

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

# International Journal of Africa Nursing Sciences

journal homepage: [www.elsevier.com/locate/ijans](http://www.elsevier.com/locate/ijans)

## Wellbeing elements leading to resilience among undergraduate nursing students

T. Abiola<sup>a,\*</sup>, H.O. Olorukooba<sup>b</sup>, J. Afolayan<sup>b</sup><sup>a</sup> Department of Medical Services, Federal Neuropsychiatric Hospital, Barnawa, Kaduna, Nigeria<sup>b</sup> Department of Nursing, University of Ilorin, Ilorin, Nigeria

### 1. Introduction

High rates of mental distress had been reported among nursing undergraduate students (Rathnayake & Ekanayaka, 2016; Rezayat & Dehghan, 2014) just like other undergraduates of different departments in higher institutions of learning (Abiola, Lawal, & Habib, 2015; Adewuya, Ola, Aloba, Mapayi, & Oginni, 2006; Ibrahim, Kelly, Adams, & Glazebrook, 2013; Sarokhani et al., 2013). Overall, the rate of the distress is higher among undergraduates compared to the general population (Gureje, Lasebikan, Kola, & Makanjuola, 2006; Ibrahim et al., 2013; Sarokhani et al., 2013). Some of the explanations for this include students uncertainty about their future employability and success, academic stress, being distant from their primary source of support (Ibrahim et al., 2013; Sarokhani et al., 2013) and especially low psychological resilience (Abiola et al., 2015). The last factor – psychological resilience – had been employed in nurses (McCann et al., 2013) and in educational settings to reverse mental distress rate and also in ushering in and sustaining wellness (Gillham, Reivich, Jaycox, & Seligman, 1995; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009).

The most popular modern concept of wellness was implied in the definition of health by the World Health Organization (WHO), emphasizing a complete state of physical, social and mental wellbeing beyond the absence of disease or infirmity (World Health Organization WHO (1964)). This in other words suggested that wellbeing consisted of elements that are expected to be available in optimal proportions. Such an understanding of wellbeing had been broaden in recent time to the five facet concept of PERMA by Seligman (2011). PERMA stands for positive emotions (i.e. capacity to feel good that bring satisfaction to life), engagement (i.e. being able to positively become absorbed in work and life activities), relationships (i.e. ability to have meaningful relationship with others), meaning (i.e. capacity to stay focus on a worthy cause larger than oneself) and life accomplishment (i.e. ability to master explicit goal in life). Accomplishment had been noted as one of the nurses' personal feature that was related to resilience (McCann et al., 2013). Hence, PERMA represented the five dimensions of wellbeing or positive psychiatric assets needed to flourish and that can reduce mental distress when available. Resilience had however been identified

as the mediator between the practice of wellbeing's elements and the attainment of subjective wellbeing (Bajaj & Pande, 2016).

A recent study on mental distress among Nigerian university students reported the mental health benefits of resilience (Abiola et al., 2015). The study showed that high resilience was indicative of low psychological distress from academic stress. A finding illustrating the definition of resilience as: the psychological capacity to handle day-to-day academic stressors/problems and onto attaining positive, reliable and sustainable improvement in wellbeing. It is based on this premise that the present study contributed to the field of positive education by investigating the pooled distinguishing features of high and low resilient nursing students to the proportion of the five aspects of wellbeing assets present among nursing students in a Nigerian tertiary educational institution.

### 2. Methods

#### 2.1. Participants and procedures

All the participants were undergraduate students of the department of Nursing Sciences, College of Health Science, University of Ilorin, Ilorin, Kwara-State, Nigeria. They were between the ages of 16 and 31 years of age ( $M = 21.75$  years;  $SD = 3.20$ ). Most of them were females (89.60%), not married (92.50%) and below 25 years of age (68.70%). A convenient non-probabilistic sampling was used to recruit 71 participants from 2nd to 5th year nursing students. Out of the 71 participants 67 (i.e. 25, 31, 5 and 6 for years 2, 3, 4 and 5 respectively) had completed data which corresponded to a margin of error of 4.34% at 95% confidence interval and 50% distribution response ([www.raosoft.com/samplesize.html](http://www.raosoft.com/samplesize.html)). Ethical clearance to carry out this study was sought from and granted by University of Ilorin Ethical Review Committee. Informed consent was also obtained from the participants before being invited to fill the measuring scales.

