Resilience and its relatedness to mental distress among nursing students in a Nigerian tertiary educational institution

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Abstract

Background: The process of nursing education has been described to be very stressful with associated mental distress and unwellness. The cost of these are exorbitant on the individuals, significant others and the society at large. Resilience has been identified as one of the elements that can reverse this trend. It is based on this premise that the present study is contributing to the field of positive education by investigating the distinguishing features of high and low resilient nursing students to mental health distress and its related relatedness.

Methodology: Data were cross-sectionally collected from 66 nursing students from 2nd to 5th year of study. The data were on participants' sociodemography, their resilience characteristics, presence of symptoms of mental distress, anxiety and depression, level of social support and mindfulness practices.

Results: Participants' mean age was 21.75 years (SD = 3.20) and predominantly females (89.60%). Majority of them had mental unwellness (i.e. cases on GHQ-12, HADS-depression subscale and HADS-anxiety subscale were respectively 78.8%, 87.9% and 92.4%) with good resilience characteristics (53.0%), moderate social support (57.6%) and good mindfulness practices (51.5%). Resilience was moderately and significantly related to depressive symptoms and mindfulness practices.

Conclusion: Mental distress is common among undergraduate nursing students. And that the distress was more among high resilient student despite their noted good mindfulness practices. Their poor social support characteristics suggested inadequately ability to buffer the noted distress. A way to reverse this to boost the participants' resilience with benefit of improving academic performances and limiting future professional burnouts.

Key Words: Nursing students, Mental distress, Resilience, Mindfulness practices

Introduction

Mental health distress is the absence of mental wellbeing. This is basically described as the lack of emotional and social wellness and often characterized with features of depression and anxiety.[1] The process of nursing education has been described to be very stressful with associated mental distress and unwellness.[2] A study indicates that nursing students experienced more distressed during clinical education than during classroom or laboratory learning.[3] Such psychological disturbance in tertiary education students do hinder academic growth and make them meaningless, promote maladaptive coping with substance abuse and possible drop out of school.[2,4-6] The cost of

these are exorbitant on the individuals, significant others and the society at large.

Recent research on psychological distress and resilience among Nigerian university students shows the mental health benefits of resilience.[6] This study shows that high resilience is indicative of low psychological distress. A finding illustrating the definition of resilience as: the psychological capacity to overcome intense life adversities as well as that which facilitate healthy adaptation and functioning in the environment.[8] It is based on this premise that the present study is contributing to the field of positive education by investigating the distinguishing features of high and low resilient nursing students to mental health distress and its related relatedness.

Methodology

Participants and procedures

Sixty-six of the undergraduate nursing students of College of Health Science, University of Ilorin, Ilorin, Kwara-State, Nigeria with completely filled questionnaires were the participants for the study. All were in the 2nd to 5th year of study (i.e. 25, 31, 5 and 5 for years 2, 3,4 and 5 respectively). Their mean age was 21.75 years (SD = 3.20 and age range of 16 to 31 years). Majority were females (89.60%), not married (92.50%) and below 25 years of age (68.70%). All the participants gave informed consent after first obtaining ethical clearance to carry out this study from the University of Ilorin Ethical Review Committee.

Measures

The study utilized questionnaire that comprised of two parts. The first part collected information on academic level, age and gender of the participants. The second portion contains measuring scales for resilience, psychological distress, anxiety, depression, social support and mindfulness. Resilience was measured by Resilience Scale; psychological distress by 12-item General Health Questionnaire (GHQ-12); anxiety and depression by the Hospital Anxiety Depression Scale (HADS); social support by Oslo 3-item Social Support Scale; and mindfulness by Freiburg Mindfulness Inventory (FMI).

Resilience Scale (RS)

The Resilience Scale (RS) is a measure of psychological resilience and consists of 25-item.[8] The RS and its short form (RS-14) have good validity and reliability (Cronbach's α range of 0.72 – 0.94) from several western studies[9,10]. Both instruments had also been validated for use in Nigeria by Abiola and Udofia[11] (Cronbach's α for RS and RS-14 were 0.87 and 0.81 respectively). Both instruments (RS and RS-14) are scored on a likert scale of 1 to 7 yielding scores that group

respondents into: low, moderate and high resilience scores. In this study, the 25-item original scale will be utilized to report the resilient characteristics of the participants.

