

**THE RELATIONSHIP BETWEEN ANTI-SOCIAL BEHAVIOURS AND
DEPRESSION AMONG DIVERSE ETHNIC ADOLESCENTS AND YOUNG
ADULTS UNDERGRADUATE STUDENTS: DESCRIPTIVE STUDY OF A
CONSTITUENT COLLEGE OF UNIVERSITY OF MALAWI.**

M.Ed. (PSYCHOLOGY) THESIS

JOHN MULINDA KUYOKWA

**UNIVERSITY OF MALAWI
CHANCELLOR COLLEGE**

June, 2018

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BY

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UNIVERSITY OF MALAWI

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June, 2018

DECLARATION

I, the undersigned, hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other people's work has been used, acknowledgements have been made

Full Legal Name

Signature

Date

CERTIFICATE OF APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval

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DEDICATION

This thesis, is dedicated to my mother, Grace; father, Peter Kuyokwa; Wife, Emma Kuyokwa; Uncle, LusekeroMuyaba; Sara, my sister; Maria Botha, my late sister in law, and all relatives and friends who have not been mentioned here, continue to provide an inspirational role. Without their prayers, understanding and encouragement, my stay at the University would have been very difficult. May the good Lord be glorified for keeping me well and healthy.

This thesis is also dedicated to all learners who have ever experienced any form of Mental and Behavioural problems at some point in their life. I pray for zero stigma and discrimination against them as well as an improvement of the care which they receive. Such care depends on the enhanced relevant education for teachers, lecturers, health workers, the general public, and on an intensive commitment by the Malawi Government.

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ABSTRACT

Psychoactive substances abuse and depression are serious problems among adolescents and young adult undergraduate students. The purpose of the study was to determine if there is a relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adult undergraduate students, at one of the constituent Colleges of the University of Malawi. The study was guided by Ajzen's Theory of Planned Behaviour. Mixed research methodologies were used in which both quantitative and qualitative research methodologies were employed in data generation and analysis. SPSSv20, Excel and phenomenological approach were used in data analysis. The study involved 147 participants and the findings revealed that (55%) of students had depression and (34%) of students used psychoactive substances. The most abused psychoactive substances were coffee, cannabis and alcohol. There was no direct correlation between depression and use of psychoactive substances as (24%) of participants who were using psychoactive substances had depression, and (10%) of participants were using psychoactive substances but had no depression. The ethnic majority students (53.6%) experience more depression than ethnic minority students (46.34%). The study concludes that there is high prevalence of depression and low use of psychoactive substances among adolescent and young adult undergraduate students at the constituent college of the University of Malawi. However, there is no direct relationship between students' ethnicity, use of psychoactive substances and depression. Hence, undergraduate students suffer from depression and use psychoactive substances like any other person and have to be helped accordingly, through counselling and psychotherapy.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIPsy	Alcohol Induced Psychosis
BPAD	Bipolar Affective Disorder
AIPsy	Alcohol Induced Psychosis
BPAD	Bipolar Affective Disorder
DSM-4	Diagnostic Statistical Manual for Mental disorders -version 4
GoM	Government of Malawi
ICPE	International Consortium in Psychiatric Epidemiology.
IEC	Information Education and Communication.
ICD 10	International Classification of Diseases vol,10.
JCE	Junior Certificate Examination
MDHS	Malawi Demographic Health Survey
MH	Mental Health
Mhp	Mental Health policy
MSCE	Malawi School Certificate Examination
PSLCE	Primary School Leaving Certificate Examination
PHQ	Patient Health Questionnaire
TEVET	Technical, Entrepreneurial Vocational Education and Training
U.S. A	United States of America
UNIMA	University of Malawi
WHO	World Health Organization
ZMH	Zomba Mental Hospital

Chapter 1

INTRODUCTION

1.1 Chapter overview.

This chapter introduces the study by outlining the background of different ethnic groups in Malawi and different studies that have been done in different countries in Africa, Asia, Europe and America on the relationship between anti-social behaviours and depression among diverse ethnic adolescent and young adults undergraduate students, as well as mental health services and education system in Malawi. This is followed by a description of the statement of the problem, purpose, significance of the study and chapter summary. The chapter ends with thesis structure.

1.2 Ethnic composition of Malawi and background studies of adolescents and young adult undergraduate students.

Malawi is found in Southern Africa with a population of 15 million people(MDHS,2010). It is divided into three regions: The Northern, Central, and Southern Regions. There are 28 districts in the country. Six districts are in the Northern Region, and the ethnic groups that are found in the region are; Lambya, Sukwa, Tonga, Ngonde, Tumbuka and Ngoni. There are nine districts in the Central Region, the ethnic groups found in the region include; Chewa, and Ngoni, and they are thirteen districts in the Southern Region, and the ethnic groups found in the region include Lomwe, Yao, Ngoni and Sena(MDHS,2010). Regarding ethnic identification;

the Chewa is the largest ethnic group, followed by the Lomwe, then Yao and Ngoni. Other small ethnic groups are Tumbuka, Tonga, Ngonde, Sena and Lambya(MDHS,2010).

College can be a challenging time, and college students experience depression as a result of academic pressure, relationships, family expectations, financial pressure, and identity development (Eisenberg, Gollust, Golberstein & Hefner, 2007). Due to different challenges students face when in college, they develop age inappropriate behaviours which are contrary to prevailing norms for social conducts. This is referred to as Anti-social behaviours (DSM-4). The anti-social behaviours include psychoactive substance use, social dysfunction (suicidal attempts, aggressiveness) and racism (Esposito-Smythers & Spirito, 2004).

The research focused on anti-social behaviours like psychoactive substance use namely alcohol, cannabis, coffee, valium, un-prescribed drugs and tobacco. These substances can be abused when a student has feelings of depression (Garlow, 2002). According to International Classification of Diseases version 10(2010) depression is when a person experiences symptoms like fatigue, social withdrawal, sadness, changes in sleeping and eating patterns, guilt, crying and anxiety. Similarly, substance abuse has also been repeatedly noted to increase suicide risk in adolescents and young adults (Esposito-Smythers & Spirito, 2004; Fowler, 1986; Garlow, 2002). Despite the alarming increase in the abuse of prescription and illegal drugs, alcohol continues to be the most frequently and heavily abused drug among college students (Kandel et al.,1999). Adolescence is a period of human development when young people prepare for the adult's physiological, psychological, sociological, and emotional

functions while Young adulthood is a period of human development when young people do the adult's physiological, psychological, sociological, and emotional functions (Ellis, 2004). Depression commonly happens before the start of psychoactive substance use among adolescents and young adults (DSM-4). Some psychoactive substances that are commonly abuse by adolescents and young adults are alcohol, tobacco, coffee, and cannabis (Esposito-Smythers & Spirito, 2004). Coffee/caffeine can be addictive when taken 100mg of coffee per day (which is about the amount in one cup of tea) can acquire a physical dependence that would trigger withdrawal symptoms that includes feelings of depression (International Classification of Diseases version 10). A report by WHO estimated that depression is the fourth leading cause of disability in Malawi coming after HIV/AIDS, cataracts and malaria (Bowie, 2006).

1.3 Mental health services in Malawi

Mental health services in Malawi are centralised in three tertiary units which are located, one in each of the three regions of Malawi. In the northern region (Mzuzu), St. John of God House of Hospitality; in the Central region (Lilongwe) Bwaila Psychiatric unit; and in the Southern region (Zomba), Zomba Mental Hospital. This implies that most people with mental health problems do not get help (Kauye et al., 2011).

In Malawi, severe mental health problems affect at least 1% of the population at any time, and up to 10% at some time in life; while less severe forms of mental health problem affect up to 10% of the population. Between 10-18% of adults and 11-29% of children seen in primary health facilities have varying forms of mental health problems, with the commonest conditions being: schizophrenia (48%), seizure

disorder (36.6%), organic mental disorders including dementia (9.7%) and affective disorders like depression (2.2%), substance abuse problems (1.6%) and mental retardation (1.4%) (Mhp, 2000). The Malawi mental health policy stipulates that mental health education of the community on the importance of mental health and mobilisation of the various cultural, social and religious groups, as well as youth and women organisations to participate in the promotion of mental health in their communities is of great importance.

In order to early detection of behavioural, developmental and neurological disorders as well as parental neglect and child abuse with a view to referring for appropriate care, reduce myth and stigma and promote tolerance and receptiveness, the government of Malawi created a mental health policy (Mhp, 2000). However, little is known in the policy, specifically on how to screen learners for mental health problems, and if identified, how should they be helped. In Malawi, little is also known if undergraduate students are also affected by mental health problems like depression and psychoactive substance abuse, this is because little has been documented in Malawian literature. Zomba Mental Hospital (National Hospital) records indicate that the profile of mentally ill patients in Malawi is not different from that of other parts of Africa (Mhp, 2000). Annually, the Hospital admits about 2000 patients with severe mental health problems, and 7% of these are youths aged 15-30 years with substance abuse, as a main problem (Zomba Mental Hospital, 2016). Malawi, as any other developing countries in Sub-Saharan Africa, access to mental health services for people with mental health problems is poor (Kauye et al., 2011).

In Malawi, most of mental health research has been done among patients attending clinics. However, little was known about mental health of college students which is an important population in any society. Literature shows that a UNIMA medical student went missing in April, 2016 after reportedly having suicidal thoughts, which is a symptom of depression (Nation newspaper Blantyre, 2016, April 4). Studies on prevalence of depression among patients attending clinics have been done; for instance, Stewart et al. (2008) found that 30% of mothers attending postnatal clinic and 28.8% of people attending primary care had a mental health problem. Among those who attend primary care, 19% had depression (Stewart et al., 2008). A similar study by Kohler, Payne, and Bandawe (2015) also found high prevalence of depression and anxiety of 52% among mature rural Malawian women aged 45 and above. However, very few studies, if any, have assessed the burden of depression in adolescents and young adult undergraduate students in Malawi, as most studies have concentrated in adult population in general. It was therefore imperative to find out if there is an association between anti-social behaviours and depression in adolescents and young undergraduate students from different ethnic background at one constituent College of the University of Malawi.

1.4 Education system in Malawi.

The formal education system in Malawi is currently structured around primary education (8 years), secondary education (4 years) and university education (in general 4 years); (Castel, Phiri & Stampini, 2010). The Primary School Leaving Certificate Examination (PSLCE) qualifies pupils for secondary education. Previously Junior Certificate Examination (JCE) was awarded after completing two years of secondary education while the Malawi School Certificate Examination (MSCE) is

awarded after completing four years of secondary school education (Castel et al., 2009). Tertiary education providers include primary and secondary teacher training colleges, technical and vocational training schools, and university colleges. An MSCE is required for entrance into the university and secondary teacher colleges. Entrance into primary teacher training colleges and technical and vocational training colleges require either a JCE or an MSCE (Castel et al., 2010).

Inadequate infrastructure limits enrolment and affects efficiency in higher education (Castel et al., 2010). Public financing to universities and Technical, Entrepreneurial Vocational Education and Training (TEVET) is high and covers recurrent transactions including personal emoluments, security, and maintenance. The cost sharing structure for higher education suggests a heavy government subsidy, with 92 percent of the financing coming from public resources (GoM, 2009). Since 2008, University of Malawi students have been admitted into the University on non-residential and self-sponsored basis (UNIMA report, 2016). In the year 2016, UNIMA students were asked to pay higher fees, than before. Chancellor College fees were raised from K275,000 to K350,000 and students were observed holding demonstrations in reaction to their fees hike and this has affected students psychologically (Nation newspaper Blantyre, 2016, June 20).

