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Gender, Stress and Locus of Control as Predictors of Depression among Ebonyi State University Non-Academic Staff

[1]Solomon Amaechi Echee, [2]Nwankwo Benedict Chimezie, [3]Nkechi Emma-Echiegu, [4]Onuoha Ogobuchi Onuoha, [5]Ogbonnaya Jerry Okereke
[1,2]Department of Psychology, Ebonyi State University, Abakaliki,
[3]Department of Social Work, FSSH, Ebonyi State University, Abakaliki
[4,5]Department of Sociology, FSSH, Ebonyi State University, Abakaliki
Phone: 07037658725, Email: *echee.solomon@ebsu.edu.ng or solomonechee4@gmail.com*

Abstract

The study examined gender, stress and locus of control as predictors of depression among Ebonyi State University non-academic staff. Two hundred and forty-four (244) Ebonyi State University non-academic staff comprising males 121 and females 123 drawn randomly from selected administrative units of Ebonyi State University, Abakaliki participated. Their ages ranged from 20 to 65 years with a mean age of 38.25 years (SD = 3.26). Cross sectional survey design was adopted. Three hypotheses were tested using hierarchical multiple regression. Result showed that locus of control significantly predicted depression among adults. The result also showed that stress significantly predicted depression among Ebonyi State University non-academic staff. But gender did not predict depression among Ebonyi State University non-academic staff. It was recommended that stress level be regularly monitored, orientation towards understanding how to manage events in peoples lives should be provided amng others.

Keywords: ***Gender, Stress, Locus of Control, Depression, Non-Academic Staff***

Introduction

Depression is a common mental health disorder that affects populations worldwide and is characterized by persistent low mood and a loss of interest or pleasure in daily activities. It affects people in all walks of life, no matter their background and ages. It is a global health priority which according to the World Health Organization accounts for a substantial portion of the non-fatal disease burden worldwide (Ferrari et al, 2022; Agudelo-Botero et al, 2021; Salk, Hyde & Abramson, 2017). Unfortunately, there is still stigma surrounding mental health issues, and some people view disorders like depression as a weakness. Depression is more than just feeling sad or blue. It is a common but serious mood disorder that needs treatment. It causes severe symptoms that affect how one feels, thinks, and handles daily activities, such as sleeping, eating, and working. Depression is a common problem among older adults, but it is not a normal part of aging. In fact, studies show that older adults feel satisfied with their lives, despite having more illnesses or physical problems (Lopez et al, 2024; Cho & Cheon, 2023). However, important life changes that happen as individuals get older may cause feelings of uneasiness, stress, and sadness. For instance, the death of a loved one, moving from work into retirement, or dealing with a serious illness can leave people feeling sad or anxious. After a period of adjustment, many older adults can regain their emotional balance, but others do not and may develop depression (Glas, Rhebergen, Widdershoven, Huisman & Kok, 2025; Szymkowicz, Gerlach, Homiack & Taylor, 2023).

Despite advances in medicine and social welfare, the prevalence of depression continues to rise globally, particularly among adolescents and young adults (Yang et al, 2024). It has become a common illness worldwide, with about 280 million people affected (Ma, Zhou, Fu & Lu, 2023; Sousa, Henriques, Caldas de Almeida, Canhão & Rodrigues, 2023). It can be differentiated

from usual mood fluctuations and short-lived emotional responses to challenges in everyday life especially with long-lasting and moderate or severe intensity posing a serious health condition (Chand & Arif, 2023; Maj et al, 2020). It causes the affected person to suffer greatly and function poorly at work, at school and in the family since major depression is a chronic illness with a high prevalence and a major component of disease burden (Cui et al, 2024; Kupferberg & Hasler, 2023; Gbadamosi et al, 2022). When depression-related deaths due to suicide and stroke are considered, depression has the third highest global burden of disease (Gloria et al, 2024; Chun, Ford, Kutlubaev, Almeida & Mead, 2022). Major depression is growing in overall disease burden in Canada and around the world; it is predicted to be the leading cause of disease burden by 2030, and it is already the leading cause in women worldwide (Santomauro et al, 2024; Arias, Saxena & Verguet, 2022; Liu et al, 2020;). major depressive disorder experienced an increase in disability-adjusted life years (DALYs) globally between 1990 and 2021 while the incidence and prevalence rates of major depressive disorder have been shown to decrease when adjusted for population growth pointing to a continuous rise in the incidence and mortality of depression, particularly in low-SDI regions (Rong, Wang, Cheng & Zhao, 2025; Chen, Li, Zuo & Zhu, 2025; Fan, Fan, Yang & Fan, 2025; Sun et al, 2025; Yang et al, 2024), the second greatest increase in prevalence after Alzheimer disease; for instance, in comparison, the increase in the United States was 43% (Kumar, Sidhu, Lui & Tsao, 2024; Mukadam et al, 2024). At its worst, depression can lead to suicide even among adults.

