PREVALENCE AND CORRELATES OF EMOTIONAL DISORDERS AND SUBSTANCE USE AMONG PRIVATE UNIVERSITY UNDERGRADUATES IN OSUN STATE, NIGERIA

BY

BAMISE, ATINUKE AYOTUNDE.

B.Ed. Health Education, Ibadan

MATRIC NO: 196112

A project submitted to Centre for Child and Adolescent Mental Health, University of Ibadan in partial fulfillment of the requirement for the award of Masters of Science degree in Child and Adolescent Mental Health University of Ibadan

JUNE 2017

DECLARATION

I hereby declare that this research project is my original work and that it has not been submitted anywhere else for diploma, fellowship or degree.

Where other sources of information have been used, they have been duly acknowledged.

………………………………………………………………

Bamise Atinuke Ayotunde

CERTIFICATION

I certify that this research work was carried out by Mrs Bamise Atinuke A. in the Centre for Child and Adolescent Mental Health, University of Ibadan in partial fulfillment of the requirement for the award of Masters of Science degree

Dr. Jibril Abdulmalik

MBBS (Ibadan); MHPM (Maiduguri); M.Sc. (Ib); M.Sc. (Lisbon); FWACP

Department of Psychiatry

University of Ibadan

Nigeria

Supervisor (Signature and Date)

iii

DEDICATION

TO

The giver of life, all knowing God whom by HIS power made all things possible,

And to my loving Husband, and lovely children Ayomide and Mojolaoluwa for their immense support and encouragement, I love you.

ACKNOWLEDGEMENT.

These has been a wonderful experience although intensive and tough, but it worth it.

My appreciation first, goes to the Almighty God the creator of Heaven and Earth who has made this journey worthwhile.

My profound gratitude goes to my supervisor Dr. Jibril O. Abdulmalik for his immense contribution and advice towards the completion of this project despite his busy schedule.

I will also like to appreciate Prof Olayinka Omigbodun for her motherly role, encouragement and support throughout this course.

Finally, I wish to appreciate all my Lecturers, who have also, pass their knowledge and skills to me during this program, and my colleagues especially, Dr Ola Ibigbami, Dr Serah Conteh and Dr Lucinda Bockarie for being there for each other.

I am so grateful to all thank you.

TABLE OF CONTENTS

Contents   **Pages**

CHAPTER ONE

Introduction ……………………………………………………………...……… 1

CHAPTER TWO

Literature Review

CHAPTER THREE

Methodology

CHAPTER FOUR

Results

CHAPTER FIVE

Discussion, Conclusion, and Recommendation

LIST OF TABLES

LIST OF FIGURES

List of Abbreviations

APA- America Psychological association.

DSM-IV – Diagnosis and Statistical Manual IV

DALY-D – Disability adjusted life years

GPA- Grade point aggregate

LGA – Local government area

SPSS – Statistical Package for the Social Sciences

SUD – Substance use disorder.

UN – United nation

UNDESA – United Nation Department of Economic and Social Affairs

WDR- World Day Report

WHO – World Health Organization

ABSTRACT

Background:

Emotional disorders are mental health problems which include anxiety and depression and are characterized by symptoms such as sadness, loneliness, worries and feeling of worthlessness. University students who are adolescents and young adults face multiple challenges such as academic overload, constant pressure to succeed, perceived financial inadequacy, and competition with peers; all of which may be further worsened by risky behaviors such as substance use. Previous studies among Nigerian University students have largely come from public Universities. Thus the situation among undergraduate students attending private Universities is yet unclear. Studies have established that alcohol and tobacco are indeed the 'gateway drugs' among adolescents in Nigeria in line with the global pattern and Substance use among college students has been an issue of concern in the society for many years.

This study therefore aimed to determine the prevalence of substance use and emotional disorders among private University undergraduates and to explore the relationship with subjective academic performance

Methodology: This was a cross sectional study in which three Universities was randomly selected from nine private Universities in Osun state. A total of 416 undergraduates were purposively selected from the three Universities based on the number of students in each school. A socio-demographic questionnaire was used to obtain background information about the students. The Hospital Anxiety and Depression scale (HAD) was used to asses for depression and Anxiety; Alcohol, Smoking and Substance Involvement Screening Test(ASSIST) to screen

for substance use; and the Rosenberg's Self- esteem Scale was used to asses self- esteem levels of the students.

Results:

The total respondents was 416, 61.3% were female and 38.7% were males. The age ranged between 15-24 years with mean age of 20.4 ± 3.2 years. Reported prevalence of emotional disorders shows Depression 11.7%, Anxiety 34.7% and self-esteem 9.8%. About 32.1% of respondents have ever used alcohol, 5.8% used monthly, 4.6% used weekly and 3.8% used daily. 46.1% of those who had at one time used any substance had a 3-fold increased risk of self-reported poor academic performance. Substance use was significantly associated with subjective academic performance (p=0.005). Among the emotional disorders, only depression (p=0.008) and anxiety (0.001) were significantly associated with subjective academic performance.

Conclusion: This study revealed that emotional disorders and substance use were significantly associated subjective academic performance it is recommended that a comprehensive approach is needed to prevent substance use. Individuals, families, schools and religious institutions have a role to play in ensuring that the society is safe.

CHAPTER ONE

INTRODUCTION

1.1   Background

Emotional disorders (such as Anxiety and depression) and substance use among young adults create and incur psychological cost not only to the young adults who experience them but also the family and society in which they live. These emotional disorders are widely used as indicators of the mental health of the population in public health. Emotional disorder account for a large proportion of the disease burden among young people in the society. Youth is the stage at which most mental disorders begin but it is often detected later in life.

Although several authors and societies have identified this age group and were not been precise, partly because they are unclear about the roles of people in this stage. Definition of youth perhaps changes with circumstances, especially with the change in demographic and socio-cultural setting; however WHO clarify age 10- 24years as young people and UN for statistics purpose define those person between the ages of 15-24 as youth.(UNDESA report 2001).

Emotional disorders are threats to the future health and well-being of young people; between 14-20% of young adults experience emotional disorders at a point in their life and survey of youths reporting that half of a lifetime cases of diagnosed mental illness began by age 14years and three quarter by age 24.(Kessler R C, 2005)

Emotional disorders can be defined as feelings of sadness and tiredness in response to life events, and increasing concern has been expressed about the mental health of students in tertiary institutions. This is also considered a highly stressful period of life for the students, which might

1

be due to separation from pre-existing social support, academic challenges, social problems and meeting up with high expectations from parent among many others. Furthermore, the life of a young adult is like a roller coaster that lasts for years, filled with emotional ups and down, in and out. This is in relation with a period of marked changes and growth physical, mentally and emotionally; stressful environment can also negatively affect the psychological and physical well-being of university students. Several studies have reported gender differences in psychological distress among young adults and students. Study done among undergraduate students in Canada showed that 30% of students had elevated psychological distress scores, which were significantly higher than those among young adults and adults in the general population in Canada. The prevalence rates were higher in women (35.2%) than in men (23.6), and results also showed decreasing distress with more years at the University, 34% among first-year students compared with 26.1% among fourth-year students. For U.S the study showed prevalence of 23% of student with depression and 57% with high level of emotional disorder among Medical students.(Al-Naggar, 2012)

Al Naggar (2012) also reported 48.3% prevalence of emotional disorder among University students in Malaysia, which was significantly influenced by smoking, gender and residency. Also prevalence of emotional disorders in Ethiopia was said to be 32.6% among student population and 49.1% among University students in Singapore.

These psychological problems can result in poor academic performance, substance abuse and subsequently drop out. (Abiola, 2015), therefore making this period a sensitive period in an individual's life span couple with other adolescent age issues.(Al-Naggar, 2012).

Another researcher (Assefa, 2015) opined that mental health problems which include not only anxiety and depression, but also somatic symptoms of psychological distress, such as sleep

2

problems, headache and backache have become an important public health problem and it is a leading cause of Disability worldwide. Mental health problems account for nearly one third of disability adjusted life years (DALYs) globally. In Africa, as well as other countries, mental health has become an important public health challenge that is under recognized as a public burden. Studies conducted in South Africa revealed that the prevalence of common mental disorders is 27%, In Ethiopia mental disorders account for 11% of total burden of diseases and that 41.9% of students in Malaysia, 21.6% of students in Ethiopia experienced mental distress. .(Mohd Sidik.S 2008).

A study in Nigeria (Adayonfo, 2015) among a sample of Nigerian undergraduates reveals a 36.9% prevalence of general psychiatri c morbidity. Furthermore Uwadiae et al(2016) noted that the   prevalence of overall psychological distress was 29.6% and that there is higher proportion in females (31.8%) than males (28.2%) , while Gureje,2006 reported that among the general population 12.1% had a lifetime rate of at least one DSM IV disorder, 5.8% had 12-month disorder and that Anxiety disorders were the most common at 5.7% lifetime, 4.1% 12-month rates.

Research indicates that the prevalence of behavioral and emotional problems such as depression and anxiety disorders in adolescents ranges from 16.5% to 40.8%, with girls exceeding boys in all age groups (Pathak et al, 2011). A wide spectrum of mental health disorder is prevalent among college students, the most common being anxiety, behavioral, mood and substance use disorders. Substance use among college students has been an issue of concern in the society for many years. It has been observed that students generally experience an entirely new and unprecedented level of freedom after transition from High school to university, these exposes them to wide range of new experiences and choices leading them to risky behaviors'

3

which includes substance use Bunch (2002). He further explains that it is important to understand the interaction between academic success and substance use considering the increase in trend among university students.

Bunch in his study done among university students reveals that there is correlation between substance use and academic performance depending on the substance. He pointed out that alcohol has much greater negative consequences than any other substance regardless of how often the substance is consumed.

Evidences have shown that secondary and college students' experience high levels of psychopathology (psychological distress) which affect their ability to complete complex academic tasks (Salami, 2008). In the last two decades, there is accumulation of empirical evidence suggesting links between symptoms of psychopathology such as depression and anxiety and academic performance. Depression has been associated with deficits in short-term memory functioning and this psychopathology has been found to slow down academic performance (Meilman et al, 2001).

1.2 Statement of Problem

Several studies report that emotional problems are common among University undergraduate students, and these are frequently underdiagnosed and undertreated with the attendant negative consequences such as poor academic performance. Uwadiae et al (2016)

However, to my knowledge, there is currently no published study from a private tertiary Institution, as all the previous reports have been from public tertiary institution Abiola (2015). This study therefore aims to address this gap in knowledge by determining the prevalence of emotional disorders and substance use among private University undergraduates and explore the psychosocial problems which may influence academic performance.

4

1.3 Justification and relevance of study

University students face multiple stressors such as academic overload, constant pressure to succeed, competition with peers as well as concerns about the future. This should not be considered alone, as these difficulties are often associated with risky behaviors; leading to onset of substance use and related problems, ultimately culminate in the development psychopathology. The health of university students, especially mental healthcare, has been the subject of increasing focus in recent times due to an increase in prevalence in early adulthood (Cortina et al., 2012). Therefore indicating a need for prevention and health promotion focusing on individual screening for psychological distress, including early interventions, outreach programs within schools where most young people can be reached.

