



## Psychopathological Predictors of Quality of Life among Undergraduates of the University of Ibadan, Nigeria

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### ABSTRACT

Quality of life has remained a recurring construct investigated across various disciplines with varying outcomes. Psychopathological factors of anxiety and depression linking quality of life to undergraduates has been scarcely examined in literature. Therefore, the study filled this gap in knowledge by investigating anxiety and depression as predictors of quality of life among undergraduates of the University of Ibadan, Nigeria. A cross-sectional survey research design was adopted while a convenience sampling method was used to select the study participants. Data were collected from 400 participants using validated scales and analyzed with multiple regression analysis and independent samples t-test. Two hypotheses were tested and accepted at  $p = .001$  level of significance. The result reveals that anxiety and depression jointly predicted quality of life among study participants [ $R^2 = .140$ ,  $F(2, 397) = 32.422$ ,  $p = .001$ ]. Furthermore, both anxiety ( $\beta = -.207$ ,  $p = .001$ ) and depression ( $\beta = -.226$ ,  $p = .001$ ) independently predicted quality of life among study participants. The conclusion is that anxiety and depression are robust predictors of quality of life among study participants. The study recommends that parents and university authority should provide succor and educate undergraduates on preventive strategies to reduce anxiety and depression in order to improve their quality of life.

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## **INTRODUCTION**

The construct of quality of life (QoL) has been used to assess dimensions of individual and collective well-being such as their physical, mental health, family relationship, educational attainments, security of life and properties and availability of employment opportunities (IESE, 2013). The World Health Organization (WHO, 2000) conceived quality of life "as individuals' subjective view of their positions in life taking into consideration their cultures and value systems in which they live and in relation to their goals, expectations, standards and concerns". Besides, Amao (2014) described quality of life as a function of individuals' subjective judgments of themselves based on their overall perception of what they consider relevance in their lives at a point in time and season. Drawing from the above, quality of life would be taken as that which comprises individual physical, psychological, social and environmental well-being.

An important population whose quality of life needs to be monitored and assessed regularly is the university undergraduates whom for the purpose of learning moved from secondary school to the higher institution of learning away from parents. Some psychopathological factors have been implicated as predictors of quality of life among undergraduates. Anxiety is considered in this study as a predictor of quality of life which is described as "the uneasiness, anxiety, and worry that usually surface during adolescence (Beesdo et al., 2009). According to Keller (2006), anxiety has an impact on social functioning by "impairing peer relationships, deficits in social skills, and co-occurring mental health disorders." In addition to having fewer and poorer connections, anxious undergraduates frequently have postponed or strained sexual relationships (Glickman & La Greca, 2004; La Greca & Harrison, 2005). Additionally, anxiety severely impairs undergraduates' emotional and social development (Herbert et al., 2009).

Studies have revealed that undergraduates who scored high on anxiety scale reported higher emotional distress (Muris et al., 2000). Also, Korkmaz et al. (2020) who examined anxiety levels among healthcare workers in COVID-19 services found a negative relationship between QOL and anxiety levels. This indicates that poorer QOL was linked to participants who reported higher anxiety levels. Additionally, a study by Korkmaz et al. (2020) indicated that anxiety was a contributing factor in "emotional distress, social withdrawal, and reduced engagement in enjoyable activities which affected quality of life among study participants." According to an existing study by Ghaedi et al. (2010) on the impact of social phobia on Iranian college students' quality of life, a student's general health, vitality, social functioning, emotional functioning, and mental health were all negatively impacted by having a high social phobia score. These results imply that, in comparison to their peers who do not experience social anxiety, undergraduates with social anxiety have significant functional restrictions that lower their quality of life.

Depression is the second psychopathological component examined in this study as a predictor of undergraduates' quality of life (QoL). According to Marcus et al. (2012) and Yalemwork (2015), depression is characterized by a

persistently poor mood, decreased energy, decreased interest in activities, feelings of guilt or worthlessness, sleep disorders, and difficulties concentrating. Some studies have reported high prevalence of depression among general populations. For example, the global prevalence of depression was found to be about 49.86%, for Africa was about 9.0% and in Nigeria, it was about 3.1% (Liu et al., 2020). In terms of gender, depression has been reported to be higher in females (5.9%) compared to their male counterparts (4.8%) among the African samples (Esan & Esan, 2016). Also, studies have found a high prevalence of depression among undergraduate populations in Nigeria. In particular, Aniebue and Onyema (2008) discovered that almost 23% of undergraduates in Nigeria had suffered from depression. Likewise, Chinawa and colleagues (2015) found a significant prevalence of depression among undergraduates in Southeastern Nigeria. It has been reported that individuals with depression are 33 times more likely to commit suicide compared to individuals who do not experienced depression (Stringaris, 2017). Tekinarslan (2017) demonstrated that problematic internet use (PIU) correlates with higher depressive symptoms and decreased QoL, while Ratnani et al. (2017) found both depression and social anxiety to adversely affect QoL, particularly in areas pertaining to social interactions and psychological health. These results highlight how depression impairs undergraduates' general quality of life.