Mental health problems among adults / young adults like university staff / undergraduate students have been widely studied (Farrer, Jackson, Gulliver, Calear & Batterham, 2024; Okeke, Ogu, Ogah & Obionu, 2024; Chu, Liu, Takayanagi, Matsushita & Kishimoto, 2023; Campbell et al, 2022; Valdés et al, 2022; Kukoyi et al, 2022; Limone & Toto, 2022). Life in the university can be straining for students owing to potential stressors such as having to adjust to a new environment, being away from the familiarity and support of the parental home, having to live on a tight budget, having to complete assignments within limited time frames and/or having to cope with fluctuations in romantic relationships (Mwale, Mwanza & Mweene, 2024; Wu, Freeman, Wang & Flores, 2024; Khumalo & Plattner, 2019). While for some students the challenges of university life might be an opportunity for personal growth, for others these challenges may prompt mental health problems such as depression (Henriques et al, 2025; Osborn, Li, Saunders & Fonagy, 2022; Campbell et al, 2022; Hernández-Torrano et al, 2020).
Understanding the impact of sociodemographic variables such as gender on the prevalence of depression is crucial. Gender is a key factor that influences the incidence of depression. Studies have shown that gender is associated with depressive symptoms, with females being more prone to depression compared to males (Yang et al, 2024). Women are nearly twice as likely as men to be diagnosed with depression. The prevalence of major depression is higher in women than in men (Li et al, 2023; Sabic, Sabic & Bacic-Becirovic, 2021). The adjusted odds ratio for depression in females is 2.43, indicating that women are more than twice as likely to suffer from depression as men (Siyoum et al, 2024).

The finding of similar female: male prevalence ratios in developed countries and globally suggests that the differential risk may primarily stem from biological sex differences and depend less on race, culture, diet, education and numerous other potentially confounding social and economic factors (Kirkbride et al, 2024). This statement further suggests that consistent female:male disease prevalence ratios across different populations indicate that sex differences are the primary driver of differential disease risk and this implies that factors like race, culture,

diet, or socioeconomic status play a less significant role in explaining why one sex might experience higher disease rates (Kirkbride et al, 2024).

The question then is why is depression more prevalent among women? The triggers for depression appear to differ, with women more often presenting with internalizing symptoms and men presenting with externalizing symptoms (Gazarian & Addis, 2025; Singh & Wendt, 2024). Women also experience specific forms of depression-related illness, including premenstrual dysphoric disorder, postpartum depression and postmenopausal depression and anxiety that are associated with changes in ovarian hormones and could contribute to the increased prevalence in women. However, the underlying mechanisms remain unclear; thus, treatments specific to women have not been developed (Carlson, Mughal, Azhar & Siddiqui, 2025; Cox, Barker, Vigod & Meltzer-Brody, 2024).
Depression is a serious mood disorder that profoundly affects an individual's quality of life (Bains & Abdijadid, 2023; Kupferberg & Hasler, 2023). Although the etiologies underlying this disorder remain unclear, an increasing attention has been focused on the influence imposed by psychological stress over depression. Stress is good for individuals. It keeps one alert, motivated and primed to respond to danger (Sallam, Ye, Merfat, Atia & Ibrahim, 2022; Loprinzi & Frith, 2019; Rasheed, 2016). Stress mobilizes the body to respond, improving performance yet too much stress, or chronic stress may lead to major depression in vulnerable individuals (Chu, Marwaha, Sanvictores, Awosika & Ayers, 2024; Ghasemi, Beversdorf & Herman, 2024; Madison, 2021). Even positive events, such as getting married or beginning a new job, can be stressful and may lead to an episode of major depression.

