were reminded that participation was voluntary and anyone who felt uncomfortable was at liberty to withdraw. After obtaining their written consent, the AMIQ was administered to the student nurses and pre-test data collected immediately before their deployment to the various wards of the hospital. On the last day of their

8 weeks placement, the AMIQ was again administered to them and post-test data collected on the spot. Data analyses were conducted using Paired Sample t-test and Independent Sample t-test with SPSS statistical software.

RESULTS:

Participants' demographic data as shown in **Table 1** indicates that female nurses (93.8%) were more compared to males (6.3%). Furthermore, it reveals that more of the participants were between the ages of 22-23 years (30.4%) and 24-25 years (26.8%). Those aged 26 years and above were 21.4%, 20-21 years (19.6%) and 18-19 years (1.8%). All the participants (100%) were fourth year undergraduate nursing students.

Table 1: Participants' Demographic characteristics.

Demographic Variable	Description	*n* (%)
Sex	Male	7 (6.3)
	Female	105 (93.8)
Age	18-19 years	2 (1.8)
	20-21 years	22(19.6)
	22-23 years	34(30.4)
	24-25 years	30(26.8)
	26 years and above	24(21.4)
Year of study	Fourth	112 (100%)

Analyses carried out regarding the two research questions are presented below.

Research Question 1

Will there be significant positive change after their 8 weeks psychiatric nursing posting?

Table 2: Paired samples t-test results of changes after their psychiatric nursing posting.

ITEM		Paired Differences					T	df	Sig. (2-tailed)
		M	SD	SE Mean	95% CI Lower	95% CI Upper			
Pair 1	Mental illness will damage his/her career	-1.01	1.96	.19	-1.38	-.64	-5.44	111	.000
Pair 2	I would be comfortable if he/she were my colleague at work	1.13	1.83	.17	.79	1.48	6.55	111	.000
Pair 3	I would be comfortable about inviting him/her to a dinner party	1.12	1.93	.18	.75	1.49	6.11	111	.000
Pair 4	How likely would be for his/her spouse to leave him/her	-.52	2.19	.21	-.93	-.11	-2.50	111	.014
Pair 5	How likely would be for him/her to get into trouble with the law	-.31	2.31	.22	-.74	.12	-1.43	111	.155

Note. *MD* = Mean Difference; *CI* = Confidence interval

Table 2 shows the students' responses to the question of whether mental illness will damage a person's career, $t(111) = -5.44$, $p<.001$. Participants' score before commencement of the psychiatric nursing posting was 1.77 (SD = 1.54) while after the 8 weeks posting, they scored .76 (SD = 1.10). This reflects a reduction in the students' belief that mental illness could damage a person's career after the 8 weeks psychiatric nursing posting student's belief that mental illness could damage a person's career. Furthermore, the results indicated significant increase in the students' responses regarding whether they would be comfortable with a mentally ill person if he/she were their colleague at work, $t(111) = 6.55$, $p<.001$. Scores obtained before the posting was 1.70 (SD = 1.31) while after the posting it was 2.83 (SD = 1.07). Concerning the question of whether the students would be comfortable inviting him/her a mentally ill person to dinner party, there was significant change in their responses before and after the posting, $t(111) = 6.11$, $p<.001$. Scores of participants before the 8 weeks psychiatric nursing posting was 1.83 (SD = 1.43) while the scores obtained after the posting was 2.95 (SD = 1.10). This shows that the students' level of comfort about inviting a mentally ill person to a dinner party had increased after the posting. Significant change was found in students' responses to the question about the likelihood of a mentally ill person's spouse leaving him/her before and after the posting, $t(111) = -2.50$, $p<.001$. Participants' scores before and after the posting was 2.01 (SD = 1.41) and 1.49 (SD = 1.57), respectively. Lastly, there was no significant change in the responses of the student nurses about the likelihood of a mentally ill person getting into trouble with the law, $t(111) = -1.43$, $p<.001$. Scores of participants before and after the 8

weeks posting was 1.99 (SD = 1.49) and 1.68 (SD = 1.69), respectively.

Research Question 2

Will there be significant difference between male and female nursing *students attitude* after the psychiatric posting?

