

**AN ASSESSMENT OF DEPRESSION AND ANXIETY AMONG UNIVERSITY
OF BENIN STUDENTS: A STUDY OF THE FACULTY OF SOCIAL SCIENCES**

BY

**KOLEOSO OLUWADEMILADE ESTHER
SSC2004202**

**DEPARTMENT OF SOCIAL WORK
FACULTY OF SOCIAL SCIENCES
UNIVERSITY OF BENIN
BENIN CITY**

FEBRUARY, 2025

**AN ASSESSMENT OF DEPRESSION AND ANXIETY AMONG UNIVERSITY
OF BENIN STUDENTS: A STUDY OF THE FACULTY OF SOCIAL SCIENCES**

BY

**KOLEOSO OLUWADEMILADE ESTHER
SSC2004202**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF SOCIAL WORK
FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY. IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
BACHELOR OF SCIENCE (B.Sc) DEGREE IN SOCIAL WORK**

FEBRUARY, 2025

CERTIFICATION

This is to certify that this research work was carried by **Koleoso Oluwademilade Esther** with Matriculation Number: **SSC2004202** in partial fulfillment of the requirement for the award of Bachelor of Science (B.SC) degree in Social Work, Faculty of Social Sciences, University of Benin, Benin City, Edo State.

.....
Dr. OsagieEgharevha
Project Supervisor

.....
Dr. (Barr.) S. Yesufu
Head of Department

.....
DATE

.....
DATE

DEDICATION

This project is dedicated to my family for their endless love and support, to my mentors for their invaluable guidance, and to the participants whose experiences shaped this research. It is also for all those seeking resilience and strength, with hopes that this work contributes to understanding and positive change.

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to all those who have supported me throughout the journey of my academic pursuit. First and foremost, my deepest appreciation goes to my parents, whose unwavering love, prayers, and sacrifices have been the bedrock of my success. Your encouragement and belief in my abilities have been my greatest motivation.

To my supervisor, Dr. Osagie Eghrevha, I am sincerely grateful for your guidance, patience, and invaluable insights throughout this process. Your dedication and expertise have been instrumental in shaping the quality of my work.

I also extend my profound thanks to all my lecturers in the Department of Social Work, University of Benin. Your dedication to imparting knowledge and your constant encouragement have played a significant role in my academic development.

To my beloved siblings, thank you for your constant support, encouragement, and belief in me. Your words of motivation have always lifted my spirits. Lastly, to my friends, I am incredibly grateful for your companionship, understanding, and encouragement during the challenging moments. Your support has been a source of strength, and I am blessed to have you all in my life.

Thank you all for being an integral part of my academic journey.

Koleoso Oluwademilade Esther

TABLE OF CONTENT

Title Page	ii
Certification	iii
Dedication	iv
Acknowledgements	v
Table of Contents	vi
Abstract	ix
CHAPTER ONE: INTERPRETATION	
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Research Objective	6
1.4 Research Questions	7
1.5 Scope of the Study	7
1.6 Significance of the Study	7
1.7 Definition of Terms	10
CHAPTER TWO: LITERATURE REVIEW	
2.1.0 Review of Related Studies	12
2.1.1 Educational Level and Depression and Anxiety	12
2.1.2 Gender and Depression	15
2.1.3 Gender and Anxiety	18
2.1.4 Family History and Anxiety	22

2.1.5 Substance Use and Common Mental Disorders (Depression and Anxiety)	26
2.1.6 Socioeconomic Status and Mental Illness	29
2.1.7 Age and Mental Illness	29
2.1.8 Family History and Mental Illness	31
2.2 Theoretical Framework	32
2. 2. 1 Theories of Depression	33
2.2.1.1 Reinforcement Theory	33
2.2.1.2 Learned Helplessness Theory	35
2.2.1.3Self-Control Theory	38
2.2.1.4 Cognitive Theory	41
2.2.2 Theories of Anxiety	44
2.2.2.1 Cognitive Model of Anxiety	44
CHAPTER THREE: RESEARCH METHODOLOGY	
3.0 Introduction	52
3.1 Research Design	52
3.2 Population of Study	52
3.3 Sample Size	53
3.4 Instrument of Data Collection	54
3.5 Method of Data Collection	55
3.6 Method of Data Analysis	55

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Data Presentation	57
4.2 Analysis of Respondents Characteristics	57
4.3 Discussion of Findings	64

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.0 Introduction	68
5.1 Summary of Findings	68
5.2 Conclusion	69
5.3 Recommendation	72
REFERENCES	75

ABSTRACT

This research work seeks to examine the assessment of depression and anxiety among the University of Benin students, using the Faculty of Social Sciences. The study made use of a questionnaire to obtain data from respondents. Five objectives were set for the study. The study found that there was no difference between male and female students based on depression and anxiety. The results of the analysis conducted revealed that there was no significant difference between younger students and older students based on depression and anxiety. The results of this study also show that course levels did not significantly predict depression and anxiety. However, the findings suggest that students who use substances reported significantly higher levels of depression and anxiety than those who do not use substances. Lastly, students with a family history of psychiatric illness reported significantly higher depression and anxiety than students with no family history of psychiatric illness. The study made recommendations that were directed toward university administrators, mental health professionals, policymakers, and students, aiming to address the underlying factors contributing to mental health challenges in the university population.

CHAPTER ONE

Introduction

1.1 Background to the Study

Anxiety and depression are common mental disorders presenting alone or in a co-morbid disease state (Aika & Odili, 2019). Both are commonly observed in outpatient settings within primary care and general practice. Anxiety is an usual reaction to threat, but it can progress into a pathological condition if it is excessive, lasts for an extended period of time, becomes worse over time, and is accompanied by serious physical symptoms (Shimada, Ohira, Hirota, Ikegami, Kondo, & Shikino, 2018). In adults, generalized anxiety disorder (GAD) is a common and debilitating condition that can impede social and occupational functioning (Remes, Wainwright, Surtees, Lafortune, Khaw, & Brayne, 2020).

Depression is a global health problem that causes significant dysfunction in the society and increases the utilisation of health resources, especially when it is undiagnosed and inappropriately treated (Iloh, Aguocha, Amadi, & Chukwuonye, 2018). Depression is defined as a mood disturbance (Shimada et al., 2018). Major depression may be difficult to distinguish from generalized anxiety disorder because some symptoms of generalized anxiety disorder such as fatigue and insomnia overlap with those of major depression (Stein, Sareen, Solomon, Articles, Points, & Text, 2015). Depression and anxiety have a global prevalence of 4.4% and 3.6% respectively while seven (7) million (3.9%) and 4.9

million (2.7%) Nigerians are suffering from depression and anxiety disorders respectively (Ayandele, Popoola, Obosi, & Busari, 2019).

Mental health issues are now occupying the forefront in public health discourse, as they account for one third of the causes of disability worldwide (World Mental Health Day, 2023). Globally, there is a rising concern regarding the increase in the prevalence of mental disorders among university students (Ibrahim & Abdelreheem, 2015). According to the World Health Organization (WHO), depression and anxiety disorders are among the leading causes of illness and disease among adolescents, while suicide is the fourth leading cause of death among persons within the age group of 15–29 years, commonly found in the university (Mental Health of Adolescents, 2023).

Depression comprises a group of symptoms such as persistent low mood, loss of interest in pleasurable activities, reduced energy, loss of concentration, prominent weight changes, altered sleep, feelings of hopelessness and/or worthlessness, and suicidal thoughts or ideas (National Institute of Mental Health, 2020). Undergraduate students are individuals navigating a critical phase of personal development, which can be challenging. An individual endeavors to attain self-discovery, cultivate intimacy, investigate various facets of life, and devise answers to complex challenges as they emerge. The integration of all these elements with academic rigor may impose considerable demands on them. In a university environment, undergraduates experience an array of challenges, such as adapting to life outside the home, academic stress, inadequate housing, financial and

relationship difficulties, peer pressure, and sleep difficulties (Spiessl, Hubner-Liebermann, & Hajak, 2006).

The tension and worry that accompany exam preparation and the eventual release of results contribute to an untold effect on mental health (Wani, Sankar, Rakshantha, Nivatha, Sowparnika, & Marak, 2016). The increasing prevalence of mental health problems among undergraduates has become a crucial issue, as global studies have demonstrated a significant clinical measure of psychiatric morbidities among undergraduates worldwide (Chen, Wang, Qiu, Yang, Qiao, & Yang, 2013). Zhang, and Wang (2022) reported that the global prevalence of anxiety and depressive symptoms among university students was 39.0% and 33.6%, respectively.

A similar review by Paula, de Breguez, Machado and Meireles (2020) revealed that anxiety and depression accounted for 24.5% and 26.1%, respectively. Higher figures were reported in studies conducted in the USA, Malaysia, and Egypt, especially among students of Medicine and Nursing (Beiter, Nash, McCrady, Rhoades, Linscomb, & Clarahan, 2015; Abdel Wahed & Hassan, 2017). In Nigeria, recent studies have reported 28.1% and 16.4% for anxiety and 21.3% and 12.7% for depression (Seun-Fadipe & Mosaku, 2017; James, Thomas, Omoaregba, Okogbenin, Okonoda, & Ibrahim, 2017).

However, the mental health issues of undergraduate students have not garnered the requisite public health focus, necessitating action by university health facilities and policymakers. Moreover, there is a paucity of information regarding psychiatric

morbidity among undergraduates and the interventions provided by university medical institutes. Comprehending the weight of psychological distress among them would clarify the necessity of formulating mental health policies on campuses for early detection and intervention. The elevated incidence of depression among university students has become a significant global problem. A systematic review revealed that 6.0% to 65.5% of medical students have some level of depression ranging from mild to severe (Hope & Henderson, 2014). In Nigeria, among Ahmadu Bello University Zaria students, 58.2% scored above the threshold for mild depression (Dabana & Gobir, 2018).

Scholar such as Suraj, Umar, Gajida, & Umar (2021) It has been posited that various factors including age, gender, academic performance, internet addiction, socio-economic status, and year of study contribute to an elevated risk of depression among university students. University students exert a considerable impact on society and the nation as a whole; therefore, examining their psychological well-being is crucial for public health.

1.2 Statement of the Problem

Numerous investigations have indicated that university students in various regions globally encounter significant mental health challenges, including stress, anxiety, and depression. Furthermore, the early identification and prompt intervention of mental health issues among university students hold significant importance in public health initiatives. Therefore, this study aims to investigate the prevalence and contributing factors of depression, anxiety, and stress within the university student population in my surroundings. In light of the increasing awareness

surrounding mental health issues within the university student population, it is evident that depression and anxiety continue to be widespread and challenging conditions, impacting a considerable number of students globally. The shift to university life, coupled with academic demands, social pressures, and ambiguous futures, can elevate stress levels, resulting in depression and anxiety. Nonetheless, the scope and characteristics of these challenges faced by university students are still not well-defined. Moreover, the effects of depression and anxiety on students' academic performance, social interactions, and general well-being remain inadequately comprehended. Depression in students manifests as a low mood, withdrawal from typical and engaging activities, absenteeism from lectures, irritability, substance abuse, and difficulties with concentration, among other symptoms. This can influence the overall behavior and well-being of the student. In a developing country such as Nigeria, it is common for students to experience fluctuations in their mood, particularly depressive episodes. However, when these episodes are permitted to escalate, they can lead to significant psychological challenges. First-year undergraduates encounter significant challenges as they adapt to the academic environment in schools. Several individuals are departing from their homes for the first time, encountering the challenge of independently addressing their issues. They encounter an increased intensity of scholarly responsibilities and the difficulty of selecting their peers and companions. A significant number manage to adapt and align with the new role expectations, whereas others struggle and may experience a decline into depression. An example is the situation involving a 100-level student who took their own life at the University of Nigeria Nsukka on May 14, 2018. He left a note that states, "forgive me, in case you are the one who found the body." I sincerely apologize; it must have been someone familiar to you. A student consumed two bottles of an insecticide known as sniper in a tragic attempt to take his own life. This represents merely a single instance

among numerous others. Parents are making significant efforts to support and ensure the well-being of students as they navigate their academic journeys. Meanwhile, the government is working to subsidize tuition for undergraduates. Despite these efforts, many students, especially those in their first year, continue to struggle, leading some to experience depression. What might be the key factors affecting these depressive tendencies? Although studies have pinpointed several elements that lead to the onset of depression and anxiety, the relationship between demographic traits (such as age and gender) and environmental influences (including education and substance use) in determining these mental health outcomes is still not well comprehended. It remains uncertain how factors such as age, gender, educational attainment, substance use, and family history of mental illness impact the prevalence of depression and anxiety in university students. Moreover, the degree to which these factors influence each other in intensifying or alleviating symptoms of depression and anxiety remains unclear. This study seeks to evaluate the prevalence, severity, and associated factors of depression and anxiety in university students, with the goal of guiding the creation of effective support services and interventions that enhance students' mental health and well-being. Moreover, at this time, there is a limited amount of research focused on university students regarding depression and anxiety, along with the related risk factors among undergraduates. The current investigation sought to evaluate levels of depression and anxiety among undergraduate students at the University of Benin in Nigeria.

1.3 Research Objective

The aim of this study was engaged on the assessment about depression and anxiety among students at the University of Benin. An examination of the Faculty of Social Sciences

The other objectives were to:

1. examine the role of parents in depression and anxiety among the student of the Faculty of Social Sciences, University of Benin
2. determine the impact of age on depression and anxiety among students of the Faculty of Social Sciences, University of Benin
3. investigate the influence of psychiatric illness in family on depression and anxiety among students of the Faculty of Social Sciences, University of Benin
4. assess the effect of educational attainment on depression and anxiety among students of the Faculty of Social Sciences, University of Benin
5. find the role of substance use on depression and anxiety among students of the Faculty of Social Sciences, University of Benin

1.4 Research Questions

The followings were the research questions for this study:

1. what are the roles of parents in depression and anxiety among students of the faculty of social sciences, University of Benin?
2. how does age affect depression and anxiety levels among the undergraduates' students?
3. what is the influence of psychiatric illness in family on depression and anxiety among students of the faculty of social sciences, University of Benin?
4. what are the effects of educational attainment in depression and anxiety among students of the faculty of social sciences, University of Benin?
5. what are the impacts of substance use on depression and anxiety among students of the faculty of social sciences, University of Benin?

1.5 Scope of the Study

This study examines the evaluation of depression and anxiety among undergraduate students within the Faculty of Social Sciences at the University of Benin. This research is conducted within the Faculty of Social Sciences.