### 3. Measures

#### 3.1. Resilience Scale (RS)

The Resilience Scale (RS) is a measure of psychological resilience and consists of 25-item (Wagnild, 2009a). The RS and its short

\* Corresponding author.

E-mail address: [abiolatob@yahoo.com](mailto:abiolatob@yahoo.com) (T. Abiola).

form (RS-14) have good validity and reliability (Cronbach's  $\alpha$  range of 0.72–0.94) from several western studies (Wagnild, 2009b; Wagnild & Young, 1993). Both instruments had also been validated for use in Nigeria by Abiola and Udofia (2011) (Cronbach's  $\alpha$  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 1–7 yielding scores that group respondents into: low, moderate and high resilience scores. In this study, the 25-item original scale was utilized to report the resilient characteristics of the participants, by categorizing participants into those high and low in resilience characteristics as designated by the originator of this measuring scale.

### 3.2. Self-Scoring PERMA scale

The self-scoring PERMA scale measures the 5 dimensions of wellbeing as positive psychiatric assets ([www.sas.upenn.edu/~duckwort/images/10itemPERMA7.pdf](http://www.sas.upenn.edu/~duckwort/images/10itemPERMA7.pdf)). PERMA stands for: positive emotions (i.e. feeling good), engagement (i.e. being completely absorbed in activities), relationships (i.e. being authentically connected to others), meaning (i.e. living a purposeful existence) and life achievement (i.e. a sense of accomplishment and success). Three questions measured each of the 5 aspects of PERMA. Each question is measured on a 5-point likert from never (1) to always (5). The minimum and maximum score for each of the 5 aspects of the PERMA scale ranged from 3 (extremely low) to 15 (extremely high). Because, this is the first time of using the PERMA scale in Nigeria, its internal reliability and concurrent validity was also provided in this study.

### 3.3. Data analysis

All data were analysed using IBM-SPSS version 21. Cronbach's alpha was used to determine the internal reliability of the measuring scales. Pearson's moment correlation was used to assess the relationship between resilience and all the five aspects of wellbeing measured in this study. A one way MANOVA was used to assess the differences between the high and low resilient groups and the dependent 5 aspects of wellbeing. The multivariate analysis was followed by a univariate analysis (ANOVA) of the dependent variables. All results were determined as significant if the  $P < 0.05$ , two tailed, except for violations of Levene's Test of Equality of Error Variances and ANOVA set at an alpha level of  $p < 0.01$  (i.e. 0.05/5).

## 4. Results

Pearson's moment correlation was carried out on the resilience and wellbeing variables of the participants before the MANOVA analysis. As shown in Table 1, all the variables were positively associated with one and another, suggesting that as scores on one variable increased, the other variable(s) will correspondingly increase. All the variables were significantly related to one another with the highest correlation noted between meaning and accomplishment ( $r = 0.660$ ;  $p < 0.01$ ). Table 1 also shows the internal reli-

**Table 2**

Means and standard deviations of wellbeing variables according to their resilience characteristics.

Variables	Resilience	
	High [35 (53.0%)]	Low [31 (47.0%)]
Wellbeing [M (SD)]	13.22 (0.34)	11.71 (0.37)
Positive emotion	11.83 (0.27)	10.58 (0.29)
Engagement	12.11 (0.41)	11.07 (0.44)
Relationship	14.17 (0.27)	13.29 (0.29)
Meaning	13.36 (0.35)	12.16 (0.37)

ability of the study's instruments and all were within the acceptable range.

MANOVA analysis showed a significant difference between the resilience characteristics (high vs. low) of participants when considered jointly on the five elements of wellbeing (as measured by self-scoring PERMA scale), Wilk's  $\Lambda = 0.823$ ,  $F(5,61) = 2.619$ ,  $p = 0.033$  and partial  $\eta^2 = 0.18$ . A separate ANOVA was conducted for each dependent variable with each ANOVA evaluated at an alpha level of 0.01 (i.e. 0.05/5). There was a significant difference between high and low resilience characteristics of participants on two of the five components of the wellbeing measures: positive emotion  $F(1,65) = 8.96$ ,  $p = 0.004$  and partial  $\eta^2 = 0.12$  and engagement  $F(1,65) = 9.73$ ,  $p = 0.003$  and partial  $\eta^2 = 0.13$ . There was not a significant difference between the high and low resilience characteristics of the participants on the remaining three measures of wellbeing: relationship  $F(1,65) = 3.05$ ,  $p = 0.086$  and partial  $\eta^2 = 0.05$ ; meaning  $F(1,65) = 4.85$ ,  $p = 0.031$  and partial  $\eta^2 = 0.07$ ; and achievement  $F(1,65) = 5.52$ ,  $p = 0.022$  and partial  $\eta^2 = 0.07$ . Overall, the high resilience participants reported higher levels of wellbeing compared to their low resilience counterpart (i.e. Table 2).