1.5 Statement of the Research Problem.

Psychoactive substances abuse and depression are becoming serious on-going public health problems in world (Perkins, 2007). They may have devastating consequences for a person, family and community. The common psychological problem among students is depression and is a significant predictor of lower performance and higher probability of dropping out of school among students in United States of America (Eisenberg, Golberstein, Justin & Hunt, 2009). Similarly, substance abuse has also been reportedly being high and repeatedly associated with depression in adolescents and young adults in USA (Garlow, Purselle & Heninger, 2007). A study by Brown et al. (2011) in United Kingdom also revealed that students' performance in colleges is also affected by anti-social behaviours and depression, which impair their academic achievement. Studies that have been in Malawi have mostly focused on adult population in general that attend the clinics. For example, a study by Kohler et al. (2015) which focused on mature rural women and established that 52% of mature rural Malawian women population aged 45 and above have depression and a similar study by Stewart et al. (2008) on Maternal common mental disorder and infant growth—a cross-sectional study from Malawi showed that 30% of mothers attending postnatal clinic, and 28.8% of people attending primary care had a mental health problem. Among those who attend primary care, 19% had depression. However, not much has been done to examine the adolescents and young adult undergraduates in Malawi. It was therefore, in the interest of the present study to explore the gap in knowledge related to the relationship between depression and anti-social behaviours among diverse ethnic adolescents and young adult undergraduate students of one constituent colleges of the University of Malawi. The knowledge on the relationship between anti-social behaviours and depression among diverse ethnic adolescents and young

adult undergraduate students helps to address issues that attribute to anti-social behaviours and depression among adolescents and young adult undergraduate students.

1.6 Purpose of the study.

The main purpose of this study was to explore the relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adult undergraduate students at one constituent college of the University of Malawi.

1.7 Research questions

The study was guided by the following Main and Subsidiary research questions

1.7.1 Main research question

Is there any relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adult undergraduate students at one constituent college of the University of Malawi?

1.7.2 Subsidiary research questions were:

- i. What is the prevalence of depression among undergraduate adolescent and young adult students?
- ii. What is the prevalence of anti-social behaviours among adolescent and young adult undergraduate students?
- iii. Is there any difference related to one's ethnic identity when it comes to anti-social behaviours and depression among adolescent and young adult undergraduate students?

1.8 Significance of Study.

Firstly, the study findings have reduced the knowledge gap that existed in Malawian literature about the relationship between anti-social behaviours and depression among adolescents and young adult undergraduate students. Secondly, the study findings provide insights to policy makers who are on the pivotal role of provision mental health services in institutions of higher learning in Malawi. Thirdly, the study findings would also help education experts, lecturers and health care workers to understand the importance of counselling in university students. It is believed that improved/introduction of counselling could result in a significant reduction of depression and psychoactive substance use problems thereby improving quality of life for students. Thus, the study would provide a basis for deliberate integration of counselling services in education setting and institutions of higher learning in Malawi.

1.9 Definition of terms

A number of terms need to be defined in order to provide a clear understanding of the context in which they have been used, and therefore the overall interpretation of key issues in the thesis.

Adolescence and Young Adulthood: It is a period of human development when young people start to develop the adult's physiological, psychological, sociological, and emotional functions. In terms of age ranges, adolescence is a period from 12 to 20 years and Young adulthood is a period from 21 to 25 years (Ellis, 2004).

Anti-social behaviour: These are age inappropriate behaviours which are contrary to prevailing norms for social conducts (DSM-4). The research focused on anti-social behaviours like use of psychoactive substances namely alcohol, cannabis, coffee, Valium, un-prescribed drugs and tobacco.

Depression: It is when a person experiences symptoms like fatigue, social withdrawal, sadness, changes in sleeping, eating patterns, guilt, crying and anxiety (International Classification of Diseases, version 10).

Ethnicity: This is the fact or state of belonging to a social group that has a common national or cultural tradition (Hwang, 1997).

1.10 Chapter summary

This chapter has described the position of depression and anti-social behaviours among undergraduate students in institutions of higher learning in Malawi, ethnic groups, mental health services and education system in Malawi. Furthermore, the chapter has highlighted the statement of problem. It has also outlined the research questions that have guided the study, finally the significance of this study and definition of terms.

1.11 Thesis structure

The thesis is presented in five chapters. Chapter one introduces the whole thesis. Chapter two reviews related literature and research. After this, comes chapter three which discusses the research design and methodology. The research findings are presented and discussed in chapter four. Finally, chapter five draws conclusions and provides implications of the study. An area for further study is also suggested in chapter five.

Chapter 2

REVIEW OF LITERATURE

2.1 Chapter overview.

This chapter discusses the literature that is related to prevalence of depression and anti-social behaviours among adolescents and young adult undergraduate university students. The literature further discusses the differences related to one's ethnic identity when it comes to anti-social behaviours and depression among adolescents and young adults undergraduate students and finally it looks at a theoretical framework that guided the research.

2.2 An overview of depression and anti-social behaviours among diverse ethnic undergraduate students.

According to the study by Eisenberg, Golberstein, Justin & Hunt (2009) in USA. The undergraduate university years of an individual are emotionally and intellectually more demanding than almost any other stage of education. At this stage, an individual faces a great deal of academic pressure and challenges that pose a variety of physical, social and emotional difficulties (Kessler & Bromet, 2013). As a result of the changing social and emotional problems of university students, they become more vulnerable to mental health problems like depression (Benton, Robertson, Tseng, Newton & Benton, 2003).

In most cases, mental health problems do not prompt affected individuals to seek treatment offered by mental health care professionals. A survey of college students found similar patterns of underutilization of mental health services (Eisenberg et al., 2009) wherein 32% of college students endorsed symptoms consistent with a mental health diagnosis, and, of those, 64% did not receive mental health services. These results are consistent with previous work which found that 66% of college students with mood disorders did not receive mental health services for their problems (Blanco et al., 2008). Therefore, there is need for all college students affected by mental health problems like depression to timely seek mental health care so that they can be helped appropriately. Addressing the gap between need for treatment and utilisation of treatment can have important implications for the welfare of students and the colleges and universities that they attend.

There is need to address human distress and suffering, as there is evidence that collegiate mental health concerns are related to academic retention and substance abuse (Kessler, Foster, Saunders & Stang, 1995). In addition, suicide which is a symptom of severe depression is the third leading cause of death among college-age Americans (USA Center for Disease Control and Prevention, 2013). Furthermore, students who seek help for their mental health problems seem to be well served by college and university counselling centers in western countries (Steven et al., 2008) of which University of Malawi does not have.

University students cope with depression in different ways including the use of psychoactive substances (Eisenberg, Gollust, Golberstein, Jennifer & Hefner, 2007). The psychoactive substances that are commonly used are alcohol and marijuana (cannabis), and are used as a coping mechanism for stress associated with university work (Thomas, Shanafelt & Dyrbye, 2006). High alcohol consumption has been

associated with personal adverse consequences, such as academic failure, unintended pregnancy, sexually transmitted diseases, and property damage that jeopardize future job prospects (Fletcher, 2008). In addition, fellow students experience secondary consequences ranging from disrupted study and sleep to physical and sexual assault due to influence of psychoactive substances (Blanco et al., 2008). Analyzing alcohol drinking patterns among university students is crucial because they tend to engage in riskier alcohol consumption than their non-university peers and this has an impact on their academic performance (Hong, Huang, Sabri & Kim, 2011).

College counselling has shown to reduce symptoms of psychological distress with approximately the same magnitude as treatments practiced in randomized controlled trials and increase retention (Eisenberg et al., 2007). Studies have also shown that mental health problems among university students are increasing in number as well as in severity (Eisenberg et al., 2007). Hence the need to find out if Malawian university students go through similar problems.

The concept of mental health can be defined and conceptualized differently in different cultures, communities and societies. There are different ways to view the nature and causal factors of mental health problems and that, may determine the definition of what is mental health and what type of counselling and interventions are appropriate to manage mental health problems (Katherine et al., 2012). University students often experience symptoms of depression, eating problems and psychoactive substance use problems, which have significant negative impact on their academic performance (Garlow, Purselle & Heninger, 2007). Given the demonstrated relationship between anti-social behaviours and depression, hence there was need to

conduct a study that would expand the knowledge about the relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adults undergraduate students in Malawi.

2.3 Prevalence of depression among adolescents and young adult students (15 to 25)Years.

Mental health in early adulthood has implications for many aspects of well-being, including coping with depression, alcohol and substance abuse, academic success, and future employment and relationships (Ettner, Frank & Kessler, 1997). Most lifetime mental problems have first onset during or shortly before the typical college age, and these problems may be precipitated or exacerbated by the variety of stressors in college life, including irregular sleep patterns, flux in personal relationships, and academic pressures (Kessler et al., 2009). In addition, the University undergraduate students are particularly prone to stress due to the transitional nature of college life (Eisenberg et al., 2009). For example, many college students move away from home for the first time and need to develop entirely new social contacts and are expected to take responsibility for their own needs (Misra, Crist & Burant, 2003). They may have difficulties adjusting to more rigorous academic expectations and the need to learn to deal with individuals of differing cultures and beliefs (Misra et al., 2003). Severe stress reactions may therefore result into mental health problems like depression. The study conducted by Eisenberg et al. (2009) showed that depression is a significant predictor of lower Grade Point Average and higher probability of dropping out, particularly among students who also have a positive screen for depression.

2.3.1 Prevalence of depression among adolescent students (15 to 20) years.

Adolescent university students have cope with different sources of stress as they are pursuing higher education. Academic pressure is one of the sources of stressors, apart from that, adolescent students have to deal with the stressful tasks of separation and individuation from their family of origin while they attend to numerous tasks in college (Nyer et al., 2013). College adolescent students are typically younger, depend on parents for financial support, and do not have full time or part-time jobs. Thus, in addition to stress related to academic load, these students may have to face the task of taking on more adult-like responsibilities without having yet mastered the skills and cognitive maturity of adulthood (Brown et al., 2011).

In addition, college students may face potentially stressful experiences for the first time including working and being in a significant relationship that may lead to marriage, or having housemates (Kessler, Berglund, Borges, Nock & Wang, 2005). Many adolescent students experience the first onset of mental health and substance use problems or an exacerbation of their symptoms (Kessler et al., 2009).

Mental health problems are very common among college students. This is due to the fact that attending college corresponds to a challenging time for many undergraduate students (Nyer et al., 2013). Depression is the most common mental health problem among college students, with approximately 11.9 % of college students suffer from a depressive problem (Blanco et al., 2008). Adolescents with depression are at increased risk for impairment in school and educational attainment (Hysenbegasi, Steven, Hass, Clayton &Rowlan, 2005).

According to Adlaf, Gliksman, Demers and Newton (2001) over half of all cases of depression have a first onset during childhood, adolescence, or young adulthood. Similarly, other studies have also shown an elevated risk for depression begin in the early teens increasing with age in a linear fashion (Adlaf et al., 2001). This literature review have shown that little is known in Malawi about depression among adolescents and young adults undergraduate students. This implies that students might have symptoms of depression which may not be known by the college management and lecturers.

2.3.2 The prevalence of depression among young adult students (21 to 25)

years.

Most mental health problems have their peak onset during young adulthood. According to Kessler et al. (2009) 75% of those who will have a mental health problem have had their first onset by the age of 25 years, among college students. The significant disruptions associated with attending college may exacerbate current psychopathology that first manifested in childhood and/or trigger its first onset (Kessler et al., 2009). Mental health problems are estimated to account for nearly one half of the total burden of disease for young adults in the United States (WHO, 2002).