1.6 Significance of the study

Research on the evaluation of depression and anxiety among students at universities can yield data on the prevalence rates of these conditions among

undergraduates, highlighting the magnitude of mental health issues within this demographic. The findings can help identify specific subgroups at higher risk, such as students in certain academic disciplines, first-year students, or those from specific socio-economic backgrounds. The study can explore contributing factors such as gender, age, psychiatric illness in the family and the use of psychoactive substances. Understanding these factors enriches theoretical models of mental health in young adults.

The research offers empirical data regarding the prevalence and severity of mental health issues among undergraduates, facilitating informed decision-making by policymakers concerning resource distribution and program development. Policymakers can utilize the data from this study to formulate or amend mental health policies tailored to higher education institutions, thereby addressing the distinct requirements of university students. Policies may concentrate on enhancing access to mental health services, diminishing stigma, and advocating for preventative care.

A study assessing depression and anxiety among university undergraduates can play a significant role in formulating or refining psychological theories by contributing new empirical evidence and insights. This study can enhance theories by incorporating factors that are particularly relevant to undergraduates, thus broadening their applicability. Furthermore, output from this study can lead to theories on how educational systems, gender, age, psychiatric illness in the family, the use of psychoactive substances, and

institutional environments impact mental health, contributing to models that link academic performance with psychological well-being.

This study can serve as a foundation for further research. Future research can focus on specific subgroups, such as students from diverse cultural, socio-economic, or academic backgrounds. Insights can motivate follow-up studies to track mental health trends over time, examining the long-term impact of depression and anxiety. Further research can delve into specific causes of depression and anxiety, such as academic workload, financial stress, or social isolation. Studies can also investigate the role of protective factors, such as resilience, coping mechanisms, and social support.

Lastly, this study will provide empirical evidence by generating data-based insights that can be used to inform theory, practice, and policy. The study offers statistical evidence on the prevalence and severity of depression and anxiety among university students, identifying the extent of the problem in measurable terms. By analyzing variables like gender, age, educational level, presence of psychiatric illness in the family, and the use of psychoactive substances, the study empirically links these factors to depression and anxiety, providing concrete evidence of their influence.

1.7 Definition of Terms

Depression: This refers to the self-reported reactions of students about emotions of guilt, worthlessness, helplessness, hopelessness, psychomotor slowdown, appetite loss, and

sleep disturbances. The subject's overall score on the Centre for Epidemiologic Studies Depression (CES-D) scale (Radloff, 1977) was utilized for determination.

Anxiety: This refers to a trait in personality that remains relatively stable over a long period of time and it is used to describe an individual's long-term anxiety. It was determined by a subject's total score on the Spielberger's State-Trait Anxiety Inventory (STAI-T) (Spielberger, Gorsuch, & Lushene, 1983).

Gender: This refers to the self-reported sex of undergraduate in the Social Sciences Faculty. This is the meaning attached to being male or female or societal role expectation. It has two levels, male and female.

Age: This refers to the self-reported chronological age of undergraduates in the Social Sciences Faculty. Participants' age was categorized into two. Participants at and above the mean age ($\bar{x} = 20.05$) were classified as "Older", while respondents' age below the mean were classified as 'Young.'

Course Level: This is the academic year or level in which a student is currently enrolled in any of the courses in the Faculty of Social Sciences. They are categorized as from 100 levels to 400 levels

Substance Use: This is referred to as the consumption of any psychoactive substance (e.g., alcohol, tobacco, cannabis, stimulants, opioids, hallucinogens) by university

undergraduate students. It was determined from a student's response whether they sometime take hard drugs.

Family History of Psychiatric Illness: In this study, it is defined as university students who self-reported having At least one first-degree family (parent or sibling) or second-degree relation (grandparent, uncle, aunt) diagnosed with a clinically acknowledged psychiatric condition (e.g., depression, schizophrenia, anxiety disorder). A student's response indicated the presence of a familial history of psychiatric disease.

CHAPTER TWO

2. 0

Literature Review

This chapter aims to provide an overview of fundamental ideas that facilitate the comprehension of depression and anxiety assessment among university students.

2. 1. 0. Review of related studies

2. 1. 1 Educational Level and Depression and Anxiety

A recent meta-analysis (Lorant et al., 2003) found an increased risk of depression in people belonging to the lowest socioeconomic status (SES) compared to those in the highest. Nonetheless, socioeconomic status (SES) is an unclear notion, and in this meta-analysis, it was represented by diverse parameters including education, income, occupation, assets, and social class. Such variables are not advised to be used interchangeably as markers of socioeconomic status (Geyer, Hemstrom, Richard & Vagero, 2006). In contrast to money, education remains relatively steady into young adulthood and is more likely to contribute to positive mental health rather than be a consequence of it. Education is an intrinsic resource of an individual, rather than an external attribute (Ross & Mirowsky, 2006). Education precedes and impacts other socioeconomic status variables, including occupation and income. Furthermore, education, as a kind of human capital, can facilitate broader success and may effectively contribute to achieving essential objectives, including emotional well-being (Mirowsky & Ross, 1998). Education was utilized more often than the other socioeconomic status

factors in the research encompassed in the aforementioned meta-analysis (35 out of 56) (Lorant et al., 2003). Moreover, the majority (48 out of 56) of the studies (Lorant et al., 2003) employed a cross-sectional design, thus failing to establish whether variations in socioeconomic status were linked to increasing or diminishing disparities in depression over age or time. Such alterations would signify whether the protective influence of a high socioeconomic status remains stable, intensifies, or diminishes with time. Consequently, the potential cumulative impact of educational attainment on mental health can be effectively proved through longitudinal research rather than cross-sectional investigations. The meta-analysis revealed four longitudinal studies that assessed socioeconomic status (SES) based on educational attainment (Bracke, 2000; Eaton, Muntaner, Bovasso, & Smith, 2001; Kaplan, Roberts, Camacho, & Coyne, 1987; Sargeant, Bruce, Florio, & Weissman, 1990). The findings of these investigations were incongruous, with only one study (Kaplan et al., 1987) indicating a definitive inverse correlation between educational attainment and depression. The sole longitudinal study examining schooling as the primary predictor of depression indicated that the correlation diminished and became statistically insignificant when controlling for prior depressed symptoms (Sargeant et al., 1990). The data indicate an absence of a cumulative impact of schooling on depression as one ages. A study excluded from the meta-analysis, which tracked teenagers into early adulthood, revealed no correlation between educational achievement and depression (Miech, Caspi, Moffitt, Wright, & Silva, 1999). Notwithstanding the constraints of the cross-sectional methodology, stratifying the

sample by age enables the examination of the impact of schooling on mental health over the lifespan. The growing correlation between low education and depression with advancing age suggests that the protective advantages of higher education accrue over a lifetime. A study indicated that the disparity in depression levels between individuals with high and low educational attainment amplifies with age (Miech & Shanahan, 2000). A comparable study has shown the cumulative benefit of greater educational attainment on physical health (Ross & Wu, 1996). Unlike the meta-analysis conducted by Lorant et al. (2003), a simultaneous systematic review by Fryers, Melzer, and Jenkins (2003) examined the correlation between social disparities and depression as well as anxiety disorders. The three pertinent research (Andrews, Henderson, & Hall, 2001; Bijl, Ravelli, & van Zessen, 1998; Kessler et al., 1994), which employed a cross-sectional design, consistently identified a strong inverse relationship between educational attainment and anxiety disorders. Furthermore, we are cognizant of only a singular longitudinal study examining the correlation between anxiety and education (Miech et al., 1999). The study demonstrated a negative correlation between anxiety levels and both the educational attainment of the respondents' parents and the respondents' own educational achievements. Numerous studies indicate that certain mediators, including health behaviors (such as smoking, alcohol consumption, and physical activity), psychosocial status (Kaplan et al., 1987), somatic health (Kaplan et al., 1987; Miech & Shanahan, 2000), socio-demographic factors (Bracke, 2000; Kaplan et al., 1987), and work characteristics (Bracke, 2000; Kaplan et al., 1987; Ross & Mirowsky, 2006; Zimmerman,

Christakis, & VanderStoep, 2004), elucidate the relationship between educational attainment and depression. Nevertheless, the data are inconclusive.

2.1.2 Gender and Depression

However, depression has become an interesting field of study for gender differences in the last years (Troisi & Moles, 1999; Prigerson & Slimack, 1999; Yonkers, 1998; Blehar & Oren, 1997; Malone & Johnson, 1998; Skaff, Finnery, & Moos, 1999; Sherrill et al., 1997; Ahnlund & Frodi, 1996; Zlotnick, Shea, Pilkonis, Elkin, & Ryan, 1996; Blehar, 1995). A study shows that strong relationship between anxiety and depression has been noted in clinical practice. Brown and Barlow (2012) affirmed that 55% of the patients with an anxiety or mood disorder satisfy the diagnostic criteria for a concomitant anxiety disorder or depression. Unipolar depression is extremely noted to be frequent in the female gender.

The National Comorbidity Survey (Kessler & McGonagle, 1994) found a prevalence of 21% in women and 13% in men. In both sexes the prevalence of bipolar disorder was found to be at 1% (Weissman & Bland, 1996) and it is probable the study of gender differences received scarce attention. Undoubtedly gender differences wield great clinical importance as well as being of interest theoretically, since progression and treatment of bipolar disorder are strongly influenced by gender (Giardinelli et al., 2003). Even the first descriptions of affective disorders mentioned significant diversity between men and women. Farlet (1854) in the classic work “Circular Insanity” affirmed that this problem “is definitely more frequent” in women than in men (Sedler, 1983). Past studies

have shown the particular prevalence of depression in females as well as the prevalence of hyperthermia in males and the alteration of psychopathological expression of affective disorders (Perugi et al., 1990). Depressive tendencies associated with the female gender do not emerge prior to puberty, with significant differences in the incidence of depression becoming apparent at puberty. This information is limited and inconsistent. A cognitive style marked by elevated interpersonal sensitivity has been identified as a predisposing factor for psychiatric disorders, particularly depression.

According to Nolen-Hoeksema (1987) the emergence of a gender difference in depression after puberty results from a different mode of interpreting events as more uncontrollable in the perception of the female subject. Girls receive a kind of “helplessness training” from their environment (Ruble, Greulich, Pomerantz, & Gochberg, 1993); transcultural studies indicate that boys are encouraged to be more active and assertive, while girls are usually taught to be more passive and dependent on others (Maccoby & Master, 1970). Nolen-Hoeksema (1987) pointed out that a further difference between the sexes is represented by the prevalent “ruminative” style when facing problems and at the first perceptions of a fall in mood which predisposes the female to be more susceptible to depression. Instead, men demonstrate a coping ability that is more adaptive with more activity and the tendency towards distraction in the case of an emerging depression. These considerations on the different emotional expressions of the two sexes and the weight that this difference can have in the manifestation of

physiopathology can be traced back to the sex role concept and the relationship with mental illness (Giardinelli et al., 2003).

All the studies that deal with congruence/incongruence in gender roles, or the presence of behaviours in line with adequate or inadequate gender stereotypes and thus with characteristics of the opposite sex (“passive” men and “active” women) indicate that incongruent behaviours are considered more “disturbed” (D’Atena, 1989).

It is evident that gender differences in psychiatric disorders have been the object of many studies, with the purpose of finding out if and how much the gender variable can affect psychopathology (Specca, Pasquini, et al., 2001). These differences appear to be characteristic of base, yet different and counter opposed in the two genders, and emerge more and in a greater measure in the presence of a psychiatric disorder (Specca et al., 2001).

Suicide statistics show an almost double incidence of male suicides as compared to females (Murphy, 1998). The larger incidence of the male gender contrasts with the statistic of the incidence of depressive disorders, where the relationship is inverted (F:M = 2:1) (Kessler, McGonagle, et al., 1994), with an apparent larger facility to become ill from depression in the female gender. This data is apparently in contrast with the fact that 95% of suicides occur as a consequence of a grave expressive disorder (Pancheri, 1999). With regard to European countries, internalizing disorders are more common among women and externalizing disorders among men, whereas gender differences in suicidality varied (Boyd et al., 2016). According to the cognitive prospective, anxiety disorders are

caused by distorted negative thoughts and people with depression tend to have a negative vision of themselves, the world and the future, forming the so-called “negative cognitive triad”. However, dimensions of Metacognition are the vulnerability factors to predicting development of psychological symptoms (Wells, 2009).

2.1.3 Gender and Anxiety

Research has consistently demonstrated that women tend to be at a greater risk for developing anxiety disorders than men (Bourdon et al., 1988; Weissman & Marikangas, 1986). Data from large epidemiological studies indicate a gender ratio of 2:1 (women: men) for anxiety disorders (Angst & Dobler-Mikola, 1985; Bruce et al., 2005). According to the National Comorbidity Study, Kessler et al. (2005) reported lifetime prevalence rates of 36.4% for women and 25.4% for men regarding anxiety disorders.

Furthermore, several cross-cultural studies have reported a gender effect in fear reporting towards harmless animals or disgust-relevant animals, such as spiders, snakes, or worms (Davey et al., 1998). It appears that the extent of this gender effect varies according to specific types of stimuli, with fears of harmless animals (e.g., dogs, spiders) being most pronounced (Arrindell et al., 2003), whereas no gender effect was observed in fears of enclosed spaces, loud noise, or bodily injury (e.g., Tucker & Bond, 1997). Davey et al. (1998) found that women were more fearful of disgust-relevant animals (e.g., worms, spiders) than men, whereas there was no difference in reported fear towards threat-posing animals (e.g., sharks, lions).

Despite these findings and the expanding literature confirming the established gender effect, specific factors that may predispose women to this increased risk remain poorly understood. Many researchers who report a gender effect in anxiety frequently attribute their findings to established prevalence rates or neglect to offer an explanation altogether.

A recent review by McLean and Anderson (2009) concluded that different socialization experiences, which teach gender-specific expression and acceptable coping styles, might contribute to the gender effect in anxiety and fear.

In scholarly discourse, the terms gender and sex are frequently utilized synonymously. Consequently, the term gender will be employed in this research to describe a broad spectrum of actions, attitudes, and personality traits linked to femininity and masculinity.

Conventional gender roles are thought to exacerbate women's susceptibility to anxiety and phobias (Fodor, 1974). Fodor contended that this inclination stemmed from gender socialization, which instructs women to be reliant, timid, passive, and subservient, while males are educated to be courageous, active, and directed towards goals and achievements. Research has repeatedly shown a correlation between self-reported fear and gender role characteristics, including femininity and masculinity; however, there is less agreement over which gender role contributes to anxiety and dread.