The 12-item General Health Questionnaire (GHQ-12)

The GHQ-12 is the shortest version of the original 60-item GHQ developed by David Goldberg[12] for use in general medical practice. It can distinguish between psychological ill-health and well-being. It has been validated and used in this environment in both academic and field studies.[13,14] The validity of GHQ-12 as determined by Gureje and colleague[13] at the 0/1 cut-off are sensitivity of 67%, specificity of 74%, positive predictive value 59%, negative predictive value 80% and overall misclassification rate of 29%. The GHQ-12 in this study was scored on a bimodal scale (0,0,1,1) with cut-off point of 3 as the norm. Any score less than 3 will be regarded as having no psychological morbidity while those that scored above this will be considered as having mental distress.

Hospital Anxiety Depression Scale (HADS)

The Hospital anxiety and depression scale (HADS) is a portable easy to administer measure of anxiety or depressive state in both clinical and non-clinical population. It consists of seven depression items and seven anxiety items and has been validated for use in Nigeria.[15] A score of 8 and above on either of the two components is regarded as case. Both the depressive and anxiety subscales are used in this study.

The Oslo 3-items Social Support Scale (OSS-3)

The OSS-3 provides a brief measure of social functioning and it is considered to be one of the best predictors of mental health.[16] It covers different fields of social support by measuring the number of people the respondent feels close to, the interest and concern shown by others, and the ease of obtaining practical help from others. Its structure and reliability (Cronbach's alpha of 0.60)[17] have not been well-documented despite widespread use in several European countries. Nonetheless, its brevity and the availability of normative data are strong considerations. It has been validated for use in Nigeria.[18]

The Freiburg Mindfulness Inventory(FMI)

The FMI is a 14-item measure of experience of mindfulness.[19] It constitutes a consistent and reliable scale evaluating several important aspects of mindfulness, which is considered as one-dimensional for practical purposes. Each self-descriptive statement was evaluated using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Depending on the suggested time frame, state- and trait-like components could be assessed.[19] In the present study, the short form was used for

measuring mindfulness-trait of the participants. Because, this is the first time of using FMI in Nigeria, its internal reliability and concurrent validity was also provided in this study.

Data analysis

All data were analysed using IBM-SPSS version 21. Frequency tables were used to show the distribution of the sociodemographics of the participants. Student t-test was used to determine the participants' mean scores based on their psychological distress, anxiety/depressive symptoms, social support characteristics and mindfulness practices. Cronbach's alpha (α) was used to determine the internal reliability of the measuring scales. Kendall's tau_b correlation was used to assess the relationship between resilience and other measures. All results were determined as significant if the $P < 0.05$, two tailed.

Results

Table 1 shows that majority of the participants were with mental unwellness (i.e. cases on GHQ-12, HADS-depression subscale and HADS-anxiety subscale were respectively 78.8%, 87.9% and 92.4%) as at the time of assessment. Also, more than half of the participant had high resilience characteristics (53.0%), moderate social support (57.6%) and good mindfulness practices (51.5%).

In Table 2, participants with high resilience scores had significantly higher depressive symptoms and more mindfulness practices. There is no significant difference noticed between the high and low resilience participants in terms of their general mental distress and anxiety symptoms.

Table 1 – Mental health characteristics of the participants

Resilience	Frequency (n=66)	%
Low	31	47.0
High	35	53.0
Mean = 130.01 (SD=21.19)		
GHI-12		
Non-case	14	21.2
Case	52	78.8
Mean = 4.39 (SD=2.49)		
HADS-depression subscale		
Non-case	8	12.1
Case	58	87.9
Mean = 14.99 (SD=4.33)		
HADS-anxiety subscale		
Non-case	5	7.6
Case	61	92.4
Mean = 13.49 (SD=4.59)		
OSS-3		
Low	28	42.4
Moderate	38	57.6
Mean = 8.62 (1.57)		
FMI		
Low	32	48.5
High	34	51.5
Mean = 42.08 (SD=7.77)		