Stress whether chronic, such as taking care of a parent with Alzheimer's, or acute, such as losing a job or the death of a loved one can lead to major depression in vulnerable individuals (Culberson, Kopel, Sehar & Reddy, 2023). Both types of stress lead to overactivity of the body's stress-response mechanism. Sustained or chronic stress, in particular, leads to elevated hormones such as cortisol, the "stress hormone," and reduced serotonin and other neurotransmitters in the brain, including dopamine, which has been linked to depression (Sălcudean et al, 2025; Sic, Cvetkovic, Manchanda & Knezevic, 2024; Mbiydzenyuy & Qulu, 2024). When these chemical systems are working normally, they regulate biological processes like sleep, appetite, energy, and sex drive, and permit expression of normal moods and emotions (Beyer, Song, Lillicrap, Rodríguez-Satizábal & Chatzigeorgiou, 2023; Calabrò et al, 2019). When the stress response fails to shut off and reset after a difficult situation has passed, it can lead to depression in vulnerable individuals (Chu et al, 2024; Tsigos, Kyrou, Kassi & Chrousos, 2020). A layoff an acute stressor may lead to chronic stress if a job search is prolonged. Loss of any type is a major risk factor for depression (Bains & Abdijadid, 2023). For instance, grieving is considered a normal, healthy, response to loss, but if it goes on for too long it can trigger a depression (Boelen, Lenferink & Spuij, 2021; Szuhany, Malgaroli, Miron & Simon, 2021). A serious illness, including depression itself, is considered a chronic stressor.

The connection between stress and depression is complex and circular (Kim, Lee & Park, 2022). People who are stressed often neglect healthy lifestyle practices. They may smoke, drink more than normal, and neglect regular exercise. Stress, or being stressed out, leads to behaviours and patterns that in turn can lead to a chronic stress burden and increase the risk of major depression (Cui et al, 2024). Losing a job is not only a blow to self-esteem, it equally results in the loss of social contacts that can buffer against depression. Interestingly, many of the changes in the brain during an episode of depression resemble the effects of severe, prolonged, stress (Ross, Foster & Ionescu, 2017).

Research has consistently revealed a positive association between external locus of control and depression (Li, Zhao, Chen, Kwan & Tse, 2025; Eren, Kousignian, Wallez, Melchior & Mary-Krause, 2023; Fornili et al, 2021; Khumalo & Plattner, 2019). The construct of locus of control was introduced by Julian Rotter as part of his social learning theory (Nießen, Schmidt, Groskurth, Rammstedt & Lechner, 2022; Nowicki, Iles-Caven, Kalechstein & Golding, 2021). Locus of control refers to individuals' generalized expectancy or belief as to whether events in their lives are controlled by their behaviour and abilities (internal locus of control) or by external forces such as powerful others, chance, fate or luck (external locus of control) (Nießen et al,, 2022). Although the extent to which people expect events to be controlled by themselves or by external factors may vary between situations and events, people tend to display a more generalized locus of control when interpreting events in their life (Khumalo & Plattner, 2019). Studies have established a relationship between locus of control and depression (Khumalo & Plattner, 2019; Khazvand, 2020; Lobakeng & Plattner, 2019). People with internal locus of control would be more likely to present with higher levels of depression as depressed people tend to blame themselves for failure (Khumalo & Plattner, 2019). Contrary to such prediction, research consistently has shown that external locus of control (and not internal locus of control) was positively associated with depression (Eren et al, 2023). Associations between locus of control and depression were also established in student samples from various parts of the world. For instance, an American study found that college students who displayed internal locus of control had lower depression scores than students with external locus of control (Li et al, 2025). While it may be assumed that cultural differences would moderate the effect of locus of control on depression, a meta-analysis of various locus of control research established that studies conducted in collectivist societies revealed as much a positive association between external locus of control and depression as did studies conducted in the so-called individualistic societies (Sullivan et al, 2021).

Statement of the Problem

Globally, depression affects people of different race, culture, religion and gender. World Health Organization (2016) noted that it affects people of all ages as well, and that it is a global health priority which accounts for fully 10 percent of the total non-fatal disease burden worldwide. Unfortunately, scholars have found that depression is more than just feeling sad or blue. Hence, it is a common but serious mood disorder that needs serious atention as it affects all individuals. Probably because it is indicated to cause severe symptoms that affect how one feel, think, and handle daily activities, such as sleeping, eating, and working. However, important life changes that happen as we get older may cause feelings of uneasiness, stress, and sadness. For instance, the death of a loved one, moving from work into retirement, or dealing with a serious illness can leave people feeling sad or anxious. Extant findings indicated that amongst factors influencing depression are people's gender, stress levels and their locus of control. The established relationships have continued to pose challenge among depression researchers. Partly because it is crucial to know if the relationships are universal. Against this backdrop, this study the predictive nature of relationships existing between gender, stress, locus of control and depression among Ebonyi State University non-academic staff. In addressing the above raised problem, the following research questions guided the study:

1). To what extent does gender significantly predict depression among Ebonyi State University non-academic staff?
2). To what extent does stress significantly predict depression among Ebonyi State University non-academic staff?