Some studies have suggested that femininity was related to elevated fear of harmless animals (Dillon, Wolf, & Katz, 1985; Tucker & Bond, 1997), while others have demonstrated that identifying with a more masculine gender role was negatively associated with fear and anxiety (Arrindell, 2000; Chambless & Mason, 1986). For example, low masculinity (e.g., lack of assertiveness) was associated with anxiety and avoidant behavior, whereas high femininity (e.g., nurturing and kind) was not associated with avoidance and anxiety (Chambless & Mason, 1986). This inconsistent pattern has also been observed in children. While Ginsburg and Silverman (2000) reported that low masculinity was associated with number of fears endorsed among children, others have demonstrated that high femininity was related to anxiousness in children (Muris, Meesters, & Knoop, 2005).

A Well-established gender effect can also be explained by differential reinforcement boys and girls receive from parents and society. Since it is acceptable for girls to express anxiety and sadness, these emotions tend to be encouraged in girls, whereas boys are expected to act courageously and face their fears (Bem, 1981) perhaps providing boys with more opportunity for fear reduction. An example of parents encouraging gender-conforming behaviors in their children is demonstrated in a study conducted by Stevenson-Hinde and Shouldice (1993). In the research they conducted, parents endorsed their daughters' shyness while disapproving of identical shy behaviors exhibited by sons. Parents exhibited diminished acceptance of shy behaviors as the boy aged. This uneven reinforcement is also evident in educational environments. Buck (1975) demonstrated that teachers respond differently to the same behavior depending on the gender of the child. Reports indicate that teachers overlooked girls' active participation while offering positive reinforcement when girls adhered to culturally accepted gender roles, particularly those characterized by submissiveness. Overall, boys received more positive reinforcement for being assertive, independent and active, while girls were rewarded for showing empathy and being social (Keenan & Shaw, 1997).

The earliest stage of differential reinforcement, coupled with societal reinforcement, suggests that men and women may exhibit unequal motivation in

reporting their anxiety. One could speculate that men might be underreporting their actual fear or distress to be consistent with traditional masculine gender roles and avoid being perceived as vulnerable or weak, while it is more acceptable for women to express their true fears without fearing negative consequences (Craske, 2003; McLean & Anderson, 2009). Pierce and Kirkpatrick (1992) tested whether men underreport their fear levels by asking participants to complete the same fear survey on two separate occasions.

Following the arrival of participants for the second session, they were informed that their responses could be "validated" by monitoring their heart rate as they watched images pertinent to the questionnaire topics. The authors illustrated that when participants were led to believe their honesty was being assessed, men exhibited markedly higher ratings in the second session compared to their first responses, whereas women's responses were consistent across both sessions. While the study demonstrated that men underreport their fear on self-report measures, this reporting bias did not completely account for the gender effect as women still reported higher anxiety levels than men during the second session (Pierce & Kirkpatrick, 1992).

Egloff and Schmukle (2004) demonstrated that women reported greater anxiety than men on both implicit and explicit tests. The effect size for the implicit measures was 50% of that observed for the explicit measures. Research indicates that women consistently report higher levels of fear and anxiety on self-report measures (McLean & Anderson, 2009), and exhibit increased anxiety during stressful tasks (Chaplin, Hong, Bergquist, & Sinha, 2008; Kelly, Forsyth, & Karekla, 2006). However, the evidence regarding the impact of gender on physiological reactivity remains inconsistent. Although there is some indication that women and men experience similar physiological reactivity, such as electrodermal reactivity and heart rate during several CO₂ inhalations (Kelly et al., 2006), there is a greater body of literature suggesting that women are physiologically more reactive to a stressful situation than men.

Kudielka, Buske-Kirschbaum, Hellhammer, and Kirschbaum (2004) found that women exhibited a higher heart rate response during a stressful task (Trier Social Stress Test) compared to men. A similar pattern of physiological reactivity was observed in an adolescent cohort. Anderson and Hope (2009) examined response patterns of socially anxious and non-anxious adolescents

during a social situation and found that, regardless of social anxiety, girls had higher heart rate reactivity than boys during the speech. Further, Schmaus, Laubmeier, Boquiren, Herzer, and Zakowski (2008) examined the gender effect on repeated stressor as a measure of habituation. Their results revealed that watching a 7-min Holocaust video on two separate occasions (2 days apart) resulted in an elevated heart rate during the second presentation among women only (Schmaus et al., 2008). The study indicated that the increased risk of anxiety disorders in women might be attributed to insufficient habituation; however, avoidance behavior during the video was not evaluated, potentially influencing the noted lack of habituation.

2.1.4 Family History and Anxiety

Among the anxiety disorders, behavior genetics research has revealed a strong genetic component to the etiology of panic disorder (Kendler et al., 1995), and prospective studies have identified specific psychological risk factors (e.g., anxiety sensitivity; McNally, 2002; Schmidt, Lerew, & Jackson, 1999). On the other hand, there is evidence that the etiology of GAD is less heavily influenced by genetic factors. Numerous twin studies have been carried out to investigate the relative roles of environmental and genetic variables in the etiology of GAD. The first of these studies found that genetic factors were largely not involved in the transmission of GAD (Torgersen, 1983). A twin study conducted by Kendler, Neale, Kessler, Heath, and Eaves (1992) that included a large number of female twin pairs also reported low heritability of GAD (19%–30%). Similarly, a twin study using both male and female twin pairs estimated the role of genetics to be modest, in the 15%–20% range (Hettema, Prescott & Kendler, 2001). A somewhat higher, but still moderate, estimate of the heritability of GAD (40%) was found in a study of middle-aged male twin pairs taken from the Vietnam Era Twin Registry (Scherrer et al., 2000). Collectively, these studies suggest that while genetic factors may contribute to the etiology of Generalized Anxiety Disorder (GAD),

environmental factors are the primary determinants. Evidence indicates that generalized anxiety disorder (GAD) clusters within families, although genetic factors contribute only modestly. A meta-analysis on the genetic epidemiology of anxiety disorders, which took into account relevant family history and twin studies, confirmed that GAD aggregates in families and that genetics play only a minor role in this aggregation (Hettema, Neale, & Kendler, 2001). The aggregation of GAD in families despite a lack of strong hereditary determinants suggests that environmental factors within families, such as parental psychopathology or family dynamics, may play a role in its development. Recent prospective data from a representative birth cohort revealed a number of environmental risk factors measured in childhood that were uniquely associated with future onset of GAD, but not depression, in adulthood (Moffitt et al., 2007). The majority of the risk factors that was identified were related to the quality of the home environment. Specifically, childhood adversity (including low socioeconomic status and maltreatment), and maternal internalizing symptoms were associated with GAD onset (Moffitt et al., 2007). These factors were specifically linked to the development of Generalized Anxiety Disorder (GAD) and did not serve as universal risk factors for other forms of psychopathology. The findings align with evidence indicating that familial environmental factors contribute to the etiology of GAD. Several familial factors may be linked to the risk of Generalized Anxiety Disorder (GAD). Familial psychopathology may serve as a significant risk factor for the onset of Generalized Anxiety Disorder (GAD). Internalizing

symptoms in family members may predispose individuals to generalized anxiety disorder (GAD) through various mechanisms, including vicarious learning.

Children of parents with an anxiety disorder are seven times more likely to develop an anxious condition than those with parents lacking an anxiety diagnosis (Turner, Beidel, & Costello, 1987), and parental expression of fears mediates the relationship between anxiety in children and anxiety in their mothers (Muris, Steerneman, Merckelbach, & Meesters, 1996). A child exposed to persistent anxious or worrisome behavior in a parent or significant relative may begin to emulate that behavior, leading to the perception of numerous future threats and associated anxiety regarding those threats. Anxious parents have also been found to reciprocate and reinforce threatening interpretations of ambiguous stimuli as well as avoidant responses in their children, as compared to non-anxious parents who reinforce prosocial plans (Barrett, Rapee, Dadds, and Ryan, 1996; Dadds, Barrett, Rapee & Ryan, 1996). It is noteworthy that chronic worry and GAD are characterized by intolerance of uncertain or ambiguous situations (Dugas, Gagnon, Ladouceur, & Freeston, 1998). Parental modeling or reinforcement of avoidant behaviors in these contexts may enhance children's fears of uncertainty and their avoidance responses, potentially leading to the development of Generalized Anxiety Disorder (GAD). The aggregation of Generalized Anxiety Disorder (GAD) within families appears to be largely disorder-specific, indicating that having a relative with GAD specifically predisposes an individual to developing GAD. However, in one study familial transmission of GAD was partially accounted for by parental major depression

(Kendler, Davis, & Kessler, 1997). The generalized anxiety disorder was noticed frequently in those children whose parents had either GAD or major depression, or both. Moreover, individuals with GAD are more likely to have a family history of depression than individuals without the disorder (Reich, 1995). As such, increased vulnerability for developing GAD may be associated with presence of either parental anxiety or depression. A number of studies have found that GAD and major depression share a common genetic vulnerability (Kendler, 1996; Kendler, Neale, Kessler, & Heath, 1992; Kendler, Prescott, Myers, & Neale, 2003; Kendler, Gardner, Gatz, & Pedersen, 2007). Moreover, worry, the central defining feature of GAD, has been demonstrated to occur in all of the anxiety disorders (Barlow, 1988), as well as in major depression (Chelminski & Zimmerman, 2003). A child may experience a family environment characterized by negative affect and worry, even in the absence of a family member diagnosed with Generalized Anxiety Disorder (GAD). Parental exposure to worry and chronic negative affectivity may elevate a child's risk of developing Generalized Anxiety Disorder (GAD) via observational learning. The presence of anxiety or mood disorders in a parent or significant relative likely contributes to the development of Generalized Anxiety Disorder (GAD).

2.1.5 Substance Use and Common Mental Disorders (Depression and Anxiety)

It is well known that common mental disorders (CMD) such as depression and anxiety often coexist with alcohol and drug use. However, there is considerable debate about the nature of associations and interactions between these problems. Substance use

disorders, mood, and anxiety disorders are widespread among the general population (Kessler, Nelson, McGonagle, Edlund, Frank, & Leaf, 1996) and are associated with substantial social, economic, and health loss (Goetzl, Hawkins, Ozminkowski, & Wang, 2003). Reports published in the Journal of the American Medical Association indicate that roughly 50% of individuals with severe mental disorders are affected by substance abuse, 37% of alcohol abusers, and 53% of drug abusers who also have at least one serious mental illness, and of all people diagnosed as mentally ill, 29% abuse either alcohol or drugs (National Alliance on Mental Illness, 2015).

Anxiety and depression are prevalent issues reported by individuals pursuing treatment for substance use disorders. Primary psychiatric symptoms continue to exist despite detoxification and the remission of addictive behavior. From an addiction perspective, there may be significant risks associated with concurrent depression and anxiety symptoms, regardless of etiology (Weisner, Thomas, & Mertens, 2006). Anxiety can be caused by drug addiction. Anxiety commonly occurs during the acute withdrawal phase of alcohol and can persist for up to 2 years as part of a post-acute withdrawal syndrome, in about a quarter of people recovering from alcoholism (Johnson, 2011). Symptoms of depression and anxiety are frequently reported by individuals seeking treatment for substance use disorders. Drug addiction, anxiety, and depression account for three-quarters of the disability attributed to mental disorders (Begg, Barker, Stevenson, Stanley, & Lopez, 2007). Depression and drug addiction are significant issues due to their widespread occurrence and detrimental effects. Individuals with co-occurring

mental health disorders and substance use disorders frequently encounter significant illness, disability, and suboptimal treatment results.

A multitude of theories has been posited to elucidate this occurrence. One theory suggests that moderate drinking may function as a stress buffer (Peele & Brodsky, 2000), also providing temporary relief from symptoms of depression (Neff & Husaini, 1982). However, the so-called benefits of moderate drinking have been found to vary according to demographic, cultural, lifestyle and health factors (El-Guebaly, 2007). This raises the possibility that such association patterns emerge because healthier and well-adjusted individuals with common characteristics tend to cluster in the light to moderate drinking groups (Pape & Hammer, 1996).

An alternative explanation is that abstainers in general population surveys may be more vulnerable to poor mental health due to factors such as poor physical health, higher sensitivity to stress, or poor social adjustment (Winefield et al. 1992; Rodgers et al., 2000b). Others have argued that non-linear associations emerge as an artifact of data analysis and measurement (Sareen et al., 2004), for example, observed linear associations when using structured diagnostic interviews to assess mood and anxiety disorders, whilst controlling for demographic factors. Other investigators have also highlighted differences in association patterns according to gender (Poulin et al., 2005; Adewuya et al., 2006; Pedrelli et al., 2011; Bjork et al., 1999), and how alcohol use is quantified (frequency, average units per week, binge episodes) (Graham et al., 2007).

The ‘sick quitters’ hypothesis proposes that the inclusion of former heavy drinkers in the category of abstainers may lead to the observation of higher levels of psychological distress in this group (Power et al., 1998). Numerous studies have tested this hypothesis and nevertheless found evidence of non-linear associations when adjusting for sickquitters (Power et al., 1998; Caldwell et al., 2002; Alati et al., 2005; Graham et al., 2007; Skogen et al., 2009). Against this backdrop of evidence in the general population, investigations of depression in clinical samples with substance use disorders (SUD) appear to indicate linear association patterns (Schuckit, 1983; Rounsaville et al., 1982; Kosten et al., 1986; Helzer & Przybeck, 1988; Regier et al., 1990). The Meta-analytic reviews by Conner et al. (2008 a, b) For instance, report statistically significant yet modest association coefficients for depression and concomitant substance use. Such studies have traditionally drawn results based on assumptions of linear relationships between the dependent variable and the predictors. Although these analyses have led to firm evidence of high co morbidity between SUD and CMD (Grant & Harford, 1995; Kessler et al., 1996; Merikangas et al., 1998), the possibility remains that these methods may mask or ignore non-linear associations that may emerge when the full spectrum of substance use patterns and mental health symptoms are considered as continuous or ordinal measures. The influence of poly-substance use on depression and anxiety is still an area of scarce research (Miller et al., 1996).

2.1.6 Socioeconomic Status and Mental Illness

Studies have shown consistently that the rates of almost all mental disorders decline with increased education and income (Bruce, Takeuchi, & Leaf, 1991; Canino et al., 1987; Robins & Regier, 1991). Nonetheless, socioeconomic status exhibits a stronger correlation with anxiety disorders than with affective illnesses. The incidence of anxiety disorders markedly escalates as income levels decline; however, this adverse correlation is not observed between affective disorders and income. Hence lack of family resources and other characteristics often found among financially disadvantaged individuals (e.g., low level of employment, negative life events, poor nutrition, exposure to violence), especially children and adolescents, may contribute to increased apprehension and agitation, both of which are associated with anxiety disorders (Mash & Wolfe, 2003).