Note: GHQ-12 =12-item General Health Questionnaire; HADS = Hospital Anxiety Depression Scale; OSS-3 = Oslo Social Support Scale; FMI = Freiburg Mindfulness Inventory

Table 2 – Mean distribution of mental health variables according to their resilience categorization

	Resilience categorization			
Variables	Low	High	t-test value	p-value
GHQ-12	4.68 (2.79)	4.14 (2.22)	0.866	0.39
HADS-depression	13.45 (4.63)	16.34 (3.60)	2.849	0.006
HADS-anxiety	12.84 (4.81)	14.06 (4.37)	1.079	0.29
OSS-3	8.51 (1.34)	8.66 (1.76)	0.197	0.85
FMI	39.45 (8.08)	44.40 (6.77)	2.706	0.009

Note: GHQ-12 =12-item General Health Questionnaire; HADS = Hospital Anxiety Depression Scale; OSS-3 = Oslo Social Support Scale; FMI = Freiburg Mindfulness Inventory

Table 3 – Correlation of resilience with other measures of mental health

	1	2	3	4	5	6	α
1. Resilience Scale	1.000	0.116	0.075	-0.043	0.007	0.302*	0.905
2. HADS-depression subscale		1.000	0.245*	-0.079	0.008	0.104	0.817
3. HADS-anxiety subscale			1.000	-0.008	-0.009	0.181	0.813
4. 12-item General Health Questionnaire				1.000	0.086	0.016	0.428
5. Oslo Social Support Scale					1.000	0.161	0.431
6. Freiburg Mindfulness Inventory						1.000	0.840

The internal consistencies of most of the measuring scales were high and within the acceptable range except for GHQ-12 and Oslo social support scale (Table 3). Also, shown in Table 3 is the correlation coefficients of the measuring scales showing moderate and significant positive relationship between resilience and mindfulness as well as between the two subscales of HADS.

Discussion

This study reported high rates of mental unwellness as measured by the GHQ-12 and the two subscales of HADS among the study participants. This seemed to echo previous findings that undergraduates in health disciplines experienced more mental distress than students in non-health professions.[2,6,7] However, the means scores of mental distress as reported by the two subscales of HADS in this study (HADS-depression=14.99 and HADS-anxiety=13.49) were quite higher than that from a former Nigerian study (HADS-depression=5.56 and HADS-anxiety=5.91) among students in clinical disciplines.[6] This might be related to the lower social support (8.62) and resilience (130.01) reported in this study related to the comparison study (social support = 11.42; resilience = 131.31). A probable explanation for this might not be unconnected to the different geopolitical zones

of the countries (i.e. present study in north-central Nigeria and former study in north-west Nigeria). Another explanation for the difference in the two study might be because the former study was only among clinical health students unlike in the current study with both preclinical and clinical students.

Depressive symptoms and mindfulness practices were also observed in this study to be significantly more among high resilient students. The occurrence of the two make the researchers to speculate that the protective effective of mindfulness might explain why these students had not clinically broken down as at the time of data collection. In other words, mindfulness might be playing a buffering role to the high distress. And in order for mindfulness to achieve this, it will need to boost the students' resilience first as suggested by the model of Bajaj and colleague.[20] Although, not asked for in this study, we suspect that the mindfulness practices of the participants are not organized and systematic to bring about the expected benefit. This coupled with the overall poor stress buffering parameters of the participants (i.e. low social support scores) suggested inadequate coping resources. Hence, these students appeared to be on the edge of mental breakdown that may impede their current academic achievement. Also, the future impacts most likely as burnouts might expectedly bring about poor psychosocial functioning.[3,6,16,17]

Some limitations of this study like the small sample size, the skewed predominantly female population, use of screening instruments to measure mental health parameters and the cross-sectional nature of this study brought to the fore the non-generalization of the study findings. Future studies that took these limitations into consideration, and recruited a more representative multi-ethnic sample will help in the generalization of the study outcome. Despite these limitations, the study has explored further the resilience of nursing students and variables that may be related to it.