In addition, evidence suggests that mental health problems like depression are numerous and increasing among students in institutions of higher education, with the majority of students being young adults (U.S. Department of Education, 2005). For example, in a 2005 national survey of undergraduates, 10% of students were reported seriously considering attempting suicide, and in the same year national survey of college counselling centre directors revealed that, 86% of students reported an increase in severe psychological problems like depression (Gallagher, 2005).

Kessler et al. (2009) reported that one out of every five individuals with depression had their first episode by the age of 25 years. During the last decade, university and college counselling centres in USA reported a shift in the needs of students seeking counselling services from different kinds of developmental issues to more severe psychological problems (Gallagher, Gill & Sysko, 2000).

They also concluded that one third of the university students had a diagnosable psychological problem and one fourth of entering college students are disturbed and in need of mental health care. This resonates with a study conducted by Kessler et al. (2005) on 26, 000 students from 70 colleges and universities, which showed that 6% of undergraduate young adult students had serious suicidal ideations especially the male students who were at high risk to commit suicide. In addition, female students were found to be more prone to develop severe depression and symptoms of anxiety disorder (Eisenberg et al., 2007). Depression present in different ways in the general population (Kessler et al., 2005) Lower socioeconomic status is one of known risk factor in the general population (Yu & Williams, 1999).

This is in agreement with the findings of a British study which found that students with greater financial strains and more hours spent working part time jobs had poorer mental health (Roberts, Golding, Towell & Weinreb, 1999). However, little is known about students from lower socioeconomic backgrounds in the university setting like in Malawi. The benefits from an improved understanding of mental health among young adults, and students in particular, are likely to be substantial. Universities are well positioned to promote mental health among young people because they encompass

several important aspects of students' lives: academics, health services, residences, social networks, and extracurricular activities (Mowbray et al., 2006). An improved understanding of mental health in this setting might be readily translated to multiple campuses and thus reach a large proportion of the young adult population but, little is known about potential risk factors amongst adolescents and young adults student population in Malawian context.

2.4 The prevalence of anti-social behaviours among adolescents and young adult students.

Several studies have shown high prevalence of anti-social behaviours among adolescents and young adults undergraduate students in different universities (Kandel, Jennings, Pearson & Harris, 2000). There are many reasons that have been suggested as to why adolescents have anti-social behaviours like taking un-prescribed drugs, smoking Cannabis and alcohol. Researchers have suggested that the family and peer influence are the strongest motivator of drug and alcohol use in teens (Kandel et al., 1999). The use of psychoactive substances like alcohol and marijuana as a coping mechanism of university work stress has been also suggested by researchers (Thomas et al., 2006).

According to O'Malley and Johnston (2002) excessive drinking on college campuses continues to be one of the most significant health problems facing university administrators and staff. Drug and alcohol use and abuse on college campuses may pose serious risks for students, college administrators, and, in some cases, the general public. A similar report in 2007 by National Center on Addiction and Substance

Abuse (CASA) at Columbia University, showed high alcohol abuse of nearly half (3.8 million) of all full-time college students having binge drink (defined as five or more drinks on one occasion in the previous 30 days) or abuse drugs, illegal and/or prescription, each month. The abuse of prescription and illegal drugs is common among undergraduate students and, alcohol continues to be the most frequently abused drug among college students (CASA, 2007; Johnston & O'Malley, 2002).

The rate of drinking among college students was noticeably changing from 1993 to 2005; however, the rate of riskier drinking has increased substantially (CASA, 2007). For example, the percentage of college students (18-24 years old) who engaged in binge drinking increased from 41.7% in 1998 to 44.7% in 2005 in Columbia (Mitka, 2009). Similarly, the number of students who reported binge drinking three or more times increased by 16% from 1993 to 2001 (CASA, 2007). In addition, studies found that nearly one quarter of college students were three times more likely to meet the diagnostic criteria for substance abuse or dependence than the general population (CASA, 2007).

The consequences of this high rate of alcohol abuse among college students are profound, both in scope and in variety. Studies have reported that university students were victims of alcohol-related sexual assault or date rape and students have unprotected sex secondary to alcohol abuse (Hingson, Heeren, Zakocs, Kopstein & Wechsler, 2002). Other studies reported consequences of psychoactive substance abuse such as, poor academic performance, vandalism, suicide attempts and completions (Wechsler, Lee, Nelson & Kuo, 2002). Clearly, curbing psychoactive substance abuse and associated consequences requires to remain a top priority among

college leaders and administrators. Hence, a need to study if Malawian adolescents and young adult undergraduate students have the same or similar anti-social behaviours. However, in Malawian literature little has been documented on this area of anti-social behaviours among adolescents and young adult students.

2.5 The differences related to one's ethnic identity on anti-social behaviours and depression.

Kessler and Bromet (2013) reviewed the epidemiology of depression across cultures, and revealed that major depression is often found to have a lower prevalence in middle- and low-income countries than in high-income countries, although the review did not include any data from low-income countries such as Malawi. In Malawi, possible explanations included that depression is, to some extent, a problem of affluence and the pattern likely to be due to differences in culture and reporting of depressive symptoms (Kohler et al., 2015). A Malawian Longitudinal Study of Families and Health by Kohler et al. (2014) on depression among Malawians from three regions of Malawi: Balaka (Yao) in the south, Mchinji (Chewa) in the center, and Rumphi (Tumbuka) in the north evenly split between ages 55-64 and 65+, showed that 52% of the population had depression. However, little studies have been done on the impact of ethnicity on use of psychoactive substances if any in Malawi. Different researchers have also found that ethnic minority students in a college setting often experience more depression than do ethnic majority students in western countries (Yu, Y & Williams, 1999). A similar study done in Pakistan among pharmacy undergraduate students which showed a prevalence of depression in the male and female students of 59.49% and 64% respectively (Abbas et al., 2015). However, a study in Malaysia among university students found a lower prevalence of depression of 37% among adolescents and young adults aged between 15 to 25 years

(Shamsuddin et al., 2013). Generally, little was known if there was any difference related to one's ethnic identity when it comes to depression among adolescents and young adult undergraduate students in Malawi. Hence, literature review focussed on studies that were done in other countries among adolescents and young adults undergraduate students.

Use of psychoactive substance is a considerable problem for many colleges and universities. Alcohol use, and accompanying consequences have often been minimized when considering Asian-American students due to a lower rate of alcohol dependence (Dean, 2010). Several studies in USA have supported the premise that, white race college students drink more often and more heavily than Black college students (Knight et al., 2002). In Canada and U.S.A. drinking alcohol is perceived to normal on university campuses, despite varied legal drinking age (Perkins, 2007). The research findings have shown that in different social and cultural contexts they are differences in psychoactive substances use among university students within America (Bartlett, Robertson-Boersma, Dell & Mykota, 2015).

Furthermore, the Canadian literature shows that there are racial differences among Canadian university student drinkers (Thomas et al., 2006). Also, in Nigeria, adolescents believe that the only way to solve the identity problem is by indulging in the same behaviour with their peers, which leads to influence (Nwoke, Ogba & Ugwu, 2012). However, the prevalence, and types of substances used, ages of initiation of adolescent drug use vary within and across ethnic samples (Brown, 2011).

According to Nwoke et al. (2012) in Nigeria the prevalence rate of drug abuse increased across all ethnic and racial youth groups in Nigeria. Further, the research

found that most adolescents who indulge in drug use see it as culturally acceptable amongst the peers (Nwoke et al., 2012). Although, it is widely accepted that peer influence is a powerful factor in adolescent development, the impact of peer influence on adolescent development is generally associated with negative connotations (Nwoke et al., 2012). Failure to develop close relationships with peers within the respective cultures, often results in a variety of problems for the adolescents ranging from delinquency and substance abuse to psychological disorders (Paschall, Ringwalt & Flewelling, 2003).

Alcohol consumption varies by racial groups. Studies have also shown that the prevalence of binge drinking for Whites is two times greater than that for Asians. On the contrary, African-American students represented the ethnic group with the lowest binge-drinking frequency, with fewer than five binge drinking episodes per person annually (Garlow et al., 2007). Different researchers have also found that ethnic minority students in a college setting often experience more depression than do ethnic majority students in western countries (Yu, Y & Williams, 1999). However, little is known if there are differences related to one's ethnic identity when it comes to anti-social behaviours and depression among adolescents and young adults undergraduate students in Malawi.

2.6 Theoretical Framework

Icek Ajzen (1991) theory of planned behavior (TPB) provides a framework for studying the relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adult undergraduate students. He proposed that there are three beliefs that are predictive of the individual's behaviour or behavioural

outcomes. These are: the individual's *attitude* towards the behaviour, the *subjective norm* of the behavior and the individual's *perceived behavioural control* of the behaviour. These behavioural outcomes result into intentional thoughts and then a specific behavior.

Figure 1 shows the detailed explanation of the theory of planned behavior.

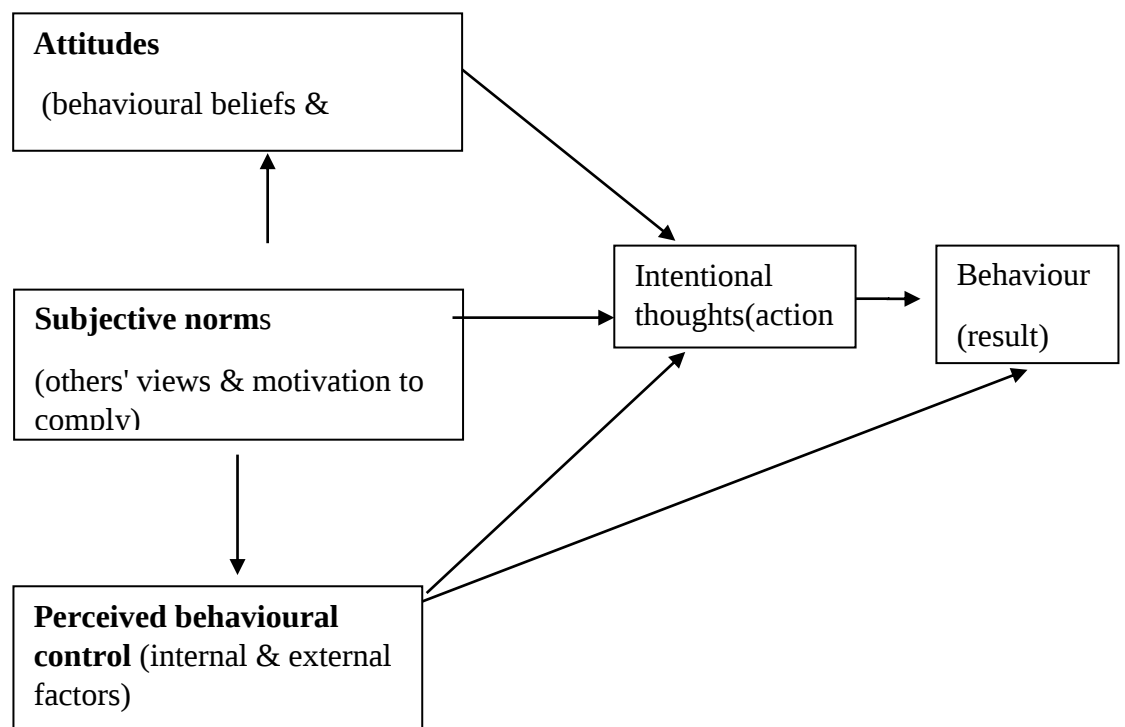


Figure 1: Theory of planed behavior

Source: Azjen, I. (1991) Theory of planned behaviours. *Organisational Behaviour and Human Decision Processes*, 50, p. 179-211

2.6.1 Theoretical application

The theory of planed behavior of planned behaviour by Icek Ajzen (1991) gives a clear explanation on how you can predict the behaviour of a person and the following is the detailed explanation of the theoretical application to the study.