2.1.7 Age and Mental Illness

In this research, age refers to the number of years a person has lived since birth. It is the chronological time frame of an individual's life. In Nigeria, individuals may gain admission to university at the age of 16. The official age to begin university education is 16 years. The researchers have classified age in this study into three categories: 16-20, 21-25, and 26 and above. It is posited by some that maturity is correlated with age. This implies that one should be able to address life's challenges consistently, regardless of age. This assertion, however, is contradicted by the WHO report (2015). Their research indicated that American adolescents aged 16 to 17 were over twice as likely to report major depressive episodes compared to those aged 12 to 13 years. Depression cannot be attributed to a singular social, biological, or environmental factor; it is essential to

evaluate the various factors that an individual exhibiting this tendency may encounter to develop an effective coping strategy.

Data from the NCS suggest that the highest rates of mental illness are found in persons between 25 and 34 years of age, with prevalence declining at later ages (Kessler et al., 1994). However, between 15% and 25% of elderly Americans suffer from mental disorders (Cross-National Collaborative Group, 1992; Robins & Regier, 1991; Roybal, 1984), and some evidence suggests that individuals' total number of physical and psychological complaints increases with advanced age (Brody & Kleban, 1983; Watson & Wright, 1984). For example, mental illness rates among individuals in nursing homes may be as high as 90% (Smyer, Shea, & Streit, 1994), but that may reflect families' tendency to use nursing homes as "dumping grounds" for elderly family members. Because American society has only recently begun to acknowledge the psychiatric impairment of youth (Mash & Barkley, 1996), mental illness among children and adolescents is a relatively new area of study. Reports indicate that rates of serious emotional disturbances among children and adolescents are between 9% and 13% (Friedman, 1996), suggesting that nearly 75 million children in the United States have mental disorders. In addition, researchers have suggested that rates of mental illness in the young vary among different age cohorts (preschoolers, preadolescents, and adolescents) (Roberts et al., 1998). One alarming statistic, however, shows that suicide rates among young adults are disproportionately high (Minino, Arias, Kochanek, Murphy, & Smith, 2002).

2.1.8 Family History and Mental Illness

The experiences of families coping with mental illness in the United States have undergone significant changes over the past several decades, primarily influenced by evolving perceptions of mentally ill family members and the onset of their disorders. Marsh (1998) delineates this evolution into three distinct phases. Initially, in the “institutional era” before World War II, most individuals with mental illness lived in institutions, leading to their isolation from families and minimal consideration of the family's etiological influence. The second phase, spanning from the immediate postwar period to the mid-1980s, was marked by the deinstitutionalization of individuals with mental illness, often leading to their return to family homes. Alongside this residential transition, mental health professionals and society increasingly attributed the responsibility, often viewed as blame, for the emergence of mental illness to families. Since the mid-1980s, a third phase has developed in which families actively collaborate with professionals to mitigate the effects of mental illness within the family unit. In this approach, the family is not held accountable for the onset of the family member's illness; instead, the disorder is seen as arising from a combination of genetic factors and environmental influences (Rende & Plomin, 1993).

Much of our understanding of family stress and coping responses related to mental disorders has evolved from research conducted by family scientists and therapists

who have either observed or directly intervened with families that included members with major mental disorders—usually schizophrenia (Broderick & Schrader, 1981; Hoffman, 1981; Nichols & Schwartz, 1991).

Additionally, early research on these families primarily concentrated on the mother's role, often examining how the mother's illness may have influenced her offspring's dysfunction. For instance, in a review of the literature, Caplan & Hall-McCorquodale (1985) found that more than 70 forms of child psychopathology were attributed directly to mother-related variables. More recent research, however, has expanded to include examination of the father's role (Phares & Compas, 1992) as well as the association between marital functioning and the development of psychopathology within families (Davila & Bradbury, 1998; Phares & Compas, 1992).

2.2 Theoretical Framework

Theories on depression that have been selected for review include Reinforcement Theory, Learned Helplessness Theory, Self-Control Theory, coupled with Cognitive Theory while Cognitive Model of Anxiety has been selected for theory on anxiety. However, each of the theories is discussed distinctively in this section starting with the reinforcement theory.

2. 2. 1 Theories of Depression

2.2.1.1 Reinforcement Theory

Charles Ferster (1973) was among the first to employ behavioral analysis in addressing depression, conceptualizing it as a generalized decrease in response rates to external stimuli. Behavior subsequently ceased to be influenced by previously effective reinforcers. Ferster's fundamental analogy in learning is related to the process of extinction. Significant losses in life may be interpreted as the loss of crucial sources of reinforcement. The effects of loss can be generalized, as other behaviors are linked to or structured by the primary source of reinforcement. The concept of chaining describes a scenario in which one response relies on a subsequent response, as the initial response serves to facilitate access to the latter. For instance, a man experiencing depression following a romantic breakup may view the woman in the relationship as a significant source of reinforcement. His relationship with her likely structured much of the man's behavior, linking it to this source of reinforcement. His cessation of attending movies, a previously enjoyable activity, is attributable to the absence of her companionship, which served as a source of reinforcement. He may discontinue reading the newspaper section featuring movie advertisements and reviews. The manifestation of his depression is evident in the decreased frequency of various behaviors. In later elaborations of his theoretical ideas, Ferster (1977, April; 1981) stressed the analysis of verbal behavior as an important avenue for studying depression. As a verbal phenomenon, depression is discovered to consist largely of the complaints that are negatively reinforced by those

around the depressed person. Peter M. Lewinsohn developed similar ideas into a coherent theory and explored the ramifications of the theory in a clinical research program (Lewinsohn, 1974; Lewinsohn, Biglan, & Zeiss, 1976).

According to Lewinsohn, depression arises as a reaction to the absence of response-contingent positive reinforcement or the experience of loss. Inadequate reinforcement across significant areas of life results in dysphoria and diminished behavior, which are central characteristics of depression. Additional symptoms of depression, including low self-esteem and hopelessness, arise from diminished functioning levels. The theory posits three mechanisms through which insufficient reinforcement may occur. The environment may lack sufficient reinforcement necessary for maintaining adequate functioning. The loss of employment or a loved one constitutes a substantial reduction in a source of reinforcement. The inability to secure employment or a troubled marriage may result in a persistent absence of reinforcement. Secondly, the individual may not possess the necessary skills to secure reinforcement in an environment where it could be accessible. Inadequate interpersonal skills can hinder the formation of satisfactory social relationships, while ineffective communication skills may perpetuate a troubled marital relationship. Third, the reinforcers may be accessible to the individual, yet he or she may be unable to derive enjoyment or satisfaction from them. This condition is typically attributed to interfering anxiety. The socially anxious individual does not effectively obtain reinforcers, despite their presence in a friendly social context. A further aspect of the theory posits that, upon the onset of depression, depressive behavior serves to elicit reinforcement from others through expressions of concern and support. An individual exhibiting insufficient reinforcement receives reinforcement for displaying depressive behavior, thereby perpetuating the state of depression. Moreover, while depressive behavior may initially provoke positive responses from others, prolonged depression becomes aversive to these individuals, leading them to avoid the depressed person, thereby diminishing the latter's reinforcement once more. The findings indicate that depressive behavior persists under a sparse reinforcement schedule, with reinforcement remaining inadequate to disrupt the self-sustaining cycle of depression.

2.2.1.2 Learned Helplessness Theory

Animal Model: Seligman's (1974, 1975) learned helplessness theory of depression originated from an animal model for the disorder. Seligman identified a phenomenon in which animals subjected to unavoidable shock exhibited a subsequent impairment in learning escape or avoidance responses within a shuttle box apparatus (Seligman & Maier, 1967). Seligman posited that the animals developed a generalized sense of helplessness, characterized by a perceived absence of contingency between their responses and the resulting outcomes. Contingency was identified as the crucial factor, as animals subjected to equivalent but response-contingent shock subsequently learned to escape and avoid in a manner similar to those without preconditioning. Seligman identified analogies to human depression in the behavior of these animals. Induction through unavoidable shock was observed to parallel the traumatic loss frequently associated with the onset of depression. The animals exhibited passive behavior, which Seligman believed mirrored the decline in instrumental behavior commonly observed in individuals with depression. Additional symptom parallels included weight loss and diminished appetite. The learned helplessness effect diminishes over time, similar to the progression of typical depression. Experimental analogs of the helplessness induction experiment conducted with humans yielded similar findings. College students exposed to inescapable noise or unsolvable anagrams exhibited deficiencies in subsequent escape or anagram pattern recognition tasks (Miller & Seligman, 1975). Students exhibiting mild depression demonstrated behaviors similar to those subjected to the helplessness induction procedure. Studies on

expectancy shift (Abramson, Garber, Edwards, & Seligman, 1978) further investigated deficits in the perception of contingency associated with depression. In these studies, participants received feedback indicating consistent success or failure on tasks characterized as involving skill or chance. Individuals with depression exhibited a delayed adjustment in their success expectancies following positive feedback, indicating a potential impairment in their perception of contingency.

The Revision of Attribution: As research progressed, both conceptual and empirical issues emerged within the animal learned helplessness model of depression. The paradox of guilt in depression represents a central conceptual issue. If depression is based on helplessness and the perception of non-contingency between the person's behavior and outcomes, then it is difficult to explain why people should perceive themselves responsible and blame themselves for bad outcomes (Abramson & Sackheim, 1977). In 1978 an attributional revision of the learned helplessness theory was published (Abramson, Seligman, & Teasdale, 1978). The revision incorporated social psychological concepts regarding the attribution of responsibility. Attributions regarding the causes of life events can be classified using a straightforward dimensional framework (Weiner et al., 1971). Causes can be classified as internal or external. Internal causes pertain to individual attributes such as skill, personality, or effort, while external causes relate to factors in the environment, including the task, other individuals, or chance occurrences. Secondly, causal factors can be classified as either stable or unstable. Specifically, they either maintain consistent functionality over time (skills; types of easy or difficult tasks)

or are contingent upon the specific context of the event (effort expended; luck). The intersection of the two dimensions results in a two-by-two classification of causes. Abramson, Seligman, and Teasdale (1978) introduced an additional dimension for their objectives. Attributed causes may be categorized as either global or specific. Global causes are applicable across various situations, while specific causes pertain to restricted domains. A person may attribute examination success to general intelligence or proficiency in multiple-choice math questions. The revised model posits that individuals form consistent attributional styles, with a specific style being characteristic of those at risk for depression. Individuals with this tendency consistently ascribe negative results to internal, stable, and global factors, while attributing positive occurrences to external, unstable, and specific factors. Following a failure, an individual experiencing depression tends to accept blame and attributes the cause to be both general and enduring. After achieving success, the individual does not take credit and believes that this success has no bearing on other behaviors or future outcomes. An individual exhibiting this depressive style is prone to attributing a depressive cause when a significant aversive event transpires. Interpreting the situation in this manner reflects a sense of helplessness, suggesting an inability to prevent failure and to achieve success. A depressive attributional style serves as a vulnerability or risk factor for developing a depressive attribution after experiencing an aversive event. The type of attribution will influence the characteristics of the depression. An internal attribution assesses the impact on an individual's self-esteem, a stable attribution evaluates the persistence of depression, and a

global attribution examines the overall applicability of depressive feelings. The severity of depression is influenced by both the aversiveness of the event and the individual's subsequent attributions. The revision transforms a behavioral animal model into a cognitive social psychological model.

2.2.1.3 Self-Control Theory

The relevance of models of self-control to depression was commented on early in the history of social learning approaches to psychopathology (Bandura, 1971; Marston, 1964; Mathews, 1977). Self-control models examine how individuals regulate their behavior to achieve long-term objectives, such as quitting smoking or initiating exercise for sustained health benefits. Individuals experiencing depression often exhibit a sense of hopelessness regarding long-term objectives and a perceived inability to regulate their own actions. In cases of depression, the behavior aligned with long-term goals is the first to deteriorate. The individual experiencing depression may fulfill the immediate requirements of daily life; however, behaviors that lack immediate consequences are not enacted.

Rehm (1977) presented a self-control model of depression which was an attempt to integrate aspects of the theories of Lewinsohn, Beck, and Seligman under a self-control framework. The framework was an adaptation of Kanfer's (1970) model of self-control. Kanfer characterized individuals' attempts to regulate their behavior in pursuit of long-term objectives as a three-stage feedback-loop process. Individuals recognize the necessity of altering behavior to attain a postponed objective, leading them to consciously

monitor the pertinent behavior (e.g., quantity of cigarettes consumed). This represents the initial or self-monitoring phase of the loop. The monitored information is assessed against an internal standard, leading to a judgment regarding the valence of the behavior in a self-evaluation process. The model was modified through the incorporation of an attributional component into self-evaluation. The assessment of one's behavior as positive or negative relies on the internal attribution made for the action. Behavior attributed to external factors should not serve as a criterion for self-evaluation. Attributional judgments serve to influence self-evaluation. The concluding phase of Kanfer's model is self-reinforcement. Kanfer posited that individuals can regulate and impact their own behavior through the same reinforcement principles applicable to the regulation of others' behavior. Positive behavior aimed at achieving a goal is reinforced, while negative behavior is penalized. Self-reward and self-punishment serve as adjuncts to external rewards and punishments, functioning to sustain behavior in the absence of immediate external reinforcement. The self-control model of depression (Rehm, 1977) posits that the behaviors exhibited by individuals with depression may be defined by one or more of six deficits in self-control. Individuals with depression exhibit a tendency to focus primarily on negative experiences, often neglecting positive occurrences. This self-monitoring deficit refers to the phenomenon identified by Beck (1972) as selective attention in depression. Ferster (1973) characterized this as the heightened vigilance of the depressed individual in anticipating aversive experiences. Individuals with depression exhibit a tendency to focus on immediate consequences rather than those that are delayed

following their actions. This may be regarded as a general consequence of depressive self-regulation. Individuals with depression struggle to consider future implications when making behavioral decisions. Individuals experiencing depression establish rigorous self-evaluative standards. Individuals with depression frequently exhibit perfectionistic tendencies. Individuals often impose more rigorous standards on themselves than those they apply to others. Individuals with depression tend to attribute their behaviors to depressive causes. Individuals experiencing depression tend to attribute failures to internal factors while attributing successes to external factors. The discussion focused on a global specific dimension regarding the breadth of applied standards. With the advent of the attributional revision of the learned helplessness theory (Abramson, Seligman, & Teasdale, 1978), later versions of the model have simply incorporated the three-dimensional analysis of helplessness theory. Fifth, individuals with depression provide themselves with inadequate contingent rewards necessary for sustaining key behavioral domains. Sixth, they impose excessive self-punishment, which inhibits constructive behavior across various areas. Deficits in the self-reinforcement phase of self-control are partially attributable to deficiencies in the preceding phases of self-control behavior. Monitoring negative events and establishing high standards reduces rewards and increases punishments. Self-reinforcement is considered an adjunct to external reinforcement. A non-depressed individual can sustain goal-directed behavior despite a lack of external reinforcement for that behavior. The individual experiencing depression relies on external sources of reinforcement and may become depressed when these

sources are inadequate, as proposed by Lewinsohn. When environmental conditions shift, individuals must organize efforts to realign and refocus on long-term objectives. The self-control model functions as a vulnerability framework, indicating that inadequate self-control abilities can predispose individuals to depression when faced with negative external reinforcement conditions. Depression is characterized by overgeneralization, which is addressed by the assumption that self-control skills function as a control program to regulate various behavioral domains in pursuit of long-term objectives. In instances where self-control skills are necessary for readaptation in significant life domains, inadequate skills can result in maladaptation, adversely affecting functioning across various areas.

