

ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIOURAL STUDIES
SCHOOL OF PSYCHOLOGY

**Depression among Addis Ababa University Students Sidist Kilo
Campus: Prevalence, Gender Difference and Other Associated Factors**

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Advisor: Robert Todd Wise (PhD)

March, 2015

ADDIS ABABA, ETHIOPIA

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**A thesis submitted to the School of Psychology of Addis Ababa University in partial
fulfillment of the requirements for the degree of Master of Arts in clinical psychology**

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Approval by Board of Examiners

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Acknowledgement

I would like to express my deepest and heartfelt appreciation to my advisor Dr. Robert Wise for his unreserved efforts to guide and supervise me throughout this study. His kindness, patience and invaluable advices and comments have motivated me on doing research.

A special appreciation is also extended to participants who filled the self-administered questionnaire generously.

Last but not least, my special thanks to my families, and friends for their moral support which have been a tremendous encouragement to me in my study.

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List of Acronyms

AACAP: American Academy of Child and Adolescent Psychiatry

AAU: Addis Ababa University

ACPM: American College of Preventive Medicine

APA: American Psychiatric Association

BDI-II: Beck Depressive Inventory

DSM IV-TR: Diagnostic and Statistical Manual for Psychiatric Disorders 4th edition text
revised.

FMOH: Federal Ministry of Health

NAAAS: National Academy on An Aging Society

NIMH: National Institute of Mental Health

SPSS: Statistical Package for Social Sciences

UK: United Kingdom

USA: United States of America

WHO: World Health Organization

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Abstract

The general objective of this study was to find out depression among Addis Ababa University Sidist Kilo Campus. Quantitative method was employed to achieve the research objective. A sample of 303 respondents was selected by using equal sized stratified sampling technique. A standardized tool (i.e., BDI-II) was administered. Data were analyzed by using percentage, Spearman rank order correlation, Pearson correlation, t-test and logistic regression. The result of this study indicated that the prevalence of depression was 31.7%. Study year was negatively correlated with depression ($r_s = -.274$). Similarly, gender, study year, and family marital status were significantly associated with depression. The result of logistic regression indicated that gender, study year and family marital status were the best predictors of depression. Considering the result of the study, the university communities such as counselors, teachers and administrative staff should take different actions for those students who were at risk for depression like by opening more counseling office, by giving orientations and different trainings for those students when they enter campus.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Problem

Clinical depression is a debilitating and pernicious cluster of symptoms that may persist for a period of weeks, months, or even years. This disorder is associated with significant cognitive, emotional, behavioral, somatic, and social impairments (American Psychiatric Association [APA], 1994). Similarly Ralph (2004) put major depressive disorder or clinical depression as more than just feeling down or having a bad day. He put this disorder as different from the normal feelings of grief that occurs due to death of the family or important person in the life and it is a form of mental illness that affects the entire person. It changes an individual's emotion, cognition and behavior. Depression is a treatable disorder and if this disorder is left untreated in the early age of occurrence, it can lead to different problems like school failure, conduct disorder and delinquency, eating disorders such as anorexia and bulimia, school phobia, panic attacks, substance abuse, or even suicide.

According to Modabber-Nia et al. 2007 (as cited in Yousefi, Mansor, Juhari, Redzuan, and Talib, 2010), depression is grouped as a mild mental disorder and from out of the total population approximately 150 million people all over the world are affected by mental disorders such as depression and anxiety disorders. Similarly Rhoads (2011) described that Major depressive disorder is the leading disorder in the world for adolescents and adults. And 1 out of 8 adolescents has clinical depression.

Even though depression is a common problem all over the world, the prevalence of depression is varies from country to country and culture to culture. So, because of this the prevalence of

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depression is influenced by different socio-demographic factors like culture, gender, age, marital status, economic status, educational status, etc. According to Paykel et al. 2005 (as cited in Bennete, 2006), out of the total population of Europe, about 5 % will be clinically depressed at any time.

According to National Institute of Mental Health [NIMH] 1999 (as cited in National Academy on An Aging Society [NAAAS], 2000), depression is the most severe mental problem among United State population and above 19 million adult individuals are affected by depression. Rhoads (2011) support the above findings and out of the total population of U.S adults, approximately 14.8 million Americans (about 6.7 %) affected by Major Depressive Disorder. Similarly according to APA 2000 and Kessler et al. 2003 (as cited in Rosenberg and Kosslyn, 2011), in United States, major depressive disorder is a very common disorder and out of the total population of Americans, 20 percent can experience this disorder throughout their life. This high rate is related to many factors like modernity or civilization and Schrof and Schultz 1999 (as cited in Rosenberg and Kosslyn, 2011) reported that in 2020 in United State depression will be the second disabling disorder next to heart disease. The other study that was conducted in Mexico with a sample of 22,962 found that 5.2% of respondents had depressive symptoms (Fleiz Bautista et al., 2012)

Even if depression is a universal problem, there is a difference in life time prevalence from country to country. For example, according to Andrade et al. 2003 (as cited in Nolen- Hoeksema, 2001), the life time prevalence of major depression is different in Japan and United States. They revealed that the prevalence rate of depression is 5 times higher in the United States than in Japan (the life time prevalence of depression is 3 % in Japan and in the United States is 16%).

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In Low and Middle Income Countries, depression is the leading cause of mental and physical illness and this disorder account for approximately 10 % of total years lived with disability (Federal Ministry of Health [FMOH], n.d.). In Africa, there are different prevalence rates of depression. A large epidemiological study was conducted between 2002 and 2004 in a total sample of 4351 adults of South African adults by using the World Health organization composite International Diagnostic Interview and found that the prevalence of depression was 9.7% for life time and 4.9% for the 12 months prior to the interview (Tomlison, Grimsrud, Stein, Williams, & Myer, 2009). But the other comparative study that was conducted by Amoran, Lawoyin, and Lasebikan (2007) found that the prevalence of depression among adults in Nigeria was lower than the prevalence of depression in South Africa that was conducted by Tomlinson et al. (2009). According to Amoran et al. (2007), the prevalence of depression in Nigeria was 5.2 %. Similarly, the other study that was conducted by Ovuge, Boardman, and Wasserman (2005) on the general population of Uganda with a total of 939 by using 13- item BDI found the prevalence of depression in Uganda showed that 17.4%.

Mental illness is the leading non communicable disorder in Ethiopia and this disorder predominantly affect rural area of Ethiopia and it accounts 11% of the total burden of diseases, with schizophrenia and depression (FMOH, n.d.). A recent study conducted in Ethiopia by Gelaye et al. in 2012 revealed that the prevalence of mental distress is high and accounts 17.7%. In case of the prevalence of depression, there is a different finding that is conducted in different years. For example, Fekadu et al. 2007 (as cited in Hailemariam, Tessema, Asefa, Tadesse, and Tenkolu, 2012) revealed that in Ethiopia the life time prevalence of depression is 2.2 %. But according to FMOH (n.d.), in 2010, the prevalence of depression among working groups of Ethiopia accounted 5%. The other large cross sectional study that was conducted by

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Hailemariam et al. (2012) on a sample of 5131 found that the life time prevalence of depression become increased and it accounts around 9 %. But most findings found that the prevalence of depression in different parts of Ethiopia is high. For example, Mossie, Kindu, and Negash (2012) present their finding in a conference that held in Jimma University and the prevalence of depression in Jimma town is high. They conduct a study on a sample of 590 by using BDI-II and they found that the prevalence of depression was 29.9%. In addition to the prevalence of depression in Jimma town, they identify the severity of depression and they found that 17.3% had mild, 9.5% moderate, and 2.2% had severe depression. The other study that was presented in that conference, the other study that was conducted by Tola, Awoke, and Adera (2013) in Yavello town found that the prevalence of depression is lower than Jimma town. And according to their study with a sample of 384 found that the prevalence of depression is 19.2%. According to Kebede and Alem (1999), the prevalence of mental distress is high and showed that 11.7% of Addis Ababa populations are mentally distressed. A study that was conducted in Dessie among preparatory students with a sample of 667 showed that in the past 3 months, 57.9% of students reported that they had feeling of loneliness and depression (Shiferaw, Fantahun, & Bekele, 2006).

1.2. Statement of the Problem

Depression is the most severe problem that occurs all over the world and this disorder leads to other problems and affect an individual's life. An individual may be affected by this problem in his /her life time.

Depression is common for university and college students because this university year is the most stressful period for students. Because of this, the prevalence of depression is high. Busari (2012) described that depression is the major mental disorder which has a high prevalence rate.

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According to Buchanan 2012 (as cited in Sarokhani, et al., 2013), university year is a special period and this period is characterized by a transitional period from adolescence to adulthood. In addition to this transitional period, this university year is the most stressful period and makes students more anxious and depressed. For university students, live far from home, plan for future and achieve and succeed their education and maintain a good grade are the most common causes that lead university students to become stressed and finally causes anxiety and depression.

Depression is a major problem for college and university students because college year itself is stressful period (Kumaraswamy, 2013). Because of these different stresses during college and university year, depression affects an individual academic achievement (Chen and Li 2000 as cited in Yousefi et al., 2010). According to Yousefi et al. (2010) revealed that researches indicate that there is a negative relationship between depression and academic achievement ($r=-0.22$, $p\leq 0.000$) and this showed when depression is high, academic achievement is low and vice versa. For example, Hysenbegasi, et al. in (2005) conduct a study in western Michigan University of 330 students (121 were students who are diagnosed at the campus health center and 209 are controls) and they found that depression has strong impact on academic productivity among university students. According to their study from those 121 depressed students who were diagnosed in the campus health center, 14.64% were missed a greater number classes, 5.45% were missed a greater number of assignments and 1.36% and 0.74% of depressed students were missed a greater numbers of exams and dropped a greater number of course respectively. Similarly, according to Porter 1990 (as cited in Al-Busaidi, et al., 2011) and Buasri (2012), support the above idea and most university students' drop their study and have difficulty to finish their study because of depression, anxiety and other psychological problems.