Behaviour; The behaviours in this case is the undergraduate student's experience of depression or use of psychoactive substances.

Intention; In this case these are thoughts about when to use psychoactive substances, which could be secondary to the feelings of depression.

Attitudes; Thus a student's overall evaluation of the behaviour. According to Ajzen (1991) theory of planned behaviour, person's *attitudes* towards something has an impact on the outcome of behaviour. In his theory it is assumed that *attitude* has two components which work together: *beliefs about consequences of the behaviour*, in this case student's cultural belief on the use of psychoactive substances and *the corresponding positive or negative judgements about the features of the behaviour*, in this case, the student's evaluation on the importance of use of psychoactive substances as a way managing depression has an impact on use of substances. Therefore, based on this theory. The student's behaviour of using psychoactive substances is based on their attitudes towards the substances use.

Subjective norms; Ajzen (1991) defines *Subjective norms* as one's own estimate of the social pressure to perform or not perform the target behaviour. In his theory he assumed that *Subjective norms* has two components that work in interaction: *the person's beliefs about how other people who may be in some way important to them, would like them to behave*, in this case student's peer expectations to use psychoactive substances. *The person's view of himself/herself affects his/her perceptions*. In this case student's perceptions of using psychoactive substances affects the act of use the substances. For example, the student's feelings of depression can make him/her perceive that the best way of managing depression is use of psychoactive substances.

Perceived behavioural control; is the extent to which a person feels able to enact the behaviour (Ajzen, 1991). According to Ajzen (1991) theory of planned behaviour, a person's belief of *Perceived behavioural control* has a role on to what extent does he/she responds to a certain behaviour. In his theory it is assumed that *Perceived behavioural control* has two aspects which work together; *how much power a person has control over the behaviour*, in this case, to what extent does a student have a control over use of psychoactive substances when his/her friends tell him/her to use the substances; and *how confident a person feels about being able to perform or not perform the behaviour*. In this case the student's ability to make a decision whether to use psychoactive substances or not. It is determined by control beliefs that has powers to say no to friends who want him/her to decide to use of psychoactive substances. Therefore, according to this this theory. The student's beliefs of *Perceived behavioural control* has a role in decision making process of using substances in order to avoid peer influence.

In conclusion, it was therefore necessary to use the Theory of Planned Behaviour in order to predict the undergraduate student's behaviour as it takes into account of the individual's belief, motivational intentions, and environmental factors in their capability to achieve the desired outcome in social context.

2.7 Chapter summary

The chapter has discussed literature related to concept of prevalence of depression among undergraduate adolescent and young adult students, prevalence of anti-social behaviours among adolescent and young adult undergraduate students, it looked at differences related to one's ethnic identity when it comes to anti-social behaviours and depression among adolescents and young adult undergraduate students. Finally, Ajzen's theory of planned behaviour was also presented. The next chapter presents the research methodology and design on how the data was generated among study participants.

Chapter 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Chapter overview

This chapter discusses the research design, study methodology, study population, setting, sampling techniques and size, data generation and analysis tools as well as the ethical considerations. Finally, issues of delimitations were considered.

3.2 Mixed Methods Designs

The study used mixed methodology. Both quantitative and qualitative research methods were employed in data generation and analysis. The research design was selected based on the research questions of the study which required different data generation strategies which happen to fall under different research methods. Use of mixed methodology also allows triangulation and converging of findings. It also supports with elaborating the results, discovering the contradiction or paradox, as well as extending the breadth of the inquiry (Creswell, 2003). Recently, different researchers have been observed using designs that combine quantitative and qualitative methods, referred to as mixed-method (MacMillan, 2004). Both qualitative and quantitative approaches to data generation, analysis and reporting are employed together in one study (Creswell, 2009). According to MacMillan (2004) in triangulation, both qualitative and quantitative data are generated almost simultaneously to take advantage of strengths of either method and at the same time offset the weaknesses of the other. Based on MacMillan's description, this study triangulated the findings and all study participants were deemed to be rich with information. Quantitative and qualitative methods were used sequentially, taking into

account of advantages of the triangulation design ensuring that issues identified through the quantitative data analysis were triangulated using the qualitative data analysis.

3.3 Description of the Study Setting of a constituent college of the University of

Malawi.

The University of Malawi (UNIMA) is the biggest public University in Malawi. It comprises of four constituent colleges that offer different professional programmes and these include; Chancellor College (Chanco) which is the largest of all, The Malawi Polytechnic, College of Medicine and Kamuzu College of Nursing (Chimombo, 2003). Chancellor College was established in 1964. It is located in Zomba, Malawi. It comprises of the following faculties; Humanities, Law, Education, Science, and Social Science (Chanco records, 2016). Undergraduate students were studied in their natural setting because a natural study setting does not manipulate the environment as a result the subjects are free and flexible to give accurate information (Burns & Grove, 2005). The place was also chosen because it was where the larger numbers of relevant subjects were found as the college had a total of 2507 adolescents and young adult undergraduate students in the 2015/2016 academic year.

3.4 Study Population

The student general population enrolled at the constituent college of the University of Malawi in the year 2016, as represented by each faculty is as follows; Education 1020(30.48%), Humanities 811(24.2%), Law 251(22.98%), Science 442(13. %) and Social Science 822(24.57%), (Chanco records, 2016). The target population was

randomly selected from each faculty, hence it was represented as follows; Education (47), Humanities (33), Law (4) Science (21) and Social Science (42).

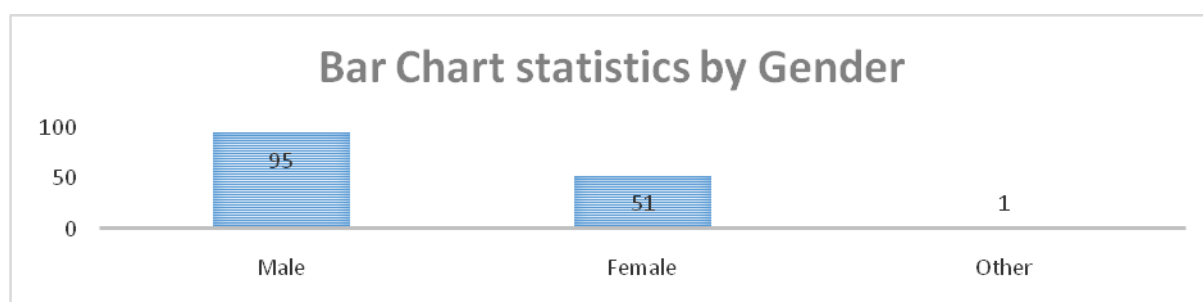
Table 1 shows the details of the number of participants and their percentages.

Table 1: The study participants per faculty

Faculty	Totals	Percentages
Education	47	32
Humanities	33	22.4
Law	4	2.7
Science	21	14
Social Science	42	28.6
Grand Totals	147	100

3.4.1 Gender of the targeted participants

The Gender representation of the study population was as follows; 96 (64.6%) males, 51(34.7%) females, and 1(0.7%) other sexual orientation, respectively. Bar graph 1 shows the details.

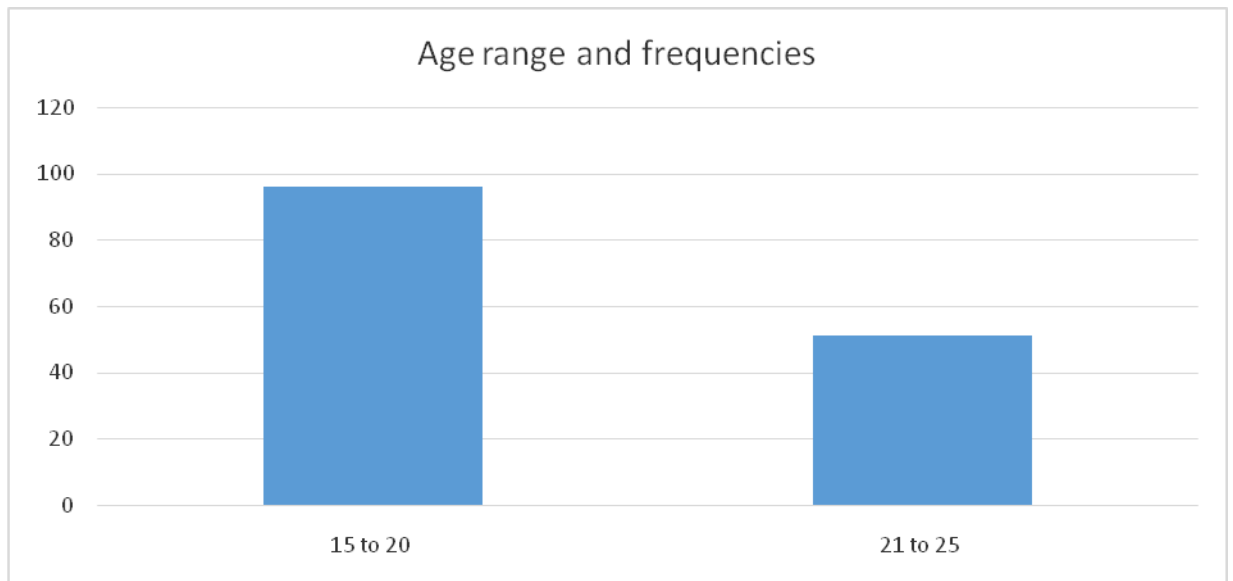


Bar Graph 1: Demographic statistics

The graph shows that they were more male students than female students in campus.

3.4.2 Age of the targeted study participants

The age range of the targeted study participants was from 15 to 25 years and the sub-ranges were as follows; 15 to 20 years were 96(65.3%), and 21 to 25 years were 51(34.7%). Graph 2 shows the details.



Bar graph 2: Age statistics

This bar graph shows that the majority of the study participants were aged between 15 to 20 years.

3.4.3 Academic year, Marital status, Mode of scholarship and Ethnicity

3.4.3.1 Academic year

In terms of academic year, majority participants were year one students 52 (35.4%), followed by year two 50 (34.0%), then year four 28 (19.0%) and finally year three 17 (11.6%).

3.4.3.2 Marital status

Most of the study participants were single 141 (95.9%), while those who were separated 3 (2.0%), and married 3 (2.0%) respectively.

3.4.3.3 Mode of scholarship

Most of the study participants were Government sponsored students 84 (57.1%), and private students were 63 (42.9%).

3.4.3.4 Ethnicity

The ethnic majority of students were from country's major ethnic groups. For example; Chewa 38 (25.9%), Lomwe 23 (15%), Tumbuka 31 (21.1%), Yao 10 (6.8%), Tonga 4 (2.7%), Lambya 3 (2.0%), Ngoni 11 (7.5%), Ngonde 4 (2.7%) and Other 2 (1.4%). The data shows that Chewa students were in majority followed by Tumbuka, the findings are similar to the general population of Malawi, where Chewa is largest ethnic group followed by Lomwe (MDHS, 2010). Hence large representation of the students at the college.

3.5 Sampling technique and sample Size

One constituent college of the University of Malawi was randomly selected from four constituent colleges. Simple random and stratified sampling techniques were used. These sampling methods were chosen in order to select a sample that is likely to be representative while reducing the chances of bias and thus identifying findings that are probably generalisable to target population (Polit & Tetanobeck, 2008). Stratified sampling with different age groups being used as stratifying frames (15 to 20) years, and (21 to 25 years) were used to make sure that different age groups are represented.

Consecutive adolescents and young adults in the different age categories were recruited until the sample size was reached.