3). To what extent does locus of control significantly predict depression among Ebonyi State University non-academic staff?

Literature Review

A number of theories explained the effects that people report from stressful life events. Such theories include: General Adaption Syndrome (GAS) Theory of stress Selye (1976) which states that an event that threatens an organism's well-being (a stressor) leads to a three-stage bodily response including Alarm, Resistance and Exhaustion stages and that the hypothalamic-pituitary-adrenal axis (HPA axis) system prepares the body to cope with the stress; Life events/stimulus-based theory of Holmes and Rahe (1967) which considers stress and stress-related changes as response to life change; and Interaction theory of Lazarus (1966) which incorporated the importance of both stressors and stress responses in explaining the linkage between stress and illness. Taylor (1983) theory of cognitive adaptation on the other hand proposed that individuals are active agents in restoring psychological equilibrium in the aftermath of a traumatic life event whereas Aldwin, Sutton & Lachman (1996) deviation amplification model of stress and coping proposed that changes that occur in response to traumatic life events may be subject to feedback processes; and Hobfoll (1988) conservation of resources theory proposed that whether a particular event triggers an adaptive or a maladaptive cycle may depend on a person's personal and coping resources. Some of the widely reported effects of stressful life events include cognitive disruption such as intrusive thoughts and ruminations that can interfere with a person's normal activities and stressful adjustment, depression, and anxiety. Much of these studies were guided by cognitive processing theories of adjustment such as Horowitz (1976) theory of stress responses / cognitive reworking, and Janoff-Bulman (1992) assumptive world theory.

Locus of control theories include: Locus of control theory of Rotter (1954) which emphasizes how much control a person feels they have in their own behaviour and that a person can either have an internal or external locus of control; Self-efficacy theory of Bandura (2010) which emphasizes the measure of how capable individuals feel about achieving their goals and that no matter how talented a person may be, if they do not believe they are capable, this belief will have a strong effect on their ability to succeed.

Theories put forward to explain depression include: Psychoanalytic theory of Freud (1950) which traced depression to an early trauma that is reactivated by a recent loss, bringing back infantile feeling of powerlessness; Behavioural theory of Ferster (1973); Lewinsohn (1974) which uses extinction to assert that once behaviours are no longer rewarded, people cease to perform them, become inactive and withdrawn leading to depression; Cognitive theory of Beck (1963; 1967; 1987) which traces depression to negative schemas or images of the self, the world, and the future and that people develop depression because their thinking is negative; The Sociocultural theory including The self-regulatory theory of Bandura (1986) which suggests that depression manifests and is managed differently across various societies; Health Belief Model of Rosenstock (1974) which describe how people from different cultural backgrounds perceive the severity of depression and their readiness to seek treatment. The central theme of these sociocultural theories is that societal and cultural factors significantly influence the development, manifestation, and management of depression; The Biological theories of depression including: Coppen (1967) serotonin theory of depression which suggests that imbalances in serotonin levels contribute to the development of the condition; The rank evolutionary theory of depression, developed by Stevens and Price (1996) which posits that

depression evolved as an adaptive response to losing status or rank in social hierarchies; and The Lesch (2004) Gene theory of depression which explores tthe role of genes in the development of depression. The central theme of biological theory of depression is that imbalances in brain chemistry, particularly neurotransmitters, abnormal brain activity, hormone levels, and structural changes in areas like the frontal lobe and limbic system and genetic factors contribute to the development of depression..

Empirical Review

Gender and Depression

Salk et al (2017) In two meta-analyses on gender differences in depression in nationally representative samples advanced previous work by including studies of depression diagnoses and symptoms to estimate the magnitude of the gender difference in depression across a wide array of nations and ages; used a developmental perspective to elucidate patterns of gender differences across the lifespan; and incorporated additional theory-driven moderators (gender equity). For major depression diagnoses and depression symptoms, respectively, they meta-analyzed data from 65 and 95 articles and their corresponding national datasets, representing data from 1,716,195 and 1,922,064 people in over 90 different nations. Overall, OR = 1.95, 95% CI [1.88, 2.03] and d = 0.27 [0.26, 0.29]. Age was the strongest predictor of effect size. The gender difference for diagnoses emerged earlier than previously thought, with OR = 2.37 at age 12. For both meta-analyses, the gender difference peaked in adolescence (OR = 3.02 for ages 13–15, and d = 0.47 for age 16) but then declined and remained stable in adulthood. Cross-national analyses indicated that larger gender differences were found in nations with greater gender equity, for major depression, but not depression symptoms. They concluded that gender difference in depression represents a health disparity, especially in adolescence, and that the magnitude of the difference indicates that depression in males should not be overlooked.