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In this study, the study area was Addis Ababa University and in this area almost all students found in around the same age level (the period of adolescence and early adulthood). Even if the subjects in this study were not already depressed or clinically depressed, they may show the sign of depression because of academic problems and due to different stressors.

Almost all of the university students came from different regions of Ethiopia and they have low probability to live with their families because of this they develop the feeling of loneliness and they have high probability to develop depression. When they join the university it may be the first time to separate from family because of this they may feel a sense of loneliness. In addition to this they join a new environment and it may be difficult to easily to adapt the new environment. So, most university students' especially first year students are more affected by depression disorder.

Even if there are studies that deal about the prevalence of depression in general population and university students of Ethiopia, the studies are not enough for investigating the problem and also these studies were done by composing depression with other variables like sleep problems. So these studies did not clearly predict the association of socio demographic variables and depression. Because of this the researcher had the belief that studying on depression on university students was vital to investigate the problem first and come up with important recommendation to the clinical psychologists and policy makers.

Therefore this study is designed to answer the following basic questions.

1. What is the prevalence of depression among Addis Ababa University students, Sidist Kilo Campus?
2. Is there gender difference in the prevalence of depression?

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3. Is there a relationship between age and depression?
4. Are study year, college, families marital status, families educational status and families job had association to depression?

1.3. Objective of the Study

1.3.1. General Objective

The general objective of this study was to examine depression in a sample of AAU Sidist Kilo Campus students.

1.3.2. Specific Objectives

The specific objectives of this study were:

1. To examine the prevalence of depression among AAU Sidist kilo campus students.
2. To examine gender difference in the prevalence of depression
3. To examine the prevalence of depression across first, second and third year students.
4. To assess the association between college and depression, families marital status and depression, families educational level and depression, families job and depression.

1.4. Significance of the Study

As stated in the statement of the problem, depression is one of the main health problems of students. And it is a cause for suicide, increase of attrition rate, for university students. In order to take action on depression, the prevalence of depression and its relation to gender needs to be researched. So this study which explores the prevalence, the relationship between gender and depression would have the following significant.

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So, the researcher strongly believed that this study would be highly valuable, timely and important in various aspects:

This study helps to raise awareness of the existing problem; and promote research resources; and help clinical practitioners to design appropriate treatment intervention program in a strengthened manner.

This study is important for intervention program.

And finally this study helps university community to support depressed students by providing different supports.

1.5. Delimitation of the Study

In terms of content, the study was delimited on depression. It is also delimited in terms of place and population. With regard to place, the research was delimited to Addis Ababa city, Addis Ababa University with particular place of Sidist Kilo Campus. AAU is select for research site because the researcher believed that it was easy to get needed population for the research work and get enough data about the topic. And in addition to thus, it was easy to get subjects from different background like from different culture, ethnic group, socioeconomic status, etc. In terms of population, the study was including first, second and third year undergraduate students in both sex groups (male and female) of Sidist Kilo Campus. So, because of this AAU was the appropriate area to find enough subjects to this study.

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1.6.Limitation of the Study

The researcher did not include other variables that were important like religion, ethnicity, residence, etc.

The researcher did not use parametric tests like ANOVA.

They might also have been respondents with other problems such as anxiety or illness on the day of testing which may have influenced the results.

The researcher did not use other tools like interview and focus group discussion.

1.7. Operational Definitions

Depression: a mental disorder marked by persistent sadness, discouragement, loss of self-worth and loss of interest in usual activities (Voorhees, 2007). According to this study the existence and prevalence of depression is determined by Beck Depression Inventory- II (BDI II) scale and scale ranges from 0-13 normal,

14-19 mildly depressed,

20-28 moderately depressed and,

29-63 severely depressed.

Gender: in this study gender is a social characteristic that is given by society because of being male or female.

Prevalence: in this study prevalence is the proportion percentage of 303 students who are more likely to be depressed on the study period.

CHAPTER TWO

REVIEW OF RELATED LITRATURE

This section of the study includes important information that deals about depression, signs and symptoms of depression and the main causes of depression. In addition to this, it tries to describe deeply the causes, symptoms and signs of depression in relation to gender.

2.1. Depression

Most studies define depression as the most severe problem and it affects an individual's physical, social, occupational and economic context. So, they try to define depression as follows:

According to Pfeiffer and Lewis (1986) and Ralph (2004), depression can be noted in mood problem and characterized by behavior ranging from feeling dejected and hesitancy in social contacts to isolation and serious disturbance of appetite and sleep; verbal expression ranging from talks about being disappointed, excluded, blamed to talk of suicide, being killed, abandoned, helplessness; and fantasy ranging from feeling disappointed, excluded, mistreated to suicide. Behaviors such as excessive aggressiveness change in work performance, and expressions of somatic complaints or loss of energy, have all been associated with depression

According to Ralph (2004), depression is defined as a persistent experience of sad or irritable mood, loss of the ability to experience pleasure in nearly all activities. It is a serious health problem that can affect people of all ages, including children, adolescents and adults and both sex. In addition to this it affects an individual's every day activities by affecting an individual's emotion, cognition, behavior. It also includes a range of other symptoms such as change in

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appetite, disrupted sleep patterns, increased or diminished activity level, impaired attention and concentration, and markedly decreased feelings of self-worth.

Depression is an affective experience (mood state), a complaint (reported as a symptom) as well as a syndrome. As an affective experience of sadness, it is common to all humans; as a symptom, it is present in several mental and physical illnesses and, as a syndrome, it is associated with specific mental and physical disorders (Maji & Sartorius, 2002).

People use the word depression to describe a bad day or bad few days, but in actual fact it is not the definitions of depression because most of the time mood fluctuates. This means a person may be more up or down than usual which is called blues (low mood), and lasts only in a few days. This symptoms do not interfere in the lives of a person because the symptoms are not sever, but it is depression if excessive low mood may occur most of the day, and continue for more than two weeks period (Cantopher, 2006). Moreover, clinical depression is more sever and in some cases, the symptoms can go on for months, and years. In this situation, when it is left untreated, it interferes in the ability to function. Depression is a significant contributor to the global burden of disease and affects people in all communities across the world (WHO, 2004d).

According to World Health Organization [WHO], depression is predicted to be the second most prevalent disease in the year 2025. Thus, there is no question that attending to the matter is of great importance. It has been shown that depression stands in the second place in respect to the expenses imposed on both the individual and society. In addition, there is evidence that depression may negatively affect the number of working days lost by the patients suffering from the disease.

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DSM- IV TR put some criteria to be diagnosed as depression. According to this manual depression disorders are categorized in mood disorders and when we say an individual is depressed he/she should met some criteria for some specific period. According to this manual there are around nine criteria that can be used to diagnose the problem in depression. These are: *“Depressed mood, lose of interest, weight gain or lose, sleep problem, energy lose, feeling of worthlessness, suicidal ideation are the main criteria of depression”* (APA, 2000).

2.2. Prevalence of Depression among University Students

Because depression has no any cultural and social boundaries, it may impact Students in different age group, sex, socio-economic status, religion, and ethnicity. Students may feel depressed with the university environment, their relationship with others and their academic performance (Adewuya, Ola, Aloba, Mapayi, & Oginni, 2006).

There are different findings on the prevalence rate of depression in different countries. This different prevalence rate is due to different varieties that researchers had been used during their study like different tool, in different socio-demographic variable, different sample size, etc.

For example according to Alloy et al. 2006 (as cited in Bitsika and Sharpley, 2013), among USA undergraduate university students 16% of the students have the symptom of major depressive disorder and out of this 45 % of the students have minor depression. Similarly according to Eisenberg et al. 2007 (as cited in Bitsika and Sharpley, 2013), above 15% of Australian undergraduate students are suffered from most common mental disorders such as anxiety or depression and this prevalence rate is decreased in postgraduate students among Australian university. The other cross-cultural study was done between university students of Australia, Portuguese and Iran. Khawajia, Santos, Habibi and Smith (2013) used a sample of 967 university

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students of these three countries. They found that university students of Australia was significantly higher in depression score ($M=76.24$, $SD=20.48$) than Iranian ($M=74.04$, $SD=21.48$, $P=.000$) and Portuguese ($M=66.53$, $SD=17.37$, $P <.001$). They also found that Iranian university students also significantly more depressed than Portuguese university students, $P=.001$. The study that was conducted with a sample of 210 freshman students in Poland showed that 36 (17.1%) had the symptom of depression (Mojs, Warchol-Biederman, & Samborski, 2012). A longitudinal study that was conducted in UK medical school with a sample of 1089 found that the prevalence rate of depression varied from 2.2% to 14.8% (Quince, Wood, Parker & Benson, 2014). The other study that was conducted among Canadian Psychology graduate students on a sample of 292 students by using CES-D found that the prevalence of depression was around 33% (Peluso, Carleton, & Asmundson, 2011).