The researcher got an overview of the numbers of students at a constituent college of University of Malawi of the study population. As Tellis (1997) warns, researchers not to rely on a single informant, but rather seek the same data from varied sources to substantiate it. In this study, 147 participants were interviewed to ensure that multiple views regarding the topic were elicited. Selection for interviewees was done randomly based on faculties the respondents came from, in order to get certain numbers of representatives from various categories. Consequently, out of the total (147) forty seven came from Education, (4) Law, (21) Science, (33) Humanities and (42) Social Science. Since these participants were from different faculties, their inclusion for the interviews provided bases for “data source triangulation” (Stake, 1995).

3.6 Data Generation and Instrumentation.

The study participants were the 2015 / 2016 undergraduate students attending a constituent College of the University of Malawi. Data was generated using an adapted *Patient Health Questionnaire (PHQ-9)* which is a WHO validated questionnaire and the tool has also been validated for Malawi. Loewe et al. (2003) also found that *Patient Health Questionnaire (PHQ-9)* was a good scale to measure the level of depression of undergraduate student population, hence this study adopted the questionnaire in order to measure the level of depression of the undergraduate students.

The *structured questionnaire* was designed to include demographic details, *PHQ-9* Depression Scale, names of Psychoactive substances that are commonly abused and respondents were asked to tick against appropriate response. In addition, respondents were provided with space where they could describe the reasons why they decided to use psychoactive substances and how the psychoactive substance use affected their academic performance. The study refrained from utilising oral interviews as it has been observed that use of oral interviews can make some respondents become biased and do not to give the exact information due to the interference of the interviewer, hence results become distorted (Semke, 1984). Hence, the researcher and three enumerators distributed study questionnaires randomly to the participants and were self-administered. The responses that were obtained were coded for data analysis and others were appropriately quoted. During pilot study some of demographic questions were not clear to study participants hence, the researcher modified the study questions in a way that it was clear for study participants.

3.6.1 Interpretation of depression scores of the patient health questionnaire.

The following are the instructions on how to score Patient Health Questionnaire (PHQ-9) for depression among the study participants. It is a World Health Organization (WHO) validated questionnaire that has been used in different studies to diagnose depression among University students. To score the instrument, one has to know the values of the numbers for example 0 = **not at all**, 1 = **several days**, 2 = **more than half the days**, and 3 = **nearly every day**. The scorer has to add the numbers together to make a total the score on the bottom of the questionnaire.

The table below shows the detailed interpretation of depression.

Table 2: interpretation of depression

Score	Recommended action
0-4	Normal range or full remission. The score suggests the participant may not need any depression treatment.
5-9	Minimal/Mild depression. The score suggests the participant may need Support, education, counselling, call if worse, return in 1 month for clinic review.
10-14	Major depression, mild severity. The score suggests the participant may need treatment, based on client's duration of symptoms and functional impairment. Treat with antidepressant or counselling.
15-19	Major depression, moderate severity. The score suggests the participant needs treatment for depression, using antidepressant, counselling or a combination of treatment.
20 or higher	Major depression, severe severity. The score suggests the participant needs treatment with antidepressant and counselling, especially if not improved on one treatment; follow up frequently.

Source: Loewe, B., Kroenke, K., Herzog, W. & K. Gräfe, K. (2003) *Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9)*

3.6.1.1 Functional Assessment

The instrument also includes a functional health assessment. This asks the student on how emotional difficulties or problems impact academic work, things at home/hostels, or relationships with other people. Student responses can be one of four: *Not difficult at all*, *Somewhat difficult*, *Very difficult*, and *Extremely difficult*. The last two responses suggest that the student's functionality is impaired. After treatment begins, functional status and number score can be measured to assess student improvement.

Patient Health Questionnaire (PHQ-9) for Depression.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Table 3: Patient Health Questionnaire (PHQ-9) for Depression

Statement	1) Not at all	2) Several days(<7)	3) More than half days(>7)	4) Nearly every day(14)
	0	1	2	3
A) Little interest or pleasure in doing things				
B) Feeling down, depressed, or Hopeless				
C) Trouble falling/staying asleep, or sleeping too much				
D) Feeling tired or having little Energy				
E) Poor appetite or overeating				
F) Feeling bad about yourself, or that you are a failure, or have let yourself or your family down				
G) Trouble in concentrating on things such as newspaper or watching TV& video				
H) Moving or speaking so slowly that other people have noticed or the opposite; being so fidgety or restless that you have been moving around more than usual				
I) Thoughts that you better off dead or hurting in some way.				

Source: Löwe, B., Kroenke, K., Herzog, W. & K. Gräfe, K. (2003) *Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9).*

3.6.2 Pilot study

Pilot studies are important to prevent mistakes and ambiguities in question layout and construction, which could have been overlooked during the designing of the questionnaires (French, Reynolds & Swain, 2001). These scholars stress the need for piloting the instruments with a small sample of participants in order to identify issues that the researcher can easily miss. It is out of this view, that the research instrument was piloted. This pilot study helped to improve the research tool as demographic data were changed on the tool so that it was clear to the study samples. A pilot study was done among Chancellor College students to correct unclear and confusing questions before using it in a targeted sample and 10 subjects were piloted. The results showed that out 10 participants who were interviewed 4 were not aware of what cannabis is hence the questionnaire was edited to *Cannabis/Marijuana* so that the study participants should have problems in understanding the question.

This was to ensure the accuracy and consistence of the tools.

3.6.3 Inclusion Criteria

Only undergraduate students aged between 15 - 25 years were targeted because were relevant and could manage to give consent.

3.6.4 Exclusion Criteria

All those undergraduate students aged less than 15 years and those aged more than 25 years were excluded.

3.6.5 Data Processing and Analysis

In this study, quantitative data analysis was proceeded by the qualitative data analysis procedure. However, these two analyses were done independently of each other but

interpretation was not as the quantitative analysis inform the qualitative analysis and conversely, the quantitative analysis elaborated on the qualitative analysis thereby providing further insights and points for triangulation (Cresswell, 2009; McMillan, 2004; Rus-eft & Preskill, 2001). Descriptive summaries of quantitative data obtained through the research instrument was made using means and was represented graphically and relevant data tabulations. SPSSv20 and Excel were used to run the frequencies, cross tabulations and the associated means. The researcher had little knowledge of the Excel package and had to enroll a short course on Excel package so that could easily present research findings using excel. While qualitative data was analysed based on phenomenological approach. The data was coded, examined and categorised based on the content and themes that were coming out the participants in order to get a big picture of the views of the study participants and to note the differences and similarities of the responses and a conclusion was made out of what was coming out of the respondents as guide by the theory of planned behaviour.

3.7 Ethical considerations

The study proposal was presented and submitted to University Research and Publications Ethical Committee for approval. After proposal approval, the researcher wrote a letter to the College Registrar to ask for permission for the study. After permission was granted, then the informed consent was sought from each participating subject. Adequate information was given to the subject about the research. After agreeing to participate in the study, subjects were enrolled. However, subjects were at liberty whether to participate or not in the study. Issues of confidentiality and privacy were observed as no names were indicated on the questionnaires. Codes were used for identification of the instrument. Potential risks

and benefits were explained to the study participants. The participants were informed of their right to withdraw at any time during the study.

3.8 Delimitation of the study

The study was only conducted at one constituent college of University of Malawi. Despite the fact that the study was done at one constituent college of the university of Malawi, results can be generalized to other constituent colleges of the University of Malawi and public universities as well as private universities. However, this study provides insights to the relevant stakeholders to have an insight on the implications of depression and anti-social behaviours among undergraduate students.

3.9 Chapter summary

The overall approach for this study was mixed method research design. It drew its attention to study population, setting, sampling techniques and size, data generation and analysis tools as well as the ethical consideration. Finally, issues of delimitations were considered. The next chapter will present a discussion of findings.

Chapter 4

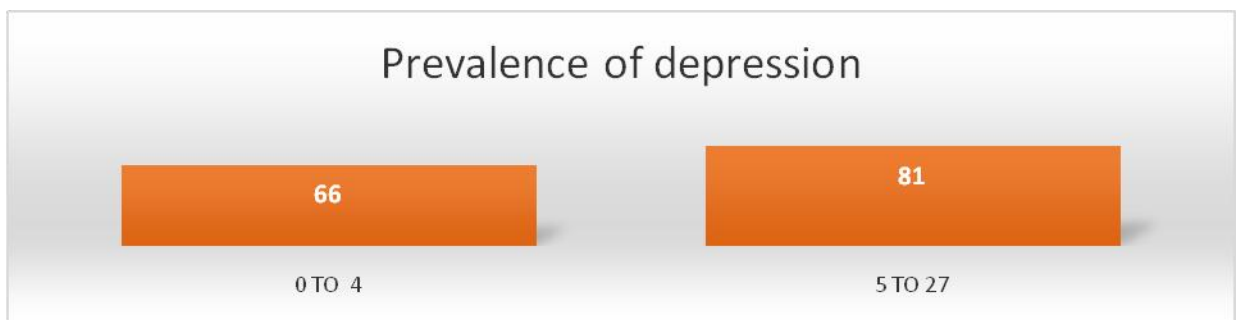
DISCUSSION OF FINDINGS

4.1 Chapter overview

This chapter discusses the research findings based on the research questions that were highlighted in chapter one. The specific questions have been responded to under the following sub-headings: prevalence of depression among undergraduate adolescent and young adult students, prevalence of anti-social behaviours, ethnicity and prevalence of depression. While discussing different study themes, different studies that either support or disagree with the findings will be included.

4.2 Prevalence of depression and associated factors of age, gender, ethnic group and anti-social behaviours.

The presentation and interpretation of the findings in this section are grounded on prevalence of depression, age, gender, ethnic group and ante-social behaviours. This study showed that 81 (55%) of the participants had depression while 66 (45%) did not have depression. Bar graph 3 shows the details.

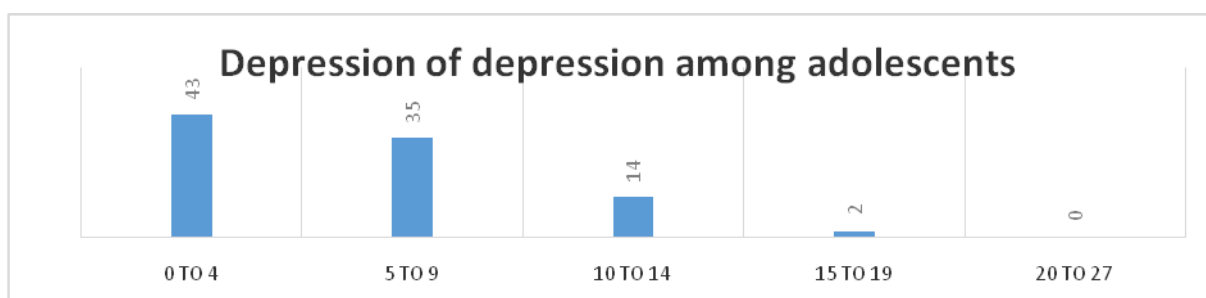


Bar Graph 2: The general Prevalence of depression among study participants.

The bar chart basically shows that majority of study participants 81(55%) had depression as they scored between 5 to 27 while 66 (45%) had no depression as they scored within normal range of 0 to 4. However, a similar study that was done in Malaysia among university students found a lower prevalence of depression of 37% among adolescents and young adults aged between 15 to 25 years (Shamsuddin et al., 2013). The difference in findings could be due to differences in social contexts.

4.3 Prevalence of depression among adolescents (15 to 20) years.

The analysis of study findings revealed that out of 94 adolescent participants 51 (54.3%) participants aged between 15 to 20 years had depression whilst 43 (45.7%) had no depression. Bar graph 4 shows the details.