In addition, common stressful life events are associated with both mental health symptoms and substance use in young adolescents, thus; there is the need to explore these problems as well as any possible association with academic performance.

1.4 Aim of the study

The aim of this study was to determine the prevalence of emotional disorders and substance use among private University undergraduates and to explore the emotional problems and subjective academic performance.

1.5 Specific Objectives

1. To determine the prevalence of emotional disorders and substance use among the undergraduate students.

2. To investigate the association between substance use and subjective academic performance.

3. To determine the association between emotional problems and subjective academic performance (Self-esteem, Anxiety and Depression).

1.6 Research question

1. Is there a significant association between emotional disorders and academic performance among undergraduates in private University?

2. Is there a significant association between Substance use and subjective academic performance among undergraduates in private University

1.7 Primary Outcome Variables

1. The study hopes to determine prevalence of substance use among private University undergraduates.

a) It would also determine the prevalence of emotional disorders (depression, Anxiety and self Esteem) and association with subjective Academic performance

LITERATURE REVIEW

2.1   Burden of Mental disorders

 The age onset of mental disorders is usually in adolescence and young adulthood (18-24 years) which is the typical age when they will be in College and University, Kessler, Berglund, Demler, Jin, Merikangas, Walters (2005).   This is a period when mental illness can be first recognized in a person, typically up to half of all substance abuse and mental health disorders have root and can be identified between age 14 and three quarter by age 24years (Kessler et al.,2005)

Young adult can be moody, cranky and filled with deep anxiety about themselves and the future, with or without influence of a mental disorder. These may make it difficult to identify emotional disorder and growing up issues but there are several indications that connote the onset of mental disorder. Studies have shown that worldwide, young people bear a substantial burden of Disabilities adjusted life years (DALY's) both for years of life lost (YLL) and Years lost because of disabilities (YLD's), representing 15.5% of the total DALY's burden for all age groups. (Assefa, 2015). Age 10-24 represent 27% of the world population and this period has been shown to be the beginning of mental health problems and risk factors for later life.(Gore et al., 2011)

Furthermore, Gore observed that DALY's incident for the age category 10-24years in 2008 was 236million representing 15.5% of the total DALYs for all age groups, and Africa has the highest DALY's for this age group which is about two times greater than the number   in high income countries (208vs 82 DALY's per 1000 population.(Gore et al., 2011).

7

The growing awareness about the importance of mental health as a key component in children and young persons' development has begun to shape global health initiatives during the past quarter of a century. It is increasingly recognized that improving children and young people's psychosocial well-being is necessary to achieve the United Nations Millennium Development Goals. Psychological difficulties have been shown to affect the ability of young person to fulfill their potential in high-income countries. There is, however, a paucity of research in lower-income countries, where adversity is most prevalent and the impact may be more detrimental. In high income and low- and middle-income countries, unipolar depression is one of the ten leading causes of disability worldwide.

Arumugam, (2013) in analyzing different studies conducted by World Health Organization (WHO) in four developing countries showed prevalence of mental health problems to be 13.4% in the age group 0-16 years; and reported 3% prevalence of depression among school-attending adolescents13-19years, while WHO revealed the prevalence rates to be 12.5% in the age range 0-16 years. Furthermore most of these studies showed higher rates of mental disorders among adolescents of lower economic status (Arumugam, 2013). Arumugam (2013) also observed that there is a positive correlation between higher socio-economic status and mental problems which he attributed to nuclear family concept, Isolation from others, changing lifestyle, both parent working, loneliness, no siblings and longing for love.

A similar study by Kessler et al showed that 50% of mental disorders have their onset before age 15years. Evidence from studies have suggested that considerable levels of mental health problems exist among children and adolescents in sub-Saharan Africa, and that 1 in 7 children and adolescents have significant difficulties, with 1 in 10 (9.5%) having a specific psychiatric disorder(Cortina et al., 2012).

Studies conducted among University students overtime have suggested that emotional distress is inversely related to academic performance, however there has been no statistics among private University undergraduates, a group that are mixed with majorly middle and high social economics status background. Adesehinwa (2013) found that students' familial background is a catalyst to the academic performance of any child which shows that the nature of interaction within the family influences the child's emotional and psychological stability and consequently affecting academic performance.

Emotional disorders (Depression, Anxiety and low self-esteem) are mental health problems which include anxiety and depression and are characterized by symptoms such as sadness, loneliness, worries and feeling of worthlessness. Reduced level of functioning in relationship with friends and even the family is also a common feature. They are usually classified into two broad categories-: a) emotionally depressed (internalizing) and b) behavioral problems (externalizing).

Depression is also inversely related to academic performance among college students; they experience classroom difficulties such as skipped classes, missed assignments and may also perform poorly during examinations; as compared with students who are not depressed. When considering the effect of depression and anxiety on academic performance, depression may have a relatively stronger relationship with academic performance.

University students face multiple challenges such as academic overload, constant pressure to succeed, perceived financial inadequacy, and competition with peers; all of which may be further worsen by risky behaviors such as substance use.

2.2 Adolescent / young adult mental health disorders

Adolescence is a period in human growth and development that occurs between childhood and adulthood, from 10 to 19 years (APA, 2002) characterized by changes in the biological, psychological, and social domains of development.

Adolescence is a critical developmental period for mental health with current global epidemiology data consistently reporting that up to 20% of children and adolescents suffer from a disabling mental illness, and that suicide is the third leading cause of death among adolescents. Furthermore, nearly half (50%) of all adult mental disorders have their onset in adolescence (Kessler, 2005). Studies have shown that one out of five adolescents has a diagnosable mental health disorder, and that nearly one third of this group shows symptoms of depression in which warning signs are not always obvious and this makes it difficult to diagnose. Other symptoms which are common include persistent irritability, anger, or social withdrawal as well as changes in appetite or sleep. Unfortunately stigma as regards to mental health disorders has hinders some of the adolescents and their families from seeking help. (NHS. Gov)

Adolescence is also a turbulent and critical period that is characterized by struggles to ensure identity formation, and the establishment of autonomy and intimacy among peers. Also, they go through an 'identity crisis' period (Erickson, 1968) in which they become conscious of many social rules and thus pay attention to them. They also struggle to seek approval from their peers and the society at large. In an effort to achieve this psychosocial success, adolescents tend to spend more time with their friends than families, become more involved in multiple hobbies as an attempt to find out what they are good at, and may become more argumentative with their parents and adults (Steinberg and Morris, 2001); which also has a lot of influence on their health seeking behaviour. Bandura (1972) reported that when adolescent students are resourceful and

10

competent in the face of a daunting social, academic, or emotional task such as making new friends, the potentially stressful experiences become an avenue to   boost self-efficacy and build an important repertoire of cognitive and interpersonal skills. On the other hand, when these needs are not sufficiently met they may lead to developing emotional and behavioural problems such as poor peer relationships, self-esteem problems and rebelliousness to laid down rules and authorities.

2.3 Common Emotional Disorders in Adolescence and young Adult

2.3.1 Depression in Adolescence

Depression is defined as a cluster of specific symptoms with associated impairments. It generally characterized as a feeling of sadness or unhappiness. Most individuals experience depressed feelings sometime in life for short periods, often as a result of negative or unhealthy life events. Among adolescents and young adults, emotional disorders are considered to be a serious risk to mental health which could lead to further development of depression episodes. Depression is a major risk factor for suicide, and it is said to be the second to third leading cause of death in this age group. (Winfuhrk et al 2008)

Thoughts of suicide and death among adolescents are consistently associated with psychopathology and particularly with depression (Lewinsohn et al,1996).   Studies have documented depression, or affective illness, in 35-76% of adolescents, (Brent 1995). It is said to be associated with substantial present and future morbidity and increases the risk of suicide. There are predisposing factors for depression in adolescents; these include family history of depression, exposure to psychosocial stress, inherited risk factors and sex hormone, (Thapar et al

11

2012). Furthermore, females have been shown to be more predisposed to depression, suicidal thoughts and suicide attempts than males. Depression in adolescents can also predict a range of mental disorders; substance related depressive symptoms, bipolar disorder as well as suicidal behaviour. Hence, an episode of depression in adolescence often ushers in a chronic or relapsing disorder and psychosocial difficulty. Haines, et al (1996) assessed college students on measures of depression, concentration, and academic performance they concluded that an inverse relationship exists between GPA and depressive symptoms. Adewuya et al (2006) also support other studies that have been done, that Depression is also common among Nigerian university students and significantly associated with sociodemographic factors. They also noted that an effective model for the prediction of the development of depression in university students needs to be developed and evaluated. Interventions should be aimed at reducing the incidence of depression among this population.

Emotional disorders such as depression are a major public mental health problem, as depression alone is responsible for about 4.5% of the global burden of disease (WHO, 2002). Research indicates that the prevalence of behavioral and emotional problems such as depression, and anxiety disorders in adolescents ranges from 16.5% to 40.8%, with girls exceeding boys in all age groups (Pathak et al, 2011). While children and adolescents account for 45% of the Nigerian population, (NDHS, 2013), the commonest emotional and behavioral disorders(depression, anxiety disorders, attention-deficit/ hyperactivity disorder and substance use disorder)affect about 10% to 20% of Nigerian children and adolescents (Omigbodun et al., 2008). These problems interfere with the way they think, feel and act, thereby causing distress and limiting their academic achievements and ability to be economically productive. It may also lead to substance misuse, violence and suicide (Arnett, 1999).

12

Specifically, a number of depressive symptoms may affect the productivity in academic activities and the amount of time dedicated to academic activities, these symptoms include reduced interest or pleasure in usual activities (anhedonia), sleep disturbances (less or more than normal), reduced energy, difficulty concentrating or making decisions, restlessness or slowing of movement, and suicidal thoughts all these may impair concentration or decrease interest in investing in the future (Sadock & Sadock, 2000).

2.3.2 Self Esteem

The most basic task for an individual's mental, emotional and social health, which begins in infancy and continues until one dies, is the development of his/her positive self-esteem (MacDonald 1994). The beliefs and evaluations people hold about themselves determines who they are, what they can do and what they can become. These powerful, inner influences provide an internal guiding principle, steering and nurturing individuals through life, and governing their behavior. People's concepts and feelings about themselves are generally believed to be their self-concept and self-esteem. These, together with their ability to deal with life's challenges and to control what happens to them, are widely documented in literature. Negative self-esteem is also found to be a risk factor; leading to maladjustment, escapism, low self-worth and the individuals is unable to handle daily problems which, in turn, reduce the ability to achieve maximum potential. This could lead to an alarming deterioration in physical and mental well-being. A decline in mental health could result in internalizing problem behavior such as depression, anxiety and eating disorders.