The final factor considered in this study is gender. This implies that whether an individual is a male or female has nothing to do with their quality-of-life experience. While Fakraogha (2023) suggests that gender alone does not determine QoL experiences, research highlights gender differences in anxiety and depression among university students. Al-Qaisy (2011) reported higher anxiety levels in female undergraduates and greater depression levels in males, both potentially affecting QoL. Ratnani et al. (2017) further observed that females are more vulnerable to social anxiety disorder (SAD), influencing their QoL compared to their male counterparts.

Generally, Gan and Yuen Ling (2019) identified anxiety and depression rates among Malaysian medical students at 33% and 11%, respectively, linking these symptoms to reduced QoL across various domains. Although studies highlight the prevalence of anxiety and depression among undergraduates, research linking these factors to QoL in Nigerian contexts remains scarce. This study aims to address this gap by investigating the predictive roles of anxiety and depression on undergraduates' QoL at the University of Ibadan. The research questions that guided this study were: Do anxiety and depression jointly and independently predict QoL among undergraduates of the University of Ibadan? Are there gender differences in QoL among undergraduates of the University of Ibadan?

The study seeks to provide new insights into how anxiety and depression predict QoL among the study population. The findings will also offer valuable information to healthcare professionals and mental health practitioners, fostering evidence-based strategies to manage anxiety and depression effectively in undergraduate populations.

## **LITERATURE REVIEW**

The study utilizes Engel's Biopsychosocial (BPS) model, which integrates biological, psychological, and social factors to understand QoL. Biological factors include physical health, genetics, and physiological processes. Psychopathological factors encompass thoughts, emotions, beliefs, and mental well-being, while social factors involve relationships, support networks, and environmental contexts. The BPS model's holistic approach is instrumental in understanding QoL across various populations.

### **Hypotheses**

H1: Anxiety and depression will jointly and independently predict QoL among undergraduates of the University of Ibadan.

H2: Gender differences will exist in QoL among undergraduates of the University of Ibadan.

## **METHODOLOGY**

Data for the study was gathered using validated questionnaires and a cross-sectional survey design. Anxiety and depression were the independent variables, while QoL served as the dependent variable. The study was conducted at the University of Ibadan, the study population included 16,623 undergraduates as of the 2021/2022 academic session. Using Slovin's formula, a sample size of 419 participants was determined, with 400 valid responses collected.

Data were collected using validated questionnaires. The 14 items on the Hospital Anxiety and Depression Scale (HADS), which has two subscales, were utilized to measure anxiety and depression. "I still love the things I used to enjoy" and "I feel tense or 'wound up'" are examples for HADS-A, while "I can laugh and see the amusing side of things" and "Worrying thoughts go through my head" are examples for HADS-D. The study's Cronbach's alpha was 0.89, while the authors' Cronbach's alpha for HADS was 0.93. For HADS-A, the Cronbach's alpha was 0.93, while for HADS-D, it was 0.90.

QoL was evaluated using the World Health Organization Quality of Life-BREF (WHOQOL-BREF). Both the overall quality of life and the health quality of life composite scores were employed in the study. "Very poor (Very dissatisfied), Poor (Dissatisfied), Neither poor nor good (Neither satisfied nor dissatisfied), Good (Satisfied), Very good (Very satisfied)" was the range of the 5-point Likert scale. "How satisfied are you with your health?" and "How satisfied are you with your health?" are the two questions. Across numerous investigations, populations, and samples, the measure exhibits good validity and reliability. The Cronbach's alpha for this investigation was 0.61.

Questionnaires were distributed physically and online via Google Forms hosted on the university portal. Informed consent was obtained, ensuring participants' anonymity and confidentiality. Data were analysed using IBM SPSS version 23. Descriptive and inferential statistics were applied, with hypotheses tested using zero-order correlation and multiple regression analyses at a significance level of  $p \leq .001$ .

**RESULT AND DISCUSSION**

Descriptive statistics revealed that 186(46%) of the participants were male while 214 (54%) were female participants. The participants’ age range was between 18 and 35 years (Mage =21.86, SD = 2.44). In terms of the participants’ ethnic groups, 322 (81%) were Yoruba, 33(8%) were Igbo, 5(1%) were Hausa and 40 (10%) were from other ethnic groups. The analysis further showed that 90(23%) of the participants were in the 100 level, 94 (23.5%) were in the 200 level, 106(27%) were in the 300 level, 93(23.3%) were in 400 level while 17(4%) were in the 500 level.