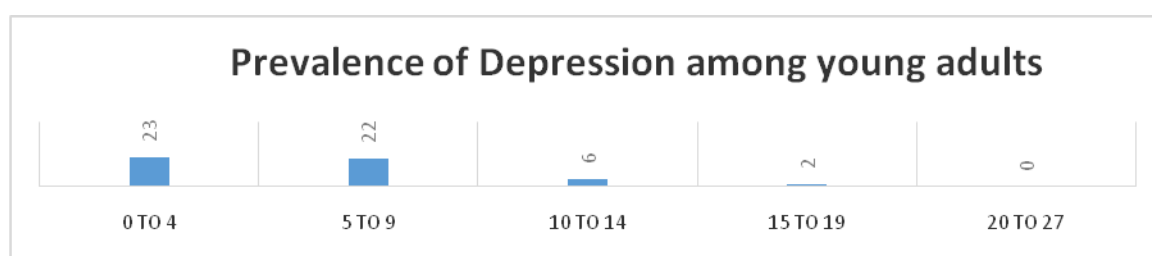
Bar Graph 3: Prevalence of depression among adolescents

Bar graph 4 summarizes the outcomes of adolescent participants that 54.3% scored between 5 – 27. This implies that they had depression which ranged from mild to major depression while 45.7% had no depression because they scored within normal range of 0 - 4. The study results are similar to findings that Kohler., et al. (2015) established, that there is high prevalence of depression of 52% among mature rural Malawian women aged 45 and above.

4.4 The prevalence of depression among young adult (21 to 25) years.

The young adult findings show that out of the 53 participants, (30) 56.6% had depression while (23) 43.4% had no depression.

Bar graph 5 shows the details.



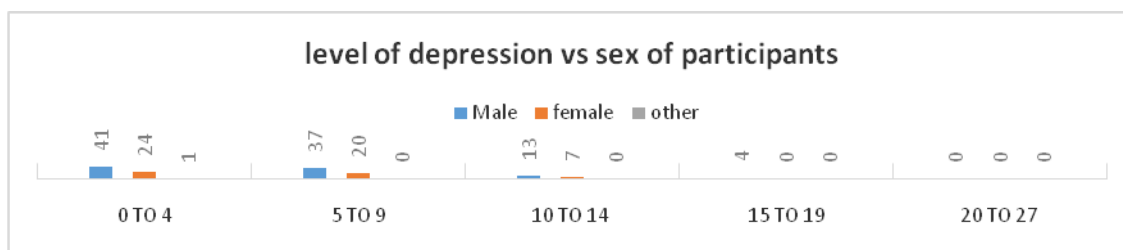
Bar Graph 4: Prevalence of depression among young adults

Bar graph 5 that out of the 53 participants, 56.6% had depression because they scored between 5 – 27, which ranged from mild to major depression. While 43.4% had no depression as they scored between 0-4 which is a normal level of depression scale. This means the prevalence of depression among young adults was high, because the scores were more than half of the young adult's study population. Contrastingly, Stewart et al. (2008) found 30% prevalence of depression among young mothers attending postnatal clinics in rural Malawi.

4.4.1 The prevalence of depression by gender.

Gender was noted as a factor that had an influence on prevalence of depression as male study participants had higher percentage of depression of 56.8% while female study participants had a lower percentage of depression of 52.9% and Other sexual orientation 1 (100%) had no depression.

Bar graph 6 shows the details.



Bar Graph 6: Prevalence of depression by gender.

According to bar graph 6, there is high prevalence of depression among male study participants as 56.8%(54) had depression and 43.2%(41) males had no depression. While female study participants about 52.9%(27) of them had depression and 47.1%(24) females had no depression. Other sexual orientation1 (100%) had no depression. Therefore, the male participants had higher prevalence of depression by 3.9% over female participants. However, the study findings were not similar to what was found in a study done in Pakistan among pharmacy undergraduate students which showed a prevalence of depression in the male and female students of 59.49% and 64% respectively (Abbaset al., 2015). As in Pakistani's study the prevalence of depression was high among female participants as compared to male counterparts, while in this Malawian study results demonstrated that the prevalence of depression is high among male participants as compared to female counterparts.

4.5 The prevalence of anti-social behaviours (use of psychoactive substances).

Use of psychoactive substances was observed among undergraduate students. The study found (50) 34% of participants were using psychoactive substances whereas (97) 66% of the study participants were not using psychoactive substances.

Table 3 shows the details.

Table 3: Prevalence of participants that used psychoactive substances

Substance use (response)	Frequency	Percentage
Yes	50	34.0
No	97	66.0
Total	174	100.0

Table 3 shows 34% of participants were using psychoactive substances while 66% of participants were not using psychoactive substances. This means that a high percentage of participants were not using psychoactive substances than those who were using substances. This is a little bit similar with what Hingson et al. (2002) study found, they discovered a high percentage of psychoactive substances use of 45% among adolescents and young adult undergraduate students in different universities.

4.5.1 The use of psychoactive substance and depression.

The study showed that 35 (24%) of participants who were using psychoactive substances had depression and 15 (10%) of participants who were also using psychoactive substances had no depression while 59 (40%) of participants who were

not using psychoactive substances had depression and 38 (26%) participants who were not using psychoactive substances and had no depression.

Table 4 shows the details.

Table 4: Use of psychoactive substances by participant and prevalence of depression.

Substance use with depression	Substance use without depression	No substance use with depression	No substance use and no depression
35 (24%)	15(10%)	59(40%)	38(26%)

The results in Table 4 show a lower percentage of 24% of participants who used psychoactive substances had depression and 10% of the participants used psychoactive substances did not have depression. While 40 % of participants were not using psychoactive substances had depression, 26% participants were not using psychoactive substances and did not have depression. This means that participants had other means coping with depression apart from using psychoactive substances.

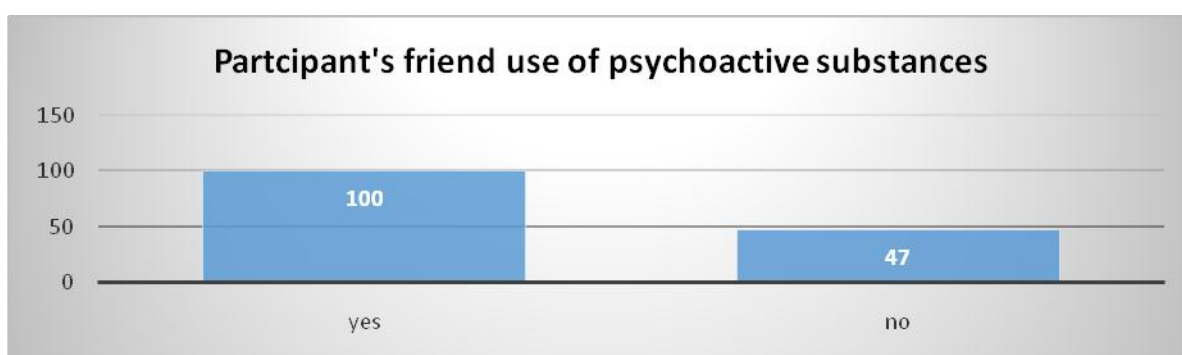
According to Ajzen (1991), theory of planned behaviour, person's *attitudes* towards something has an impact on the outcome of behaviour. In his theory, it is assumed that *attitude* has two components which work together: *beliefs about consequences of the behaviour*, in this case student's cultural belief on the use of psychoactive substances could have affected use of psychoactive substances and not necessarily the depression itself and *the corresponding positive or negative judgements about the features of the behaviour*, In this case, the student's evaluation on the importance of use of psychoactive substances as a way managing depression had an impact on use

of substances. Therefore, based on this theory, the student's behaviour of using psychoactive substances is based on their attitudes towards the substances use.

4.5.2 Regarding friends using psychoactive substances.

The study revealed that 100 (68%) participants had friends who were using psychoactive substances while 47 (31.97%) of participants did not have friends who were using the psychoactive substances.

Bar chart 8 shows the details.



Bar Graph 5: Participant's friends using psychoactive substances.

Bar chart 8 shows that 100 participants had friends who were using psychoactive substances while 47 participants had friends who were not using the psychoactive substances. This means that study participants had more friends who were using psychoactive substances.

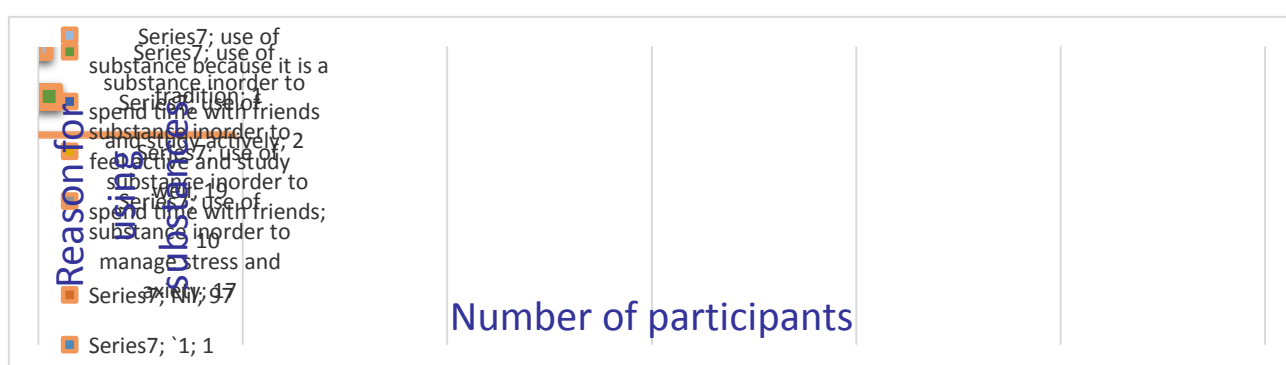
According to Ajzen (1991) theory of planned behaviour, a person's belief of *Perceived behavioural control* has a role on to what extent does he/she responds to a certain behaviour. In his theory, it is assumed that *Perceived behavioural control* has two aspects which work together; *how much a person has control over the behaviour*.

In this case, to what extent does a student has control over use of psychoactive substances when his/her friends tell him/her to use the substances.

The study participants could have been influenced by their friends to use psychoactive substances due to lack of peer pressure; and *how confident a person feels about being able to perform or not perform the behaviour*. In this case, the student's ability to make a decision whether to use psychoactive substances or not. It is determined by control beliefs and feelings that the student has powers to say no to friends who want him/her to decide to use psychoactive substances. Therefore, according to this theory, the student's beliefs of *Perceived behavioural control* has a role in decision-making process of using substances in order to avoid peer influence.

4.5.3 Reason for using psychoactive substances

This study revealed that there are different reasons why college undergraduate students use psychoactive substances. Bar chart 9 shows the details.



Bar Graph 6: participant's Reason for using psychoactive substances.

The bar chart shows that 97 (66%) which is majority of participants had no reason to use the psychoactive substances, seconded by 19 (12.9%) participants who were using psychoactive substances in order to feel active and study well, then 17 (11.6%) were

using psychoactive substances because they wanted to manage stress and anxiety, 10 (6.8%) participants said that they were using psychoactive substances because they wanted to spend time with friends, using psychoactive substances because they wanted to manage stress and anxiety. Two (1.4%) participants said that they were using psychoactive substances because they wanted to spend time with friends and study actively, one (0.7%) participant said that they were using psychoactive substances because it is their cultural tradition, and one (0.7%) participant was not sure why he/she was using psychoactive substances.