## 5. Discussion

The purpose of this study was to examine the wellbeing elements that led to resilience among undergraduate nursing students. This study found resilience to be positively and significantly correlated with all the five elements of wellbeing as measured by PERMA scale. The observed associations were at the moderate level with the mean coefficient 0.380 (range: 0.309–0.487) being similar to a study of wellbeing among adult European (Huppert & So, 2013). However, the European study correlation was with life satisfaction and not resilience. Furthermore, the moderate and positive association of resilience with wellbeing elements made us to speculate that wellbeing should also correlate inversely with negative indicators of mental health and proportionally with other positive psychological health indicators as noted in the study of Hu, Zhang, and Wang (2015). Hence, these five elements should help us to identify how resilience operated to limit the negative effect of mental distress through reducing psychological harms, buffering against these harms and enhancing positive mental health through promotion of individual capacity to

**Table 1**

Summary of inter-correlations, means, standard deviations and Cronbach's alphas for resilience and wellbeing variables.

Variables	1	2	3	4	5	6	M	SD	$\alpha$
1. Resilience	1						130.30	21.15	0.904
2. Positive emotions	0.487**	1					12.52	2.18	0.741
3. Engagement	0.442**	0.542**	1				11.25	1.74	0.474
4. Relationship	0.319**	0.522**	0.361**	1			11.63	2.49	0.776
5. Meaning	0.343**	0.633**	0.390**	0.475**	1		13.76	1.67	0.741
6. Accomplishment	0.309*	0.521**	0.292*	0.241*	0.660**	1	12.81	2.16	0.734

Note: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ .

manage the distressful event (Davydov, Stewart, Ritchie, & Chaudieu, 2010).

The study also identified positive emotions and engagement as the two elements of wellbeing that significantly distinguished students with high resilience score from their colleagues with low resilience scores. Positive emotions like joy, interest, contentment, pride and love had been described as not only biopsychosocially stimulating (Fredrickson, 2001; Seligman, 2011) but also as vital to the quick re-bounce resilient individuals are noted with (Tugade, Fredrickson, & Barrett, 2004). Furthermore, positive emotions help one not only to savour day-to-day experience but also to broaden the mind for learning and to replenish depleted energy from the experience of negativity, hereby growing resilience characteristics (Fredrickson, 2001; Gillham et al., 1995; Hu et al., 2015; Seligman, 2011; Seligman et al., 2009; Tugade et al., 2004).

Engagement as the enjoyment derived in activities that the idea of time passage is not registered (Seligman, 2011), had been linked to low burnout, high resilience, more wellbeing and better academic performance (Gillham et al., 1995; Schaufeli, Leiter, & Maslach, 2008; Seligman et al., 2009). Hence, students with high resilience scores were able to engaged more in their academic activities and by implication should theoretically experience less of the opposite end of the engagement spectrum i.e. burnout (Schaufeli et al., 2008; Skodova & Lajeiakova, 2015).

The other three elements of wellbeing (i.e. relationship, meaning and accomplishment) as noted in this study cannot significantly distinguish between students with high or low resilience scores. The reasons for this might not be far from the observation that resilience as measured in this study identified the role of personal competence and acceptance of self and life as a trait (Hu et al., 2015) which might not have much to do with the other three elements of wellbeing often needing interactions beyond oneself. Future study should explore these non-significant aspects of wellbeing further and the sub-elements of wellbeing too.

Limitations of this study included the small sample size, employing convenient non-probabilistic sampling, mainly female population and the possible familiarity of the concept with the sampled population who were in the health profession. The cross-sectional nature of this study further limits generalisation of the study findings and this can be corrected by making future study longitudinal and recruiting a more representative multi-ethnic sample. Despite these limitations, the study is the first to explore resilience of nursing students according to their practice of wellbeing's elements.