The largest epidemiological study was conducted by Sun, Buys, and Wang, (2011) among university students in Beijing with a sample of 2046 university students. They found that the prevalence rate of depression is approximately 63.7%. But the recent studies that were conducted among Chinese university students showed that there is a difference rate between the previous studies. They found that the prevalence rates of depressive symptoms of Chinese university students are 11.7 %. And out of these 4 % are experiencing major depressive disorder (chen, et al., 2013). A thesis done by Do in 2007 among first year medical university students in university of Vietnam with a sample of 387 students showed that the prevalence of depression is 39%. Similarly a study conducted in Turkish university students by using Depression Anxiety and Stress Scale (DASS-42) found that the prevalence of depression is higher than Chinese university students. So the prevalence of depression among Turkish university students is around 27%. (Bayram & Bilgel, 2008; Bostanci et al., 2005). The other cross sectional study

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conducted on Indian medical college on the prevalence of depression by using Beck Depression Inventory with cutoff point 16 on a total of 336 students found that the prevalence rate of depression is high and it accounts 49.1 % (Singh, Lal, & Singh, 2011). Similar to the above finding that is conducted in India, Lowe, Lipps, and Young, (2009) conduct a study in West India university students and they found the prevalence of depression among university students in west India is around 40%. But because of using different instruments and other factors the recent findings showed that the prevalence of depression among Indian university students is decreased from the previous findings and it accounts 26.54%. (Arora, et al., 2014)

Similarly according to Eisenberg, Gollust, and Golberstien (2007), a research conducted in large public study in Michigan University with a sample of 2843 found that 25 % of the university students reported that they had the symptoms of depression. Among these students who had the symptoms of depression, approximately 14 % of the students are undergraduate students. Most studies that were conducted among Iranian university students showed that the prevalence of depression was high. For example, there is a study conducted by Yousefi, Juhari, Mansor, & Redzuan (2009) by using Beck Depression Inventory (21 item) among 400 high school Iran adolescents found that around 30% of the respondents had a symptom of depression. There are other findings that was conducted on Iranian university students and the finding showed that the prevalence of depression among Iranian university students were similar to the above finding that was conducted by Yousefi et al (2009). Sarokhani, et al. (2013) revised 35 articles that were conducted in Iran among Iranian university students that were done from 1995 to 2012 with a sample of 9743. Based on their revision they found that the prevalence of depression among university students in Iran was 33%. But the other cross sectional study that was by Safiri, Khanjani, Kusha, Narimani, and Karamzad (2013) with a sample of 175 university students

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found that the prevalence of depression is twice high than the above findings. They found that the prevalence of depression accounts 62.7%. Out of these 31% were mildly depresses, 20.7% were moderately depressed and the remaining 11% were severely depressed. A cross sectional study conducted by Al-Busaidi, et al. (2011) on a sample of 481 university students (243 males and 238 females) on Oman University and they found the prevalence of depression was high. By using self-administered Patient Health Questionnaire (PHQ-9), they found that 27.6% of the students had depressive symptoms. A cross sectional study was done on 142 medical college students of Karachi in Pakistan by using the anxiety and depression scale and they found the prevalence of depression and anxiety was very high and it accounts approximately 70 %.(Khan, Mahmood, Badshah, Ali, and Jamal, 2006).

A study conducted by Adewuya, Ola, Aloba, mapayi, and Oginni (2006) on a sample of 1206 Nigerian university students by using Mini International Neuropsychiatric interview found that 8.3% of university students met the criteria for depressive disorder. They also identified that out of those students who met the criteria of depressive disorder, 5.6% have minor depressive disorder and the other 2.7% of the students have major depressive disorder. But the recent study that was conducted by Peltzer, Pengpid, Olowu, and Olasupo (2013) among university students in Nigeria by using Centers for Epidemiological Studies Depression Scale found that there was higher than the previous study and they found that prevalence rate of depression among undergraduate students showed that around 7% are severely depressed and 25.2% accounts moderate to severe depression. According to Ibrahim, Kelly, & Glazebrook (2012) among Egyptian university students the prevalence of depression is high and it accounts that 37% of Egyptian university students are moderately depressed. A study conducted by Khasakhala, Ndeti, Mutiso, Mbwayo, and Mathai (2012) there is high prevalence rate of depression among

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high school students in Kenya. They conducted a study on a sample of 1276 and they found that the prevalence of depression in Kenya is 26.4%. According to Terasaki, et al. 2009 (as cited in Peltzer et al., 2013), the prevalence of depression among Ethiopian university students accounts 23.6%. But the recent studies found that the prevalence of depression become high and they found that in Ethiopia 50 % of university students had symptoms of depression (Lemma, Gelay, Berhane, Worku, & Williams, 2012). A study conducted in Adama University the prevalence of mental distress accounted around 21.6 %. Even if the prevalence of mental distressed is high, less than 1% of students had suicidal ideation (Dessie, Ebrahim, & Awoke, 2014).

2.3. Signs and Symptoms of Depression

According to NIMH (2011), there is variation in experiencing symptoms of depression and all people with depressive illnesses do not experience the same symptoms in the same period. The severity, frequency, and duration of symptoms vary depending on the individual particular illness. Even if the signs of depression are similar, the symptoms of depression are different in case of severity, duration or frequency from individual to individual.

Depression markers are: persistent sadness, discouragement, loss of self-worth and interest in daily activities. True depression in teens is often difficult to diagnose because normal adolescent behavior is marked by both up and down moods. These moods may alternate over a period of hours or days (Mackenzie et al., 2001 as cited in Yousefi et al., 2009). Mental health problems in young people are an important public health issue. Students leaving their hometown and family at a young age to pursue better educational opportunities overseas are confronted with life adjustment stress, which in turn affects their mental health and academic performance (Chou, Chao, Yang, Gwo-Liang & Lee, 2011).

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According to Khawaja, et al. (2013), university students try to reveal their symptom of depression by cognitively, emotionally, motivationally or physically. The main symptoms of depression includes change in appetite, disrupted sleep patterns, increased or diminished activity level, impaired attention and concentration, markedly decreased feelings of self-worth, feelings of guilt, difficulty in concentrating, and thoughts of death or suicide. Other signs and symptoms of mood disorders include change in activity level, cognitive abilities, speech, and vegetative functions such as sleep, appetite, sexual activity, and other biological rhythms (NIMH, 2011; Ralph, 2004 Sadock, B. & Sadock, V., 2007). According to DSM-IV Criteria for Major Depressive Disorder if an individual is depressed he/she must show at least 5 symptoms in nearly every day life such as depressed mood, significance weight change (whether weight gain or loss), sleep change (insomania or hypersomnia), loss of energy, guilty, etc.

According to Bennette (2006), depressed people are characterized by emotional, motivational, physiological and cognitive problems. They feel low in themselves and gain no pleasure from their usual activities. They are frequently unmotivated to take voluntary action, often spending considerable time in bed or withdrawing quietly from the company of others. They may be markedly slow in their activities or speech. They generally hold negative views about themselves and marked pessimism about the present and future. They may feel out of control and unable to change their situation. Some, but by no means all, will experience suicidal thoughts or actions. Depressed people often report confused or slow thoughts, and difficulties in retaining information or solving problems.

Most university depressed students reported that hopelessness and feeling down are the most frequently symptom of depression. For university students Poor concentration is the second symptom of depression. This poor concentration is associated with trouble concentration in

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reading. Finally this poor concentration in reading or other daily activities affect a student's academic performance. (Al-Busaidi, et al., 2011).

Poor sleep or sleep disturbance is the other symptom of depression. This sleep problem is a common problem for most university students. Poor sleep also directly or indirectly affect students academic performance and this poor sleep may be the cause of students poor concentration (Al-Busaidi et al., 2011). According to Lemma et al, (2012) there is high prevalence rate of sleep problem among university students in Ethiopia and other east African universities. They also tried discussed that this sleep disturbance is highly associated with mental health problems such as depression.

DSM IV-TR put symptoms of depression and these symptoms of depression are used as criteria for major depressive disorder. **Note:** Do not include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.

- (1) *Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful);*
- (2) *markedly diminished interest or pleasure;*
- (3) *Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day;*
- (4) *insomnia or hypersomnia nearly every day;*
- (5) *psychomotor agitation or retardation;*
- (6) *fatigue or loss of energy;*
- (7) *feelings of worthlessness or excessive or inappropriate guilt;*
- (8) *diminished ability to think or concentrate, or indecisiveness;*
- (9) *Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific*

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plan, or a suicide attempt or a specific plan for committing suicide (APA, 2000).

2.4. Associated Factors of Depression

2.4.1. Empirical Findings about the associated Factors of Depression

There are many associated factors that lead an individual to depression. The most notable associated factors of depression are grouped in to biological factors, socio-cultural factors, psychological like low self-esteem and pessimism and cognitive factors (NIMH, 2003). The biological factors of depression include biological mechanisms family and genetic influences genetic makeup that the individuals get from their ancestors, hormonal factors i.e. the imbalance of hormones and neurotransmitters, etc. (Barlow, & Durand, 2009). Most individuals who develop depression have a family history and one of their family member is affected by depression. A study conducted by Khan et al. (2006) found that out of 142 samples, 29% had a family history of depression and anxiety. Based on their findings they conclude that students who had a family history of depression and anxiety are 2.35 (0.91, 6.04) times depressed than those students who had no family history of depression and anxiety. But even if family history of depression is associated factor for depression, according to NIHM, (2003), individuals who have no family history of depression also a chance to develop depression. The socio- cultural factors includes economic status, marital relationship, social relationship and educational level. According to Lewis et al. (1998), depression is high for individuals who are poor in their socio economic status, have poor marital relation, poor social relation with family or community and in poor educational background.

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There are various factors that lead an individual to depression. Rhoads (2011) and Ralph (2004) put that stressful event, such as being the victim of a crime, the loss of a job, the loss of a loved one or an important relationship, lack of social support, frequent use of medical resources in the absence of serious illness may be seen are some of the risk factors of major depressive disorder.

According to Beck and Young 1978 (as cited in Kumaraswamy, 2013), around quarter of university students reported isolation from parents, feeling of loneliness, stresses due to overload activities, low grades conflicts or poor social relationship are the cause of their depression. Similarly according to Hysenbegasi, Hass, and Rowland, (2005), most depressed students put poor relationship with friends, conflict with peers or loved one, poor school performance and low economy are the main causes of their depression.