2.2.1.4 Cognitive Theory

Beck's Cognitive Theory: Aaron T. Beck formulated a cognitive theory that originally concentrated on depression and has since been broadened to encompass additional domains of psychopathology and psychotherapy. Beck expressed dissatisfaction with his psychodynamic training, believing it insufficiently addressed the clinical and research phenomena he observed. He studied George Kelly's *The Psychology of Personal Constructs* (1955) and was drawn to the cognitive framework of distinct construct systems that shape individual perceptions of the world. He adopted the theoretical construct of "schema" from modern cognitive psychology. Schemata serve as structural units of stored information and play a role in interpreting new experiences. They serve as frameworks for comparing and integrating new information.

Schemata range from basic representations of simple concepts, such as identifying an object as a chair, to intricate interpretive rules, exemplified by the application of a hotel schema that enables an individual to recognize a bellhop's hesitation as an expectation for a tip. Beck's (1972) theory conceptualizes depression through a cognitive framework. The disorder's essential elements are identified as the “cognitive triad”: (a) a negative self-perception, (b) a negative perception of the world, and (c) a negative outlook on the future. The individual experiencing depression perceives the world through a structured framework of depressive schemata that negatively distorts their experiences regarding the self, the environment, and future prospects. Several common types of cognitive distortion were recognized during the initial stages of theory development (Beck, 1963).

Arbitrary inference refers to the unfounded belief that an individual is responsible for a negative event. A friend may seem preoccupied, leading the depressed individual to ponder, “What actions of mine caused his anger?” Selective abstraction involves concentrating on the negative aspect within a predominantly positive context of information. An employer, in congratulating the employee on their promotion, states, “Do not underestimate your future with this company.” The employee experiencing depression believes, “She perceives me as lacking self-confidence.” Magnification and minimization refer to the cognitive processes of overstating negative aspects while downplaying positive ones. Inexact labeling refers to the practice of assigning a misleading label to an event, subsequently prompting responses based on the label rather

than the actual event itself. The dialogue with the supervisor is designated as a “criticism session,” and the individual expects termination of employment. A fundamental principle of the cognitive approach is that a schematic interpretation mediates the relationship between an experience and the emotional response elicited by that experience. Automatic thoughts refer to the negative and distorted cognitions that an individual experiences in a specific situation. The interpretive process occurs automatically, such that individuals may lack awareness of both the thoughts involved and their own emotional responses to those thoughts. These particular thoughts can be differentiated from foundational assumptions, which serve as fundamental interpretive rules that give rise to automatic thoughts. In depression, automatic thoughts often revolve around the perception of loss. Loss is a cognitive factor associated with depression. Conversely, perceptions of gain elicit euphoria, perceptions of danger induce anxiety, and perceptions of offense provoke anger. Depressive schemata activate in response to the perception of a significant loss. A structured collection of negative schemata, developed during earlier life experiences of significant loss, supplants non-distorted schemata in cases of depression, reflecting systematic and detailed perceptions of the self, the world, and future prospects. Negative schemata can be supplanted by more realistic schemata in typical life situations; however, they persist as "latent" schemata, capable of reactivation in instances of loss. Over time and with improved circumstances, these schemata may revert to a latent state unless modified by some form of intervention. The overgeneralization observed in depression

results from the substitution of one extensive network of schemata with an alternative network.

2.2.2 Theories of Anxiety

2.2.2.1 Cognitive Model of Anxiety

The cognitive model of anxiety makes several basic assumptions about anxiety, its evocation, its medication, and significance (Beck, Emery, & Greenberg, 1985). The assumptions are seen to be crucial in understanding the phenomenon of anxiety and the nature of anxiety disorders.

1. Anxiety, an emotional response, has adaptive significance for humans when evoked in response to objective danger (Beck, Emery, & Greenberg, 1985; Canon, 1929; Emery & Tracy, 1987; Izard & Blumberg, 1985; Lindsley, 1960; Plutchik, 1980).
2. The evocation of anxiety in response to misperceived or exaggerated danger when there is none is maladaptive (Beck, Emery, & Greenberg, 1985; Beck & Greenberg, 1988; Foa & Kozak, 1986).
3. Anxiety disordered individuals are prone to precipitate false alarms that create a relatively constant state of emotional tension and subjective distress (Barlow & Cerney, 1988; Beck, Emery, & Greenberg, 1985; Beck & Greenberg, 1988).
4. During episodes of anxiety, an individual's cognitive, physiological, motivational, affective, and behavioral systems are involved (Persons, 1989; Taylor & Arnow, 1988).
5. The cognitive system plays a vital and essential role in appraising danger and resources and activating the physiological, motivational, affective, and behavior systems, each of

which serve important functions. (Beck, Emery, & Greenberg, 1985; Foa & Kozak, 1986; Lazarus, 1991)

6. The cognitive system mediates its influence through repetitive unpremeditated and rapid involuntary thoughts and/or images of which the individual is unaware (unless attention is called to them) and which the individual accepts without question (Beck, Emery, & Greenberg, 1985; Beck & Greenberg, 1988; Emery & Tracy, 1987).

7. Automatic thoughts are derived from underlying deeper cognitive structures called schemas, also referred to as underlying beliefs or assumptions (Emery & Tracy, 1987; Foa & Kozak, 1986; Kendall & Ingram, 1987; Persons, 1989).

8. Automatic thoughts and underlying beliefs are disorder specific and, in anxiety disordered individuals, reflect themes of threat and danger as opposed to themes of loss in depressed individuals (Beck, Emery, & Greenberg, 1985; Beck & Rush, 1975; Beck & Weisher, 1989; Foa & Kozak, 1986; Hilbert, 1984).

9. Anxiety reactions and disorders may be more fully and parsimoniously understood by elucidating the individual's automatic thoughts, cognitive distortions and underlying assumptions (Beck, 1976; Butler & Matthews, 1983; Deffenbacher, Zwemer, Whisman, Hill, & Sloan, 1986; Freeman, Pretzer, Fleming, & Simon, 1991; Marluzzi & Bollwood, 1989; Zwemer & Deffenbacher, 1984).

10. In trigger situations, anxiety disordered individuals have a tendency to activate danger/threat schemas by which they selectively screen in stimuli that indicate danger

and screen out those stimuli that are incompatible with danger (Beck, 1976; Beck, Emery, & Greenberg, 1985; Freeman, Pretzer, Fleming, & Simon, 1991).

11. Anxiety disordered individuals have impaired objectivity and ability to evaluate their threat bound cognitions in a realistic manner (Beck, Emery, & Greenberg, 1985).

12. Anxiety disordered individuals' exhibit systematic errors in processing information by, for example, catastrophizing, selectively abstracting, thinking dichotomously, and making arbitrary inferences (Beck, Emery, & Greenberg, 1985).

The cognitive model of anxiety articulates specific assumptions regarding the predisposing and precipitating factors linked to the onset of anxiety disorders. The subsequent sections will examine various predisposing and precipitating variables associated with anxiety disorders. Any combination of these factors may contribute to the development, onset, maintenance, and exacerbation of anxiety problems.

Predisposing Factors: According to cognitive model (Beck, Emery, & Greenberg, 1985), there are five possible factors that may predispose or make an individual potentially vulnerable and more prone to anxiety and anxiety disorders. The factors include: (1) genetic inheritance, (2) physical ailments, (3) psychological trauma, (4) lack of coping strategies, and (5) maladaptive ideas, beliefs, assumptions, and cognitive processes. Each of these elements will be examined in depth. As a result of individual differences, an anxiety disorder may result from a unique combination of predisposing and precipitating variables (Beck, Emery, & Greenberg, 1985).

Genetics: In recent years, the significance of potential genetic variables in certain psychopathological diseases has increased. Anxiety disorders are included among these cases. Certain writers (Sheenan, 1983) have even claimed that it is a purely biological disorder requiring pharmaceutical intervention. Cognitive therapists see genetic vulnerability to anxiety as a significant factor. Panic disorder, phobic disorders, and obsessive-compulsive disorder are more prevalent among first-degree biological relatives of those afflicted with these illnesses (American Psychiatric Association, 1987). The influence of hereditary variables on generalized anxiety disorder remains ambiguous (Beck, Emery, & Greenberg, 1985).

Nevertheless, the inquiry about the impact of genetics on anxiety disorders is crucial to contemplate in the cognitive framework of anxiety. Heredity may manifest its influence by the existence of an easily aroused or labile autonomic nervous system (Barlow & Cerney, 1988). In some anxiety disorders, a familial predisposition may increase the likelihood of a patient displaying anxiety symptoms under appropriate circumstances. Barlow and Cerney (1988), for example, have thoroughly examined the possible role of genetic factors in panic disorder. Research has supported the aggregation of panic in monozygotic twins (Torgerson, 1983) and families (Crowe, Noyes, Pauls, & Slymen, 1983; Harris, Noyes, Crowe, & Chaudry, 1983; Moran & Andrews, 1985) and is supported by clinical observation. For instance, one of us (RDT) managed the case of an older lady with a prolonged history of panic disorder, whose daughter had the same issue and was receiving separate treatment. The role of genetic vulnerability cannot be fully

appreciated without considering the interactive role of environmental psychological and social factors (Barlow & Cerney, 1988). Genetics can be perceived as conveying the biological foundation that increases an individual's susceptibility to clinical anxiety.

The cognitive model acknowledges the potential genetic influences on anxiety disorders.

Physical Disease: The cognitive model also examines the potential influence of physical factors in predisposing an individual to an anxiety disorder. Two issues must be addressed: Initially, it is crucial to eliminate potential physical causes that may resemble anxiety when evaluating anxiety disorders. In numerous cases, addressing the physical issue may mitigate the symptoms. Secondly, the presence of a physical issue does not inherently preclude the existence of an anxiety disorder. A physical ailment may coexist with an anxiety disorder, necessitating treatment for both conditions. Barlow and Cerney (1988) enumerate nine organic conditions linked to anxiety symptoms and panic. The aforementioned physical conditions encompass hypoglycemia, hyperthyroidism, hypoparathyroidism, Cushing's syndrome, pheochromocytoma, temporal lobe epilepsy, hyperventilation syndrome, caffeine intoxication, audiovestibular disorders, and mitral valve prolapse.

Mental Trauma: The third possible predisposing factor is a mental trauma during development (Beck, Emery, & Greenberg, 1985) that can render an individual more vulnerable to experience anxiety in situations similar to the experience of the trauma. The cognitive model posits that developmental traumas experienced during periods of heightened emotional arousal may lead to the formation of a threat schema in a person.

These schemas would likely pertain to themes of peril in worried individuals and are anticipated to activate in contexts resembling the conditions under which the schema was acquired. As Foa and Kozak (1986) noted, “A fear memory is accessed when a fearful individual is presented with fear information that matches some of the information structure in memory” (p. 23).

The emotional processing model posits that fear manifests as a memory network, integrating information regarding stimulus situations, responses, and the significance of both stimuli and responses. Fear structures inherently encompass themes of danger. A woman with a 25-year history of panic disorder with agoraphobia was treated by one of us (RDT). Her anxiety attacks were linked to an incident in which she was locked in the trunk of a car by her brother and a friend as a prank, leading to a fear of suffocation. Subsequently, situations resembling enclosed spaces with limited escape routes (e.g., planes, buses, cars, elevators) and unpleasant odors were linked to the threat of suffocation, leading to heightened anxiety. A deficit in coping responses is another predisposing factor in the development of anxiety disorders. Patients with anxiety disorders frequently demonstrate deficiencies in adaptive coping strategies. Their primary appraisals of situations tend to lead to perceptions of threat in the absence of actual danger, while their secondary appraisals regarding coping resources frequently indicate a lack of ability to manage such threats. Patients with anxiety may not have acquired sufficient coping strategies or may utilize avoidance responses that exacerbate their

anxiety and hinder effective coping mechanisms. This renders them susceptible to experiencing anxiety in response to life events or other stressors.

Irrational Thoughts, Assumptions and Cognitive Processing Errors: The cognitive model of anxiety emphasizes the significance of cognitive factors in predisposing individuals to anxiety disorders. In individuals with anxiety disorders, unrealistic beliefs about threat or danger are activated by trigger events or situations reminiscent of those during which these schemas were formed. The activation of these schemas influences the individual's thinking, behavior, and emotions, which can mutually reinforce each other and the underlying schema. Persons' (1989) case conceptualization model effectively illustrates the central role of cognitive factors in this predisposition to anxiety.

Precipitating Factors: The cognitive model of anxiety identifies several potential factors that may trigger anxiety, including physical illness or toxic substances, significant external stressors, prolonged stress, and stressors that impact an individual's specific emotional vulnerabilities.

Physical Problems or Toxic Substances: Anxiety may be triggered by the emergence of a physical issue, regardless of whether it resembles anxiety symptoms. The emergence of anxiety following the onset of a physical issue is a frequent response as individuals strive to adapt to their illness. Physical issues can lead to symptoms like fatigue or depression, which may diminish the individual's capacity to manage typical daily stressors. Consequently, stressors that were once manageable may overwhelm the individual's resources. Furthermore, a physical issue may manifest a range of symptoms

that are perceived as indicators of a serious condition, while the underlying problem may be relatively benign. There are instances in which individuals ingest a psychoactive substance that results in physical effects perceived as threatening. Clinical observations indicate that patients have experienced anxiety attacks following the use of marijuana or cocaine, as well as after unintentional exposure to toxic fumes. The situation in which an individual consumes substantial amounts of caffeine is particularly noteworthy. A young female paramedic presented at a medical outpatient center, reporting symptoms resembling panic. She reported a recent visit to the emergency room following an episode of loss of consciousness at home. She asserted that she needed CPR from her paramedic brother after experiencing respiratory failure at home. Her story's credibility was further diminished in the current litigious environment, as she was discharged from the emergency room after a brief visit. Her physical and medical histories were unexceptional. Further investigation indicated that she consumed between 12 and 15 cups of caffeinated coffee daily. The gradual withdrawal of caffeine over time led to a reduction in her symptoms.