## 6. Conclusion

The study found all the five elements of wellbeing to be significant and moderately correlated with resilience. It identified positive emotions and engagement as the two elements of wellbeing whose practice significantly promoted high resilience among our study participants. The researchers recommended future studies to include sub-elements of wellbeing in other to expatiate more on wellbeing elements/sub-elements that will inform programs leading to resilience and hence mental health.

## References

- Abiola, T., Lawal, I., & Habib, Z. G. (2015). Psychological distress due to academic stress among clinical students in a Nigerian tertiary institution: Comparison between medical and physiotherapy students. *Nigerian Journal of Basic and Clinical Sciences*.
- Abiola, T., & Udofia, O. (2011). Psychometric assessment of the Wagnild and Young's resilience scale in Kano, Nigeria. *BMC Research Notes*, 4, 509.
- Adewuya, A. O., Ola, B. A., Aloba, O. O., Mapayi, B. M., & Oginni, O. O. (2006). Depression amongst Nigerian university students: Prevalence and sociodemographic correlates. *Social Psychiatry and Psychiatric Epidemiology*, 41(8), 674–678.
- Bajaj, B., & Pande, N. (2016). Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. *Personality and Individual Differences*, 93, 63–67.
- Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review*, 30, 479–495.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226.
- Gillham, J. E., Reivich, K. J., Jaycox, L. H., & Seligman, M. E. P. (1995). Prevention of depressive symptoms in schoolchildren: Two-year follow-up. *Psychological Science*, 6, 343–351.
- Gureje, O., Lasebikan, V. O., Kola, L., & Makanjuola, V. A. (2006). Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Well-being. *British Journal of Psychiatry*, 188, 465–471.
- Hu, T., Zhang, D., & Wang, J. (2015). A meta-analysis of the trait resilience and mental health. *Personality and Individual Differences*, 76, 18–27.
- Huppert, F. A., & So, T. T. C. (2013). Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social Indicators Research*, 110, 837–861.
- Ibrahim, A. K., Kelly, S. J., Adams, C. E., & Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *Journal of Psychiatric Research*, 47, 391–400.
- McCann, C. M., Beddoe, E., McCormick, K., Huggard, P., Kedge, S., Adamson, C., & Huggard, J. (2013). Resilience in the health professions: A review of recent literature. *International Journal of Wellbeing*, 3(1), 60–81.
- Raosoft Inc. Sample size calculation. Available from: <http://www.raosoft.com/samplesize.html>. [Accessed on 19-07-2015].
- Rathnayake, S., & Ekanayaka, J. (2016). Depression, anxiety and stress among undergraduate nursing students in a public university in Sri Lanka. *International Journal of Caring Sciences*, 9(3), 1020–1032.
- Rezayat, F., & Dehghan, N. N. (2014). The level of depression and assertiveness among nursing students. *International Journal of Community Based Nursing and Midwifery*, 2(3), 177–184.
- Sarokhani, D., Deipisheh, A., Veisani, Y., Sarokhani, M. T., Manesh, R. E., & Sayehmiri, K. (2013). Prevalence of depression among university students: A systematic review and meta-analysis study. *Depression Research and Treatment*.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2008). Burnout: 35 years of research practice. *Career Development International*, 14(3), 204–220.
- Self-scoring PERMA. Available on: <http://www.sas.upenn.edu/~duckwort/images/10itemPERMA7.pdf>. (Accessed on 23-10-2013).
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. 1230 Avenue of the Americas, New York, N Y 10020: Free Press, A Division of Simon and Schuster, Inc..
- Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: positive psychology and classrooms interventions. *Oxford Review of Education*, 35(3), 293–311.
- Skodova, Z., & Lajeiakova, P. (2015). Impact of psychosocial training on burnout, engagement and resilience among students. *Central European Journal of Nursing and Midwifery*, 6(3), 313–319.
- Tugade, M. M., Fredrickson, B. L., & Barret, L. F. (2004). Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72(6), 1161–1190.
- Wagnild, G. M. (2009a). *The resilience scale user's guide for the US English version of the resilience scale and the 14-item resilience scale*.
- Wagnild, G. M. (2009b). A review of resilience scale. *Journal of Nursing Measurement*.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1(2), 165–178.
- World Health Organization (1964). *Basic Documents* (15th ed.). Geneva, Switzerland.