Table 3: Independent samples t-test results of attitude of male and female nursing students towards mental illness after their psychiatric nursing posting.

ITEMS	T	Df	Sig.	MD	SED	95% CI
Mental illness will damage his/her career	.43	112	.67	.25	.58	[-.89, 1.40]
I would be comfortable if he/she were my colleague at work	1.53	112	.13	.82	.54	[-.25, 1.89]
I would be comfortable about inviting him/her to a dinner party	1.12	112	.27	.60	.54	[-.47, 1.67]
How likely would be for his/her spouse to leave him/her	.86	112	.39	.44	.51	[-.57, 1.45]
How likely would be for him/her to get into trouble with the law	-.84	112	.40	-.43	.51	[-1.45, .59]

Note. EV = Equality of Variances; SED = Standard Error Difference; Sig = 2-tailed; CI = Confidence interval.

Table 3 showed that there was no difference between male and female nursing students about the belief that mental illness will damage a person's career, $t(112) = .43$, p>.05, and whether they would be comfortable if the mentally ill person were their colleague at work, $t(112) = 1.53$, p>.05. Similarly, the responses of male and female nursing students on whether they would be comfortable about inviting a mentally ill person to a dinner party were not different, $t(112) = 1.12$, p>.05.

They did not differ in their responses regarding mentally ill person's spouse leaving him/-her, $t(112) = .86$, *p*>.05. There was no significant responses of male and female nursing students about a mentally ill person getting into trouble with the law, $t(112) = -.84$, *p*>.05.

DISCUSSION:

The overarching objective of this research was to understand the impact of psychiatric nursing posting on student nurses. Two research questions were addressed. First was whether psychiatric nursing posting would have impact on student nurses' attitude towards mental illness. Second was to address the question of whether gender would influence the anticipated change in attitude arising from the posting. Concerning the first question, the results showed that psychiatric nursing posting significantly influenced student nurses. Given that all those who participated were in fourth year with similar knowledge attainment and class room experience, it can reasonably be assumed that the positive change in attitude found may have been produced by the 8 weeks psychiatric nursing posting experience. The current finding is consistent with previous studies which examined the impact of psychiatric nursing placement on student nurses' attitude towards mental

health. For example, Jack-Ide *et al,* (2016) showed that the psychiatric clinical experience impacted positively on undergraduate student nurses attitude towards psychiatric nursing. Happell, (2013) demonstrated that exposure to psychiatric clinical experience positively influenced nursing students' attitudes. This is also reported by Hunter *et al*. (2014) and Poreddi *et al.* (2015) asserting that psychiatric placement has significant positive impact on the attitude of nursing students regarding mental health. More recent research (Sari & Yuliastuti, 2018; Stuhlmiller & Tolchard, 2019; Çingöl *et al*., 2020; Shammari *et al*., 2020; Lagunes-Cordoba *et al*., 2022) also revealed the commonly reported findings indicating that exposure to psychiatric clinical experience can positively change the attitude of student nurses. The aforementioned finding can be adequately explained using psychology's contact theory which suggests that prejudice, stigma and conflict between groups can be reduced if groups interact continually and optimally with each other (Allport, 1954). According to Pettigrew and Tropp, (2008), contact reduces prejudice because it arouses emotions and increases empathy, and consequently reduces the anxiety that occurs when an individual interacts with people he/she had had no previous contact with. They also argued that decategorization may occur when people begin to see the other individuals whom they had previously treated prejudicially and stigmatized as being same as themselves, rather than as only another group (e.g., disabled or mentally ill people). It is important to recognize that the context in which contact occurs is critical as prejudice can only be reduced and positive attitude engendered in an atmosphere where there is equal treatment, common goals, cooperation and institutional support (Allport, 1954; Pettigrew and

Tropp, 2006; 2008). The above mentioned factors existed at the study setting where the psychiatric nursing posting took place. Nurses and patients were treated equally as partners, rather than patients being treated as subordinates or inferior individuals. In addition, the warm relationship that existed between nurses and patients as partners with a common goal (of recovery) was encouraged and supported by the hospital management as policy. Arguably, this milieu provided opportunity for the student nurses to gain more insight, disprove their previously held negative beliefs and develop positive attitudes towards mental health as reported in this study. Regarding the second research question about gender difference in the attitude of student nurses towards mental health this study found no difference between male and female students. This is in line with previous evidence suggesting that gender had no influence on nursing students' attitude towards mental illness (Schafer *et al*., 2011; Thongpriwan *et al*., 2015; Sari *et al*., 2018; Shammari *et al*., 2020).