CHAPTER THREE

Research Methodology

3.0 Introduction

This describes the methods and procedures employed in the conduct of the study. This chapter specifically addresses the research design, study population, sampling methods, data collection instruments, and data collection methods.

3.1 Research Design

This study is designed to collect quantitative data through the survey design. The essence is to collect accurate information needed to address the objective of the study. This study therefore adopted the cross-sectional survey design whereby the researcher contacted the participants once to administer and retrieve the research questionnaire.

3.2 Population of Study

The University of Benin (UNIBEN) has an estimated total student enrollment of over 77,000. The administration of questionnaire took place between 19th and 31st January 2025 in the faculty premises. The target population for the study was the Faculty of the Social Sciences. Faculty of Social Sciences comprises six departments: Economics, Geography and Regional Planning, Political Science, Psychology Public Administration, Social Work, and Sociology and Anthropology.

3.3 Sample Size

The sample size is calculated based on the formulae described by Araoye (2004) for calculating sample size

$$n = \frac{Z^2 Pq}{d^2}$$

Where n = desired sample size

Z = standard normal deviation set at 1.96 which correspond to 95% confidence interval

(CI)

P = progression in the particular population estimated to have a particular characteristic, for example 12.7% (Seun-Fadipe & Mosaku, 2017; James, Thomas, Omoaregba, Okogbenin, Okonoda & Ibrahim, 2017).

$$q = 1 - 12.7\%$$

$$= 87.3\%$$

$$n = \frac{(1.96)^2 \times 0.127 \times (0.873)}{(0.05)}$$

$$n = \frac{0.4259}{0.0025}$$

$$n = 170.36$$

Therefore n = 170

10% attrition shall be added

$$170 + 17$$

$$= 187$$

3.4 Instrument of Data Collection

The instruments that will be used in this study is a questionnaire consisting of section A, B, and C. Participants will be availed with number of responses from which they are required to pick. Section A of the questionnaire consist of the socio demographic data of participants, while section B and C measures depression and anxiety of the students respectively. The descriptions of the scales and the purpose they will serve in the present research are stated below.

3.4.1 Section A: Socio-demographic variables: elicited information such as gender, age, gender, religion, current course level, drug intake, family history of psychiatric illness and so on.

3.4.2 Centre for Epidemiologic Studies Depression Scale (CES-D)

Section B: The Centre for Epidemiologic Studies Depression Scale (CES-D) is a self-report depression rating tool designed by Radloff (1977) to identify depressive disorders among community dwelling people. The instrument consists of 20 items that require caregivers to assess the frequency of depressive symptoms experienced in the past week. The response options for each item vary from 0 to 3. 0 indicates rare or no occurrence, 1 signifies some or minimal occurrence, 2 represents moderate or frequent occurrence, and 3 denotes most or nearly constant occurrence. Scores vary from 0 to 60, with elevated scores reflecting more significant depressive symptoms. The alpha coefficient obtained for this study was .87

3.4.3 Spielberger's State-Trait Anxiety Inventory (STAI-T)

Section C: The STAI is a commonly utilized instrument for assessing anxiety levels. The STAI-T was developed to assess a consistent inclination to experience anxiety and the tendency to interpret stressful situations as threatening. The trait scale comprises 20 statements that prompt individuals to evaluate their general feelings using a four-point scale. The test-retest reliabilities for the trait scale are elevated, ranging from 0.73 to 0.86. The concurrent validity with other anxiety questionnaires is reported to range from 0.73 to 0.85 (Spielberger, 1983). Elevated scores reflect a high level of state anxiety, whereas reduced scores signify a low level of state anxiety. The alpha coefficient for this scale in this study was .88.

3.5 Method of Data Collection

The method of administering the questionnaire will involve asking the participants who are interested in the study to be cooperative and fill the questionnaire sincerely. They will be assured that the information they will be providing would be solely use for the purpose of this research and that their responses would be treated with utmost confidentiality. There is no intension to give out incentive to the participants.

3.6 Method of Data Analysis

Responses to the questionnaire were coded and entered into the IBM Statistical Package for the Social Sciences (SPSS) version 25. Apart from the descriptive statistics, the analysis also included reliability assessment of the Centre for Epidemiologic Studies Depression Scale (CES-D), Spielberger's State-Trait Anxiety Inventory (STAI-T), and

the other continuous variables. Appropriate statistical analyses were used to analysed the different objectives of the study.

CHAPTER FOUR

Data Presentation, Analysis and Interpretation

4.1 Data Presentation

This chapter contains the data presentation, analysis and interpretations of the various data collected for this study. The first section is based on the demographic presentation and analysis using the Statistical Package for Social Sciences (SPSS) version 25. The major task of the objective of this study is to answer the research questions stated in chapter one of the study. The effects of the independent variables on the dependent variable were analysed and then the discussions of findings were made.

4.2 Analysis of Respondents Characteristics

This section starts with the demographic/bio-data of respondents which includes actual age, gender, religion, current course level, substance use and family history of psychiatric illness, which are all aimed to give a concise understanding on their level of depression and anxiety.

Table 4:1 Sociodemographic Characteristics of the Respondents

Gender	Response	Frequency	Percentage
	Male	85	44.5%
	Female	106	55.5%
	Total	191	100
Age	Response	Frequency	Percentage
	Young	122	122%
	Old	69	69%
	Total	191	100
Course Level	Response	Frequency	Percentage
	100 Level	88	46.1%
	200 Level	32	16.8%
	300 Level	41	21.5%
	400 Level	30	15.7%
	Total	191	100
Departments	Response	Frequency	Percentage
	Psychology	39	20.4%
	Sociology and Anthropology	47	24.6%
	Political Science	29	15.2%
	Geography and Regional Planning	28	14.7
	Social Work	48	25.1%
	Total	191	100
Religion	Response	Frequency	Percentage
	Christianity	157	82.20%
	Islam	27	14.1%
	African Traditional Religion (ATR)	7	3.7%
	Total	191	100
Substance Use	Response	Frequency	Percentage
	Yes	40	20.9%
	No	151	79.1%
	Total	191	100
Family History of Psychiatric Illness	Response	Frequency	Percentage
	Yes	16	8.38%
	No	175	91.62%
	Total	191	100%

Source: Fieldwork, 2025

In Table 4:1 above, out of the 200 undergraduates' students who were administered the questionnaire in the Faculty of Social Sciences, only 191 students successfully completed and filled the questionnaire given to them. Of the final total sample of 191 students, 85 (44.5%) were male and 106 (55.5%) were female. The distribution of respondents by age using the mean indicates that 122 (63.9%) were categorized as Young while 69 (36.1%) were categorized as older students. The frequency distribution by level of study indicated that 88 (46.1%) were in 100 level, 32 (16.8%) were in 200 level, 41 (21.5%) were in 300 level and 30 (15.7%) were in 400 level. In terms of the Departments, 39 (20.4%) students were from Psychology, 47 (24.6%) were from Sociology and Anthropology, 29 (14.7%) were from Political Science, 28 (14.7%) were from Geography while 48 (25.1%) were from Social Work. The distribution of respondents by religion indicates that 157(82.20%) were Christians, 27 (14.1%) were Muslim and 7 (3.7%) were traditional worshippers. Among the undergraduate students, 40 (20.9%) were taking substance while 151 (79.1%) were not into drugs. Lastly, 16 (8.38%) had family history of psychiatric illness while 175 (91.624%) had no family history of psychiatric illness.

Table 4.2 Correlation Matrixes of Major Variables

S/N	Variables	Mean	SD	1	2	3
1	Age	20.05	2.57			
2	Anxiety	45.27	10.09	-.10		
3	Depression	41.37	11.38	-.02	.74**	

Source: Fieldwork, 2025

As shown in Table 4.2, depression of students was significantly related to anxiety ($r = .74, p < .01$). These results show that there is a relationship between depression and anxiety. The more depressed the students, the more anxious they are.

Table 4:3 Summary of Independent T-Test Showing Influences of Gender, Age Drug Use, and History of Psychiatric Illness in the Family on Depression

Dependent Variable	Independent Variable	Levels	N	X	S. D	t	df	P
Depression	Gender	Male	85	40.34	12.51	-1.12	189	NS
		Female	106	42.19	10.36			
	Age	Young	122	41.20	11.24	.528	189	NS
		Old	69	41.67	11.70			
	Drug Use	Yes	40	48.18	13.32	4.46	189	.00
		No	151	39.56	10.08			
	Illness in Family	Yes	16	52.75	14.27	4.38	189	.00
		No	175	40.33	10.53			

Source: Fieldwork, 2025

The result of the analysis that is presented above in Table 4.3 using independent sample t test reveals no significant influence of gender on depression [$t(189) = -1.12, p ns$]. A critical look at the result shows that female students scored higher ($\bar{x} = 42.19$) than the male students ($\bar{x} = 40.34$), however, it cannot be justified to conclude that the difference was significant. Therefore, there was no difference between male and female students based on depression in this study.

In the same vein, age did not significantly influence depression [$t(189) = .53$, $p > .05$]. The result of the analysis using independent sample t test in Table 4.3 suggest that there was no significant difference between younger students and older students based on depression. Furthermore, with regard to the research question on drug use and depression among the students, as shown in Table 4.3, independent sample t test result reveals a significant influence of drug use on depression [$t(189) = 4.46$, $p < .01$]. Further finding suggests that students who uses drug reported significantly higher level depression ($\bar{x} = 48.18$) than those who do not use drug ($\bar{x} = 39.56$).

Concerning the research question on the family history of psychiatric illness and depression, the result of the t-test for the independent sample used for analysis reveals that family history of psychiatric illness significantly influenced depression [$t(189) = 4.38$, $p < .01$]. Students with family history of psychiatric illness reported significantly higher depression ($\bar{x} = 52.75$) than students with no family history of psychiatric illness ($\bar{x} = 40.33$). See Table 4.3 above for the summary of the t-test result.

Table 4:4 Summary of Independent T-Test Showing Influences of Gender, Age, Drug Use, and History of Psychiatric Illness in Family on the Anxiety

Dependent Variable	Independent Variable	Levels	N	X	S. D	t	df	P
Anxiety	Gender	Male	85	43.86	11.03	-1.70	189	NS
		Female	106	46.40	9.17			
	Age	Young	122	45.56	9.60	.528	189	NS
		Old	69	44.75	10.96			
	Drug Use	Yes	40	50.38	10.47	3.72	189	.00
		No	151	43.91	9.58			
	Illness in Family	Yes	16	54.19	12.11	3.82	189	.00
		No	175	44.45	9.52			

Source: Fieldwork, 2025

The results in Table 4:4 shows that gender did not significantly influence anxiety among the students [$t(189) = -1.70, p > .05$]. Despite the higher mean score for female ($\bar{x} = 46.40$) than the mean score for the male ($\bar{x} = 43.86$), the difference was not significant enough. Therefore, this finding implies that there was no significant difference between the male and female undergraduate based on their anxiety. In the same Table 4:4 above, the result of the analysis using the t - test for independent samples reveals no significant influence of age on anxiety, [$t(189) = .53, p ns$]. This finding implies that there was no significant difference between younger students and older students based on anxiety.

Further, when the substance use was considered, the result of the t - test for the independent sample used to test this research question reveals that substance use significantly influenced anxiety [$t(189) = 3.72, p < .01$]. This finding suggests that

students who takes substance reported significantly increased anxiety ($\bar{x} = 50.38$) than students who do not take substance ($\bar{x} = 43.91$). With regard to family history of psychiatric illness and anxiety, the result of the analysis that is presented above in Table 4.4 reveals significant influence of family history of psychiatric illness on anxiety, [$t(189) = 3.82, p < .05$]. Further analysis shows that students with family history of psychiatric illness manifested higher anxiety ($\bar{x} = 54.19$) than those students who were not having family history of psychiatric illness ($\bar{x} = 44.45$).

Table 4.5: One-Way ANOVA for Depression among the Course Levels

Dependent Variable	Sources	SS	Df	MS	F	P
Depression	Between	388.360	3	129.453	1.000	NS
	Within	24207.986	187	129.454		
	Total	24596.346	190			

Source: Fieldwork, 2025

As shown in Table 4.5, the results indicate that there was no significant difference among the different course based on depression ($F [3, 187] = 1.00, p > .05$).

Table 4.5: One-Way ANOVA for Anxiety among the Course Levels

Dependent Variable	Sources	SS	df	MS	F	P
Depression	Between	230.356	3	76.785	.751	NS
	Within	19117.026	187	102.230		
	Total	19347.382	190			

Source: Fieldwork, 2025

As shown in Table 4.6, the results indicate that there was no significant difference between the performance level of students in the different course levels based on anxiety ($F [3, 187] = .75, p > .05$).

4.3 Discussion of Findings

The aim of this study was on the assessment of depression and anxiety among undergraduate students in the Faculty of Social Sciences, University of Benin. The result reveals no significant influence of gender on depression and anxiety. There was no difference between male and female students based on depression and anxiety in this study. According to Ruble, Greulich, Pomerantz, and Gochberg (1993), girls receive a kind of “helplessness training” from their environment. Transcultural studies indicate that boys are encouraged to be more active and assertive, while girls are usually taught to be more passive and dependent on others (Maccoby & Master, 1970). Regardless of gender, students face pressure from coursework, exams, and deadlines, contributing to similar levels of anxiety and depression. University life involves social adjustments, relationship challenges, and peer expectations, which can create stress for all students, regardless of gender. As gender roles become more fluid in modern society, traditional differences in emotional expression and coping may be diminishing, leading to comparable mental health outcomes.

Result of the analysis conducted revealed that age did not significantly influence anxiety and depression. The result suggests that there was no significant difference

between younger students and older students based on anxiety and depression. One possible reason why younger and older university undergraduate students may not differ significantly in depression and anxiety levels is that both age groups experience similar academic, social, and financial stressors associated with university life. Regardless of age, students face similar pressures. University life involves adapting to new social environments, forming relationships, and dealing with peer pressures, which affect mental health similarly across age groups. However, there are some evidence suggesting that individuals' total number of physical and psychological complaints increases with advanced age (Brody & Kleban, 1983; Watson & Wright, 1984).

The result of this study also shows that the course levels did not significantly predict depression and anxiety. A possible reason why university undergraduate students at different course levels (e.g., first-year vs. final-year) may not differ significantly in depression and anxiety is that academic stress remains relatively constant throughout university, though its sources may change. While first-year students may struggle with transitioning into university life, final-year students face the pressure of completing their degree and future uncertainties. Both experiences can contribute to similar levels of depression and anxiety. Whether beginning or nearing graduation, financial burdens (tuition, living expenses, student loans) remains a consistent source of stress.