A study conducted by Daniel, (2013) among university students of Kenya on a sample of 652 (313 females and 339 males) showed that there is a significant relationship between loneliness and depression. Based on this study he revealed that loneliness and depression are positively correlated and there is an interaction effect between depression and loneliness. So he found that loneliness can be the factor for the occurrence of depression.

In addition to this, according to Abiodun et al 2006 (as cited in Al-Busadi et al., 2011), being university students as its own is the contributing factor for the occurrence of depression. They try to reveal that for most university students, this time is the first time to separate from family and live far away from home. Due to this they become independent and they try to do everything by themselves and they lost their families supervision.

Ovuga et al. 2006 (as cited in Al-Busadi et al., 2011) and Eisenberg et al. (2007) for some university students economic problem is the other factor of being depressed. They tried to

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discuss that for some university students, university year is the first time that students are separate from their family. And because of this separation they cannot get everything what they want and in order to satisfy their interest they need money. So for some university students if they did not satisfy their interest because of financial problem, they have high probability to develop depression. Similarly Lorant et al. 2003 (as cited in Bostanci et al 2005) and Bostanci et al.(2005) revealed that socioeconomic status is one factor for the occurrence of depression and students with low economic status are more depressed than students with high socio economic status. In addition to this according to Ibrahim, Kelly, and Glazebrook (2012), a total of 1000 undergraduate students among Egyptian university students found that parental occupation, family income, parental educational level were statistically significant for depression ($P \leq 0.001$). They described that parental occupation especially father occupation was statistically significant for depression. So they found that students whose father had professional occupation were 40% less likely to get depressive symptoms compared to those students whose father had no professional occupation.

There is one study that deal about change in learning style is the other factor for university that lead to develop depression. There is a difference in learning style between high school and university. So this change in learning style leads students to become depressed because this university learning style is new for university students. (Al-Busaidi et al, 2011).

Poor parental relationship is also the other associated factor for depression and there are some findings that deal about poor parental relationship had impact on the occurrence of depression. (chen et al.,2013, Eisenberg et al.,2007, Sun et al.,2011). They revealed that poor parental relationship is the cause of depression and students who come from poor parental relationship are more depressed than students who come from good parental relationship. A study conducted by

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Ghamari (2012) among 140 college students to show the relationship between family dysfunction and depression and he found that there is a significant relationship between family function and depression ($r= 0.376$, $p=0.01$). Based on his finding he conclude that depression is correlated no healthy family function.

Poor parental education is highly associated with the prevalence of depression and students from poor parental education are more depressed than students from high parental education. The reason why poor parental education is associated with gives attention and psychological support. Parents with higher level of education were able to pay close attention to students' psychological condition and actively communicate with students, which can increase students' psychological support. A study conducted by Chen et al. (2013) found that there was significant association between depression and mother's level of education. In this case depression is higher in students who had a low level of education for the mother (OR=1.286, 95% CI, 1.130-1.463).

According to Singh et al.,(2010), exposed to new environment, homesickness, change in eating habits, lack of leisure time are the main causes of depression for university students in India. In addition to this they found that facing language problem is another cause of depression. They try to discuss that English is the medium of instruction of university and students who attend their education other than English language in preparatory school are more depressed than students who attend their education by English. So, they conclude that language problem is the cause of depression for university students.

2.4.2. Theoretical Explanation on Associated Factors of Depression

A. Psychodynamic Theories of Depression

Psychodynamic theories explain that depression was caused by anger turned inward. A typical scenario regarding how this transformation was thought to play out may be helpful for further explaining of this theory. Neurotic parents who are inconsistent (both overindulgent and demanding), lacking in warmth, inconsiderate, angry, or driven by their own selfish needs create unpredictable, hostile world for a child. As a result, the child feels alone, confused, helpless and ultimately, angry. However, the child also knows that the powerful parents are his or her only means of survival. So, out of fear, love, and guilt, the child represses anger toward the parents and turns it inwards so that it becomes an anger directed towards him or herself (Nemade, R., Reiss, N.& Mark Dombeck, M., 2007).

B. Cognitive Theories of Depression

The cognitive model of depression deals about mental processes such as cognition, thoughts and beliefs which has a strong influence on an individual's behavior and emotion. Aron Beck is one of the most influential person on the cognitive theory of depression. Cognitive theorists claim that the cause of depression falls in to three principles. First, cognitive triad and according to this principle an individual is depressed when he/she has a negative view toward him/herself, others, the world and the future. The second principle is schema and according to this principle an individual is depressed when he/she has maladaptive thoughts and beliefs. Cognitive errors are the third principle and according to this principle an individual is depressed when he/ she has a faulty thinking accompanied by negative and unrealistic perception of reality. These theories also claim that a person's attribution for events, his or her perception of control and self -efficacy and

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his/her belief about him/herself and the world influence his/her behavior. So all of these are negative the individual has high probability to become depressed. (Nemade, et al., 2007).

C. Behavioral Theories of Depression

According to behavioral theory, dysfunctional or unhelpful behavior such as depression is learned. Because depression is learned, behavioral psychologists suggest that it can also be unlearned. In the mid-1970s, Peter Lewinsohn argued that depression is caused by a combination of stressors in a person's environment and a lack of personal skills. More specifically, the environmental stressors cause a person to receive a low rate of positive reinforcement. According to Lewinsohn, depressed people are precisely those people who do not know how to cope with the fact that they are no longer receiving positive reinforcements like they were before. For example, a child who has newly moved to a new home and has consequently lost touch with prior friends might not have the social skills necessary to easily make new friends and could become depressed. Similarly, a man who has been fired from his job and encounters difficulty finding a new job might become depressed.

Some depressed people become positively reinforced for acting depressed when family members and social networks take pity on them and provide them with special support because they are "sick". For example, some spouses may take pity on their depressed partners and start to do their chores for them, while the depressed person lays in bed. If the depressed person was not thrilled to be doing those chores in the first place, remaining depressed so as to avoid having to do those chores might start to seem rewarding (Nemade, et al., 2007).

D. Social Rank Theory of Depression

This theory was developed by Steven and Prince. According to this theory, depression is an adaptive response to losing rank and conceiving of oneself as a loser. The adaptive function of the depression, according to rank theory, is to facilitate losing and to promote accommodation to the fact that one has lost. In other words, the depressive state evolved to promote the acceptance of the subordinate role and the loss of resources which can only be secured by holding higher rank in the dominance hierarchy. The function of this depressive adaptation is to prevent the loser in a status conflict from suffering further injury and to preserve the stability and competitive efficiency of the group by maintaining social homeostasis. In circumstances of defeat and enforced subordination, an internal inhibitory process comes into operation which causes the individual to cease competing and reduce his level of aspiration. This inhibitory process is *involuntary* and results in the loss of energy, depressed mood, sleep disturbance, poor appetite, retarded movements, and loss of confidence which are typical characteristics of depression (Steven & Price, 2001).

2.5. Consequences of Depression

According to NAAAS (2000), there is a difference between depressed and not depressed individuals. They categorized the difference in to physical health, social activities and life satisfaction. They revealed that poor physical health, low social activities and dissatisfied by life are the main consequence of depression that is more occurred by depressed individual and make a difference from depressed and not depressed individuals.

There is a negative relationship between depression and academic achievement among university students. According to Bostanci et al., (2005), academic performance and depression are

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negatively correlated and if a student's academic performance is good, the occurrence of depressive symptoms is low and vice versa. They tried to discuss that most depressed students had poor academic performance than those students who were non depressed students. According to Dyrbye et al., 2006 (as cited in Bitsika & Sharpley, 2013), depression is sever problem and the problem of depression is not only affect student's academic performance but it also leads a long lasting learning difficulties.

Suicide is the third leading cause of death for adolescents (American College of Preventive Medicine [ACPM], 2011). Suicidal ideation and committing suicide is the main consequence of depression and this is the main health concern for university students. (Nyer et al., 2013). Similarly according to Goldsmith et al 2002 (as cited in Nyer et al, 2013) depression is the main factor for college students to think about suicide and to commit suicide. Intuitively, suicide ideation is likely to precede suicide attempts and/or completion.

Although a specific cause for suicidal ideation has not been found, investigators identify psychosocial risk factors that may contribute to suicidal ideation. Among females, depression is often considered a predominant psychosocial contributor. Females have rates of depression that are approximately twice those of males and these gender differences appear to be reflected in the higher rates of suicidal ideation and attempts by females (Fergusson, Horwood, & Lynskey, 1996; Park, Koo, & Schepp, 2005). Reinherz and colleagues (1995) reported major depression associated with suicidal ideation in females. Important risk factors for suicidal behavior like depression, is known to be gender skewed (Wichstrom & Rossow, 2002).

According to Framingham 2007 (as cited in ACPM, 2011), the rate of depression and suicide rate are directly related and when the rate of depression is rises, suicide rate also rises. American

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Academy of Child and Adolescent Psychiatry (AACAP, 2001), Gould et al. (1998) and Brent (1999) cited in ACPM (2011) revealed that from adolescents who report that they have the symptoms of depression above half (60%) of them have suicidal ideation and out of these around 30% of them actually attempt suicide. Similarly according to Eisenberg et al. (2007), a study conducted in Michigan University with a sample of 2843 found that 2.5% of undergraduate students had suicidal ideation.

2.6. Gender and Depression

Gender is a critical determinant of health, including mental health. It influences the power and control men and women have over the determinants of their mental health, including their socioeconomic position, roles, rank and social status, access to resources and treatment in society. As such, gender is important in defining susceptibility and exposure to a number of mental health risks (WHO, n.d).