CONCLUSION AND RECOMMENDATIONS:
Student nurses maintain pre-conceived misconceptions including the notion that people experiencing mental health problems are harmful, and consequently engage in negative attitudes during their studies. This study has demonstrated that direct contact and exposure to mental health/psychiatric nursing settings through the mandatory psychiatric nursing postings programme can influence significant positive change on students' attitude. Consequently, the validity or merit of the psychiatric nursing posting programme as an essential element of the nursing education curriculum has been reinforced. Furthermore, the findings underscore the importance of addressing the negative stereotypes of student nurses and other trainee health professionals regarding mental health issues to enable them provide the best possible care. More so, changing nursing students' attitude prior to the completion of their studies may encourage them to choose psychiatric nursing speciality as their future career, post-graduation. This may go a long way in addressing the acute manpower shortage currently experienced in the mental health sub-sector globally.

Limitations
While this study does offer some compelling support for student nurses gaining significant experience in psychiatric settings, we recommend further research in view of certain limitations. First, this study would also have benefitted from feedbacks from the nursing staff that facilitated and supervised the students while undergoing the placement, and other people within the setting with whom the students came into contact during the 8 weeks posting. This is because the students may have perceived themselves as having changed their attitudes but this required confirmation, especially by other individual's including the mentally ill people whom they came in contact with, and cared for, during the posting. Second, this study used small sample size and adopted unsystematic sampling method which limits generalisation.

CONFLICTS OF INTEREST:
We have no conflict of interest with any individual or organization

REFERENCES:
1) Abedin MZ, Ahmed AA, and Aktar MB. (2020). Laboratory based diagnosis of bacteraemia among inpatients and outpatients with acute febrile illness at Khwaja Yunus Ali Medical College and Hospital in Bangladesh. *Eur. J. Med. Health Sci*., **2**(3), 46-51. https://doi.org/10.34104/ejmhs.020.046051

2) Abubakar, F. U., (2020). Nursing council inducts 144 foreign trained nurses. https://dailytrust.com/nursing-council-inducts-144-foreign-trained-nurses

3) African Polling Institute and EpiAFRIC., (2020). *Mental Health in Nigeria Survey.* www.africapolling.ng.

4) Alabi, M. and Kanabe, M., (2021). World Mental Health Day: How outdated legislation, COVID-19 worsen situation in Nigeria. https://www.premiumtimesng.com/news/headlines/489202-world-mental-health-day-how-outdated-legislation-covid-19-worsen-situation-in-nigeria.html

5) Al-Awadhi, A., Atawneh, F., Alalyan, M.Z.Y., (2017). Nurses' attitude towards patients with mental illness in a general hospital in Kuwait. *Saudi journal of medicine & medical sciences*, **5**(1), p.31. http://dx.doi.org/10.4103/1658-631X.194249

6) Alloh, F. T., Regmi, P., Onche, I., van Teij-lingen, E. and Trenoweth, S., (2018). Men-tal health in low-and middle income countries (LMICs): going beyond the need for funding. *Health Prospect: Journal of Public Health*, **17**(1), 12-17. http://www.nepjol.info/index.php/HPROSPECT/issue/archive

7) Allport, G.W., (1954). The Nature of Prejudice. Reading, *MA: Addison-Wesley.* http://althaschool.org/_cache/files/7/1/71f96bdb-d4c3-4514-bae2%209bf809ba9edc/97F5FE75C F9A120E7DC108EB1B0FF5EC.holocaust-the-nature-of-prejudice.doc

8) Armiyau, A. Y., (2015). A review of stigma and mental illness in Nigeria. *Journal of Clinical Case Reports*, **5**(1), 488. http://dx.doi.org/10.4172/2165-7920.1000488