Dropping out from the educational system could also reflect rebellion or antisocial behavior resulting from identity diffusion. Adolescents classified as 'diffuse' have not yet thought about

13

identity issues or, having thought about them, have failed to make any firm future oriented commitments. For instance, (Muha et al 2001) noted that while self-image and self-esteem contribute to competent functioning in childhood and adolescence, low self-esteem can lead to problems in social functioning and school dropout. The social consequences of such problem behaviors may affect both the individual and the wider community. Adolescents with more positive self-concepts are less likely to use alcohol or drug, while those suffering with low self-esteem are at a higher risk for drug and alcohol abuse, and tobacco use (Crump et al, 1997)

Self-evaluation is crucial to mental and social well-being. It influences aspirations, personal goals and interaction with others. Self-esteem is said to be a protective factor and a non-specific risk factor in physical and mental health, that poor self-esteem is associated with a broad range of mental disorders and social problems, both internalizing problems (e.g. depression, suicidal tendencies, eating disorders and anxiety) and externalizing problems (e.g. violence and substance abuse.

The relationship between self-esteem and academic achievement is reported in many studies (Marsh et al 1997). Research results have shown beneficial outcomes of positive self-esteem, which is seen to be associated with mental well-being, happiness, adjustment, success, academic achievements and satisfaction.

Khalid (2003) examined the relationship between Adolescent self-esteem and academic performance of Pakistani and Scottish students of multi-ethnic schools in Scotland. He found out that there is significant correlation between self-esteem and academic performance, adolescent in high self-esteem group performed significantly better at school than those in low self-esteem group. According to Nina (1996), a students' good function with the self is related to his/her

14

academic performance. In other words, students with high self-esteem have greater confidence in their own abilities to cope with challenging task and as a result perform better. Oztas (2010) conducted a study within academic settings in order to determine the effect of self-esteem on performance in these areas. He stated that individuals who have high levels of self-esteem are better at organizing the goals they want to achieve and strive for success based on their individual values. He thus concluded that high levels of self-esteem correlate positively with perceived control, optimism, and self-enhancement. Each of these concepts are crucial ingredients for occupational or academic success and achievements.

Studies conducted in Nigeria have shown that turning to religion as well as psychoactive substance use are the most frequently used coping mechanism amongst student when exposed to stressful situation. Yusuf et al, (2013) assessed medical students' reaction to the stress of their academic study and various risk factors for psychological distress measured using General Health Questionnaire [GHQ]. He reported that religion and substance use were the most commonly used coping strategies. Thus self-esteem can be seen as an internal moderator of stressors, while social support functions as an external moderator

2.3.3 Substance Use

Prevalence rates of psychoactive substance use is said to vary from country to country, but it is estimated that 243 million (5.2%) of the world population aged 15-64years had used an illicit drug at least once in the previous year (WDR. 2014) . At least 85 million adult Europeans have used an illicit drug at some point in their lives, this representing around a quarter of Europe's adult population. Young Europeans aged 15–34 years with estimated population of 15.4million (11.7%) was reported to have used cannabis in the last year, Cocaine, amphetamines and ecstasy are the most commonly used illicit stimulants in Europe. Among students aged 13-18 years in

15

South American countries, lifetime prevalence use of alcohol is 39.0- 78.2%, Cannabis is 3.6-16.6%, inhalants is 2.67-16.55% and Cocaine is 0.90-3.96% (Onifade et al,2014) .

Substance use is one of the major causes of mortality among young people in Europe due to overdose, drug related diseases, accident, violence and suicide by young people. The rise, in the substance use among youth and initiation is occurring at ever-younger ages.(Atilola and Adeitan 2013)   The study on substance use among a cohort of school-going adolescents in Nigeria showed that about 21% of the adolescents had used alcohol or any other Substance in the preceding 12-months. There is similarity from Nigeria study which found high prevalence of alcohol and substance use among adolescents in the country.

However, the collective evidence is that alcohol and substance use is very common among adolescents in Nigeria in that order and the pattern is well documented among adolescents in Nigeria   In fact, some studies have established that alcohol and tobacco are indeed the 'gateway drugs' among adolescents in Nigeria in line with the global pattern.(Atilola and Adeitan 2013).

Substance use disorders (SUDs), according to DSM-5, refers to as problematic pattern of use of alcohol or another substance causing clinically significant impairment in daily life or noticeable distress. These disorders are prevalent worldwide and may lead to a wide range of physical, psychological and emotional health problems. SUDs are often associated with considerable psychiatric disorders, including depression and anxiety. Studies from Western countries have reported a high prevalence of comorbidity of SUDs and psychiatric disorders. Mental disorders and SUDs were one of the leading causes of disease burden in 2010 accounting for 7.4 % of global Disability-Adjusted Life Years (DALYs) and 22.9 % of global Years Lived with Disability (YLDs). This is a particular challenge for developing countries where the burden of mental health and SUDs is predicted to be on the increase, but due to resource restrictions and

16

limited prioritization in health care planning and workforce development, reduction in YLD is a big issue. Finding from the global burden of disease study opine that mental and substance use disorders make up a significant component of the changing global picture.(Whiteford, 2010). In spite of differences in dropout definitions and diverse measures of substance use across studies, the main findings point to a largely consistent relationship between dropping out of high school and substance use. (Flisher et al, 2007). Studies conducted in other countries found an association between drug use and a low level of satisfaction with the support received from parents and with a greater emotional distance between youth and family.(Tavaresa, 2004), furthermore the study also reveals that quality of the family relationship has also been identified as a factor associated with drug use in a nationwide sample among Brazilian students. Poor relationship with parents may also predispose youths to drug use and alteration in behavior. The effect of peer influence as identified by (Ebenuwa-Okoh 2015) includes substance abuse, she expressed furthermore, that friends of adolescent have stronghold on their lives because of search for role identity and autonomy.

Alcohol has the most negative effect on academic performance, regardless of what other substances an individual might take. Study done by Bunch et al (2002) among university students, observed that illicitly obtained prescription amphetamine use is very high among those students. They use this drug in order to enhance their performance and often when studying for tests or writing papers. Furthermore in their field observations they noted that substance use is not simply a form of recreation: it is a way of life.

Most of the research points to a negative correlation between substance abuse and grade point average. Studies, however, have shown that the connection might be less straightforward and according to the Monitoring the Future Study Johnston, O'Malley, Bachman, (2001), the most

17

Comprehensive study done among college student in Ontario, the trends in drug use by secondary school-aged and college-aged individuals shows that substance use among college students is rising and this causes a decline in GPA. Substance-using students are firmly enmeshed in a drug using subculture around which their lives revolve. (Bunch, 2002).

2.4 Academic Performance.

Academic performance is a product of the complex environment that surrounds the students; this is shaped by factors such as intensity of study, motivation and context of relationship which affect the academic achievement of an individual. Adolescent is a developmental period during which individual face important social and biological transition and a large proportion of disease burden in young people is associated with mental disorder; which begins during youth 12–24years. (Flisher et al 2007). Other psychological or emotional factors such as depression, self-esteem, anxiety, psychological well-being can also influence academic performance couple with environmental demands.

According to the competency-based model of depression, adolescent students who perform poorly in school may receive negative feedbacks from peers which can predispose them to being at risk of depressive problems. This theory explains that adolescents assess their self-perception through the responses (feedback) they gather from other people. As a result, if their 'self' is not accepted, they form a negative impression of themselves which in turn might lead to developing depressive symptoms (Galambos et.al, 2006).

Furthermore, Eisenberg, (2009) stated that depression is a significant predictor of lower GPA and higher probability of dropping out,   when controlling for prior academic performance and

other variables. Also, that the association between depression and academic outcomes is strongest among students with a positive anxiety disorder.

Arogundade (2012) in his study reported that there was no difference between male and female participants in their report of examination anxiety, although the finding was not in agreement with the findings of Sharma and Sud (1990) who noted that female students experience higher levels of exam anxiety than do males irrespective of cultural background. Furthermore he pointed out that personality types were reported to be significant predictor of examination anxiety, and concluded that, the study has shown that individual's personality traits plays significant role in explaining the cause of examination anxiety among other possible variables.

However, to effectively manage the excesses of examination anxiety, behavioral and cognitive procedure should be combined together.(Arogundade, 2012). The common cause of poor academic performance during examination among few students is anxiety which is often expressed as psychological disturbances, physiological imbalanced and behavioral abnormalities (Afolayan, 2013).

2.5 Correlates of Adolescent and young adult emotional Disorders

As adolescents grow to reach their developmental potentials, they are faced with contextual variables that may promote or hinder their growth and development. These are frequently referred to as protective and risk factors. The presence or absence of these protective and risk factors contribute to their mental state. Identifying protective and risk factors in youth may guide the prevention and intervention strategies to pursue with them(Robinson 2011).

19

Robinson (2011) opined that protective factors can be defined as "a characteristic at the biological, psychological, family, or community (including peers and culture) level that is associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes. Risk factors can be defined as "a characteristic at the biological, psychological, family, community, or cultural level that precedes and is associated with a higher likelihood of problem outcomes". A broad range of potential risk factors can contribute to the development of mental illness, and some of these factors relate to a particular stage of the lifespan notably childhood while others have an impact across the lifespan, life events such as sexual or emotional abuse with their long-term physical and mental impact, and socio-economic disadvantage. Adolescent psychological distress is associated with high incidence of health risk behaviors such as substance use, tobacco use and unprotected sexual activity not to mention smoking which is known to be highly correlated with mental health disorders e.g. depression and anxiety.

These risk factors are best explained as a multi-dimensional interplay of several factors operating at various domains as illustrated by Urie Bronfenbrenner (1994). Risk factors of mental health problems among adolescents are well established and they include childhood abuse; family, school and neighborhood violence; poverty; social exclusion and educational disadvantage, each of which has the capacity to shape the adolescent's psychological development. Adolescents experience changes in their central neuroendocrine regulation, this changes alter their physiologic, cognitive, and emotional functioning, they sometimes oppose societal demands, such as early school-start times and the increase in the significance of social roles coincide with these physiologic changes. These inconsistent demands may explain why adolescents are prone to sleep problems such as delayed phase sleep syndrome and insomnia subsequently, developing

20

mental health problems. The multiple changes that adolescents experience can be very stressful, and serve as precipitating factors that activate Psychological stress. (Roane M, 2008)

(Robinson 2011) study suggests that poor mental health in early adolescence has a number of significant lifestyle and demographic correlates and early experimentation with cigarette smoking and sexual activity were all linked to poorer mental health scores at age 14 years. These results suggest that consideration of the lifestyle and demographic markers that are linked to mental health scores in adolescence is a good starting point for developing a multi- focus intervention aimed at improving mental health.

Previous research has also indicated that insomnia is a risk factor for psychological problems in adults, Roane et al (2008) in their studies showed an association between adolescent insomnia and mental health problems (i.e. alcohol and/or substance use, depression, and suicide thoughts/attempts). Frigerio et al (2009) opined that approximately one in ten adolescents has psychological problems and suggested that teachers and clinicians should focus on boys and girls living with a single parent and/or in disadvantaged socioeconomic condition. Studies have shown that adolescents / young adults have mental health problems that interfere with their normal development and daily life activities. Some mental health problems are mild, while others are more severe. Furthermore, some mental health problems last for only short periods of time, while others, potentially, last a lifetime.