Paul et al (2023) examined self-reported differences in the depression among older men and women and associated factors for gender differences in depression at the population level in India utilizing nationally representative data from the Longitudinal Aging Study in India (LASI) wave I, for years 2017–2019. Their analytical sample comprised of 30,637 older adults ages 60 years and above (14,682 men and 15,655 women). Conducting descriptive statistics and Chi-Square tests followed by binary logistic regression and multivariate decomposition analyses, depression was reported in 7.4% (95% CI 7.0, 7.8) of older men and 9.5% (CI 9.1, 10.0) of older women. They equally found gender disparity in self-reported depression where gender gap, self-rated health contributed to 18.8% gap, whereas not having equal social participation (4.4%) and not satisfied in present living arrangements (8.1%) were other factors that contributed to gender gap for depression in India.

Kridahl & Duvander (2023) examined Depressive symptoms, gender equality and belongingness among older partnered individuals. Community, work and Family in Sweden using a sample of 1764 respondents from the Swedish Generations and Gender Survey 2012/2013 including individuals aged 60–80. Employing logistic regression, the findings show that individuals with traditional gender attitudes are more likely to report a high level of depressive symptoms than individuals with transitional (attitudes in between traditional and egalitarian attitudes) and individuals with egalitarian gender attitudes; Lower conformity to commonly held gender attitudes associated with a high level of depressive symptoms; and that neither the household division of labor nor conformity to common household division was associated with depressive symptoms.

Stress and Depression

Griep, Hanson, Leineweber and Geurts (2023) investigated how symptoms of stress are associated with depressive symptoms and the onset of major depression; and the buffering effect of hours spent on voluntary work on the stress-depression relationship. Using 3-wave longitudinal data, estimating a direct and reverse auto-regressive path model their results showed both cross-sectional and longitudinal support for the positive association between symptoms of stress and depressive symptoms; that individuals who experienced more symptoms of stress at T1, T2, and T3 were 1.64 (95%CI [1.46;1.91]), 1.49 (95%CI [1.24;1.74]), and 1.40 (95%CI [1.21;1.60]) times more likely to be prescribed an anti-depression treatment at T3, respectively; and that the number of hours spent volunteering mitigated the longitudinal but not cross-sectional stress-depression relationship, and cross-sectional but not the longitudinal association between symptoms of stress at T3 and the likelihood of being prescribed an anti-depression treatment.

Liu, Yu, Shi and Ma (2023) investigated effect of perceived stress on depression in college students where 1,267 college students (46.4% female and 53.6% male) from a university in western China were selected for the study using a whole-group convenience sampling method. Results indicated that both cognitive reappraisal and positive psychological capital positively moderated the relationship between perceived stress and depression, and both significantly inhibited depression in high and low stress perceivers, and the inhibitory effect was more pronounced in high stress perceivers, but expression inhibition did not moderate the relationship between perceived stress and depression

Cowden, Węziak-Białowolska, McNeely, and VanderWeele (2022) examined depression and the subjective experience of suffering as distinct forms of distress using a cross-sectional sample of flight attendants (n = 4,652) and tested for further empirical evidence distinguishing depression and suffering. Correlations with 15 indices covering several dimensions of well-being (physical health, emotional well-being, psychological well-being, character strengths, social well-being, financial/material well-being) After dividing participants into four groups that varied based on severity of depression and suffering, regression analyses showed higher levels of well-being among those with both none-mild depression and none-mild suffering compared to those with moderate-severe depression, moderate-severe suffering, or both. All indices of well-being were lowest among the group of participants with moderate-severe depression and moderate-severe suffering. In addition to providing further evidence supporting a distinction between depression and suffering, their findings suggest that concurrent depression and suffering may be more disruptive to well-being than when either is present alone.

Guan, Guariglia, Moore, Xu, and Al-Janabi (2022) reported a systematic review of 40 observational studies quantifying the relationship between various measures of financial stress and depression outcomes in adults. Most of the reviewed studies show that financial stress is positively associated with depression; a positive association between financial stress and depression is found in both high-income and low-and middle-income countries, but generally stronger among populations with low income or wealth; and “social causation” pathway, other pathways such as “psychological stress” and “social selection” can also explain the effects of financial stress on depression.