9) Bakare, A., Yakubu, L., Yunusa, M., (2021). Psychiatry posting among nursing students: Attitude to mental illness. *European Journal of Health Sciences*, **6**(1), pp.45-56. https://doi.org/10.47672/ejhs.668

10) Bennett, J. and Stennett, R., (2015). Attitudes towards mental illness of nursing students in a B accalaureate programme in J amaica: a questionnaire survey. *Journal of psychiatric and mental health nursing*, **22**(8), pp.599-605. https://doi.org/10.1111/jpm.12234

11) Callaghan, Ching, L.W. and Kwan, T.L., (1996). The effect of a psychiatric secondment on Hong Kong Chinese student nurses' attitudes to mental illness. *Journal of Psychiatric and Mental Health Nursing*, **3**(3), pp.202-203. https://doi.org/10.1111/j.1365-2850.1996.tb000 89.x

12) Chambers, M., Guise, V., Scott, A., (2010). Nurses' attitudes to mental illness: A comparison of a sample of nurses from five European countries. *International journal of nursing studies*, **47**(3), pp.350-362. https://doi.org/10.1016/j.ijnurstu.2009.08.008

13) Çingöl, N., Zengin, S. and Celebi, E., (2020). The effect of psychiatric nursing students' internships on their beliefs about and attitudes toward mental health problems; a single-group experimental study. *Nurse Education Today*, **84**, p.104-243. https://doi.org/10.1016/j.nedt.2019.104243

14) Corrigan, P., Thompson, V., Lambert, D., Sangster, Y., (2003). Perceptions of discrim-ination among persons with serious mental illness. *Psychiatric Services*, **54**(8), pp.1105-1110. https://doi.org/10.1176/appi.ps.54.8.1105

15) Corrigan, P.W., Morris, S.B., and Rüsch, N., (2012). Challenging the public stigma of mental illness: a meta analysis of outcome studies. *Psychiatric services*, **63**(10), pp.963-973. https://doi.org/10.1176/appi.ps.201100529

16) Emrich, K., Thompson, T.C. and Moore, G., (2003). Positive attitude: An essential element for effective care of people with mental illnesses. *Journal of psychosocial nursing and mental health services*, **41**(5), pp.18-25. https://doi.org/10.3928/0279-3695-20030501-09

17) Eaton, J., Nwefoh, E., Okafor, G., (2017). Interventions to increase use of services; mental health awareness in Nigeria. *Inter-national journal of mental health systems*, **11**(1), pp.1-6. http://doi.org/10.1186/s13033-017-0173-z

18) Funk, M., (2016). Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level. https://apps.who.int/iris/handle/10665/78898

19) Gandhi, S., Poreddi, V., Govindan, R., *et al.* (2019). Knowledge and perceptions of Indian primary care nurses towards mental illness. *Investigacion educacion in enfermeria*, **37**(1), pp.50-59. https://doi.org/10.17533/udea.iee.v37n1a06

20) Granados-Gámez, G., Lopez Rodriguez, M. D. M., Corral Granados, (2017). Attitudes and beliefs of nursing students toward mental disorder: the significance of direct experience with patients. *Perspectives in psychiatric care*, **53**(2), pp.135-143. https://doi.org/10.1111/ppc.12147

21) Gureje, O.Y.E., Lasebikan, V.O., Ephraim-Oluwanuga, O., (2005). Community study of knowledge of and attitude to mental illness in Nigeria. *The British Journal of Psychiatry*, **186**(5), pp.436-441. https://doi.org/10.1192/bjp.186.5.436

22) Gyllensten, A.L., Sevensson, B., Bjorkman, T., (2011). Attitudes in healthcare students towards mental illness-A pre-and post multi-center university program survey. *Internet Journal of Allied Health Sciences and Practice*, **9**(3), p.11. https://doi.org/10.46743/1540-580X/2011.1365

23) Happell, B. and Gough, K., (2007). Undergraduate nursing students' attitudes towards mental health nursing: Determining the influencing factors. *Contemporary Nurse*, **25**(1-2), pp.72-81.
https://doi.org/10.5172/conu.2007.25.1-2.72