Prevalence of mental disorders among young adult has been reported to be 14 to 20% Burden in various studies. According to World Health Report (2000), 20% of adolescents suffer from a disabling mental illness worldwide. The issue of childhood psychiatric morbidity is more serious

21

in middle and low income countries because these countries have a much larger proportion of child and adolescent population, poorer infrastructure and fewer resources to deal with this problem which result into mental health problem in this group.

Adolescent psychopathology is associated with an increased incidence of health-risk behaviour, such as alcohol, substance abuse, tobacco use and unprotected sexual activity, these health-risk behaviors are positively correlated with each other. Furthermore, Adolescent smoking is known to be highly correlated with mental health disorders such as anxiety and depression and the relationship is potentially complex in effect, with tobacco use perhaps utilized as a coping strategy for mental health dysfunction.(Arumugam, 2013). Furthermore, smoking could represent a proxy risk factor for other negative lifestyle factors such as low socio-economic status.

CHAPTER THREE

METHODOLOGY

3.1   Study location

This study was carried out in Osun state South west Nigeria. Osun state has thirty local Government Areas (LGAs). According to the Nigerian demographic profile (2014), Osun has a population of 159,856. Osun is an inland state in South-Western Nigeria, Its capital is Osogbo. It is bounded in the North by Kwara State, in the East partly by Ekiti State and partly by Ondo State, in the South by Ogun State and in the West by Oyo State. It was created on 27 August 1991 out of Oyo State

There are nine private Universities in Osun state. Three out of the private Universities in Osun state was randomly selected, they are:

 a) Redeemer's University, b) Adeleke University.   c) Oduduwa University.

 Redeemer's University is located in Akoda, Ede town; it was established in Jan 2005 and operates a collegiate system with 4 colleges and various departments running undergraduate and postgraduate programs with student population of about 2000.

Adeleke University is located in Ede town, established in 2011. Ede has a population of about 300.000- 450,000 people. The student population is about 1500 with 5 faculties.

Oduduwa University is located in Ipetumodu, Ile Ife Osun state, established in 2009 and is named after the progenitor of Yoruba people. It has 4 colleges, and students' population of about 6000 students.

3.2   Study Design

This study was a cross sectional descriptive study. Self-administered questionnaires were used for data collection. It focused on prevalence of emotional disorder, substance use and the correlation between emotional disorder, substance use and subjective academic performance among undergraduates aged 15 – 24years in private Universities.

3.3 Study Population

Undergraduate students aged 15- 24years from the selected private Universities in Osun State who met the inclusion criteria were the study participants.

3.3.1   Inclusion criteria

Undergraduate students in any of the specified private Universities

Provides informed consent.

Student between age 15 and 24years.

3.3.2 Exclusion criteria

Students that was excluded from the study includes

1. Refused consent

2. Acutely ill/ unwell students

3. Student age above 24years

3.4   Sample Size calculation

Our research for studies that addresses both emotional disorders and substance use didn't find such publications. However Othieno et al (2014) reported prevalence of depression among young adults in University to be 40%, Substance use among young adult in University was found to be

between 34.7% and 42.9% by Atiwol et al (2011). Taking the highest prevalence value of the two values reported, sample size was calculated as follows.

$$n = \frac{z^2 (pq)}{e^2}$$

Where:

n= Minimum number of respondents required

z = standard error associated with chosen level of confidence = 1.96

p =Proportion with outcome of interest =42%

q = 100-p

e = Acceptable sample error =5%

$$n = \frac{1.96^2 (0.42)(0.58)}{(0.05)^2} = 374$$

However, to allow for a non-response rate of 10% using $N = \frac{n}{1-r}$

$$N = \frac{374}{1-10\%} = 415.5 = 416$$

Hence, the sample size was increased to 416 participants minimum.

3.5   Sampling technique

To select the participants, Redeemer's University was selected randomly been the researcher's work environment and the other two Universities (Adeleke and Oduduwa) was selected as a cluster around the University out of the nine Universities in Osun State

3.5.1. Selection of students.

Records of students from each of the universities show that there are 60000 students in Oduduwa University, Redeemer's University has 2000 students and Adeleke University has 1500 students. Based on these, respondents from each University was calculated as follows

Oduduwa University:

$$\frac{6000}{9500} \times \frac{416}{1} = 262$$

Redeemer's University:

$$\frac{2000}{9500} \times \frac{416}{1} = 88$$

Adeleke University:

$$\frac{1500}{9500} \times \frac{450}{1} = 66$$

AFRICAN DIGITAL HEALTH REPOSITORY PROJECT

Based on these calculations the university colleges / departments were approached, with First respondent picked randomly from the colleges / departments of the Universities, and there after the tenth was selected for the study, written consent taken.

3.6   Study Instruments:

Data was collected using the Socio-demographic questionnaire, Hospital Anxiety and Depression Scale (HAD), and WHO ASSIST (v3.0) and Rosenberg Self-esteem Scale. Three people were recruited to help with the distribution and collection of the questionnaires, supervision was done by the researcher. Pretest was carried out a week before with 10 students from Redeemer's University. The questionnaires were self-administered.

3.6.1   The Socio-demographic Questionnaire

The socio-demographic questionnaire was a 33 item questionnaire that covered the participant's personal information, family background and school related questions was adapted and utilized.

The socio-demographic questionnaire was designed by Omigbodun & Omigbodun, (2004) but adapted to suit this study by the researcher, subjective questions using a Likert scale of very good, good poor and very poor was used to asses respondents academic status and economic status. (See Appendix B 1).

3.6.2   Rosenberg Self-esteem Scale. RSES (Rosenberg 1965): The Rosenberg Self-Esteem Scale is a 10-item scale that measures global self-worth; all items are answered using a 4- point Likert scale. This scale is a widely used self-report instrument. It is a well-known measure that

27

has been proven to yield reliable results and used to measure self-esteem. It has been previously used in Nigeria with good results (Oshodi et al, 2014). According to a study conducted in Nigeria, the following categorization can be employed (Adewuya et al., 2009):

- RSES score 21-30   =   high self-esteem
- RSES score 11-20   =   normal self-esteem
- RSES score 0-10   =   low self-esteem
- Total maximum score is 30

3.6.3   WHO ASSIST: The ASSIST (v3.0) consists of eight items. The first 7 items cover ten substances: tobacco, alcohol, Cannabis, cocaine, amphetamine type stimulants, inhalants, sedatives, hallucinogens, opioids and 'other drugs'. Its diagnostic accuracy was greater than 95%. Eleven domains of ASSIST had internal correlation coefficients of greater than 0.7; The ASSIST version 3 has acceptable psychometric properties and is valid for use among University students, (Onifade, 2014).

3.6.4   Hospital Anxiety and Depression Scale. (Zigmond and Snaith 1983) is a self-administered questionnaire commonly used to determine the levels of anxiety and depression .The HADS is a fourteen item scale that generates ordinal data. Seven of the items relate to anxiety and seven relate to depression It is acceptable, reliable, valid and easy to use practical tool for identifying and quantifying depression and anxiety and has been previously utilized in Nigeria. Sensitivity for anxiety ranges from 85%-92.9% while degree subscale for depression is between 89.5%- 92.1%. specificity for anxiety is 86.5% - 90.6% and depression at 86.6% - 91.1%.(Abiodun, 1994).

3.7 Study procedure

3.7.1 Data collection process

Three Research assistance were recruited to help with distribution and collection of questionnaire after putting them thru the use of the interview questionnaires, Socio-demographic questionnaire, Hospital Anxiety and depression scale, WHO Assist and Rosenberg self- esteem Scale. The interview was conducted in their departmental lecture rooms based on the time schedule due to the fact that it was there exam period, the data process was completed in 6weeks.

3.8 Data Management.

All data generated was entered into a computer system and analyzed using the Statistical Package for social sciences (IBM SPSS 20) for windows. Participants' socio-demographic characteristics were presented in percentages and frequencies. The overall prevalence of emotional disorders and substance use presented in frequencies and percentages table, as well as determine associations and correlates.

29

3.9 Ethical consideration.

Ethical approval was obtained from Osun state Ethics and Research Committee of the Ministry of Health; while Approval to engage with the students from each University was obtained from each University authorities. The study participants were assured that all data collected from them will be kept as confidential.

Informed consent forms were signed by all respondents aged 15 to 24years after explaining to them the purpose of the study. The procedure did not involve any major risk that could cause physical harm, with minimal or no psychological harm, as only interviews were conducted.

The participants were informed of the potential benefits of the study which includes recommendation for adolescent mental health services in the University and access to interventions such as the provision of psychological therapies. The participants were also informed that participation was voluntary and that they could withdraw from the study at any point, and they could decline to answer any question.

CHAPTER FOUR

RESULTS

This section summarizes the demographic characteristics of the respondents. The characteristics reported here include age, class level, gender and tribe of the participants. Other characteristics explored were self-reported current subjective academic performance, family type, religion and the respondents' average monthly income at the time of the study.

4.1 Socio-demographic characteristics

As shown in Table 4.1, the entire sample showed that there were more females (61.3%) than males (38.7%). The age of the respondent ranged from 15-24 years and the mean age of the respondents was 20.4 ± 3.2 years. Most (90.7%) of the respondents were never married and 82.0% were from monogamous background. The majority of the Respondents were of very good academic performance (71.7%), and they were predominantly Yoruba (73.6%) Christians.

31

See Table 4.1.

Table 4.1 Sociodemographic characteristics of the sample

Characteristics	n(%)
Class level	
100	88(22.0)
200	102(25.5)
300	111(27.8)
400	86(21.5)
500	13(3.3)
Age	
15-20years	141(38.4)
21-24years	202(55.0)
>25years	24(6.5)
Sex	
Male	161(38.7)
Female	255(61.3)
Religion	
Christianity	313(76.2)
Islam	82(20.0)
Others	16(3.9)
Tribe	
Yoruba	256(73.6)
Igbo	54(15.5)
Others	25(7.2)
Hausa	13(3.7)
Family type	
Monogamous	338(82.0)
Polygamous	74(18.0)
Marital status	
Never married	370(90.7)
Married	23(5.6)
Separated/divorced	15(3.7)
Students Assessment of current academic performance	
Very good	291(71.7)
Good	88(21.7)
Poor	16(3.9)
Very poor	11(2.7)
Rating of average monthly income in naira	
Very good	166(42.2)
Good	165(42.0)
Poor	54(13.7)
Very poor	8(2.0)

The prevalence of emotional problems as experienced by the respondents is presented here. The prevalence report of depression was 11.7%, Anxiety was 34.9% and low self-esteem was 9.8%.

See Table 4.2

Table 4.2 Prevalence of Emotional problems.

emotional problems	n(%)
Depression	
Normal	241(59.8)
Borderline	115(28.5)
Abnormal	47(11.7)
Anxiety	
Normal	151(37.4)
Borderline	112(27.7)
Abnormal	141(34.9)
Self-esteem	
Low	40(9.8)
Normal	351(85.6)
High	19(4.6)

4.3 Prevalence of substance use among undergraduate students

Higher proportion of respondent's (32.1%) ever used alcohol beverages, sedatives or sleeping pills (21.6%), heroin/morphine/pain medication (19.0%), marijuana (12.2%), while a very low proportion (3.7%) ever used hallucinogens. 46.1% reported to have ever used at least one of the substances.