Even if depression is universal problem and this problem occurs all over the world, there is a difference between males and females. But this gender imbalance is dependent on age. According to Nolen- Hoeksema and Girgus (1994), even if there is gender difference in depression, there is no gender difference in depression rate in children. But this difference is revealed in the period of adolescence and after the age of 15 women is twice depressed than men. But in contrast, according to Wallace & O'Hara 1992 (as cited in Barlow and Durand, 2009), in early childhood period, boys are more likely depressed than girls, but in the period of adolescence the reverse is true and girls are more depressed than boys and this continues until old age. But after the age of 65 this gender imbalance in depression disappears.

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Most studies conducted in the general population found that women are more depressed than men and they put the ratio as 2: 1. (Nolen- Hoeksema and Girgus 1994; Nolen- Hoeksema, 2001; Carr, 2005; Sadock,B. & Sadock,V. ,2007). According NIMH (2000), the population with depression is composed of larger proportions of younger adults, women, and single and low-income individuals, compared to the population without depression. In the period of adolescence i.e. around age 13 the difference begin and the rate of depression in girls begin increase. By the period of late adolescence, girls are twice more depressed than boys. This gender ratio (2:1, girls and boys respectively) remains more or less the same throughout adulthood period (Nolen-Hoeksema, 2001; carr, 2005). The other study that was conducted on Mexican population aged 12 to 65 found that women are 3 times depressed than men (7.5% for women and 2.5% for men (Fleiz Bautista et al., 2012).

The life time prevalence of depression is more common in women especially in the period of adolescence (Amoran et al. 2007; Nduna, Jewkes, Dunkle, Shai and Colman, 2013). The reasons for adolescent females are more depressed than adolescent males are both biological and social factors (Carr, 2005; Nolen- Hoeksema, 2001; Sadock, B. & Sadock,V. ,2007). According to Andlin-Sobocki, et al. 2005 (as cited in Hailemariam, et al., 2012), the prevalence of Uni polar depression in three European countries i.e. Iceland, Norway and Switzerland has difference based on gender and this difference ranges 1.9 % for males and 3.2 % for females. The life time prevalence of major depressive disorder is two times greater in women than in men. Different studies put different reasons for the difference on the prevalence of depression among males and females. They categorized the reason for this differences as biological factors (hormonal differences, genetic, the effect of childbirth), psychosocial factors like stressors and behavioral factors like learned helplessness (Sadock,B. & Sadock,V., 2007). For example, a study

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conducted by Kendler, Gardner and Prescott (2000) found that genetic is the main factor for depression. Based on their findings, they concluded that women with family history of depression were 14% more likely to develop symptoms of depression than those women with no family history of depression.

But in case of university students, there are more controversial findings in the case of the prevalence of depression and gender among university student. Most findings revealed that both male students and female students are equally depressed and they found that there is no significance difference between depression and gender among university students. For example, studies conducted in most universities like university of Oman found that both male students and female students are equally depressed and there is no significance difference between male and female in the prevalence of depression (Al-Busaidi et al., 2011; Chen et al., 2013). Similar to the above findings Sarokhani et al, (2013) found that there is no gender difference among university students in Iran. They put the main reason for male and female students are equal depression are that both female and male students have equal experiences in their life. But in the contrary of the above findings, there are some findings that contradict the finding of the above two findings and the other few findings revealed that male students are more depressed than female students (Arora, et al., 2014; Sun et al., 2011). For example a study conducted in Jordan, Tafila University found that male students are more depressed than female students (Al-Qaisy, 2011). Similarly, there is another study that supports the finding of Jordan universities and this study conducted in Indian universities and the finding showed that in the case of the prevalence of depression among Indian undergraduate students, males are more depressed than females. The percentage showed that 29.75 % of male students are depressed but female students accounts 23.36%. (Arora, et al., 2014). But contrary to the above findings i.e. male university students are more depressed than

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female university students, the other findings found that female students are more depressed than males (Field et al., 2009; Singh et al., 2010; Khasakhala et al., 2012; Adewuya et al., 2006; Atindanbil & Abasim, 2011; Bayram & Bilgel, 2008). There is a study conducted in Australia that support the findings of female students are more depressed than male students. So a study conducted among Australian students on a sample of 287 showed that there is a significant difference between females and males on the depression level, with females having a higher mean level of depression than males, $t(285)=2.57, P=.01$ (Khawaja & Duncanson, 2008).

2.7. Study Year and Depression

Even if university students are more depressed than the general population, the prevalence of depression is differ from year to year. Similar to the above relation (i.e. the relationship between the prevalence of depression and gender among university students) there is a controversial idea about the relationship between depression and study year.

According to Bostanci et al., (2005), there is a positive relationship between depression and study year. They revealed that as the age of study year increase, the prevalence of depression also increases. But in the contrary according to Taysi et al.,(1994) and Dogan et al., (1994) cited in Bostanci et al., (2005) there is a negative relationship between the prevalence of depression and study year. When the year of study increase, the prevalence of depression decrease because students adapt the university environment and the course. Similar to the above Chen et al., (2013) found that depression was significantly higher in students who were in lower study year (OR= 0.930, 95% CI, 0.865-1.000). In addition to this, Bayram and Bilgel (2008) conduct a study on a sample of 1617 found that first and second year students had higher depressive symptoms than third and above year students.

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There are some studies that found second year students are more depressed than first and third year students. A study conducted by Singh et al. (2011) showed that a total of 336 Indian medical students 49.1% of the respondents had symptoms of depression and out of those depressed students 65.6% were second year, 59.3% were first year and 34.4% were third year students.

CHAPTER THREE

RESEARCH METHODS

This section provides an overview about research methods. The following specific issues are addressed: study design, study area, study population, sample size and sampling technique, research variables, data collection instrument, pilot study, ethical consideration, procedures of data collection, and method of data analysis.

3.1. Study Design

The study employed a quantitative method specifically a cross-sectional survey design. This was preferred because the means that the researcher used to obtain information from participants was questionnaire which was administered at one time.

3.2. Study Area

This study was conducted in Addis Ababa city, the capital city of Ethiopia. The specific area of the study was AAU which is the oldest and largest university in Ethiopia. AAU was established in 1950. Before getting its current name, AAU had two names. The first name is known as University College of Addis Ababa and this name used until in 1962. But after the year of 1962 the name is changed and renamed by the name of the former Ethiopian Emperor Haile Selassie I and known as Haile Selassie I University. Finally the name is changed and gets the current name in 1975. AAU has thirteen campuses. Twelve of these are situated in Addis Ababa, and one is located in Bishoftu or Deber Ziet, which is found 45 kilometres far from Addis Ababa (Addis Ababa University, 2013).

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Sidist Kilo Campus is one branch of AAU which is found in sidist kilo and this campus was the first and main branch of the university. The study site was selected purposefully because in addition with this study, the researcher had 500 hours internship tasks in mental health hospitals which are far from the residence of the researcher. This creates burden and take much time of the researcher. As a result, not to walk here and there and to use the time effectively after came back from internship site, the researcher, preferred AAU, sidist kilo campus because of the close nature of the institution to the researcher home.

3.3. Study Population

This study was aimed to find the prevalence of depression across different socio demographic variables. Therefore the target population for the study included all regular first, second and third year undergraduate students of Addis Ababa University in Sidist Kilo Campus. The total number of first, second and third year undergraduate students was around 2676 (males-1948 and females 728) (Registrar, 2013). So the population of the study was presented based on their study year and their college in the following table.

Table 1 *General Information of the Study Population*

Colleges	Year I			Year II			Year III		
	F	M	T	F	M	T	F	M	T
College of social sciences	211	355	566	92	182	274	106	430	536
College of Humanities, language studies, Journalism and communication	56	259	315	26	126	152	43	228	271
College of Education and Behavioral Studies	43	24	67	35	74	109	64	115	179
College of Law and governance studies	17	45	62	12	38	50	23	72	95
Total	327	683	1010	165	420	585	236	845	1081

Source: AAU 2013/14 (2006 E.C) Registrar office

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3.4. Sample Size and Sampling Technique

The number of the sample size for the study was determined based on the scientific sample size calculator developed by Krejcie & Morgan (1970). The researcher used this scientific sample size calculator because this technique was employed with 95% confidence level and 5% degree of precisions.

Formula used to determine the sample size is

$$s = X^2 NP(1-P) \div d^2 (N-1) + X^2 P(1-P)$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

So, based on the above calculation, out of the total population of regular undergraduate students of AAU Sidist Kilo Campus, 336 students (168 male students and 168 female students) were selected as a sample of this study. The participants of this study were randomly selected from College of Social Science, College of Law and Governance Studies, College of Education and Behavioral Studies and College of Humanities, language studies, Journalism and Communication.

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In this study, probability sampling technique especially equal sized stratified sampling technique was used. The reason of selecting stratified sampling technique is that the population of this study is heterogenous. So, it is important to stratify the population by using different variables and it is better to make stratum by using a variable of gender.

3.5. Research Variables

3.5.1. Independent Variables

Socio-demographic variables including: Age, gender, study year (year of enrollment), study college, Families marital status, families economic status, Father education level, mother education level, father job and mother job which are categorical variables are independent variables.

3.5.2. Dependent Variable

In this study the score of depression was used as the dependent variable. Depression score from BDI-II dichotomized using cutoff point of 13.

3.6. Data collection Instrument

In order to achieve the objective of the study, information is relevant and crucial. So, the researcher used primary sources. Primary sources were respondents and obtain data from respondents by using questionnaire. The primary data were collected by standardized scaled questionnaire. In order to collect information concerning depression, the researcher used standardized depression scale (i.e. the Beck Depression Inventory (BDI) in the form of questionnaire that had been utilized to detect depression among university students. The

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researcher used this tool because the tool is a standardized scale and culturally validate. So this standardized scale of questionnaire helps the respondent to answer freely.