In the present study, result reveals a significant influence of drug use on depression and anxiety. Further finding suggests that students who use substance reported

significantly higher level depression than those who do not use substance. It is well known that common mental disorders (CMD) such as depression and anxiety often coexist with alcohol and drug use. Anxiety and depression are among the most common problems reported by persons seeking treatment for drug addiction (Weisner, Thomas, & Mertens, 2006). Several theories have been proposed to explain this phenomenon. One theory suggests that moderate drinking may function as a stress buffer (Peele & Brodsky, 2000), also providing temporary relief from symptoms of depression (Neff & Husaini, 1982). However, the so-called benefits of moderate drinking have been found to vary according to demographic, cultural, lifestyle and health factors (El-Guebaly, 2007). This raises the possibility that such association patterns emerge because healthier and well-adjusted individuals with common characteristics tend to cluster in the light to moderate drinking groups (Pape & Hammer, 1996).

Lastly, family history of psychiatric illness was found to significantly influenced depression and anxiety. Students with family history of psychiatric illness reported significantly higher depression and anxiety than students with no family history of psychiatric illness. Research suggests that depression and anxiety have a heritable component, meaning individuals with a family history of psychiatric illness may inherit genetic variations that increase their susceptibility to these conditions. Children of parents with an anxiety disorder are seven times more likely to develop an anxious condition than those with parents lacking an anxiety diagnosis (Turner, Beidel, & Costello, 1987), and parental expression of fears mediates the relationship between anxiety in children and

anxiety in their mothers (Muris, Steerneman, Merckelbach, & Meesters, 1996). It is likely that a child who witnesses chronically anxious or worrisome behavior in a parent or important relative may begin to model that same behavior, perceiving many future threats and worrying about those threats. Anxious parents have also been found to reciprocate and reinforce threatening interpretations of ambiguous stimuli as well as avoidant responses in their children, as compared to non-anxious parents who reinforce prosocial plans (Barrett, Rapee, Dadds, & Ryan, 1996; Dadds, Barrett, Rapee & Ryan, 1996).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The focus of this chapter is to summarise the findings, and present the contribution of the study to knowledge, conclusion, policy recommendation and suggestion for further studies.

5.1 Summary of Findings

The study was undertaken to assess depression and anxiety among undergraduate students in the Faculty of Social Sciences, University of Benin. The Statistical Package for Social Sciences (SPSS, 25.0) was used to examine the feedbacks from the questionnaire. The objective of the study was to examine the role of gender in depression and anxiety among students of the Faculty of Social Sciences, University of Benin; verify the impact of age on depression and anxiety among students of the Faculty of Social Sciences, University of Benin; investigate the influence of psychiatric illness in family on depression and anxiety among students of the Faculty of Social Sciences, University of Benin; assess the effect of educational attainment on depression and anxiety among students of the Faculty of Social Sciences, University of Benin and to find the role of substance use on depression and anxiety among students of the Faculty of Social Sciences, University of Benin. The result showed no significant influence of gender on

depression and anxiety. There was no difference between male and female students based on depression and anxiety in this study. Result of the analysis conducted revealed that age did not significantly influence anxiety and depression. The result suggests that there was no significant difference between younger students and older students based on anxiety and depression. The result of this study also shows that the course levels did not significantly predict depression and anxiety. However, result reveals a significant influence of drug use on depression and anxiety. Further finding suggests that students who use substances reported significantly higher level depression and anxiety than those who do not use substances. Lastly, family history of psychiatric illness was found to significantly influenced depression and anxiety. Students with family history of psychiatric illness reported significantly higher depression and anxiety than students with no family history of psychiatric illness.

5.2 Conclusion

This study investigated the influence of demographic factors (gender, age, and course level) and psychological risk factors (substance use and family history of mental illness) on depression and anxiety among university students. The findings revealed that gender, age, and course level did not significantly contribute to depression and anxiety. However, substance use and a family history of mental illness emerged as strong determinants of these mental health conditions. These results challenge traditional assumptions about demographic influences on mental health and emphasize the

importance of behavioral and familial factors in understanding psychological distress among university students.

The lack of significant differences based on gender, age, and course level suggests that depression and anxiety are pervasive across different student demographics. This finding is particularly important because it highlights that mental health challenges are not confined to specific groups but are a widespread concern affecting all students. Previous research has often suggested that younger students, female students, or those in certain academic disciplines may be more prone to depression and anxiety. However, the current study's findings indicate that these demographic variables alone do not account for variations in mental health outcomes. This challenges universities and policymakers to adopt more inclusive mental health interventions that cater to all students rather than focusing on particular demographic groups.

In contrast, substance use was found to be a significant predictor of depression and anxiety. This aligns with existing literature that associates substance use with mental health disorders, suggesting that students who engage in substance use may be more vulnerable to emotional distress. The link between substance use and mental health is complex, as substance use can be both a coping mechanism and a contributing factor to psychological distress. Students may turn to alcohol or drugs to manage academic stress, social pressures, or underlying mental health conditions. However, prolonged substance use can exacerbate symptoms of depression and anxiety, leading to a vicious cycle that

further deteriorates mental well-being. These findings underscore the need for universities to implement robust substance use prevention and intervention programs. Educational campaigns about the risks of substance use, counseling services, and peer support initiatives could help students adopt healthier coping mechanisms and reduce their reliance on substances for emotional regulation.

Additionally, the study found that having a family history of mental illness was a strong predictor of depression and anxiety. This finding reinforces the genetic and environmental influences on mental health. Individuals with a family history of mental illness may inherit genetic predispositions that make them more susceptible to depression and anxiety. Moreover, growing up in an environment where mental health issues are prevalent may shape one's emotional and psychological responses to stress. Family dynamics, parental mental health, and early life experiences can all contribute to a student's mental well-being. Recognizing this, universities should prioritize early screening and targeted mental health support for students with a family history of mental illness. Offering counseling services, psychoeducation programs, and peer support groups could help these students build resilience and develop effective coping strategies.

The findings of this study have important implications for university mental health policies and programs. Rather than focusing solely on demographic variables, institutions should address modifiable risk factors such as substance use and family history of mental illness. A proactive approach that includes mental health education,

substance use awareness, and accessible psychological support can significantly improve students' well-being. Moreover, fostering a university culture that encourages open discussions about mental health can help reduce stigma and encourage students to seek help when needed.

Future research should explore additional psychological, social, and environmental factors that may contribute to depression and anxiety among university students. Longitudinal studies could provide deeper insights into how substance use and familial mental health history interact with other risk factors over time. Moreover, investigating the effectiveness of different mental health interventions tailored to students with these risk factors could help refine university support services.

5.3 Recommendation

Based on the findings of this study, which indicate that gender, age, and course level do not significantly influence depression and anxiety, but that substance use and a family history of mental illness are strong determinants, several key recommendations can be made. These recommendations are directed toward university administrators, mental health professionals, policymakers, and students, aiming to address the underlying factors contributing to mental health challenges in the university population.

1. Given the significant role of family history in mental health, universities should implement educational programs to increase awareness about depression, anxiety, and other mental health disorders. These programs should focus on the signs and

symptoms of mental health conditions, coping mechanisms, and available support services. Students from families with a history of mental illness may be more vulnerable to psychological distress, and providing them with the knowledge and tools to manage their mental well-being can be beneficial. Additionally, workshops and seminars led by mental health professionals can help destigmatize mental illness and encourage students to seek help when needed.

2. Universities should enhance their mental health support services by increasing the availability of counseling and psychological support. This includes hiring more mental health professionals, offering free or low-cost therapy sessions, and providing anonymous online counseling for students who may feel uncomfortable seeking help in person. Special attention should be given to students with a family history of mental illness, as they are at a higher risk of experiencing depression and anxiety. Establishing peer support groups where students can share their experiences and receive emotional support from others facing similar challenges can also be highly beneficial.
3. Since substance use was found to be a major determinant of depression and anxiety, universities should adopt comprehensive substance use prevention and intervention programs. These initiatives should include educational campaigns about the negative effects of substance use on mental health, confidential counseling services for students struggling with addiction, and access to rehabilitation programs. Additionally, universities can partner with local health

organizations to provide workshops on responsible substance use, stress management, and alternative coping strategies.

4. Many students turn to substance use as a way to cope with stress, academic pressure, and social challenges. To address this, universities should incorporate resilience-building programs into their mental health initiatives. Encouraging students to engage in healthy coping mechanisms such as mindfulness, meditation, physical exercise, and creative activities can help reduce reliance on substances for stress relief. Universities should also promote stress management workshops and relaxation techniques to equip students with the skills needed to handle academic and personal challenges effectively.
5. Early identification of students at risk of developing depression and anxiety is crucial. Universities should implement screening programs to assess students' mental health status, particularly during their first year of study when the transition to university life can be challenging. Mental health assessments should be part of routine health check-ups, and students with a family history of mental illness or substance use issues should be provided with targeted support. Faculty members and academic advisors should also be trained to recognize signs of distress in students and refer them to appropriate support services.

REFERENCES

- Abdel Wahed, W. Y., & Hassan, S.K. (2017). Prevalence and associated factors of stress, anxiety, and depression among medical Fayoum University students. *Alexandria Journal of Medicine*, 53(1):77–84.
- Abramson, L. Y., & Sackheim, H. A. (1977). A paradox in depression: Uncontrollability and self-blame. *Psychological Bulletin*, 84, 838-851.
- Abramson, L. Y., Garber, J., Edwards, N. B., & Seligman, M. E. P. (1978). Expectancy changes in depression and schizophrenia. *Journal of Abnormal Psychology*, 87, 102-109.
- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87, 32-48.
- Ahnlund, K., & Frodi, A. (1996). Gender differences in the development of depression. *Scandinavian Journal of Psychology*, 37, 229-37.
- Aika, I.N., & Odili, V.U., (2019). Depression and anxiety among HIV patients in a treatment centre in Nigeria. *HIV and AIDS Review*, 18(2):107–114.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders (3rd ed., rev.)*. Washington, DC: American Psychiatric Association.
- Andrews, G., Henderson, S., & Hall, W. (2001). Prevalence, comorbidity, disability and service utilization. Overview of the Australian National Mental Health Survey. *British Journal of Psychiatry*, 178, 145e153.
- Ayandele, O., Popoola, O., Obosi, A., Busari, A. (2019). Depression , Anxiety and Smart phone Addiction among Young People in South West Nigeria. *Covenant International Journal of Psychology*, 4(2):1–14.
- Bandura, A. (1971). Vicarious and self-reinforcement processes. In R. Glaser (Ed.), *The nature of reinforcement* (pp. 228-278). New York: Academic Press.
- Barlow, D. H.. & Cerney, J. A. (1988). *Psychological treatment of panic*. New York: Guilford Press.
- Beck, A. T. (1963). Thinking and depression: I. Idiosyncratic content and cognitive distortions. *Archives of General Psychiatry*, 9, 324-333.

- Beck, A. T. (1972). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.
- Beck, A. T., & Greenberg, R. L. (1988). Cognitive therapy of panic disorders. In R. E. Hales & A. J. Frances (Eds.), *American psychiatric press review of psychiatry* (Vol. 7, pp. 571- 583). Washington, DC: American Psychiatric Press.
- Beck, A. T., & Rush, A. J. (1975). A cognitive model of anxiety formation and anxiety resolution. In J. D. Saranson & C. D. Spielberger (Eds.), *Stress and Anxiety*, 2, 69-80. Washington, DC: Hemisphere Publishing.
- Beck, A. T., & Weisher, M. (1989). Cognitive therapy. In A. Freeman, K. M. Simon, L. E. Beutler, & H. Arkowitz (Eds.), *Comprehensive handbook of cognitive therapy*. New York: Plenum Press.
- Beck, A. T., Emery, G., & Greenberg, R. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Basic Books.
- Begg, S., Barker, B., Stevenson, C., Stanley, L., & Lopez, A. (2007). The burden of disease and injury, in PHE 82. *Canberra*: 44–48
- Beiter R., Nash R., McCrady M., Rhoades D., Linscomb, M, & Clarahan M. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, Vol. 173,90–6.
- Bijl, R. V., Ravelli, A., & van Zessen, G. (1998). Prevalence of psychiatric disorder in the general population: results of The Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Social Psychiatry and Psychiatric Epidemiology*, 33(12), 587e595.
- Blehar, M.C. (1995). Gender differences in risk factors for mood and anxiety disorders: implications for clinical treatment research. *Psychopharmacol Bulletin*, 31, 687-691.
- Blehar, M.C., & Oren, DA. (1997). Gender Differences in Depression. *Medscape WomensHealth*, 2, 3.

- Boyd, A., Van de Velde, S., Vilagut, G., de Graff, R., O'Neill, S., Florescu, S., & Alonso, J. (2015). Gender differences in mental disorders and suicidality in Europe: Results from a large cross-sectional population-based study. *Journal of Affective Disorders, 173*, 245-254.
- Bracke, P. (2000). The three-year persistence of depressive symptoms in men and women. *Social Science & Medicine, 51*, 51e64.
- Butler, G., & Matthews, A. (1983). Cognitive processes in anxiety. *Advances in Behavior Research and Therapy, 5*, 51-62.
- Cannon, W. B. (1929). Bodily changes in pain, hunger, fear and rage. New York: Appleton.
- Chen, L., Wang, L., Qiu, X.H., Yang, XX, Qiao, Z.X., & Yang Y.J. (2013). Depression among Chinese University Students: Prevalence and Socio-Demographic Correlates. *PLoS One, 8*(3): 1–6.
- Crowe, R. R., Noyes, R., Pauls, D. L., & Slymen, D. T. (1983). A family study of panic disorder. *Archives of General Psychiatry, 40*, 1065-1069.
- D'Atena, P. (1989) *Malattia Mentale e ruolisessuali*. Roma: BulzoniEditore.
- Dabana, A. & Gobir, A. A. (2018). Depression among students of a Nigerian university: Prevalence and academic correlates. *Archives of Medicine and Surgery, 3*, 6.
- Deffenbacher, J. L., Zwemer, W. A., Whisman, M. A., Hill, R. A., & Sloan, R. D. (1986). Irrational beliefs and anxiety. *Cognitive Therapy and Research, 10*, 281-292.
- Eaton, W. W., Muntaner, C., Bovasso, G., & Smith, C. (2001). Socioeconomic status and depressive syndrome: the role of inter- and intra-generational mobility, government assistance, and work environment. *Journal of Health and Social Behavior, 42*, 277e294.
- Emery, G., & Tracy, N. L. (1987). Theoretical issues in the cognitive-behavioral treatment of anxiety disorders. In L. Michaelson & L. M. Ascher (Eds.), *Anxiety and stress disorders: Cognitive-behavioral assessment and treatment*. New York: Guilford Press.
- Ferster, C. B. (1973). A functional analysis of depression. *American Psychologist, 28*, 857-870.