Also as shown in Fig 4.3, Alcohol has the highest proportion of use in terms of monthly, weekly and daily use. (5.8%, 4.6% & 3.8%)
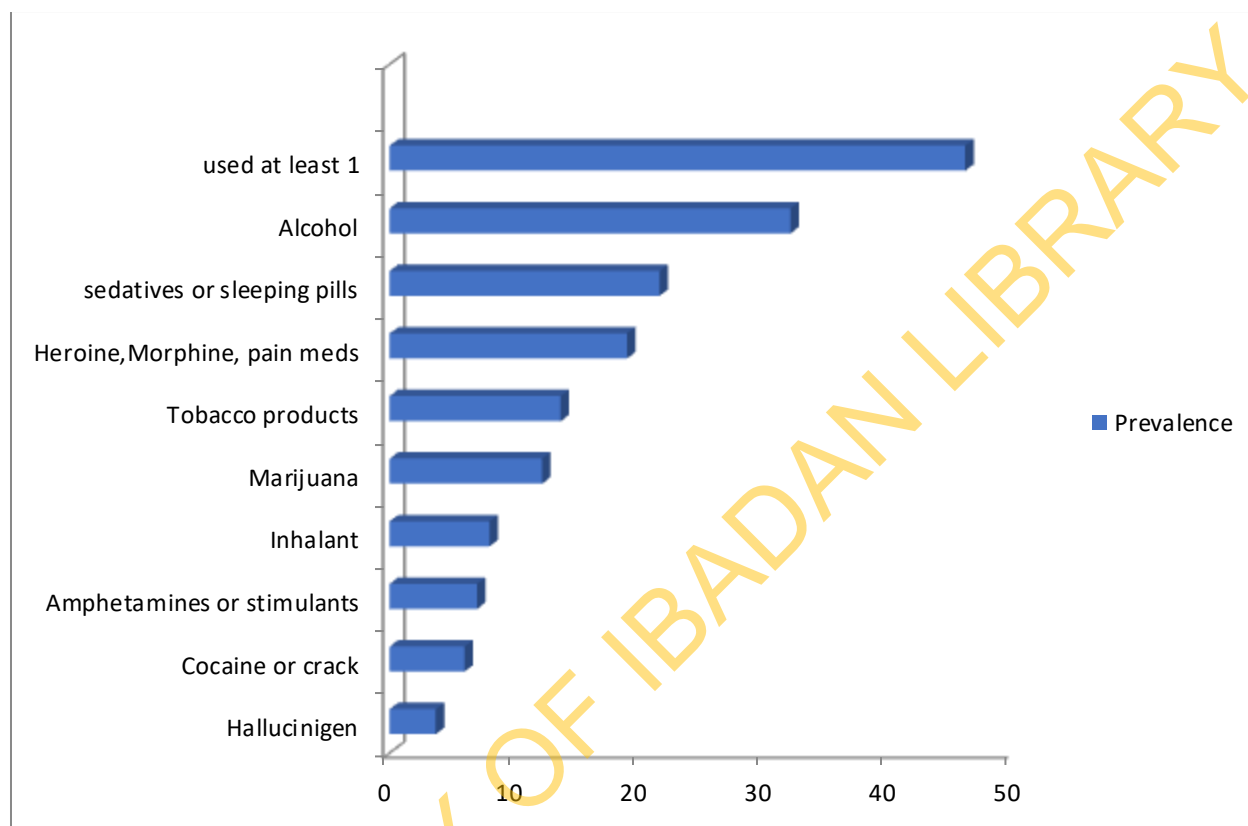
Fig 4.1 Prevalence of Substance use (ever used)
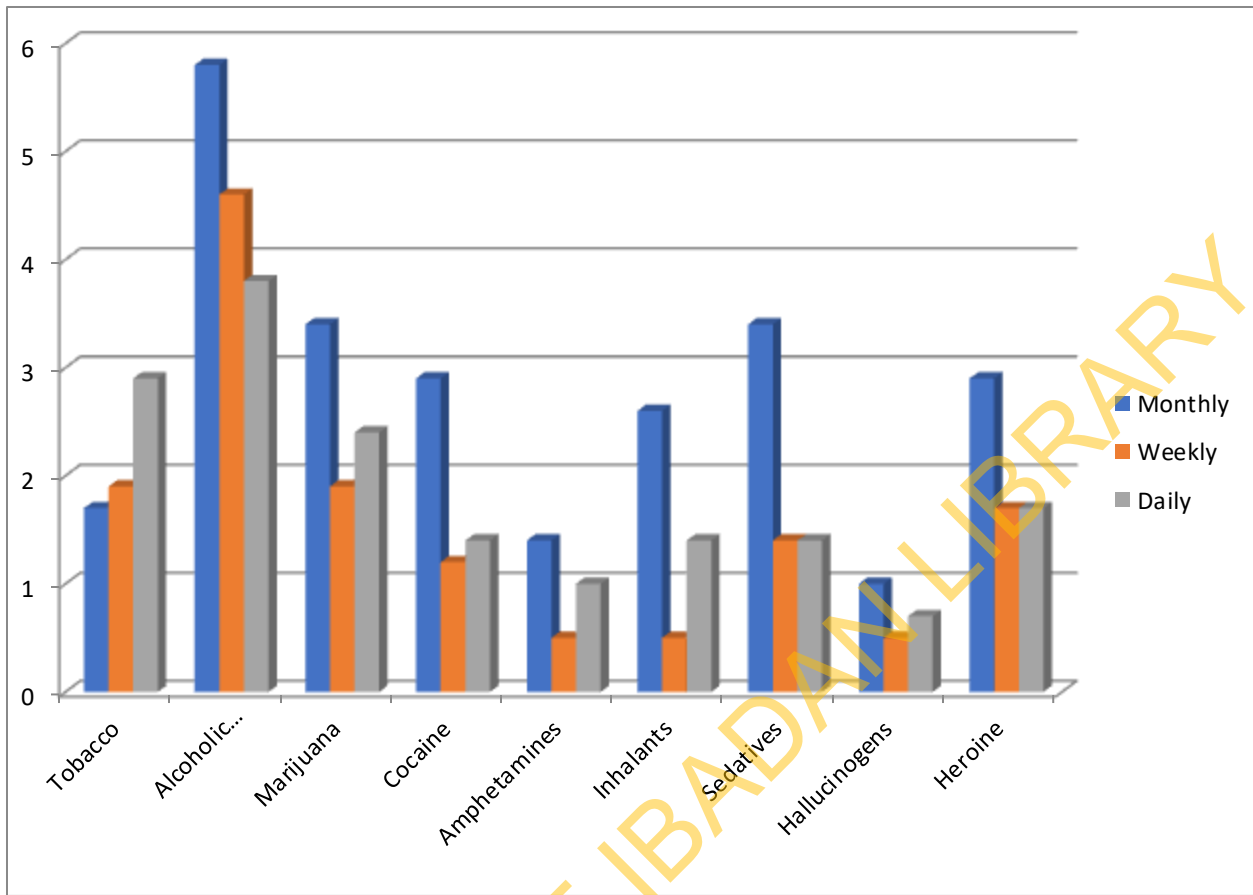
Fig 4.2 Frequency and pattern of substance use

4.4-Association between sociodemographic, substance use and subjective academic performance.

The association between socio-demographic characteristics, substance use and subjective academic performance of respondents compare with other demographic characteristics variables shows sex to be significant (p=0.019), class level (p=0.006), family type (p=0.001), rating of average self-reported monthly income (p<0.0001) and substance use (p=0.005)/ were significantly associated with the subjective measure of academic performance.

36

37

Table 4.3 Association between sociodemographic, substance use and subjective academic performance

	Very good/good	Poor/very poor	Statistics Chi^2	P-value
Class level				
100	78(21.2)	8(29.6)	14.432	0.006*
200	96(26.1)	4(14.8)		
300	104(28.3)	7(25.9)		
400	81(22.0)	4(14.8)		
500	9(2.4)	4(14.8)		
Age				
<20yrs	134(39.2)	4(21.1)	2.796	0.247
20-25yrs	186(54.4)	14(73.7)		
>25yrs	22(6.4)	1(5.3)		
Sex				
Male	138(36.5)	16(59.3)	5.535	0.019*
Female	240(63.5)	11(40.7)		
Religion				
Islam	73(19.4)	9(33.3)	3.051	0.217
Christianity	289(76.7)	17(63.0)		
Others	15(4.0)	1(3.7)		
Tribe				
Yoruba	242(74.7)	12(60.0)	5.429	0.143
Hausa	11(3.4)	1(5.0)		
Igbo	50(15.4)	3(15.0)		
Others	21(6.5)	4(20.0)		
Family type				
Monogamous	317(83.9)	16(59.3)	10.436	
Polygamous	61(16.1)	11(40.7)		0.001*
Marital status				
Married	22(5.9)	0	2.636	0.268
Never married	338(90.6)	25(92.6)		
Separated/divorced	13(3.5)	2(7.4)		
Rating of average monthly income in naira				
Very good	162(45.0)	2(7.4)	54.195	P<0.0001*
Good	150(41.7)	11(40.7)		
Poor	45(12.5)	9(33.3)		
Very poor	3(0.8)	5(18.5)		
Substance use				
Never used	202(55.0)	7(26.9)	7.710	0.005*
Used at least one	165(45.0)	19(73.1)		

*indicates significancep<at 0.005

4.5 Association between emotional problems and subjective academic performance

The associations between emotional disorder and subjective academic performance of respondents were statistically significant. Higher proportion (40.7%) of respondents who had depression was found to have poor academic performance compared to those who were not depressed (33.3%). Likewise, a higher proportion (59.3%) of those with anxiety disorder were found to have reported poor/very poor academic performance compared to those who did not have anxiety problems (3.7%).

See Table 4.4

Table 4.4 Association between emotional Disorders and subjective academic performance

Emotional Problems	Very good/good	Poor/very poor	Statistics Chi^2	P-value
Depression				
Normal	226(61.2)	9(33.3)	9.566	**0.008***
Borderline abnormal	103(27.9)	11(40.7)		
Abnormal	40(10.8)	7(25.9)		
Anxiety				
Normal	147(39.7)	1(3.7)	14.535	**0.001***
Borderline abnormal	100(27.0)	10(37.0)		
Abnormal	123(32.2)	16(59.3)		
Self-esteem				
Low	36(9.6)	2(7.4)	0.570	**0.752**
Normal	322(85.9)	23(85.2)		
High	17(4.5)	2(7.4)		

4.6 Multivariate analysis of factors influencing poor academic performance among undergraduate students.

The multivariate analysis of factors influencing poor academic performance among undergraduate students showed that those who had ever used any of the substances had a 3-fold increased risk of self-reported poor academic performance. (OR=3.32, 95% CI=1.4-8.1). In the same vein, those who were depressed and anxious were also associated with an increased risk of self-reported poor academic performance, (OR=4.4, 95% CI=1.5-12.5) and (OR=19.1, 95% CI=2.5-146.2) respectively. However, low self-esteem was not significantly associated with academic performance among these undergraduate students.