The most widely used scale Beck Depression Inventory (BDI) which was developed by Beck, Ward, Mendelsohn, Mock, and Erbaugh (1961), and is recently revised as BDI-II to be consistent with the DSM-IV (Beck, Steer, & Brown, 1996) was employed.

The scale consisted of 21 items, each scale containing four responses ranging from 0 to 3. The scale measured sadness, pessimism, past failures, loss of pleasure, guilty feeling, punishment feeling, suicidal thoughts and wishes, crying, agitation, loss of interest, worthlessness, loss of energy changes in sleep patterns, irritability, change in appetite, etc. Respondents select one response per item that corresponds most to their current clinical state “over the past two weeks.”

The BDI-II has been well studied and has excellent reliability and validity for measuring severity of depression (Beck, Steer, & Garbin, 1988). From 1961 to 1986, Beck and colleagues published a meta- analysis in 1988 on psychometric properties of BDI and found a mean coefficient alpha of 0.876 (Beck, Steer, & Carbin, 1988). In 1996, after the publication of the BDI-II; the coefficient alpha was found 0.91 for 140 samples, and 0.92 for 500 samples (Beck, Steer, Ball, & Ranieri, 1996).

Cut score guidelines for the BDI-II were given with the recommendation that thresholds be adjusted based on the characteristics of the sample, and the purpose for use of the BDI-II. Total score of 0–13 is considered minimal range, 14–19 is mild, 20–28 is moderate, and 29–63 is severe. (Bennet et al., 1997).

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In addition to the standardized scale, there are nine items that are used to measure the socio demographic characteristics of respondents. Both the BDI-II scale and socio demographic items were translated in to Amharic and the Amharic version were distributed for samples.

3.7. Pilot Study

To check the reliability of the tool and the total amount of time that was taken for completion, pilot survey was done. The pilot testing was done on 30 students who had similar background with the main research participants but not included in the main research. Crombach`s alpha coefficient was used to measure reliability of the BDI-II question. The computation yielded reliability coefficient for Beck-II Depression Inventory scale is 0.87.

3.8. Ethical Consideration

During conducting this study, the researcher was accepting these ethical considerations.

The researcher gets formal letters from school of Psychology to collect information like the exact number of students from registrar and other concerned bodies.

The purpose of the study was briefly explained for the participants and they were informed that their responses were kept confidential. Finally, the ready-made questionnaire were administered for the selected participants in their classrooms by the researcher and one assistant and collected. Much of the filled questionnaires were collected soon and the rest were obtained on the next two subsequent days.

3.9. Procedures of Data Collection

In case of data collecting, the researcher used some steps starting from distributing instrument (questionnaire) up to collecting the instrument. So before distributing the instrument, it is better

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to check the reliability of the questionnaire (pilot study). After pilot study, ask the subjects willingness to participate in this study is the other procedure of data collection (informed consent). And after informed consent, the researcher administered the questionnaire to all required participants. Next to administration of questionnaire, the researcher collected the answered questionnaire as immediately the participants finish. Finally, after the data is collected, the researcher made it ready for scoring by gave a code.

3.10. Method of Data Analysis

The study deals about depression. And after the data were collected, the completeness was checked and the incomplete and choosing and circle more than one scale in one item were left unfilled. The data entry and analysis was done using Statistical Package for Social Sciences (SPSS) version 20. The demographic characteristics of participants were computed by using simple descriptive statistics (mean, percentage, frequencies, and standard deviation). Because of this, this scaled questionnaire was quantitatively analyzed by using descriptive statistics i.e. Percentage, mean, standard deviation and inferential statistics (Binary Logistic Regression). In addition to this, an independent sample T-test, Pearson correlation, Spearman rank order correlation and Chi-square were employed to find the relationship and association of independent variables and dependent variables.

CHAPTER FOUR

RESULTS

In this chapter, the result and interpretation of the analyzed data are presented in two sections. In section one, sample description in terms of their demographic data are provided by frequency and percentage, and in section two, the description of the survey are examined along with the research question.

4.1. Description of the Socio- demographic Characteristics of Respondents

The total numbers of the distributed questionnaires were 336 and out of these 303 were filled completely and consistently with a response rate of 90.17 %. Among the total respondents who filled the questionnaire 153(50.5%) were females and the rest were males. Minimum and maximum ages of respondents were 18 and 29 respectively. The mean age of the participants was 21.4 with a standard deviation of 1.73. Distributions of education level by academic enrollment 110 were second year, 107 were first year and the rest were third year students. The total distribution of study subjects among different colleges, majority of the participants 32.3% were from College of Social Sciences, 24.8% were from College of Law and Governance Studies, 23.8% from were College of Education and Behavioral Sciences and the remaining 19.1% were from College of Humanities, Language Studies, Journalism and Communication.

Participant's family marital status was categorized in to three categories by live together, separated and widowed and the majorities 70.2% of the student's parents were lived together, while the remaining 24.8% and 5% of respondents' parents were separated and widowed respectively.

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There are four categories that categorized father's educational level. Based on the students' response, majority respondent father were graduated, 21.8% of respondents' father attended their education until secondary school, 20.1% of respondents' father attended their education until elementary school and the remaining 19.8% of respondents' father were illiterate. Like father educational level, mother's educational level was categorized as illiterate, elementary school, secondary school and graduated. So based on the above categories, majority of participants mother were attended their education until elementary school, 26.4% of participants mother were attended their education until secondary school, 22.8% were graduated and the remaining 17.8% were illiterate.

Participants father job also categorized as have permanent job and have no permanent job. So based on their response almost half 158 of participants father had no permanent job and the rest participants father had permanent jobs. Like father's job, mother job also categorized as have permanent job and have no permanent job. 209 participants mother had no permanent jobs and the rest 94 of participants mother had permanent jobs.

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Table 2 *Socio- Demographic Characteristics of the Respondents, N=303*

Variable	n	%	
Gender	Female	153	50.5
	Male	150	49.5
Study year	First year	107	35.3
	Second year	110	36.3
	Third year	86	28.4
College of study	CSS	98	32.3
	CEBS	72	23.8
	CLGS	75	24.8
	CHLJC	58	19.1
Families marital status	Live together	213	70.3
	Separated	75	24.8
	Widowed	15	5.0
Father education level	Illiterate	60	19.8
	Elementary school	61	20.1
	Secondary school	66	21.8
	Graduate	116	38.3
Mother education level	Illiterate	54	17.8
	Elementary school	100	33.0
	Secondary school	80	26.4
	Graduate	69	22.8
Father job	Have no permanent job	158	52.1
	Have permanent job	145	47.9
Mother job	Have no permanent job	209	69.0
	Have permanent job	94	31.0
Total		303	100

4.2. Prevalence of Depression

Table 3 *Levels of Depression and Its Prevalence in AAU, Sidist Kilo Campus, N=303*

Grading of depression	Frequency(n)	Percentage (%)
Non depressed	207	68.3
Depressed	96	31.7
Mildly depressed	42	13.4
Moderately depressed	46	15.7
Severely depressed	8	2.6
Total	303	100

Out of 303 under graduate students of Addis Ababa University Sidist Kilo Campus who participated in this study, the overall prevalence of depression was 31.7%. Among those students with depression, 15.7% and 13.4% had moderate and mild depressive symptoms respectively. The remaining 2.6% had severe depressive symptoms. According to Beck Depression Inventory (BDI) cut scores, 207(68.3%) scored as normal (0-13), 42(13.4%) scored as mild (14-19), 46(15.7%) scored as moderate (20-28) and the remaining 8(2.6%) students scored as severe (29-63).

4.3. Relationship between Depression and Socio- demographic Variables

Table 4 *Independent Sample T-Test on Depression (Dv) With Independent Variable of Sex, N=303.*

		Gender				
		N	Mean	SD	T	P-value
T	Equal variance	F 153	16.07	8.254	9.701	0.000
	not assumed	M 150	8.63	4.609		

Note: n= number of samples; SD= standard deviation; F=female; M=male; Sig= level of significance

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An independent sample T-test was run to determine if there was difference in depression score between females and males. Depression score was more in females (M= 16.07, SD=8.254) than males [M=8.63, SD=4.609], as a statistical significance, M=7.432, 95% CI (5.923, 8.984), $t(239.54)$, $P<0.001$. The magnitude of the difference in the means was very large (eta squared= 0.238).

Table 5 *The Relationship between Socio-Demographic Variables and Depression.*

Spearman Rank- Order Correlation

	Year	FEL	MEL	ComDep
Year				-.274**
FEL			.791**	
MEL		.791**		
ComDep	-.274**			

Note: n= 303; FEL= father education level; MEL= mother education level; ComDep= compose depression. ** $P<.001$.

A Spearman rank- order correlation was run to determine the relationship between socio-demographic variables (study year, FEL, MEL) and depression among 303 samples. There was a small, negative correlation between study year and depression, which was statistically significant [$r_s = -.274$, n= 303, $p \leq 0.001$], with increasing of study year decrease the occurrence of depressive symptoms.

Table 6 *Relationship between Age and Depression*

Correlations			
		age of students	compose depression
age of students	r	1	-.090
	Sig. (2-tailed)		.119
	N	303	303
compose depression	r	-.090	1
	Sig. (2-tailed)	.119	
	N	303	303

Note: n= number of respondents.

The relationship between age and depression (as measured by BDI-II scale) was investigated by using Pearson product-moment correlation coefficient. The relationship between age and depression was non- significant with $r=-.09$, $n=303$, $p>.05$.

Table 7 *the Association between Gender and Depression*

Gender	Dichotomous depression				χ^2 (df)	P -value
	Non depressed		Depressed			
	N	%	N	%		
Female	67	43.8	86	56.2	85.889(1)	.000
Male	140	93.3	10	6.2		

Note: n= number of respondents; χ^2 = chi square; df= degree of freedom.