Some of the written responses that were so touching were like; First participant *"I use the psychoactive substances in order to relieve myself from my stress and anxiety"*. Second participant *"Somehow, the substances have affected my interaction with other people and academic performance. I have a lot of friends now, but my performance is not good"*. Third participant *"I use coffee in order to stay awake and study so that I get a very good grade. However, drinking coffee doesn't have any effect with my interactions with other people, that is as far as I can notice"*. Fourth participant *"When I use psychoactive substances I sleep a less than I used to prior to this exam period"*.

The participant's responses can be well understood using Ajzen (1991) theory of planned behavior, about person's *Subjective norms*. Ajzen (1991) defines *Subjective norms* as one's own estimate of the social pressure to perform or not perform the target behaviour. In his theory he assumed that *Subjective norms* has two components that work in interaction. One, *the person's beliefs about how other people who may be in some way important to them, would like them to behave*. In this case, student's peer

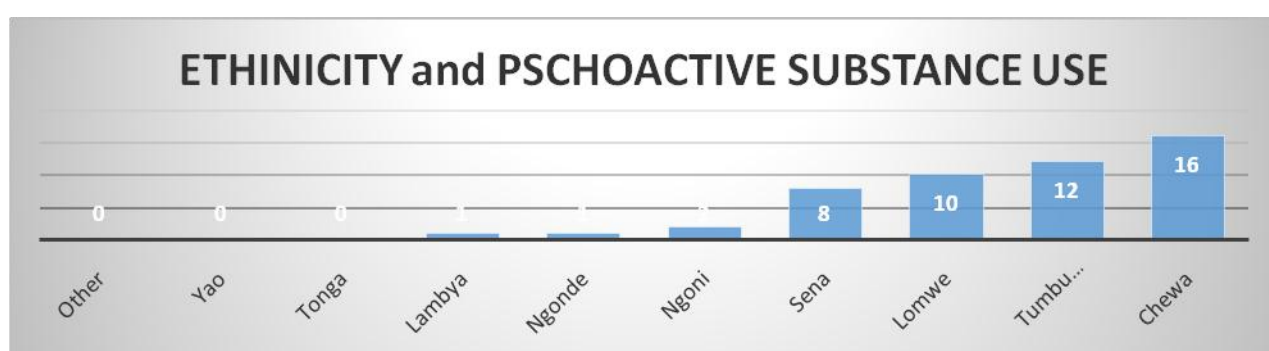
expectations to use psychoactive substances affected them on whether to use psychoactive substances or not. Two, *the person's view of himself/herself affects his/her perceptions*. In this case, student's perceptions of using psychoactive substances affects the act of use the substances. For example, the student's feelings of depression can make him/her perceive that the best way of managing depression is use of substances. Therefore, from the participant's responses: Ajzen (1991) theory of planned behaviour clearly helps to explain the student's reasons for using psychoactive substances.

4.6 Ethnicity, anti-social behaviours and prevalence of depression.

4.6.1 Ethnicity and Anti-social behaviours

The study revealed the following results of substance use based on ethnicity; Chewa 16 (32%), Tumbuka 12 (24%), Lomwe 10 (20%), Sena 8 (16%), Ngoni 2 (4%), Lambya (2%) and Ngonde 1 (2%). However, other ethnic groups like Yao, Tonga and Others did not use alcohol.

Bar chart 10 shows the details.



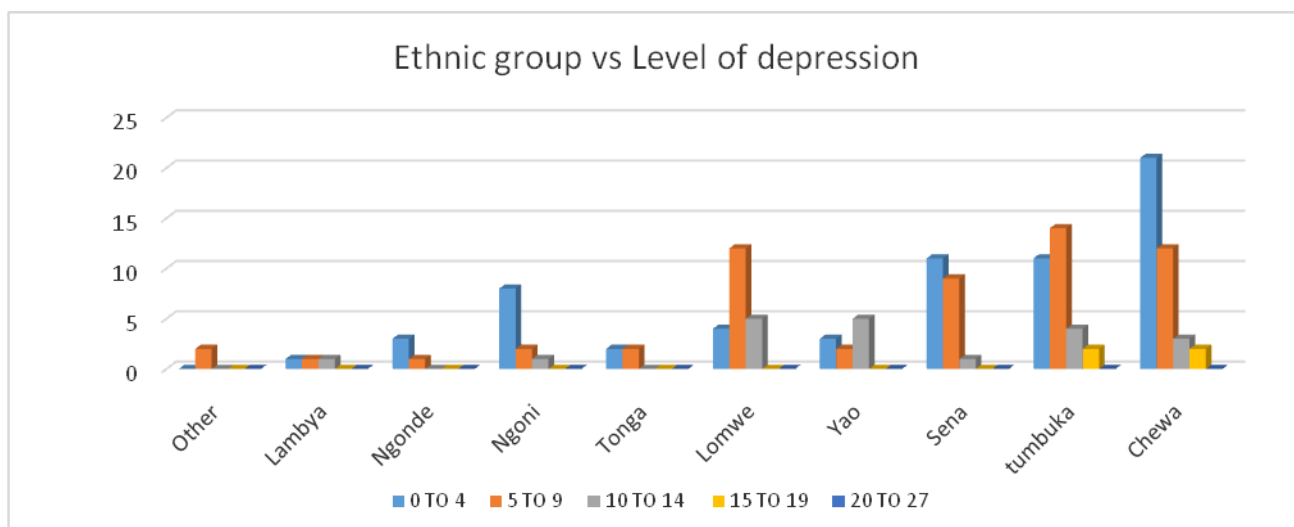
Bar Graph 7: Ethnicity and Anti-social behaviours

According to Ajzen (1988), theory of planned behaviour, person's *attitudes* towards something has an impact on the outcome of behaviour. In his theory, it is assumed that *attitude* has two components which work together: One, *beliefs about consequences of the behaviour*. In this case, student's own cultural belief on the use of psychoactive substances has an impact on substance use because if it is culturally good to use psychoactive substances. Therefore, one finds no reason to excuse himself/herself from using psychoactive substances. Two, the *corresponding positive or negative judgements about the features of the behaviour*. In this case, the student can make own evaluation not to use of psychoactive substances as a way managing depression disregarding the cultural background. The majority of the study participants were not using psychoactive substances. Therefore, based on Ajzen's (1991) theory, student's ethnic background can influence attitudes of using psychoactive substances and not necessarily being a personal decision to use substances. Students on their own as well can make judgements not to use psychoactive substances despite their culture reinforcing psychoactive substance abuse behaviour.

4.6.2 Ethnicity and prevalence of depression.

The study found that prevalence of depression among study participants varies from one ethnic group to another. For example; **Sena**-10-14%, **Ngonde**-1-25%, **Ngoni**-3-27%, **Chewa**-17-45%, **Tonga**-2-50%, **Yao**-7-52%, **Tumbuka**-20-66%, **Lambya**-2-67%, and **Lomwe**-17-74%.

Bar chart 11 shows the details.



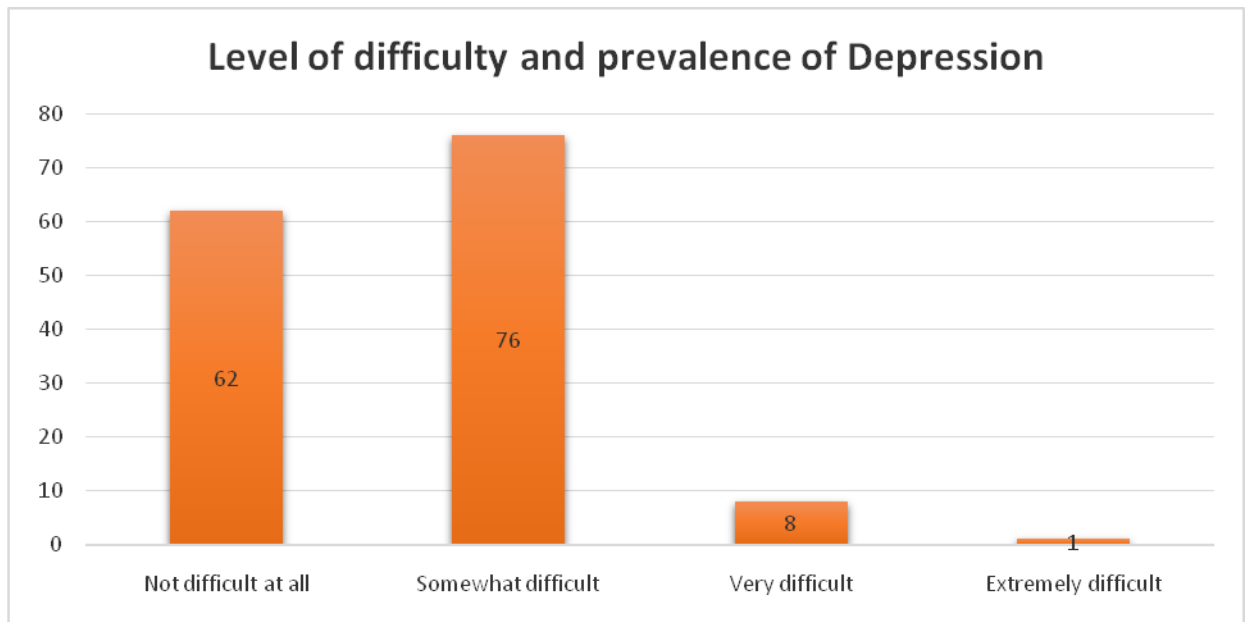
Bar Graph 8: Ethnicity and prevalence of depression.

Generally, the graph shows that smaller ethnic group have lower prevalence of depression than the larger ethnic groups. This is not similar to what other researchers found, that ethnic minority students in a college setting often experience more depression than do ethnic majority students in western countries (Hwang et al., 1997).

4.6.3 Level of difficulty of function as a result of depression

The study showed that 138 (93.9%) of students had their functionality stable while 9 (6.12%) of students had their functionality impaired emotionally.

Bar chart 12 shows the details.



Bar Graph 9: Level of difficulty of function as a result of depression.

Bar graph 12 shows that 62 (42.2%) had no difficulties at all to do their academic work, 76 (51.7%) had Somewhat difficulties, 8 (5.44%) had very difficult emotional problems and 1 (0.68%) had extremely difficulties with emotional problems. This means majority of participants had their functionality stable while few participants had their functionality impaired emotionally, which needed treatment either with antidepressants or counselling and or combined. Depression is a mental health problem, which not only influences the overall health of the individual but also affects social aspects too (Abass et al., 2015). Due to depression, students that have emotional difficulties or problems to concentrate in academic work, to do things at home/hostels, and/or relationships with other people.

4.7 Chapter Summary

This study involved 147 participants; 94 were adolescents and 53 young adults. It revealed that 55% of the study participants had depression while 45% did not have depression. The study also found that out of 94 adolescent participants 54.3% of the participants had depression whilst 45.7% had no depression. Almost 57% of participants had depression, while roughly 43% had no depression. The study further, found that 34% of participants were using psychoactive substances whereas 66% of the study participants were not using psychoactive substances. The findings of this study clearly revealed that there was high prevalence of depression in males (approximately 57%) participants than female (almost 52.9%). However, all the Other sexual orientation, had no depression. In terms of ethnicity and psychoactive substance abuse the following were the findings; Other- 0%, Chewa-16 (32%), Tumbuka 12 (24%), Lomwe 10 (20%), Sena 8 (16%), Ngoni 2 (4%), Lambya 1 (2%) and Ngonde 1 (2%). The next chapter, presents the conclusions and implication of the study.

Chapter 5

CONCLUSIONS AND IMPLICATIONS

5.1 Chapter overview

This chapter presents the conclusions and implications of the study.