Table 4.5 Logistic regression analyses showing risk factors for poor academic performance among undergraduate students

Characteristics	Very good/good n=379	Poor/very poor n=27	Unadjusted O.R (95%C.I)	P-value
Substance use				
Never used	202(55.0)	7(26.9)	1	0.008
At least 1	165(45.0)	19(73.1)	3.32(1.4-8.1)	
Anxiety				
Normal	147(39.7)	1(3.7)	1	
Borderline abnormal	100(27.0)	10(37.0)	14.7(1.9-116.6)	0.011
Abnormal	123(33.2)	16(59.3)	19.1(2.5-146.2)	0.004
depression				
Normal	226(61.3)	9(33.3)	1	
Borderline abnormal	103(27.9)	11(40.7)	2.7(1.1-6.7)	0.034
Abnormal	40(10.8)	7(25.9)	4.4(1.5-12.5)	0.005
Self esteem				
Low	36(9.6)	2(7.4)	1	
Normal	322(85.9)	23(85.2)	1.3(0.3-5.7)	0.740
High	17(4.5)	2(7.4)	2.1(0.3-16.3)	0.472

39

Table 4.6 shows that those who had ever used any of the substances (OR=2.64, 95% CI=1.1-6.6),

Abnormally depressed (OR=3.5, 95% CI=1.2-10.2) and anxiety (OR=16.6, 95% CI=2.2-129.3) remained associated with an increased risk of self-reported poor academic performance.

Table 4.6: Multivariate analysis of factors influencing poor academic performance among undergraduate students.

Characteristics	Poor/very poor academic performance adjusted OR[a](95% CI)	p-value
Substance use		0.038
Never used	1	
At least 1	2.64(1.1-6.6)	
Anxiety		
Normal	1	
Borderline abnormal	11.8(1.5-94.7)	0.020
Abnormal	16.6(2.2-129.3)	0.007
depression		
Normal	1	
Borderline abnormal	2.4(1.0-6.1)	0.063
Abnormal	3.5(1.2-10.2)	0.022

[a] adjusted for sex and family type.

40

Summary of findings.

The findings from the research can be summarized as follows:

1. The result shows that there were higher proportions of female participants (61.3%) than male (38.7%) , age ranges from 15-25years, mean being 20.4% self reported academic performance shows 71.7% of very good academic perfomance.

2. Statistical analysis showed a higher propotion of 32.1%   of respondents have used alcohol, sedative/ sleeping pills 21.6%, and heroin / marijuana 19.0%. Considering the frequency of use, Alcohol has the highest percentage of respondents for all the parameters for usage 5.8%,4.6%, 3.8% respectively for monthly, weekly and daily consumption this is followed by marijuna and Morphine.

3. A statistically significant propotion of the respondents showed association between substance use and subjective academic performance.

4. Association between emotional problems and subjective academic performance of respondent were high 40.7%   , respondent were found to have poor academic performance; 59.3% of those who have abnormal anxiety reported poor/ very poor academic performance compared to those who were normal 3.7%.

CHAPTER FIVE

DISCUSSION CONCLUSION AND RECOMMENDATION

5.1 Discussion

This was a cross sectional study that reported the prevalence of emotional disorder and Substance use among University undergraduates within the age range of young persons (15-25years). It also sought to identify the association between emotional problems and subjective academic performance. In addition, it detailed the association and some factors influencing poor academic performance. The study also revealed that those who had ever used any of the substance remain associated with an increased risk of self reported poor academic performance.

Respondents who participated in this study were 416, the female respondents were of higher proportion (255) 61.3% against male respondents of (161) 38.7%. In Nigeria, women have been found to account for lower proportion of the population which is about 49.4% . However in spite of this, studies have found a greater population of men in higher institutions compared to their female counterparts, ratio M:F of 0.51 (Tavolacci et al 2013, Adayanfo et al 2015), this is not reflected in this current research which seems to suggest that the demographic pattern of a greater number of men in higher institution is gradually changing.

The age range between 15– 24 years with mean age of 20.4 ± 3.2 years, observed in this study is similar to that reported in a previous study conducted in south west Nigeria among undergraduate with mean age of 20.7years (Uwadiae et al., 2016). The Nigerian educational system currently has a policy which ensures that individual begins elementary school by age 6 and spends a total of twelve years before having the opportunity of proceeding into a higher institution. Hence averagely, students will begin to seek admission at the age of 18 years and individual who do not gain admission immediately will spend a year or two seeking for admission. Therefore one will expect older adolescents and young adults to be an

42

undergradute.   About 50% of the respondents were within their 3rd to 4th year in the University. Most (90.7%) of the respondents were never married. In the southwestern part of Nigeria, it is widely accepted that being educated is relevant for individual self actualization. This encourages people to seek to be educated towards becoming economically empowered before seeking marriage. About 82.0% were from monogamous family background. Monogamy is still more acceptable in this part of the country than polygamy hence this finding is not unexpected. Most of the respondents expressed a very good subjective academic performance (71.7%), followed by those with good academic performance (21.7%). This shows that most of the students have a good impression of their subjective academic performance. Other studies among University students have also found that students have good self reported academic performance.

High proportion of the respondents (73.6%) were from the Yoruba ethnic group followed by Igbo (15.5%), and   76.2% were Christians. This is because the study was conducted in Osun State a Yoruba speaking state. One of the participanting Universities is a faith based school and the other by a christian.   So it is not surprising that the majority are christians.

5.1.1 Prevalence of emotional disorders amongst study population

 Emotional disorders such as depression, anxiety and substance use disorders accounted for a large proportion of disease burden in young people. Studies in this region estimates between 6.7% and 12.5%   among a similar population (Adewuya et al.,2007, Omigbodun et al 2008, Bella-Awusah et al., 2015). Estimates as high as 20% has been reported internationally (Rey et al., 2012). This is in keeping with this study that has prevalence of   depression   11.7%, Anxiety 34.9% and self esteem 9.8%. The Prevalence of depression among adolescents and young adults   have been reported to range between 5-20% depending on the location, the type (lifetime) 12month or point prevalence. Methodology and age bracket of the study

43

participants (Rey et al 2012) . The differences from other studies may be attributed partly to the instrument used to ascertain depression in those studies.   This study reported the prevalence of Anxiety among respondents to be 34.9% , although it didn't differentiate by gender,but it agrees with other previous studies among this population, as noted by Gureje (2006) Anxiety disorders were the most common condition at 5.7% - 4.1% 12 month rates. Other studies indicate that anxiety disorders in adolescent ranges from 16.5% to 40.8% with girls exceeding boys in all age groups (Pathak et al 2011). Self-esteem has been found to be the most dominant and powerful predictor of happiness. The prevalence of low self esteem was much smaller in this study in contrast to a   study conducted in Enugu, Nigeria (Nwankwo et al ., 2012).The finding in this study however, might be attributed to the fact that individuals in this study come from middle to high socioeconomic class based on the fact that is a private University with average tuition fees of 550,000.00 naira ($1,760) Thus, their financial status may also improve their self-esteem. In addition , it is expected that the social inclusion provided by religious activities of the school may be a boost for the observed higher self-esteem. Studies conducted have found out that higher self-esteem scores are usually found in those with religious adherence (Rowe and Allen,2004).

Studies among young population in Europe put the life time prevalence of Alcohol use at 39%- 78.5%. It was reported that ages15-34 to have used cannabis (Onifade et al 2014). Study among school going adolescents in Nigeria put the prevalence of tobacco and alcohol at 21 %. (Atilola 2013). Lifetime substance use prevalence among Adolescents is sometimes higher than 50%. (Adayanfo et al 2015). This is similar to this study which shows 46.1% of respondents have ever used substance, and alcohol has the highest proportion for frequency of use (5.8%, 4.6% and 3.8% for monthly, weekly and daily consumption respectively This reflect the fact that no matter where adolescent are considering the strict and closed monitoring given to private university undergraduates, they are still been influenced by peers,

44

and the societal ills and alcohol remain the most available substance that is accessible This was in keeping with the report of the rate of current drug use observed to be higher in 2009 in three university in south west Nigeria Onifade et al(2014). Also use of psychoactive substance among adolescent range between 30% among male, 13% female (Akanni et al., 2015).

5.1.2 Association between emotional problems and subjective academic performance

Association between emotional problems and subjective academic performance of respondents were statistically significant. Higher proportion (40.7%) of respondents who had significant level of depression was found to have poor academic performance compared to those who were not depressed (33.3%). Likewise, (59.3%) of those whose anxiety levels were abnormal were found to have reported poor/very poor academic performance compared to those who had normal level (3.7%). Omigbodun et al (2008) also identified an association between poor academic performance and emotional problems in the study done within south west sub-region. Results from epidemiological studies reveals that depression and anxiety disorders are the most common disorders in adolescence and young adults (Costello et al.,2003) this has a strong prediction for future risk of psychiatric disorders later in life (Karevold,2008).

Study have shown a that there is negative effect of depression on student's academic performance when comparing students having low, medium and high level depression Khurshid et al (2015). All of these studies support the findings in this study. A possible explanation can be that this group still belongs to the same young adult population not minding the fact that they are of middle to high socioeconomic class. Thus the emotional problems and challenges of this phase of life remain constant. All this findings can be

45

bidirectional, as students who find themselves performing poorly may be depressed and resort to substance use.

A Study among college students in Alabama United States supports an association between self-reported academic functioning and self –reported depressive symptoms of college students (DeRoma et al 2009).

5.1.3 Risk factors influencing poor academic performance

This study shows that those who had ever used any of the substances experience some form of depressive symptoms and anxiety, with an increased risk of self-reported poor academic performance. Studies have shown causal relationship between smoking among adolescent / young adult and depression (Rodriquez et al.2005, Sunhae et al .2007). Omigbodun (2004) also identified poor academic performance with Substance use (tobacco smoking). Adewuya et al (2006) in a study amongst students, met the criteria for depressive disorder with 68 (5.6%) having minor depressive disorder and 33 (2.7%) having major depressive disorder. The factors that were significantly associated with depressive disorders in the students include cigarette smoking and high level of alcohol consumption.

Respondents self-report of very good academic performance is not a surprise because it is subjective and also the relative psychological calmness and the healthy environment couple with stable academic calendar affords them the opportunity to be more focused in their academic pursuit than their counterparts in the public Institution/ Universities. Healthy environment is one of the most powerful determinants of student's academic motivation and achievements and such environments are mostly found in the private universities. Moderate class size is of benefit to private university undergraduate. It provides the lecturer's as well as the college students a conducive (physical and psychological) atmosphere to attend to the varying needs of both the students and their teachers.

46

This has implications not only on academics well-being of the students but also the lecturers. (Shah, 2009)

Furthermore Tavolacci et al (2013) in his study among university students in France pointed out that substance use is associated with immediate health problems such as academic difficulties, interpersonal violence, high sexual risk behaviour, depression and mental disorders. This cannot be totally excluded in this study since those that ever used substances with OR=3.32 were still associated with low academic performance, which they acknowledged. It is worth to note that school type either private or public is not an indication or prediction for substance use. Other school related factors such as having a friend in school that uses a substance can be an influence and associated with lifetime substance use. Also activities in school may be predictive but the role of peers is significant.