As displayed on the above table, 67 (43.8%) of respondents who were female were not depressed and the other 86(56.2%) of respondents who were female were depressed. On the other hand, 140(93.3%) of respondents who were male were not depressed and only 10(6.2%) of male respondents were depressed. Significant association was observed between gender and depression (χ^2 (1) =85.889, $p\leq 0.001$). Out of respondents who had symptoms of depression, 56.2 % were females and the remaining 6.2% were males. That is, female students were more likely to be depressed with higher percentage than male students.

Table 8 Association between Study Year and Depression

	Dichotomous depression				χ^2 (df)	p-value
	Non depressed		Depressed			
Study year	N	%	N	%		
First year	54	50.5	53	49.5		
Second year	83	75.5	27	24.5	25.138(2)	.000
Third year	70	81.4	16	18.6		

Note: n= number of respondents; χ^2 = chi square; df= degree of freedom

As shown on the above table, 54(50.5%) of the participants who were first year were not depressed and the other 53(49.5%) of the respondents who were first year were depressed. In addition to this, 83(75.5%) of participants who were second year were not depressed and 2(24.5%) Of participants who were second year were depressed. Finally, 70(81.4%) of respondents who were third year were not depressed and only16 (18.6%) of respondents who were third year were depressed. Significant association was observed between study year and depression (χ^2 (1) =25.14, $p \leq 0.001$). Out of respondents who had symptom of depression, 49.5% were first year students, 24.5% and 18.6% were second and third year students respectively. That is, first year students were more likely to be depressed with highest percentage.

Table 9 Association between College and Depression

College	Dichotomous depression				χ^2 (df)	p-value
	Non-depressed		Depressed			
	N	%	N	%		
CSS	66	67.3	32	32.7	.359(3)	.949
CEBS	51	70.8	21	29.2		
CLGS	50	66.7	25	33.3		
CHLJS	40	69.0	18	31.0		

Note: n = number of respondents; χ^2 = chi square; df= degree of freedom

As observed on table 9, majority 66(67.3%) of respondents who were from College of Social Sciences were not depressed and only 32(32.7%) of respondents who were from College of Social Science were depressed. 51(70.8%) of participants from College of Education and Behavioral Studies were not depressed and 21(29.2%) of respondents from College of Education and Behavioral Studies were depressed. From College of Law and Government Studies, 50(66.7%) of respondents were not depressed but 25(33.3%) of respondents were depressed. From college of humanities, language studies, journalism and communication, 40(69.0%) of respondents were not depressed and 18(31.0%) of respondents were depressed. Significant association were not observed between colleges and depression (χ^2 (3) =.359, p=.949).

Table 10 Association between Family Marital Status and Depression

Family marital status	Dichotomous depression				χ^2 (df)	p-value
	Non- depressed		Depressed			
	N	%	N	%		
Live together	184	86.4	29	13.6		
Separated	21	28	54	72	109.398(2)	.000
Widowed	2	13.3	13	86.7		

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Note: n= number of respondents; χ^2 = chi square; df= degree of freedom.

As displayed on the above table, 184(86.4%) of participants whose families were live together were not depressed and the other 29(13.6%) of respondents whose families were live together were depressed. From respondents whose parents were separated, 21(28%) were not depressed and 54(72%) were depressed. And those participants whose parents were widowed, only 2(13.3%) were not depressed and 13(86.7%) were depressed. There is a statistical association between family marital status and depression ($\chi^2 (2) =109.398, p=.000$). The association between the variable is strong. Students whose families were widowed were more likely to be depressed with highest percentage (86.7%) comparing with those students whose families were live together and separated.

Table 11 *Association between Father Education Level and Depression*

	Dichotomous depression				χ^2 (df)	p-value
	Non- depressed		Depressed			
Father education level	N	%	N	%		
Illiterate	44	73.3	16	26.7	6.131(3)	.105
Elementary school	38	62.3	23	37.7		
Secondary school	39	59.1	27	40.9		
Graduated	86	74.1	30	25.9		

Note: n= number of respondents; χ^2 = chi square; df= degree of freedom.

From table 11, 44(73.3%) of respondents whose father's educational level were illiterate were not depressed, 16(26.7%) of respondents whose father's educational level were illiterate were depressed. From participants whose father's educational level were elementary school, 38(62.3%) were not depressed but 23(37.7%) were depressed. From participants whose father's educational level were secondary school, 39(59.1%) were not depressed and 27(40.9%) were

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depressed. 86(74.1%) of respondents whose father were graduated were not depressed but 30(25.9%) of respondents whose father were graduated were depressed. But there was non-significant association between father education level with depression, (χ^2 (3) 6.131, $p=.105$).

Table 12 Association between Mother Educational Level and Depression

Mother education level	Dichotomous depression				χ^2 (df)	P- value
	Non depressed		Depressed			
	N	%	N	%		
Illiterate	34	63	20	37		
Elementary school	67	67	33	33	1.801(3)	.615
Secondary school	55	68.8	25	31.2		
Graduated	51	73.9	18	26.1		

Note: n= number of respondents; χ^2 = chi square; df = degree of freedom.

From table 12, 34(63%) of respondents whose mother's educational level were illiterate were not depressed, 20(37%) of respondents whose mother's educational level were illiterate were depressed. From participants whose mother's educational level were elementary school, 67(67%) were not depressed but 33(33%) were depressed. From participants whose mother's educational level were secondary school, 55(68.8%) were not depressed and 25(31.2%) were depressed. 51(73.9%) of respondents whose mother were graduated were not depressed but 18(26.1%) of respondents whose mother were graduated were depressed. But there was non-significant association between mother education level with depression, (χ^2 (3) 1.801, $p=.615$).

Table 13 Association between Father Job and Depression

	Dichotomous depression				χ^2 (df)	p- value
	Non depressed		Depressed			
Father job	N	%	N	%		
Have no permanent job	100	63.3	58	36.7	3.853(1)	.05
Have permanent job	107	73.8	38	26.2		

Note: n= number of respondents; χ^2 = chi square; df= degree of freedom

When we saw the association between father occupation and depression, father's occupation was associated with depression (χ^2 (1) = 3.853, p= .05). Those students whose father had no permanent job were more likely to be depressed with a higher percentage (36.7%) than those students whose father had a permanent job.

Table 14 Association between Mother Job and Depression

	Dichotomous depression				χ^2 (df)	p- value
	Non depressed		Depressed			
mother job	N	%	N	%		
Have no permanent job	141	67.5	68	32.5	.226(1)	.634
Have permanent job	66	70.2	28	29.8		

Note: n = number of respondents; χ^2 = chi square; df= degree of freedom.

The result showed that 141(67.5%) of participants whose mother had no permanent job were not depressed but 68(32.5) of participants whose mother had no permanent job had depressed. From respondents whose mother had a permanent job, 66(70.2%) were not depressed and 28(29.8%) were depressed. When we saw the association between mother occupation and depression, there was non-significant association between mother occupation and depression, (χ^2 (1) = .226, p= .634). That is both students whose mothers who had a permanent job and who had no permanent job were equally depressed.

Table15 Logistic Regression on Depression (DV) With Independent Demographic Variable

	B	S.E.	Wald	Df	sig.	OR	95% C.I. for EXP(B)	
							Lower	Upper
age(1)	1.204	1.199	1.009				.318	34.977
sex(1)	2.895	.481	36.275	1	.000	18.086	7.050	46.400
Year			6.857	2	.032			
year(1)	1.260	.496	6.459	1	.011	3.525	1.334	9.312
year(2)	.527	.526	1.003	1	.317	1.694	.604	4.749
College			3.694	3	.296			
college(1)	.942	.557	2.859	1	.091	2.565	.861	7.643
college(2)	.163	.640	.065	1	.799	1.177	.336	4.125
college(3)	.693	.610	1.288	1	.256	1.999	.604	6.615
FMS			35.793	2	.000			
FMS(1)	-3.010	1.057	8.107	1	.004	.049	.006	.391
FMS(2)	-.321	1.053	.093	1	.760	.725	.092	5.712
FEL			4.696	3	.195			
FEL(1)	.503	1.039	.234	1	.629	1.653	.216	12.671
FEL(2)	-.521	.794	.430	1	.512	.594	.125	2.818
FEL(3)	.761	.605	1.584	1	.208	2.141	.654	7.003
MEL			.797	3	.850			
MEL(1)	.660	1.189	.308	1	.579	1.934	.188	19.896
MEL(2)	.370	.775	.228	1	.633	1.448	.317	6.610
MEL(3)	-.161	.619	.067	1	.795	.852	.253	2.864
FJ(1)	-.185	.551	.113	1	.737	.831	.282	2.447
MJ(1)	-.797	.548	2.114	1	.146	.451	.154	1.320
Constant	-2.650	1.790	2.192	1	.139	.071		

Note: B=, S.E= standard error, df= degree of freedom, sig. = level of significance, OR= odd ratio, CI= confidence interval

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A logistic regression was performed to ascertain the socio-demographic variables of age, gender, year, college, families marital status, father education level, mother education level, father job and mother job. From the result, gender ($p \leq 0.001$), study year ($p \leq 0.05$) and FMS ($p \leq 0.001$) had significant prediction but age ($p = 0.315$), college ($p = 0.296$), FEL ($p = 0.195$), MEL ($p = 0.850$), FJ ($p = 0.737$) and MJ ($p = 0.146$) were non-significant to the model. A logistic regression model was statistically significant, $\chi^2(19) = 191.29$, $P < 0.0005$. The overall percentage of correctly classified cases is 68.3 percent. The model explained 46.8 to 65.6 percent (Nagelkerke R^2) of the variance in depression score and 88.8 percent of depression in all the students predicted accurately. 76 percent of students who were depressed were correctly predicted by the model. 94.7 percent of students who were not depressed were also correctly predicted by the model. As shown on the above table (table 15), females were 18 times more depressed than males with 95% CI (7.050, 46.400). As the 95%CI do not overlap, when compared to those who are not depressed, first year students were 3.53 times higher odds (95%CI=1.334, 9.312). Respondents' family marital status was statistically significant with depression. Respondents' parents who were live together decreased the occurrence of depression.