Conclusion

The researchers concluded that there is high rate of mental distress among undergraduate nursing students. That the distress was more among high resilient student despite their noted good mindfulness practices. Also, that they may not be able to adequately buffer their distress due to their low social support characteristics. The researchers suggested the enhancement of students' stress buffering and related practices to boost resilience onto mental wellness. Success in this will improve good academic performances and limit future burnout that will ensure great and enjoyable professionalism.

References

1. Mirowsky, J., and C.E. Ross. Selecting outcomes for the sociology of mental health: Issues of measurement and dimensionality. Journal of Health and Social Behavior. 2002; 43:152-170.
2. Papazisis G., Tsiga E., Papanikolaou N., Vlasiadis I. and Sapountzi-Krepia D. Psychological distress, anxiety and depression among nursing students in Greece.
3. Shipton, S.P., 2002. The process of seeking stress-care: coping as experienced by senior baccalaureate nursing students in response to appraised clinical stress. Journal of Nursing Education 41 (6), 243–256.
4. Dyrbye L. N., Thomas M. R. and Shanafelt T. D. Systematic Review of Depression, Anxiety and Other Indicators of Psychological Distress Among U.S. and Canadian Medical Students. Academic Medicine, 81 (4); 2006.
5. Guthrie E., Black D., Bagalkote H., Shaw C., Campbell M. and Creed F. psychological stress and burnout in medical students: a five-year prospective longitudinal study. Journal of the Royal Society of Medicine. 1998; 91: 237-243.
6. Abiola T., Lawal I., Habib Z. G. Psychological distress due to academic stress among clinical students in a Nigerian tertiary institution: comparison between medical and physiotherapy students. Niger J Basic Clin Sci, 2015.
7. Adewuya A. O., Ola B. A., Aloba O. O., Mapayi B. M. and Oginni O. O. Depression amongst Nigerian university students: Prevalence and sociodemograhpic correlates. Social Psychiatry and Psychiatric Epidemiology. 2006; 41(8): 674-8.
8. Wagnild G. M. The Resilience Scale User's Guide for the US English version of the Resilience Scale and the 14-Item Resilience Scale, 2009.
9. Wagnild G. M., and Young H. M. Development and psychometric evaluation of the Resilience Scale. Journal of Nursing Measurement, 1993; 1(2), 165-178.
10. Wagnild G. M. A Review of Resilience Scale. Journal of Nursing Measurement, 2009.
11. Abiola T. and Udofia O. Psychometric assessment of the Wagnild and Young's resilience scale in Kano, Nigeria. BMC Research Notes, 2011; 4:509.
12. Goldberg D. P.: The detection of psychiatric illness by questionnaire. London, Oxford University Press, 1972.
13. Gureje O and Obikoya B.: The GHQ-12 as a screening tool in primary care setting. Soc Psych Epidemiol; 1990; 25;276-280.
14. Abiodun O. A., Adetoro O. O., and Ogunbode O. O.,: Psychiatric morbidity in a gynaecology clinic in Nigeria. Journal of Psychosomatic Research; 1992 Jul; 36(5):485-90.
15. Abiodun OA: A validity study of the Hospital Anxiety and Depression Scale in general hospital units and a community sample in Nigeria. The British Journal of Psychiatry 1994, 165:669-672, accessed on April 9, 2011.
16. Dalgard O. S., Bjork S. and Tambs K. Social support, negative life events and mental health. British Journal of Psychiatry, 1995; 166:29-34.
17. Parkinson J. Ed: Review of scales of positive mental health validated for use with adults in the UK: Technical report. Health Scotland, a WHO Collaborating Centre for Health Promotion and Public Health Development, 2007.
18. Abiola T. Udofia O. and Zakari M. Psychometric properties of the 3-item Oslo Social Supoort Scale among clinical students of Bayero University Kano, Nigeria. Malaysian Journal of Psychiatry, 2013.
19. Walach, H., Buchheld, N., Buttenmuller, V., Kleinknecht, N., Schmidt, S. (2006). Measuring Mindfulness--The Freiburg Mindfulness Inventory (FMI). Personality and Individual Differences, 40, 1543-1555.
20. Bajaj, B. and Pande, N. Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. Personality and Individual Differences, 2016, 93: 63-67.

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