5.2 Limitation

The study was limited to three private universities in Osun state. Hence, the relatively small sample size, a larger sample size will reveal a better knowledge of the findings

Also due to time limit and examination period, assess to the respondents CGPA was difficult, also WHO Assist Instrument was not fully utilized.

47

Conclusion

In conclusion, the study was designed on the premise that there is limited information about prevalence of emotional disorders and substance use in relation to academic performance among private University undergraduates in Nigeria. Furthermore there is significant relationship between emotional disorders (depression and anxiety), substance use and subjective academic performance as reported by the respondents. Self-esteem was not significantly associated in this study.

This study adds to the existing body of evidence that adolescent alcohol and substance use is common in Nigeria. It expressed the prevalence of emotional disorders and substance use among young adults in private University and also showed statistical relationship between emotional disorder and subjective academic performance, effect of substance use on subjective academic performance Furthermore, the results showed that there is negative effect of depression on student's academic performance.

5.4 Recommendations

1. Mass awareness campaign in tertiary institutions on substance use and its psychosocial effect and to be included in school curriculum.

2. Mental health service should be made available within the University to create awareness for students, and planning different activities focusing on emotional disorders in adolescent.

3. Further study should look at comparative study of private and public Universities.

References

Abiodun 1994. A Validity Study of the Hospital Anxiety and Depression Scale in General Hospital Units and a Community Sample in Nigeria.. mental health ,Religion and culture 12,527 -542.

Abdulmalik. J.,Omigbodun. o., Beida o., and Adedotun A. 2009. Psychoactive substance use among children and Adolescent in informed religious school. (Almajiris) in northern Nigeria Mental Health, Religion & culture Vol,12, iss 6, 2009

Adayanfo E.O., Akanni O.O., 2015. correlates of psychoactive substance use among Nigerian adolescents. vol 18 issue 4,sahel medical journal.

Adewuya. A. O & Ologun,Y A 2006. Factors associated with depressive symptoms in Nigerian Adolescent. Journal of adolescent health 39,105-110.

Adewuya A , Ola B 2005. Prevalence of and risk factors of Anxiety and depressive disorder in Nigeria Adolescent with epilepsy.Epilepsy Behav 2005 may; 6(3):342-7.

Adewuya, A. O., Afolabi, M. O., Ola, B. A., Ogundele, O. A., Ajibare, A. O., Oladipo, B. F. & Fakande, I. 2009. Post-traumatic stress disorder (PTSD) after stigma related events in HIV infected individuals in Nigeria. *Social psychiatry and psychiatric epidemiology,* 44**,** 761-766.

Adewuya,A.O., Ola O.O., Aloba O.O.,Mapayi B.M., 2006. Depression amongst Nigerian university students : Prevalence and sociodemographic correlate. Soc Psychiat Epidemiol (2006) 41: 674. doi:10.1007/s00127-006-0068-9

Afolayan, D., Onasoga, 2013. Relationship between anxiety and academic performance of nursing students, Niger Delta University, Bayel sa State, Nigeria 4(5)**,** 25-33

Akanni O.O.,Adayanfo E.O, Correlates of psychoactive substance use among Nigeria adolescent.Sahel med J2015,18, 192-9

Albrecht, A.K., Galambos, N.L. & Jansson, S.M. J Adolescents' internalizing and aggressive behaviors and perceptions of parents' psychological control: a panel study examining direction of effects Youth Adolescence (2007) 36: 673. doi:10.1007/s10964-007-9191-5

Al-naggar 2012. Prevalence and Associated Factors of Emotional Disorder among Malaysian University Students Vol. 4 No. 7 (2012)

Arogundade 2012. A Psychological Appraisal of Examination Anxiety among Some Selected Undergraduates in Ogun State, Nigeria. 34-37.

Arumugam, R., Nagalingam 2013. Mental health problems among Adolescents and Its psychosocial correlates. 2.

Assefa 2015. Prevalence of Mental Distress and Associated Factors among Undergraduate Students of University of Gondar, Northwest Ethiopia: A Cross-Sectional Institutional *journal.pone.0119464*.

Atilola, A., Adeitan 2013. Beyond prevalence and pattern: problematic extent of alcohol and substance use among adolescents in Ibadan South-west Nigeria. 13,No 3

Atiwoli L., Mungla P.A., Ndung'u M.N., Kinot K.C., Ogot E.M., Prevalence of substance use among college students in eldoret western Kenya. 2011 BMC Psychiatry, 11:34

Bauman A, Phongsavan P. Epidemiology of substance use in adolescence: Prevalence, trends and policy implications. Drug Alcohol Depend 1999;55:187-207.2.

Bella-awusah, T.,Ajuwon, A.& Omigbodun,O. 2015. Effectiveness of brief school-based, group cognitive behavioural therapy for depressded adolescents in south west Nigeria. Child and Adolescent Mental Health.

Booth, M.Z, & Gerard, J .M. 2011. self esteem and academic achievement: a c omparative study of adolescent student in England and the United states. A journal of comparative and international education, 41, 629-648.

Bunch, J. 2002. Substance Abuse and Academic performance Among University Students. 1.

Cortina, Sodha, Fazel & Ramchandani, P. 2012. Prevalence of child mental health problems in sub-Saharan Africa: a systematic review. *Arch Pediatr Adolesc Med,* 166**,** 276-81.

Ebenuwa-Okoh., Ugoji F.N 2015. Environmental violence, family influence & peer influence as a correlates of distructive tendencies in adolescent. F.N Academic Journal Vol:7(4), pp 69-77.

Eisenberg, G., Hunt 2009. Mental Health and Academic Success in College.

Flisher A.J., Pate V., Hetrick S., McGorry P., Mental health of young people: a global public- health challenge. Lancet 2007; 369: 1302-13 Adolescent Health 3.

Gore, F. M., Bloem, P. J. N., Patton, G. C., Ferguson, J., Joseph, V. & Coffey, C. 2011. Global burden of disease in young people aged 10–24 years: a systematic analysis. *Lancet,* 377.

Gureje, L., Kola, Makanjuola 2006. Lifetime and 12-month prevalence of mental Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health disorders in the Nigerian Survey of Mental Health and Well-Being. 465-471.

Gureje O, Degenhardt l.,Olley B,Et Al ,(2007) A descriptive epidermiology of substance &substance use disorder in Nigeria during the 21st century. Drug Alcohol depen 91:1-9.

Igwe WC, Ojinaka N, Ejiofor SO, Emechebe GO, Ibe BC.Sociodemographic correlates of psychoactive substance abuse among secondary school students in Enugu, Nigeria. Eur J Soc 2009;12:277-83

Ikegwuonu NN. Substance Use and Psychopathology among Senior Secondary School Students in Enugu. A Dissertation Submitted to the West African Postgraduate Medical College, Faculty of Psychiatry, 2009

Khalid, M. (2003). *The relationship of personality factors and academic achievement in Pakistan* (Unpublished PhD Dissertation). Institute of Professional Psychology, Bahria University, Karachi, Pakistan.

Keenan - Miller D., Hammen C. L, Baennam P.A (2007) Health outcome related to early adolescent depression. Journal of SAdolescent health 41: 256-262.

Kessler, O. D., Frank, 2005. Prevalence and Treatment of Mental Disorders, 1990 to 2003. 352:2515-2523.

Kessler R C, B. P., Demler O, JIN R, Merikangas KR, Walters EE. 2005. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication.

Leach .J. , 2009. The realtionship between Depression and college academic performance, College student Journal, 43, 329.

Lopez, A.D, Mathers, C. D., Ezzati, M., Janison D.T & Murray, CJ. 2006. Global and regional burden of disease and Risk factors, 2001: Systemic analysis of population health data. The Lancet, 367, 1747 -1757.

Lopez, A., Mather, C., Ezzati M. D., Murray C.(2006). Global burden of disease and risk factors, Washintion: Oxford University press & world Bank.

Marcus m., Yasamy T., Ommeren M., Chisholm D., Saxeria S.S (2012). Depression a global health burden. available at http:// www.who.int/health/depression/whopaper-wfmh 2012.

Marsh, H.W. and Yeung, A.S. (1997) Causal effects of academic self-concept on academic achievement: structural equation models of longitudinal data. *Journal of Educational Psychology* , 89, 41–54.

Mohd sidik.S , L. R., Kaneson N. 2008. *Prevalence of emotional disorders among medical studentin malasia,* 2**,** 213-217.

Muha, D.G. (1991) Dropout prevention and group counseling. *High School Journal* , 74, 76 –80.

Nina H.S (1996). *The self esteem fraud; why feel –good education does not lead to academic success.* EDRS PS 024396. Washington DC Centre for equal opportunity.

Omigbodun, O.O (2004) " Psychosocial issue in a child and adolescent Psychiatric clinic population in Nigeria" SocPsyhiatry Epidemiology. 39: 667-672

Onifade, B., Abiodun,.Sotunsa, 2014. Psychometric Properties of Alcohol Smoking and Substance Involvement Screening Test (Assist V3.0) Among University Students. 3.

Onifade P.O, Somoye E.B., Ogunwobi O.O., Fadipe B., Fela-Thomas A.et al (2014). Drug use , consequences & perceived accessibility in Nigeria university.open Journal of psychiatry 4:60-67.

Oshodi, O. Aina,O. & Onajole, A., 2010. Substance use among secondary school students in an urban setting in nigeria: prevalence and associated factors. African journal of psychiatry. 13.

Othieno C.J., Okoth R.O., Peltze K., Malla O.L., Depression among university students in Kenya: Prevalence and sociodemographic correlates, Journal of Affective disorders 165 (2014) 120-125.

Owens, M.,Stevenson, J.A & Norgate, R. 2012. Anxiety and depression in academic performance: An exploration of the mediating factors of worry and wotrking memory. School psyhology international, 33, 433-449.

Rey,J.M., Bella-Awusah,T.T., Jing, L.(2012). Depression in children and adolescents. IN Rey,J.M.(ed).Iacapap e-Textbook of Child and Adolescent Mental Health.Geneva:International Association for Child and Adolescent Psychiatry and Allied Professions. Chapter E1:1-8.

Roane M, T. D. 2008. Adolescent Insomnia as a Risk Factor for Early Adult Depression and Substance Abuse. 31.

Robinson , K., Jacoby , Hands ,Beilin 2011. Lifestyle and demographic correlates of poor mental health in early adolescence.

54

Rodriguez,a.h.,Caldera, T.,Kullgren,G.,Renberg. E.S(2006).Suicidal expressions among young people in Nigaragua: A community -based study. Social Psychiatry and Psychiatric Epidermiology. 2 Jun

Rosenberg. M. 1965. the measurement of self esteem, society and the adolescent self Image. 297, v 307.

Salami, S.O., 2010. Moderating effect of resiliece , self esteem and social science. 6, p101

Shafqat S A S (2009). "Impact of teachers'behaviour on the academic achievement of university students". Journal of College teaching & learning -January/February.