- Ferster, C. B. (1977, April). *Functional analysis of the verbal aspects of depression*. Paper presented at The Loyola University Symposium, Chicago.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*, 20-35.
- Freeman, A., Pretzer, J., Fleming, B., & Simon, K. M. (1991). *Clinical applications of cognitive therapy*. New York: Plenum Press.
- Fryers, T., Melzer, D., & Jenkins. (2003). Social inequalities and the common mental disorders: a systematic review of the evidence. *Social Psychiatry and Psychiatric Epidemiology*, *38*(5), 229e237.
- Geyer, S., Hemstroöm, O., Richard, P., & Vagero , D. (2006). Education, income and occupational class cannot be used interchangeably in social epidemiology. Empirical evidence against an unquestioned practice. *Journal of Epidemiology and Community Health*, *60*, 804e810.
- Giardinelli, L., Murciano, M.C., Di Meo, G., Restuccia, G., & Placidi, G.F. (2003). Gender Differences in Bipolar Disorder. *Journal of Psychopathology*, *9*(4), 21-28.
- Goetzel, R.Z., Hawkins, K., Ozminkowski, R.J., & Wang S (2003). The health and productivity cost burden of the “top 10” physical and mental health conditions affecting six large U.S. employers in 1999. *Journal of Occupational Environmental Medicine*, *45*(1):5–14
- Harris, E. L., Noyes, R., Crowe, R. R., & Chaudry, D. R. (1983). Family study of agoraphobia. *Archives of General Psychiatry*, *40*, 1061-1064.
- Hilbert, G. N. (1984). Ideational components of anxiety: Their origin and content. *British Journal of Psychiatry*, *144*, 618-624.
- Hope, V. & Henderson, M. (2014). Medical student depression, anxiety and distress outside North America: A systematic review. *Medical Education*, *48*, 963-979.
- Ibrahim, M.B., & Abdelreheem, M.H. (2015). Prevalence of anxiety and depression among medical and pharmaceutical students in Alexandria University. *Alexandria Journal of Medicine*. *51*(2):167–73.
- Iloh, G., Aguocha, G., Amadi, A. & Chukwuonye, M. (2018). Depression among ambulatory adult patients in a primary care clinic in southeastern Nigeria. *Niger Postgraduate Medical Journal*, *25*(4):204–212.

- Izard, C. E., & Blumberg, S. H. (1985). Emotion theory and the role of emotions in children and adults. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorder* (pp. 109- 125). Hillsdale, NJ: Erlbaum.
- James, B.O., Thomas, I.F., Omoaregba, J.O., Okogbenin, E.O., Okonoda, K.M, Ibrahim A.W, et al. Psychosocial correlates of perceived stress among undergraduate medical students in Nigeria. *Int J Med Educ.* 2017; 8:382–388.
- Johnson, A (2011).Addiction medicine, science and practice. New York: Springer 5(3):301– 303
- Kanfer, F. H. (1970). Self-regulation: Research, issues and speculations. In C. Neuringer and J. L. Michael (Eds.), *Behavior modification in clinical psychology* (pp. 178-220). New York: Appleton-Century-Crofts.
- Kaplan, G. A., Roberts, R. E., Camacho, T. C., & Coyne, J. C. (1987). Psycho-social predictors of depression. Prospective evidence from the human population laboratory studies. *American Journal of Epidemiology*, 125, 206-220.
- Kendall, P. C., & Ingram, R. (1987). The future for cognitive assessment of anxiety: Let's get specific. In L. Michaelson & L. M. Ascher (Eds.), *Anxiety and stress disorders: Cognitive-behavioral assessment and treatment*. New York: Guilford Press.
- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., & Eshleman, S., et al. (1994). Lifetime and 12- month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. *Archives of General Psychiatry*, 51(1), 8-19.
- Kessler, R., McGonagle, K.A., Zhao, S., Nelson, C.B., Huges, M., Eshleman, S., et al. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: result from a national comorbidity survey. *Archive of General Psychiatry*, 51, 8- 19.
- Kessler, R.C., Nelson, C.B., McGonagle, K.A., Edlund, M.J., Frank, R.G., & Leaf, P.J. (1996).The epidemiology of co-occurring addictive and mental disorders: implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66(1):17–31

- Lazarus, R. L. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, *46*, 819-834.
- Lewinsohn, P. M. (1974). A behavioral approach to depression. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research* (pp. 157-185). New York: Wiley.
- Lewinsohn, P. M., Biglan, A., & Zeiss, A. M. (1976). Behavioral treatment of depression. In P.O. Davidson (Ed.), *The behavioral management of anxiety, depression and pain* (pp. 91- 146). New York: Brunner/Mazel.
- Lindsley, D. B. (1960). Attention, consciousness, sleep, and wakefulness. In J. Freld & H. W.
- Lorant, V., Delie`ge, D., Eaton, W., Robert, A., Philippot, P., & Ansseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. *American Journal of Epidemiology*, *157*, 98e112.
- Magoan (Eds.), *Handbook of physiology* (Vol. 3; pp. 1553— 1593). Washington, DC: Harper & Row
- Malone, P.T., & Johnson, C.G. (1998). Men and depression. *Journal of Medical Association of Georgia*, *87*, 27-29.
- Marluzzi, T. V., & Bollwood, M. D. (1989). Cognitive assessment. In A. Freeman, K. M. Simon, L. E. Beutler, & H. Arkowitz (Eds.), *Comprehensive handbook of cognitive therapy*. New York: Plenum Press.
- Marston, A. R. (1964). Personality variables related to self-reinforcement. *Journal of Psychology*, *58*, 169-175.
- Mathews, C. O. (1977). A review of behavioral theories of depression and a self-regulation model for depression. *Psychotherapy: Theory, Research and Practice*, *14*, 79-86.
- Mental Health of Adolescents [cited 2023 Jul 8]. Available from: <https://www.who.int/newsroom/fact-sheets/detail/adolescent-mental-health>
- Miech, R. A., & Shanahan, M. J. (2000). Socioeconomic status and depression over life course. *Journal of Health and Social Behavior*, *41*, 162e176.

- Miech, R. A., Caspi, A., Moffitt, T. E., Wright, B. R. E., & Silva, P. A. (1999). Low socioeconomic status and mental disorders: a longitudinal study of selection and causation during young adulthood. *The American Journal of Sociology*, *104*, 1096e1131.
- Miller, W. R., & Seligman, M. E. R (1975). Depression and learned helplessness in man. *Journal of Abnormal Psychology*, *84*, 228-238.
- Mirowsky, J., & Ross, C. E. (1998). Education, personal control, lifestyle and health. A human capital hypothesis. *Research on Aging*, *20*, 415e449.
- Moran, C., & Andrews, G. (1985). The familial occurrence of agoraphobia. *British Journal of Psychiatry*, *146*, 262-267.
- Murphy, G.E. (1998). Why women are less likely than men to commit suicide? *Comprehensive Psychiatry*, *39*, 165-175.
- NAMI: National Alliance on Mental Illness | NAMI: The National Alliance on Mental Illness. nami.org. Archived from the original on 15 December 2012. Retrieved 20 October 2015.
- NIMH. National Institute of Mental Health (NIMH) | National Institutes of Health (NIH) [Internet]. National Institutes of Health (NIH). 2020. Available from: <https://www.nih.gov/about-nih/what-wedo/nih-almanac/national-institute-mental-health-nimh>.
- Nolen-Hoeksema, S. (1987). Sex difference in unipolar depression: evidence and theory. *Psychological Bulletin*, *101*, 259-282.
- Paula, W., de, Breguez, G.S., Machado, E.L. & Meireles, A.L. (2020). Prevalence of anxiety, depression, and suicidal ideation symptoms among university students: a systematic review. *Brazilian J Heal Rev.*, *3* (4):8739–56.
- Persons, J. B. (1989). *Cognitive therapy in practice: A case formulation approach*. New York: Norton.
- Perugi, G., Musetti, E., Simonini, F., Piagentini, F., Cassano, G.B. & Akiskal, H.S. (1990). Gender-mediated clinical features of depressive illness. The importance of temperamental differences. *The British Journal of Psychiatry*, *157*, 835-41.
- Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis*. New York: Harper & Row.

- Prigerson, H.G., & Slimack, M. J. (1999). Gender differences in clinical correlates of suicidality among young adults. *Journal of Nervous and Mental Disease*, 187, 23-31.
- Rehm, L. P. (1977). A self-control model of depression. *Behavior Therapy*, 8, 787-804.
- Remes, O., Wainwright, N, Surtees P., Lafortune, L., Khaw, K., & Brayne, C. (2020). Generalised anxiety disorder and hospital admissions: findings from a large, population cohort study. *BMJ Open*.8(10):1–14.
- Ross, C. E., & Mirowsky, J. (2006). Sex differences in the effect of education on depression: resource multiplication or resource substitution? *Social Science & Medicine*, 63(5), 1400e1413.
- Ross, C. E., & Wu, C.-L.(1996). Education, age, and the cumulative advantage in health. *Journal of Health and Social Behavior*, 37(1), 104e120.
- Ruble, D.N., Greulich, F., Pomerantz, E.M., & Gochberg, B. (1993). The role of gender-related processes in the development of sex differences in self-evaluation and depression. *Journal of Affective Disorders*, 29:97-128.
- Sargeant, J. K., Bruce, M. L., Florio, L. P., & Weissman, M. M. (1990). Factors associated with 1-year outcome of major depression in the community. *Archives of General Psychiatry*, 47, 519e526.
- Sedler, M.J. (1983). Farlet's discovery: the origin of the concept of bipolar illness. *The American Journal of Psychiatry*, 140, 1127-33.
- Seligman, M. E. P. (1974). Depression and learned helplessness. In R. J. Friedman & M. M.Katz (Eds.), *The psychology of depression: Contemporary theory and research* (pp. 83-113). New York: Winston/Wiley.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development and death*. San Francisco: Freeman.
- Seligman, M. E. P., & Maier, S. F. (1967). Failure to escape traumatic shock. *Journal of Experimental Psychology*, 74, 1-9.

- Seun-Fadipe, C.T., & Mosaku, K.S., (2017). Sleep quality and psychological distress among undergraduate students of a Nigerian university. Vol. 3, *Sleep Health*. 190–194.
- Sheehan, D. V. (1983). *The anxiety disease*. New York: Bantam.
- Sherrill, J.T., Anderson, B., Frank, E., Reynolds, C.F., Patterson, D., et al. (1997). Is life stress more likely to provoke depressive episodes in women than in men? *Depression and Anxiety*, 6, 95-105.
- Shimada, F., Ohira, Y., Hirota, Y., Ikegami, A., Kondo, T., Shikino, K, et al. Anxiety and depression in general practice outpatients: the long-term change process. *International Journal of General Medicine*, 11:55–63.
- Skaff, M.M., Finney, J.W., & Moos, R.H. (1999). Gender differences in problem drinking and depression: different “vulnerabilities?” *American Journal of Community Psychology*, 27, 25-54.
- Specia, A., Pasquini, M., Picardi, A., Gaetano, P., Biondi, M. (2001). Gender-related psychopathological differences in a general psychiatric population. *Journal of Psychopathology*, 1, 31-37.
- Spießl, Hubner-Liebermann, & Hajak, (2006). Depression, a widespread disease, epidemiology, care situation, diagnosis, therapy and prevention. Available from: <https://pubmed.ncbi.nlm.nih.gov>.)
- Stein, D. Anxiety symptoms in depression: clinical and conceptual considerations. *Medicographia*. 2013;35(299–303):1–5.
- Stein, M.B., Sareen, J., Solomon, C.G., Articles, C., Points, K.C., & Text, A.F. (2015). Generalized Anxiety Disorder. *N Engl J Med*. 2015; 373(21):2059–68.
- Suraj, S. S., Umar, B. I., Gajida, A. U. & Umar, M. U. (2021). Prevalence and factors associated with depression among medical students in Nigeria. *Nigerian Postgraduate Medical Journal*, 28, 198.
- Taylor, C. B., & Arnou, B. (1988). *The nature and treatment of anxiety disorders*. New York: Free Press.
- Torgerson, S. (1983). Genetic factors in anxiety disorders. *Archives of General Psychiatry*, 40,1085-1089.

- Troisi, A., & Moles, A. (1999). Gender differences in depression: an ethological study of nonverbal behavior during interviews. *Journal of Psychiatry Research*, 33, 243-50.
- Wani, M. A., Sankar, R., Rakshantha, P., Nivatha A. L. S., Sowparnika C. E. & Marak L. D. B. (2016). Stress Anxiety and Depression Among Science and Arts Students. *International Journal of Education and Psychological Research (IJEPR)*, 5, Issue 3, 48 – 52.
- Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R. M. (1971). *Perceiving the causes of success and failure*. Morristown, NJ: General Learning Press.
- Weisner, R., Thomas, R., & Mertens, J. (2006) Short-term alcohol and drug treatment outcomes predict long-term outcome. *Drug and Alcohol Dependence, Journal of Psychiatric Disorder*, 71(6):280–295
- Weissman, M.M., Bland, R.C., Canino, G.J., Faravelli, C., Grenswald, S., Hwu, HG., et al. (1996). Cross-national epidemiology of major depression and bipolar disorder. *JAMA*, 24-31, 293-9.
- Wells, A. (2009). *Metacognitive therapy for anxiety and depression*. New York: Guilford Press.
- Yonkers, K.A. (1998). Assessing unipolar mood disorders in women. *Psychopharmacol Bulletin*, 34, 261-266.
- Zhang, H., & Wang, D., (2022). Commentary: The global prevalence of depression and anxiety symptoms among college students and its influencing factors – a commentary on Li et al. (2022). *J Child Psychol Psychiatry Allied Discip*, 63(11):1231–3.
- Zimmerman, F. J., Christakis, D. A., & Vander Stoep, A. (2004). Tinker, tailor, soldier, patient: work attributes and depression disparities among young adult. *Social Science & Medicine*, 58(19), 1889e1901
- Zlotnick, C., Shea, M.T., Pilkonis, P.A., Elkin, I., Ryan, C. (1996). Gender, type of treatment, dysfunctional attitudes, social support, life events, and depressive symptoms over naturalistic follow-up. *The American Journal of Psychiatry*, 153, 1021-1027.

Zwemer, W. A., & Deffenbacher, J. L. (1984). Irrational beliefs, anger, and anxiety.
Journal of Counseling Psychology, 31, 391-393.