5.2 Conclusions

The purpose of the study was to explore the relationship between depression and anti-social behaviours among diverse ethnic undergraduate students. The study was guided by three research questions and these were: What is the prevalence of depression among undergraduate adolescent and young adult students? What is the prevalence of anti-social behaviours among adolescent and young adult undergraduate students? And is there any difference related to one's ethnic identity when it comes to anti-social behaviours and depression among adolescent and young adult undergraduate students?

The study revealed that most of students had depression, as (55%) of the study participants had depression and (34%) of the study participants were using psychoactive substances. The most abused psychoactive substances were coffee, cannabis and alcohol. The study also found that there was no direct correlation between depression and use of psychoactive substances as 24% of participants who were using psychoactive substances had depression while 10% of participants were using psychoactive substances had no depression. Pertaining to ethnicity, the ethnic majority students (53.6%) experience more depression than ethnic minority students (46.34%).

5.2 STUDY IMPLICATIONS

The study revealed that most of students had depression and were using psychoactive substances. The most abused psychoactive substances were coffee, cannabis and alcohol. Therefore, government of Malawi has to formulate a policy that should include counseling services in education institutions and an appropriate learner counselling service referral systems in Malawi. While the University of Malawi has to establish a counselling clinic at the college, where students should be able to access counselling services and lecturers should be trained on how to identify symptoms of depression among students so that they can refer them appropriately. The study also found that there was no direct correlation between depression and use of psychoactive substances. As 24% of participants who were using psychoactive substances had depression, and 10% of participants were using psychoactive substances but had no depression. Hence, the study has added knowledge to the Malawian literature as it has revealed that undergraduate students can suffer from depression and use psychoactive substances like any other person. Therefore, issues of counseling should not only concentrate in hospitals for patients seeking medical help, but also in the institutions of higher education so that students can also benefit.

The study also revealed that ethnic majority students (53.6%) experience more depression than ethnic minority students (46.34%). Therefore, mental health problems like depression and psychoactive substance use can affect any one regardless of ethnicity. The university should encourage students from ethnic majority to go for counselling services as the prevalence of depression has shown be high among them.

Scholars/researchers have to do a similar study in secondary schools and primary schools as this study focused in higher learning institution. The study has shown that depression is high among students. However, some participants were not using psychoactive substances as a means of coping with depression hence they had other means of coping with depression, it is therefore imperative to do a similar study to find other coping measures of depression like religious beliefs.

Based on these research findings and implications, it is therefore imperative that the office Dean of students has to encourage students to go for counselling services. Students have to be taught symptoms of depression so that they can know and seek help early in order to prevent them from use of psychoactive substances as coping mechanisms for depression. Finally, parents should be taught how to detect early symptoms of depression in their children and refer them appropriately.

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APPENDICES

Appendix 1: Letter of Introduction from Chancellor College



CHANCELLOR COLLEGE

Principal: Richard Tambulasi,
B.A. (Pub Admin), BPA (Hon), MPA, Ph.D

P. O. Box 280, Zomba, MALAWI
Tel: (265) 01 524 222
Telex: 44742 CHANCOL MI
Fax: (265) 01 524 046

Our Ref.: EDF/6/19
Your Ref.:

9th November 2016

TO WHOM IT MAY CONCERN

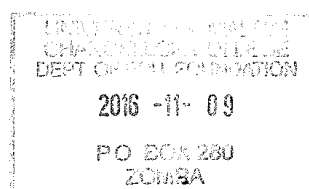
INTRODUCTORY LETTER FOR MASTER OF EDUCATION (EDUCATIONAL PSYCHOLOGY)

Mr. John Kuyokwa (MED/PSY/13/15) is a student of Education in the Department of Education Foundations at Chancellor College, University of Malawi.

Mr. Kuyokwa is working on his research project, "***The Relationship Between Antisocial Behaviour and Depression Among Diverse Ethnic Adolescents and Young Adults.***" This is meant to be a request to your institution or organization to assist our student in his endeavor to collect data.

Thank you

Symon E. Chiziwa, PhD
Head, Education Foundations Department



Appendix 2: Request of approval conduct a research study at Chancellor College.

The University of Malawi
Chancellor College
P.O. Box 280
Zomba.
10/11/2016

The Registrar
Chancellor College
P.O. Box 280.
Zomba.

Dear sir/madam,

REQUEST OF APPROVAL CONDUCT A RESEARCH STUDY AT CHANCELLOR COLLEGE.

I am a student pursuing a Master's degree in Educational Psychology at Chancellor College. Am intending to conduct a research study. This letter, therefore serves as a request to ask for a permission from your office to conduct the study at your campus. My study topic is *“the relationship between anti-social behaviours and depression among diverse ethnic adolescents and young adults undergraduate students. A descriptive study of a constituent college of University of Malawi - Chancellor College.”*

The subjects of the study will comprise of undergraduate students age between 15-25 years. A questionnaire will be used for data collection. This study will help policy makers and other relevant stakeholders in understanding how depression affects student's anti-social behaviours in different campuses and thus help in developing specific interventions that will help students to have good mental health. I will be grateful if you consider my request at your earliest convenient time.

Your favourable considerations will be highly appreciated.

Yours faithfully,

John Kuyokwa

Appendix 3: Consent form for students

University of Malawi,
Chancellor College
P.O. Box, 280.
Zomba.

Dear participants,

My name is John M Kuyokwa, Master of Education (Psychology) student at Chancellor College. Am intending to conduct a research study. The title of my study is *“The relationship between antisocial behaviours and depression among diverse ethnic adolescents and young adult undergraduate students. A descriptive study of a constituent college of University of Malawi, Chancellor College”*.

Your participation is voluntary and you are free to reject or withdraw from at any point of the study. By participating in this study, you are requested to allow us measure your depression levels and antisocial behaviours. The measurements to be performed on your depression levels and anti-social behaviours are not harmful procedures. The researcher understands and acknowledges the sensitivity of sharing health related information, therefore assures you of privacy and confidentiality. Your results or other information related to your health will not be shared to anyone except the research supervisors where there is need in order to maintain confidentiality.

There are no direct monetary benefits as a result of your participation in the study, but the results will be disseminated for the benefit of the public, educators, health personnel and the policy makers to identify ways of improving mental health services by incorporating the counselling component in education institutions.

By giving an informed consent to participate in the study, you are requested to sign this consent form.

Dear researcher, I hereby give consent to participate in the study and I have fully understood the above information.

Student's
signature.....Date.....

Researcher's
signature.....Date.....

Appendix 4: Sample questionnaire

DATE: ____ / ____ / 2016

QUESTIONNAIRE NO: ____

INSTRUCTIONS:

1. Please fill in the blank spaces and tick appropriate answer of your choice wherever possible
2. Please do not write your name on the questionnaire.
3. Please return a completed questionnaire to an appropriate person

SECTION A

a. Sex: 1 Male ☐ female ☐ 3 other _____ ☐

b. Ethnic : 1 Lomwe ☐ 2 Chewa ☐ 3 Tumbuka ☐ 4 Yao ☐ 5 Tonga ☐

6 Lambya ☐ 7 Sena ☐ Ngoni ☐ 9 Ngonde ☐ 10 Others _____ ☐

c. Age: 1) 15 - 17 ☐ 2) 18 - 20 ☐ 3) 21 - 23 ☐ 4) 24 - 25 ☐

d. Marital status 1) Single ☐ 2) Divorc ☐ 3) separated ☐ 4) Married ☐

e. Current year of your studies. 1) Year 1 ☐ 2) Year 2 ☐ 3) Year 3 ☐ 4) year 4 ☐

f. Programme. 1) Edu ☐ 2) BSoc ☐ 3) BA ☐ 4) BSc ☐ 5) Pub ☐ 6) Law ☐

7) Media ☐ 8) political ☐ 9) Family Sc ☐ 10) Social work ☐

g. Mode of scholarship. 1) private ☐ 2) Government ☐

SECTION B

a). Patient Health Questionnaire(PHQ-9) for Depression.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

Statement	1) Not at all	2) Several days(<7)	3) More than half days(>7)	4) Nearly every day(14)
	0	1	2	3
A) little interest or pleasure in doing things				
B) feeling down, depressed, or Hopeless				
C) trouble falling/staying asleep, or sleeping too much				
D) feeling tired or having little Energy				
E) poor appetite or overeating				
F) feeling bad about yourself, or that you are a failure, or have let yourself or your family down				
G)trouble in concentrating on things such as newspaper or watching TV& video				

H) moving or speaking so slowly that other people have noticed or the opposite; being so fidgety or restless that you have been moving around more than usual				
I) thoughts that you better off dead or hurting in some way.				

b). If you ticked off any problem or if you experienced any problem mentioned in question(a) above on this questionnaire so far, how difficult have these problems made it for you to do your academic work, take care of things at hostels/home, or get along with other people?

1) Not difficult at all ☐ 2) Somewhat difficult ☐ 3) very difficult ☐ 4) extremely difficult ☐

TOTAL SCORE _____ /27

SECTION C

PSYCHOACTIVE SUBSTANCES

For the past 2 weeks have you ever been using any of psychoactive substances yes ☐
no ☐

If **yes** tick the following responses and if **no** go to **section D** for your friends

1 Using more than 1 of the above psychoactive substances

2 Alcohol

- a. Chibuku ☐
- b. Ciders ☐
- c. Spirits ☐
- d. Kachasu ☐

3 Cannabis/Marijuana

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

4 Tobacco

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

5 Coffee

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

6 Valium

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

7 Un-prescribed drugs(medications)

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

8 Other psychoactive substances specify; _____

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

SECTION D

Tick if your friends use some of psychoactive substances

1 Alcohol

- | | |
|------------|--------------------------|
| a. Chibuku | ☐ |
| b. Ciders | ☐ |
| c. Spirits | ☐ |
| d. Kachasu | ☐ |

2 Cannabis/Marijuana

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

3 Tobacco

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

4 Coffee

- | | |
|----------------------|--------------------------|
| a. Not at all | ☐ |
| b. Less than usual | ☐ |
| c. The same as usual | ☐ |
| d. More than usual | ☐ |

5 Valium

- a. Not at all ☐
- b. Less than usual ☐
- c. The same as usual ☐
- d. More than usual ☐

6 Un-prescribed drugs(medications)

- a. Not at all ☐
- b. Less than usual ☐
- c. The same as usual ☐
- d. More than usual ☐

7 Other psychoactive substances specify; _____

- a. Not at all ☐
- b. Less than usual ☐
- c. The same as usual ☐
- d. More than usual ☐

SECTION E

1) Over the last 2 weeks, how have you been bothered by any of the following problems?

1) fatigue, yes ☐ no ☐ 2) social withdrawal, yes ☐ no ☐ 3) sadness, yes ☐ no ☐

4) difficulties in sleeping, yes ☐ no ☐ 5) eating problems, yes ☐ no ☐ 6) guilt, yes ☐ no ☐ 7) crying, yes ☐ no ☐ and 8) anxiety yes ☐ no ☐

2) a) **Over the last 2 weeks, have you been bothered by an urge to use psychoactive substance like**

1) tobacco, **yes** ☐ **no** ☐ alcohol, **yes** ☐ **no** ☐ 3 cannabis **yes** ☐ **no** ☐

4) Coffee, **yes** ☐ **no** ☐ 5) Valium, **yes** ☐ **no** ☐ 6) take more than
normal of prescribed drugs **yes** ☐ **no** ☐ and or, 7) did you use any other
drug in order to relieve your stress **yes** ☐ **no** ☐

b) **If you ticked off any of the psychoactive substances mentioned in question (a) above;**

what do you think made you to use the psychoactive substance/s and also share
how the use of such drugs affects your interaction with other people and academic
performance.