24) Happell, B., Platania-Phung, C., Harris, S. and Bradshaw, J., (2014). It's the anxiety: Facilitators and inhibitors to nursing students' career interests in mental health nursing. *Issues in Mental Health Nursing*, **35**(1), pp.50-57.
https://doi.org/10.3109/01612840.2013.837123

25) Hastings, T., Kroposki, M. and Williams, G., (2017). Can completing a mental health nursing course change students' attitudes? *Issues in Mental Health Nursing*, **38**(5), pp. 449- 454.
https://doi.org/10.1080/01612840.2017.1278810

26) Hoekstra, H.J., van Meijel, B. B. and van der Hooft-Leemans, T.G., (2010). A nursing career in mental health care: Choices & motives of nursing students. *Nurse Education Today*, **30**(1), pp. 4-8.
https://doi.org/10.1016/j.nedt.2009.05.018

27) Högberg, T., Magnusson, A., Lützén, K. and Ewalds-Kvist, B., (2012). Swedish attitudes towards persons with mental illness. *Nordic Journal of Psychiatry*, **66**(2), pp.86-96.
https://doi.org/10.3109/08039488.2011.596947

28) Hunter, L., Weber, T., Shattell, M. and Harris, B.A., (2015). Nursing students' attitudes about psychiatric mental health nursing. *Issues in Mental Health Nursing*, **36**(1), pp.29-34.
https://doi.org/10.3109/01612840.2014.935901

29) Jack-Ide, I. O., Amiegheme, F. E. and Ongutubor, K.E., (2016). Undergraduate nursing students' mental health and psychiatric clinical experience and their career choice in nursing: Perspectives from the Niger Delta region of Nigeria. *J. Ment Disord Treat*, **2**(2), pp.116-121.
http://dx.doi.org/10.4172/2471-271X.1000116

30) Javed, A., Lee, C., Zakaria, H., Buenaventura, R.D., *et al*. (2021). Reducing the stigma of mental health disorders with a focus on low- and middle-income countries. *Asian journal of psychiatry*, **58**, p.102601.
https://doi.org/10.1016/j.ajp.2021.102601

31) Labinjo, T., Serrant, L., Ashmore, R. and Turner, J., (2020). Perceptions, attitudes and cultural understandings of mental health in Nigeria: A scoping review of published literature. *Mental Health, Religion & Culture*, **23**(7), pp.606-624.
https://doi.org/10.1080/13674676.2020.1726883

32) Lagunes-Cordoba, E., Alcala-Lozano, R., Lagunes-Cordoba, R., *et al.* (2022). Evaluation of an anti-stigma intervention for Mexican psychiatric trainees. *Pilot and Feasibility Studies*, **8**(1), pp.1-11.
https://doi.org/10.1186/s40814-021-00958-1

33) Lim, H.J., Moxham, L., Patterson, C., Perlman, D., (2020). Students' mental health clinical placements, clinical confidence and stigma surrounding mental illness: A co-relational study. *Nurse Education Today*, **84**, p.104219.
https://doi.org/10.1016/j.nedt.2019.104219

34) Luty, J., Fekadu, D., Umoh, O. and Gallagher, J., (2006). Validation of a short instrument to measure stigmatised attitudes towards mental illness. *Psychiatric bulletin*, **30**(7), pp.257-260. https://doi.org/10.1192/pb.30.7.257

35) Markström, U., Gyllensten, A.L., Bejerholm, U., *et al.* (2009). Attitudes towards mental illness among health care students at Swedish universities – A follow-up study after completed clinical placement. *Nurse education today*, **29**(6), pp.660-665.
https://doi.org/10.1016/j.nedt.2009.02.006

36) Naslund, J.A. and Deng, D., (2021). Addressing mental health stigma in low-income and middle-income countries: A new frontier for digital mental health. *Ethics, Medicine and Public Health*, **19**, p.100-719.
https://doi.org/10.1016/j.jemep.2021.100719

37) Obembe, A., Yunusa, M., Adeniyi, F. and Uwakwe, R., (2013). National survey on stigma, mental illness and nurses in Nigeria.