Thapar, A., Collishaw., Pine.D.S, & Thapar A.K 2012. zdepression in adolescence. The Lancet 379, 1056-1057

Tavaresa, B., Silva De limaa 2004. Factors associated with drug use among adolescent students in southern Brazil.

Tavolacci et AL.: Prevalence and association of perceived stress, substance use and behavioral addictions: a cross-sectional study among university students in France, 2009–2011.BMC Public Health 2013 13:724.

Whiteford h A, D. L., Rehm JT, 2010. The Global Burden of Mental & Substance Use Disorders.

Yusuf A.D., Issa B.A., Ajiboye, P.O & Buhari O.N 2013. The correlates of stress, coping styles and Psychiatic morbidity in the first year of Medical education at a NigerianUniversity. African Juornal of Psychiatry 16.

INFORMED CONSENT FORM

Project title: Prevalence and Correlates of Emotional disorders and substance use among private university undergraduate in Osun State Nigerian

I am a post graduate student of the Centre for Child and Adolescent Mental health, University of Ibadan, Ibadan. I am interviewing adolescent/ young adult undergraduate student in Private University..

The aim of this study is to determine the prevalence emotional disorder and substance use among university undergraduates and to explore the association with academic performance.

The outcome of this study can be utilized for the planning of mental health services for university undergraduates.

I will ask you to provide answers to some questions by giving you questionnaires. Please note that your answers will be kept very confidential. Your questionnaire will be coded so that you do not have to write your name it.

The information you and other people give will be used to help find solution to the problem attached to class repetition.

NB: You are free to refuse to take part in this study. You have a right to withdraw any given time if you choose to. However, I will greatly appreciate your help in responding and taking part in the study.

Consent: Now that the study has been well explained to me and I fully understand the content of the process, I will be willing to take part in the study.

....

   Signature of Participant   Interview Date

SOC1ODEMOGRAPHIC QUESTIONNAIRE

INSTRUCTION

Thank you for agreeing to take part in this study, the study is looking at the prevalence and correlate of psychological distress in undergraduate. It will take you about 5minutes to complete. We will only use your response for research purpose after the data has been analysed so that it cannot be linked to you. Be assured that all answer you provided will be kept in strictest confidentiality.

Please answer all questions to the best of your ability and where relevant tick the box that applies to you.

Thank you.

SERIAL NUMBER ……………. DATE OF INTERVIEW ……………….

SECTION A   SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. **Age at last birthday …………………….**

2. **Sex**

   {   } Male   {   } Female

3. **Marital Status**

   {   } Married {   } Never Married {   } separated {   } Divorce {   } Widowed Cohabiting

4. **Religion**

   {   } Muslim {   } Christian {   } others please specify …………………….

5. **Educational qualifications**

   {   } 100 level {   } 200 level {   } 300level {   } 400level {   } 500 level

6. How would you assess your current academic situation?

   {1}Very Good {2} Good {3} Poor {4} Very poor

7. Estimate of average monthly income in Naira.

   { 1 } Very Good {2}Good {3} Poor {4} Very poor

8. Ethnic origin ……………………………………………………

9. Family Type: { } Monogamous **{ }** polygamous.

10. What position are you in your family. ……………………

58

Rosenberg self-esteem scale (RSES)

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. On the whole, I am satisfied with myself.	☐	☐	☐	☐
2. At times I think I am no good at all.	☐	☐	☐	☐
3. I feel that I have a number of good qualities.	☐	☐	☐	☐
4. I am able to do things as well as most other people	☐	☐	☐	☐
5. I feel I do not have much to be proud of.	☐	☐	☐	☐
6. I certainly feel useless at times	☐	☐	☐	☐
7. I feel that I'm a person of worth, at least on an equal plane with others.	☐	☐	☐	☐
8. I wish I could have more respect for myself	☐	☐	☐	☐
9. All in all, I am inclined to feel that I am a failure.	☐	☐	☐	☐
10. I take a positive attitude toward myself.	☐	☐	☐	☐

59

APPENDIX B3

HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

Tick the box beside the reply that is closest to how you have been feeling in the past week.

Don't take too long over you replies: your immediate is best.

D	A		D	A	
		I feel tense or 'wound up':			**I feel as if I am slowed down:**
	3	Most of the time	3		Nearly all the time
	2	A lot of the time	2		Very often
	1	From time to time, occasionally Not at all	1		Sometimes
	0	Most of the time	0		Not at all
		I still enjoy the things I used to enjoy:			**I get a sort of frightened feeling like 'butterflies' in the stomach:**
0		Definitely as much		0	Not at all
1		Not quite so much		1	Occasionally
2		Only a little		2	Quite Often
3		Hardly at all		3	Very Often
		I get a sort of frightened feeling as if something awful is about to happen:			**I have lost interest in my appearance:**
	3	Very definitely and quite badly	3		Definitely
	2	Yes, but not too badly	2		I don't take as much care as I should
	1	A little, but it doesn't worry me	1		I may not take quite as much care
	0	Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			**I feel restless as I have to be on the move:**
0		As much as I always could		3	Very much indeed
1		Not quite so much now		2	Quite a lot
2		Definitely not so much now		1	Not very much

60

3		Not at all	0		Not at all
		Worrying thoughts go through my mind:			**I look forward with enjoyment to things:**
	3	A great deal of the time	0		As much as I ever did
	2	A lot of the time	1		Rather less than I used to
	1	From time to time, but not too often	2		Definitely less than I used to
	0	Only occasionally	3		Hardly at all
		I feel cheerful:			**I get sudden feelings of panic:**
3		Not at all	3		Very often indeed
2		Not often	2		Quite often
1		Sometimes	1		Not very often
0		Most of the time	0		Not at all
		I can sit at ease and feel relaxed:			**I can enjoy a good book or radio or TV program:**
	0	Definitely	0		Often
	1	Usually	1		Sometimes
	2	Not Often	2		Not often
	3	Not at all	3		Very seldom

WHO ASSIST

Please check you have answered all the questions

Some of the substances listed may be prescribed by a doctor (like sedatives, pain medications, amphetamines etc.). For this interview, we will not record medications that are used <u>as prescribed</u> by your doctor. However, if you have taken such drugs for reasons <u>other</u> than prescription, or taken them <u>more frequently</u> or at <u>higher doses</u> than prescribed, please let me know. While we are also interested in knowing about your use of various illicit drugs, please be assured that the information on such use will be treated as strictly confidential.

In your life, which of the following substances have you <u>ever used</u>? (*non-medical use only*)	No	Yes
a. Tobacco products	0	3
b. Alcoholic beverages	0	3
c. Marijuana	0	3
d. Cocaine or Crack	0	3
e. Amphetamines or Stimulants	0	3
f. Inhalants	0	3
g. Sedatives or Sleeping Pills	0	3
h. Hallucinogens	0	3
i. Heroin, Morphine, Pain Medication	0	3
j. Other, specify	0	3

In the **past three months**, how often have you used the substances mentioned (*first drug, second drug, etc.*)	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products	0	2	3	4	6
b. Alcoholic beverages	0	2	3	4	6
c. Marijuana	0	2	3	4	6
d. Cocaine or Crack	0	2	3	4	6

	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
e. Amphetamines or Stimulants	0	2	3	4	6
f. Inhalants	0	2	3	4	6
g. Sedatives or Sleeping Pills	0	2	3	4	6
h. Hallucinogens	0	2	3	4	6
i. Heroin, Morphine, Pain Medication	0	2	3	4	6
j. Other, specify	0	2	3	4	6

During the <u>past three months</u>, how often have you had a strong desire or urge to use (*first drug, second drug, etc.)?*	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products	0	3	4	5	6
b. Alcoholic beverages	0	3	4	5	6
c. Marijuana	0	3	4	5	6
d. Cocaine or Crack	0	3	4	5	6
e. Amphetamines or Stimulants	0	3	4	5	6
f. Inhalants	0	3	4	5	6
g. Sedatives or Sleeping Pills	0	3	4	5	6
h. Hallucinogens	0	3	4	5	6
i. Heroin, Morphine, Pain Medication	0	3	4	5	6
j. Other, specify	0	3	4	5	6

During the <u>past three months</u>, how often has your use of (*first drug, second drug, etc*.) led to health, social, legal or financial problems?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products	0	4	5	6	7
b. Alcoholic beverages	0	4	5	6	7

	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
c. Marijuana	0	4	5	6	7
d. Cocaine or Crack	0	4	5	6	7
e. Amphetamines or Stimulants	0	4	5	6	7
f. Inhalants	0	4	5	6	7
g. Sedatives or Sleeping Pills	0	4	5	6	7
h. Hallucinogens	0	4	5	6	7
i. Heroin, Morphine, Pain Medication	0	4	5	6	7
j. Other, specify	0	4	5	6	7

During the past three months, how often have you failed to do what was normally expected of you because of your use of (*first drug, second drug, etc.)?*	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products	0	5	6	7	8
b. Alcoholic beverages	0	5	6	7	8
c. Marijuana	0	5	6	7	8
d. Cocaine or Crack	0	5	6	7	8
e. Amphetamines or Stimulants	0	5	6	7	8
f. Inhalants	0	5	6	7	8
g. Sedatives or Sleeping Pills	0	5	6	7	8
h. Hallucinogens	0	5	6	7	8
i. Heroin, Morphine, Pain Medication	0	5	6	7	8
j. Other, specify	0	5	6	7	8

Ask Questions 6 & 7 for all substances ever used (i.e., those endorsed in Question I).

Has a friend or relative or anyone else <u>ever</u> expressed concern about your use of *(first drug, second drug, etc.)*?	No, Never	Yes, in the past 3 months	Yes, but not in the past 3 months
a. Tobacco products	0	6	3
b. Alcoholic beverages	0	6	3
c. Marijuana	0	6	3
d. Cocaine or Crack	0	6	3
e. Amphetamines or Stimulants	0	6	3
f. Inhalants	0	6	3
g. Sedatives or Sleeping Pills	0	6	3
h. Hallucinogens	0	6	3
i. Heroin, Morphine, Pain Medication	0	6	3
j. Other, specify	0	6	3

Have you <u>ever</u> tried and failed to control, cut down or stop using *(first drug, second drug, etc.)*?	No, Never	Yes, in the past 3 months	Yes, but not in the past 3 months
a. Tobacco products	0	6	3
b. Alcoholic beverages	0	6	3
c. Marijuana	0	6	3
d. Cocaine or Crack	0	6	3
e. Amphetamines or Stimulants	0	6	3
f. Inhalants	0	6	3
g. Sedatives or Sleeping Pills	0	6	3
h. Hallucinogens	0	6	3

i. Heroin, Morphine, Pain Medication	0	6	3
j. Other, specify	0	6	3

Have you <u>ever</u> used any drug by injection? **(non medical use only)**	No, Never	Yes, in the past 3 months	Yes, but not in the past 3 months
	0	2	1

APPENDIX C

LIST OF PRIVATE UNIVERSITY IN OSUN STATE

1. Adeleke University

2. Redeemer's University

3. Bowen University

4. Joseph Ayo Babalola University

5. Fountain University

6. Kings University

7. Wesley University

8. Oduduwa University