Salari et al (2020) conducted a systematic review and meta-analysis on stress and anxiety prevalence among the general population during the COVID-19 pandemic using random effects model, investigated heterogeneity of studies using the I 2 index, and analyzed data using the Comprehensive Meta-Analysis (CMA) software. Results showed prevalence of stress in 5 studies with a total sample size of 9074 is obtained as 29.6% (95% confidence limit: 24.3–35.4), the prevalence of anxiety in 17 studies with a sample size of 63,439 as 31.9% (95% confidence interval: 27.5–36.7), and the prevalence of depression in 14 studies with a sample size of 44,531 people as 33.7% (95% confidence interval: 27.5–40.6). They therefore concluded that COVID-19 not only causes physical health concerns but also results in a number of psychological disorders.

Locus of Control and Depression

Khumalo and Plattner (2019) explored the relationship between locus of control and depression among undergraduate students in Botswana using a sample of 272 students surveyed through a self-administered questionnaire, which included the Levenson's multidimensional locus of control scale, the Beck Depression Inventory-II and demographic questions. Data analysis utilised descriptive statistics, correlation analysis, independent samples t-tests and standard multiple regression analysis. Of the 272 participants, 47.3% scored low (minimal) levels of depression, 23.4% scored mild levels, 18.0% scored moderate levels and 11.3% scored severe levels of depression. Students who believed that they were in control of events in their lives were less likely to present with depressive symptoms ($r = -0.29$, $p = 0.000$), while students who believed that chance ($r = 0.45$, $p = 0.000$) or powerful others ($r = 0.40$, $p = 0.000$) controlled their lives were more likely to have high depression scores. Both internal and external locus of control explained 31% of the variance in depression scores.

Ahmad, Khan, Bilal, Ali and Sattar (2023) explore effect of locus of control and depression among young adults using a ample of 116 individuals from Multan Dist. Rotter's locus of control scale (RL of CS) and Becks depression inventory (BDI) were used to get the predicted hypothesis-an online survey was conducted to get the particular results. The outcomes showed locus of control as one of the cognitive variables that play an important role in depression. The results suggest that young males are less likely to be depressed as compared to females and that males have a higher internal locus of control level, and females have a higher external locus of control.

Rosana (2023) investigated the relationship between depressive symptoms and locus of control of truant students using the mixed method of research and Spearman Rank order Correlation as the main statistical treatment, the results of the research suggest that the association between the depressive symptoms and locus of control was not proven yet, anxiety factors of depression show a significant relationship with respondents' locus of control. On the contrary, results show that 72% of truant students are within the normal range of depression level, yet 28% reported mild depressive symptoms.

Halse, Bjørkløf, Engedal, Selbæk and Barca (2021) examined whether locus of control (LoC), a perceived control construct influential in the coping process, is related to depressive symptoms amongst People with Dementia in observational study involving 257 community-dwelling older adults diagnosed with dementia. At baseline, measures of depressive symptoms, locus of control (LoC), cognition, independent functional ability, general health, dementia severity, and dementia disease insight were collected. At follow-up, measures of depressive symptoms and cognition were collected. Aplying multiple linear regression using degree of depressive symptoms as measured with Montgomery-Asberg Depression Rating Scale as a

dependent variable to assess whether LoC was associated with depressive symptoms at baseline and follow-up while controlling for covariates, results indicated that LoC ($p < 0.001$), general health ($p = 0.003$), and insight ($p = 0.010$) were associated with severity of depressive symptoms at baseline, accounting for 28% of the variance. LoC ($p = 0.025$) and depressive symptoms ($p < 0.001$) at baseline were associated with severity of depressive symptoms at follow-up, accounting for 56.3% of the variance. It was therefore concluded that locus of control (LoC) was significantly associated with severity of depressive symptoms in people with dementia at baseline and at follow-up.

Hypotheses

The following hypotheses were tested in the study

1). Gender will significantly predict depression among adults

2). Stress will significantly predict depression among adults

3). Locus of control will significantly predict depression among adults

Method

Participants

Two hundred and forty four (244) staff of Personnel, Admission, Registrar, Exams and Records, ICT/Data base, Payroll, Bursary,Faculty of Sciences, Faculty of Management Sciences, Faculty of Engineering and Environmental Sciences, Faculty of Education and Library comprising 121 males and 123 females participated in the study. Participants' ages ranged range from 20 – 65 years, with their mean age of (M =38.25) and standard deviation as (SD = 3.26). Cluster sampling was used to select the sections while simple random was used to select participants from the sections.

Instruments

Instruments used in the study include: Holmes and Rahe (1967) stress scale, Locus of Control Scale (Rotter, 1966), and Beck (1961) Depression Inventory.