38) Pathare, S., Brazinova, A. and Levav, I., (2018). Care gap: a comprehensive measure to quantify unmet needs in mental health. *Epidemiology and psychiatric sciences*, **27**(5), pp.463-467.
https://doi.org/10.1017/S2045796018000100

39) Pettigrew, T.F., (2008). Future directions for intergroup contact theory and research. *International Journal of intercultural relations*, **32**(3), pp.187-199.
https://doi.org/10.1016/j.ijintrel.2007.12.002

40) Pettigrew, T.F. and Tropp, L.R., (2006). A meta-analytic test of intergroup contact theory. *J. of personality & soc. psycho.*, **90**(5), p.751.
https://doi.org/10.1037/0022-3514.90.5.751

41) Poreddi, V., Thimmaiah, R. and Math, S.B., (2015). Attitudes toward people with mental illness among medical students. *J. of Neurosciences in rural practice*, **6**(03), pp. 349-354. https://doi.org/10.4103/0976-3147.154564

42) Poreddi, V., Thimmaiah, R., Pashupu, D.R., *et al.* (2014). Undergraduate nursing students' attitudes towards mental illness: Implications for specific academic education. *Indian journal of psychological medicine*, **36**(4), pp.368-372. https://doi.org/10.4103/0253-7176.140701

43) Rao, H., Mahadevappa, H., Pillay, P., (2009). A study of stigmatized attitudes towards people with mental health problems among health professionals. *Journal of psychiatric and mental health nursing*, **16**(3), pp. 279-284. https://doi.org/10.1111/j.1365-2850.2008.01369.x

44) Rathod, S., Pinninti, N., Irfan, M., (2017). Mental health service provision in low-and middle-income countries. *Health services insights*, **10**. https://doi.org/10.1177%2F1178632917694350

45) Sari, S.P. and Yuliastuti, E., (2018). Investigation of attitudes toward mental illness among nursing students in Indonesia. *International journal of nursing sciences*, **5**(4), pp. 414-418. https://doi.org/10.1016/j.ijnss.2018.09.005

46) Schafer, T., Wood, S. and Williams, R., (2011). A survey into student nurses' attitudes towards mental illness: Implications for nurse training. *Nurse education today*, **31**(4), pp. 328-332. https://doi.org/10.1016/j.nedt.2010.06.010

47) Shammari, M., Waggas, D.S. and Hasan, A.A., (2020). Assessment of nursing students' attit-udes and stigma towards mental illness: a cross-sectional study. *J. Nurs. Educ. Pract*, **10**(9).

48) Shammari, M., Waggas, D.S. and Hasan, A.A., (2020). Assessment of nursing students' attitudes and stigma towards mental illness: a cross-sectional study. *J. Nurs. Educ. Pract*, **10**(9). https://doi.org/10.5430/jnep.v10n9p1

49) Stevens, J., Browne, G. and Graham, I., (2013). Career in mental health still an unlikely career choice for nursing graduates: A replicated longitudinal study. *International Journal of Mental Health Nursing*, **22**(3), pp. 213-220. https://doi.org/10.1111/j.1447-0349.2012.00860.x

50) Stuhlmiller, C. and Tolchard, B., (2019). Understanding the impact of mental health placements on student nurses' attitudes towards mental illness. *Nurse education in practice*, **34**, pp.25-30. https://doi.org/10.1016/j.nepr.2018.06.004

51) Thongpriwan, V., Leuck, S.E., Powell, R.L., (2015). Undergraduate nursing students' attitudes toward mental health nursing. *Nurse education today*, **35**(8), pp. 948-953. https://doi.org/10.1016/j.nedt.2015.03.011

52) Vigo, D., Thornicroft, G. and Atun, R., (2016). Estimating the true global burden of mental illness. *The Lancet Psychiatry*, **3**(2), pp.171-178. https://doi.org/10.1016/S2215-0366(15)00505-2

53) World Health Organization, (2013). Investing in mental health: evidence for action. http://apps.who.int/iris/bitstream/10665/87232/1/9789241564618_eng.pdf