H1: Among University of Ibadan undergraduates, anxiety and depression will both independently and jointly predict quality of life. Multiple regression analysis was used to test the hypothesis and the result is presented in Table 1.

Table 1. Multiple Regression Analysis Showing Joint and Independent Predictors of Quality of Life among Study Participants

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>F</b>	<b>β</b>	<b>t</b>	<b>p</b>
Model 1	.375	.140	.136	32.422			
Anxiety					-.207	-3.876	.000
Depression					-.226	-4.235	.000

Significant at p =.001, Dependent Variable: Quality of Life

Table 1 shows multiple regressions analysis of anxiety and depression as joint and independent predictors of quality of life among study participants. The result indicated anxiety and depression as joint predictors of quality of life among study participants [R<sup>2</sup>= .140, F (2, 397) =32.422, p =.001]. This means that anxiety and depression explained 14 % of variance in quality of life among study participants. The result further showed that both anxiety (β=-.207, p =.001) and depression (β= -.226, p =.001) independently predicted quality of life among study participants. Therefore, the hypothesis was accepted.

H2: Gender differences will exist in QoL among undergraduates of the University of Ibadan. Independent samples t-test was used to test the hypothesis and the result is shown in Tables 2.

Table 2. Independent Samples T-Test of Gender Differences in Quality of Life among Undergraduates of the University of Ibadan

<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>p</b>
Male	186	3.867	.674	.052	> .05
Female	214	3.862	.645		

Significant at p =.001, Dependent Variable: Quality of Life

Table 2 depicts t-test of independent samples of gender differences in quality of life among study participants. The result showed no gender differences among study participants [t (400) = .052, p > .05] such that male undergraduates scored the same in quality-of-life scale (Mean = 3.867, SD =

.674) as their female counterparts (Mean = 3.862, SD = .645). Therefore, the hypothesis was not supported.

The study looked into the psychopathological aspects of depression and anxiety as indicators of quality of life in University of Ibadan undergraduates. The findings validated the hypothesis that anxiety and depression would work together to predict quality of life for University of Ibadan freshmen. This accounts for 14% variance explained in quality of life among study participants meaning that anxiety and depression both interact to predict quality of life among study participants. This finding corroborated with previous results that anxiety and depression are robust predictors of quality of life among different populations and samples (Gan & Yuen Ling, 2019; Ratnani et al., 2017). For example, Gan and Yuen Ling (2019) found that individuals who are anxious and depressed would negatively affect their quality of life. Also, both anxiety and depression were found to independently predict quality of life among study participants (Ratnani et al., 2017; Gan & Yuen Ling (2019). This demonstrates that an individual who is anxious or depressed without any interaction contributes to negative quality of life that undergraduates would report or experience. This finding lent credence to the result obtained by Korkmaz et al. (2020). That anxiety and depression (Tekinarslan, 2017;) are veritable psychopathological factors that predict quality of life among different populations and samples including undergraduates.

The hypothesis that gender would influence quality of life among undergraduates was not supported. This means that whether the undergraduates were males or females has no significant influence on their quality of life. This finding contradicted previous results that gender significantly influenced quality of life among different populations and samples (Al-Qaisy, 2011; Ratnani et al. 2017). This finding should be interpreted with caution, especially when considering the culture of the study participants, the traumatic experiences of the COVID-19, and the harsh economic situations in Nigeria in which the students and families are passing through when the study was conducted.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study has empirically established that anxiety and depression are two important psychopathological factors that significantly contributed to quality of life among undergraduates of the University of Ibadan. However, the study contradicted previous studies that gender was not an important factor in the determinations of the quality of life among study participants. Based on the findings of this study, the following recommendations are proffered. Because anxiety and depression were found to be joint and independent predictors of quality of life among study participants, it is recommended that parents/guardians should regularly monitor their wards in order to check those triggers of anxiety and depression among them. Also, the university management should organize seminars and training programmes to help students who are susceptible to anxiety and depression. Finally, government needs to improve the economic situations in the country to reduce triggers of

anxiety and depression to improve the quality of life among the citizens including those of the undergraduates.

### **FURTHER STUDY**

There are certain limitations to this study that need be addressed in future research. First of all, the study's data came from a self-reported questionnaire that was subject to social desirability bias. To triangulate data gathered from self-reported questionnaires, additional research should incorporate group discussions and documentation evidence from the university clinic. Furthermore, the study only included 400 undergraduate students from the University of Ibadan, which limits the generalizability of the results. To guarantee that study results are generalizable, future research should involve undergraduates from both public and private universities with larger sample sizes. Lastly, this study was not comprehensive because it only looked at two independent variables. In order to better understand university students' quality of life, more research should examine social support, personality factors, and learned helplessness.

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