Procedures

The researcher introduced himself through the informed consent form that the participants read and sign before participating in the study. Afterwards, the researcher administered the questionnaires to the participants in their various offices. The administration of the questionnaire was done with the help of three (3) research assistants, who were trained on the modes of administering the questionnaire. Before administering the questionnaires, participants were given opportunity to indicate their consent to participate in the study. Participants who agreed to participate were assured that their responses will be treated with utmost confidentiality and that participation in the study is voluntary. The questionnaires were collected back after the participants had filled them correctly. Out of 250 copies of questionnaire administered, 244 were correctly filled and returned were used for data analysis.

Design/statistics

The design of the study is cross sectional survey. Analysis of data was done using Hierarchical Multiple regression. Statistical package for the Social Sciences (SPSS) version 26 was employed in the data analyses.

Result

Table 1: Means, standard deviations, and correlations for demographic variables, locus of control, gender and stress on depression

S/N	Variables	M	SD	1	2	3	4	5	6	7
1	Marital Status									
2	Age	38.25	3.26	.25***						
3	Educational Qualification			.24***	.01*					
4	Locus of Control	34.70	8.07	-.05	-.01	-.05				
5	Gender			.34***	.04*	-.15**	-.05*			
6	Stress	27.13	5.96	.54***	.05	.45***	.07**	-.11*		
7	Depression	9.88	4.65	-.06*	-.10*	-.08	-.31***	.06	.12**	-

*= P <.05; **p<.01(significant) Gender= 1-male, 2-female

Result of correlation table show that depression was significantly related to marital status (r = -.06, p < .05), age (r = -.10, p < .05); locus of control (r = -.31, p < .001) and stress (r = -.12, p < .01); But non-significantly related gender, and educational qualification. Locus of control was significantly related to gender (r = -.05, p < .01) and stress (r = .07, p < .01). Gender was significantly related to stress (r = -.11, p < .05) and educational qualification (r = -.15, p < .001). Age was significantly related to marital status (r = .25, p < .001), educational qualification (r = .01, p < .05), and gender (r = .04, p < .05). Marital status was significantly related to educational qualification (r = .24, p < .001), gender (r = .34, p < .001) and stress (r = .54, p < .001). Educational qualification was significantly related to stress (r = .45, p < .001).

Table 2: Coefficient table of Regression of locus of control, gender and stress on depression

Variables	Model 1	Model 2	Model 3	Model 4
Marital Status	.000	-.005	-.038	.059
Age	.094	-.006	-.002	.001
Educational Qualification	-.074	-.060	-.039	.009
Locus of Control		.305	.307	-.324***
Gender			.088	.048
Stress				.170**
R	.16	-.33***	.34	.36**
R^2	.03	-.11***	.12	.13**
R^2 change	.03	-.12***	.01	.501**
F value	F(3, 244)=2.88	F(1,243)=15.58	F(2, 242)=.35	

Note: **=p<.01, ***=p<.001(significant).Gender= 1-male, 2-female

Regression result in table 2 above indicated that none of the control variables significantly predicted depression. Locus of control ($\beta = -.32$, $p < .001$) entered in model two of the equation significantly predict depression. Thus inability to held oneself at high esteem or low control of what happens to one increases depression. It accounted for 12% significant variance as a predictor of depression ($R2\Delta = .12$, $p < .001$). Gender entered in ($\beta = .05$, $p > .05$) entered in model three of the equation did not significantly predict depression. But stress ($\beta = .17$, $p < .01$) entered in model four significantly predicted depression. It accounted for less than 5% significant variance as a predictor of depression ($R2\Delta = .501$, $p < .01$).

Summarily, depression was significantly related to marital status, age; locus of control, and stress; but non-significantly related gender, and educational qualification; none of the control variables significantly predicted depression; locus of control significantly predicted depression; gender did not significantly predict depression; and stress significantly predicted depression among Ebonyi state university non-academic staff.

Discussion

The study examined gender, stress and locus of control as predictors of depression among Ebonyi state university non-academic staff. The finding of the study showed that stress is a significant predictor of Ebonyi state university non-academic staff depression. Thus, increased levels of stress among adults appear to increase depression. Also, stress proves to be implicated in making adults depressed, which is dangerous to their health and wellbeing. This finding confirmed the hypothesis that stress will statistically significantly predict depression among Ebonyi state university non-academic staff. The finding is consistent with extant findings of Griep et al (2023); Liu et al (2023); Cowden et al (2022); and Guan et al (2022) that the connection between stress and depression is complex and circular. People who are stressed often neglect healthy lifestyle practices. They may smoke, drink more than normal, and neglect regular exercise. Similarly, too much stress, or chronic stress may lead to major depression in susceptible people. A little stress is good but too much is bad; one will need to shut down and reboot. Even positive events, such as getting married or beginning a new job, can be stressful and may lead to an episode of major depression. The finding supports previous empirical studies such as Salari et al (2020) which indicated that stressful issues like COVID-19 not only causes physical health concerns but also results in a number of psychological disorders. The spread of the new coronavirus can impact the mental health of people in different communities. Thus, it is essential to preserve the mental health of individuals and to develop psychological interventions that can improve the mental health of vulnerable groups during the COVID-19 pandemic.
The recently offered conservation of resources (COR) theory (Hobfoll 1989) assumes that stress occurs in any of three contexts: when people experience loss of resources, when resources are threatened, or when people invest their resources without subsequent gain.

The second finding of the study showed that locus of control negatively significantly predicted depression among Ebonyi state university non-academic staff. This imply that poor locus of control is harmful and could cause depression among Ebonyi state university non-academic staff. Ebonyi state university non-academic staff who cannot easily control or manage events around them are more likely to experience depression which is detrimental to their health challenges. This finding confirmed the hypothesis that locus of control will significantly predict depression among Ebonyi state university non-academic staff. The study however is consistent with a recent study by Khumalo and Plattner (2019); Ahmad et al (2023); and Halse et al (2021) that some studies have established a relationship between locus of control and depression.

Peterson (1979) predicted that people with internal locus of control would be more likely to present with higher levels of depression as depressed people tend to blame themselves for failure (Clark, Steer, & Beck, 1994). Contrary to such prediction, research consistently has shown that external locus of control (and not internal locus of control) was positively associated with depression (Cheng, Cheung, Chio, & Chan, 2013). Associations between locus of control and depression were also established in student samples from various parts of the world. According to Khumalo and Plattner (2019) people who believed that they were in control of events in their lives were less likely to present with depressive symptoms, while people who believed that chance or powerful others controlled their lives were more likely to have high depression scores. Both internal and external locus of control explained a significant variance in depression scores. The study results draw attention to locus of control as one of the cognitive variables associated with depression.
This finding however contradicted that of Rosana (2023) that the association between the depressive symptoms and locus of control was not proven yet. Further research is therefore needed to determine how locus of control can be addressed in the treatment and prevention of depression in university contexts.

The third finding of the study showed that gender did not significantly predict depression among Ebonyi state university non-academic staff. This implies that Ebonyi state university non-academic staff experiencing depression is not a function of being a male or a female. Male or female Ebonyi state university non-academic staff are both exposed to situations that can cause depression, hence it is not associated to any particular gender. This finding did not confirm the hypothesis that gender will significantly predict depression of Ebonyi state university non-academic staff. The finding contradicted earlier findings of Paul et al (2023); Kridahl and Duvander (2023); and Salk et al (2017) which indicated gender differences in depression. The gender difference in depression represents a health disparity, especially in adolescence, yet the magnitude of the difference indicates that depression in males should not be overlooked. This effect was attenuated by the mediator (total environmental reward) such that to the extent females exhibited increased environmental reward; the gender effect on depression was attenuated. These data support behavioral models of depression, indicate increased reinforcement sensitivity among females, and have clinical relevance in the context of assessment and behavioural activation interventions for depression.

Conclusion

Based on the findings, stress is a significant predictor of depression among Ebonyi state university non-academic staff implying that Ebonyi state university non-academic staff exposed to high level of stress are likely to experience more depression which affects their health and psychological wellbeing and that continuous exposure to stress without rest or check up is detrimental to healthy life.
Locus of control is also a significant predictor of depression among Ebonyi state university non-academic staff implying that Ebonyi state university non-academic staff unable to control events or things happening around them are in danger and could easily go into depression.

Gender is not a significant predictor of depression among Ebonyi state university non-academic staff implying that Ebonyi state university non-academic staff experiencing depression is not nccessarily a function of being a male or a female since both males and females Ebonyi state university non-academic staff are exposed to situations that can cause depression.

Recommendations

Based on the findings, the following recommendations were made:

There is need for Ebonyi state university non-academic staff to regularly monitor their stress level.

Ebonyi state university non-academic staff and indeed individuals in the society at large should be orientated to understand how to manage events in their lives.

Ebonyi state university management should periodically organize seminars and workshops on stress and locus of control management skills for non-academic staff.

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