CHAPTER FIVE

DISCUSSION

In this part, the researcher attempt to discuss the results with respect to the research questions described in chapter one. This section of the research also provides possible explanation for the result of the study presented in section four.

5.1. Prevalence of Depression

A total of 303 students were participated in the study from undergraduate students of Addis Ababa University. Majority of the respondents were in the younger age groups (18-24 years). In this study, the prevalence of depression in AAU undergraduate students was 31.7%. This study is consistent with the previous study that was conducted in different universities. For instance, Yousefi et al. (2009), and Sarokhani et al. (2013), reported that the prevalence of depression was around 30%. This study was also consistent with the study conducted among Nigerian university students, i.e. 32.2% of Nigerian university students had depressive symptoms (Peltzer et al., 2013), 33% of Canadian students (Peluso et al., 2011).

The prevalence was greater than a report (23.6%) from the previous study of Ethiopia (Terasaki et al., 2009 as cited Peltzer et al., 2013), 21.6% among Adama university students (Dessie et al., 2014), 11.7% Chinese university students (Chen et al. 2013), 17.1% Poland university students (Mojs et al., 2012), 26.4% among Kenyan university students (Khasakhala, 2012), 27% Turkish university students (Bayram et al., 2008; Bostanci et al., 2005), 25% among Michigan university students (Eisenberg et al., 2007), 27.6% among Oman university students (Al-Busaidi et al.,2011). However it is remarkably lower than a report from 37% Egyptian university students

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(Ibrahim et al., cited in Peltzer et al., 2013), 39% among Vietnam's university students (Do, 2007), 49% among Indian University students (Singh et al., 2011), 62% among Iranian university students (Safiri et al.,) and 70% among Pakistan university students (Khan et al., 2006; Dinh, 2005). This finding was also lower than a study conducted among university students of Ethiopia i.e. 50% of university students in Ethiopia had a symptom of depression (Lemma et al., 2012), 57% of preparatory students of Dessie (Shiferaw et al., 2006).

The above mentioned variation on the prevalence of depression between the present study and previous studies that were conducted among university students were due to variation in instruments. For example, to find the prevalence of depression, Peluso et al., (2011) and Peltzer et al., (2013) used CES-D for their study, Bayram et al., (2008) used DASS-42, Al-Busaidi et al., (2011) also used PHQ-9. Even if the instrument is the same, there was variation on cut off points. For example, Singh et al., (2011) used BDI-II but the cutoff point was different from this study i.e. they used 16 as a cutoff point. But this study used 13 as a cutoff point.

5.2. Associated Factors of Depression

The finding of this study indicate that females were more depressed ($M=16.0$, $SD=8.254$) than males ($M=8.63$, $SD= 4.609$). In agreement with this, previous researcher repeatedly reported that females are more likely depressed than males (Field et al., 2009; Singh et al., 2010; Khasakhala et al., 2012; Adewuya et al., 2006; Atindanbil & Abasim, 2011; Khawaja & Duncanson, 2008; Bayram & Bilgel, 2008). However, this finding is contrasted with studies in different universities, i.e. male students are more depressed than female students. For example in Jordan (Tafila university), males are more depressed than females (Al-Qaisy, 2011), a study from Indian university reported that males are more depressed than females (Arora, et al., 2014) and

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University of China reported that male university students are more depressed than female students (Sun et al., 2011). This finding also contrasted with the findings that both female and male university students are equally depressed. For example, in Oman university, both male students and female students are equally depressed (Al-Busaidi et al., 2011). Among Iranian university students, there was no gender difference in case of depression and both males and females are equally depressed (Sarokhani et al., 2013). The other study that was conducted in China also found that males and females are equally depressed (Chen et al., 2013). The variation of this finding with other findings might due to the variation in culture and the difference in sample size.

There was a relationship between study year and depression ($r=-.274$) which means that students study year had indirectly relation with depression. This means that when the study year of students increase, the occurrence of depression decrease and vice versa. In consistence with this, previous findings explained that depression was significantly higher in lower year students (Chen et al., 2013; Taysi et al., 1994; & Dogan et al., 1994; Bayram & Bilgel, 2008). But this finding contrasted with the study that there is a positive relationship between study year and depression (Bostanci et al., 2005) and the other study that second year students are more depressed than first year students and third year students (Singh et al., 2011). Like the above mentioned reasons, this variation might originate from differences in instruments, time when the study was performed or sampling errors.

Regarding to interrelationship among 9 independent variables; gender, study year and family marital status and father job had association which shown highly significant in Chi-square test for bivariate analysis (P- value <0.005). There was significant association between depression

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and family marital status. Those students whose families were widowed were more likely depressed with P- value = 0.000 was shown by 87%.

There was significant association between father job and depression. Those students whose father had no permanent job were more likely to be depressed with p- value= 0.05 was shown by 37%. In consistence with this Ibrahim et al., 2012 father job and depression were statistically significant.

But age, college of study, father education level, mother education level and mother job were not associated with depression. This is because that almost all students found around the same age level i.e.18-29 so there were no age variation.

The result in the final binary logistic regression model revealed that gender is a significant predictor for depression (P=0.000). The prediction showed that female students were 18 times more depressed than male students. Previous studies which was done among university students showed that students family marital status was the other predicting variable for depression (P= 0.000).

The other predictor variable for depression was study year (p= .032). The prediction showed that first year students were more depressed than second and third year students. The previous studies showed that first year students were more depressed (Taysi et al., 1994 & Dogan et al., 1994 cited in Bostanci et al., 2005; Chen et al., 2013; Bayram and Bilgel 2008). This is because of that first year students were new for the environment and they might get some difficulties to adapt the environment but when their study years increase, students adapt the university environment and the course. Family marital status was the other predicting variable for depression (p=.049). But family marital status was negatively predict for depression that means

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when student's parents were live together, a student might had low probability to develop depression. But if the student's parents were widowed and separated a student might had high chance to develop depression. This is happened because family marital status might had influence on family economic status and if his/her parents were not live together i.e. whether they were separated or widowed, the family economic status might be low and due to this a student might be develop feeling of loneliness. And if his/her single parent could not satisfy his/her need, a student might also develop felling of inferiority and finally he/she develop depression.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. Summary

The main purpose of the study was to examine depression among students of AAU, Sidist Kilo Campus. The study was also aimed to assess the prevalence of depression and to investigate the significant association of depression with gender and the other socio demographic variables. From regular undergraduate students of Sidist Kilo Campus, 336 participants (males= 168 and female= 168) were randomly selected from four schools. To collect data, 21-item of BDI-II was used. Before the main data was collected, pilot study was done for 30 students.

Then after the main data were collected from 303 respondents, analysis and interpretation of the data had been took place by applying the under listed statistical techniques. To assess the prevalence of depression only frequency and percentage was considered. To analyze gender difference on depression, t-test was employed. To see the interrelationship of independent variables and dependent variable the non-parametric test i.e. Spearman rank order correlation and parametric test i.e. Pearson correlation were used. To saw the association of socio demographic variables and depression chi- square was employed. And finally binary logistic regression was employed to saw the more predicting independent variable on depression.

The findings of this study revealed that the prevalence of depression was 31.7%. Out of these, 13.4% had mild depressive symptoms, 15.7% had moderate depressive symptoms and the remaining 2.6% had severe depressive symptoms. The result of T-test showed that there was gender difference on depression and female students were more likely to be depressed than male

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students. The Spearman rank order correlation showed that study year was negatively correlated with depression ($r=-.274$). Chi square results showed that there were strong associations between gender and depression, study year and depression, family marital status and depression, and father job and depression. Binary logistic regression test showed that gender, study year and family marital status were the most predicting factors for depression. Based on these findings female students were more likely to be depressed than male students, first year students were more likely to be depressed than second and third year students and those students whose parents were widowed and separated had the chance to be depressed than those students whose parents were live together.

6.2. Conclusion

The prevalence of depression is around 31.7%. There are high association between gender and depression. From chi square tests, it is clearly observed that gender, study year, family marital status and father job have significant association on depression. For that matter, female students are found more depressed than male students, first year students are more depressed than second and third year students, students whose parents were widowed and separated are more depressed than those students whose parents were live together, and students whose father have no permanent job are more depressed than those students whose father have a permanent job. But age, college, father education level, mother education level and mother job have no association on depression. The regression table also indicates that gender, study year, and family marital status are the more predicting factors for depression. In addition to this the other variables i.e. age, college, father education level, mother education level, father job and mother job are not significant.

6.3. Recommendation

The result of this study showed that depression is more affecting female, first year, and students whose parents did not live together. Based on these main findings of this study, the researcher forwarded the following implications:

- The prevalence of depression among undergraduate students has major implications. So, it is better to develop strategies in place to identify and support all students suffering from depression. Even there are students who are severely depressed which need immediate interventions.
- Depression is the most serious problem for university students, university communities such as counselors, teachers and administrative takes different actions for those students who were at risk for depression like by opening more counseling office and refreshment areas for students.
- In terms of depressive symptoms, different bodies in the university should give attention for female students like by giving life skill trainings, course tutorials, etc.
- First year students need to be oriented about learning and communication skills in order meet academic requirements and adapting the new environment that may the factor of depression.
- Strengthening the clinical set up and establishment of good referral linkage with mental health institutions is strongly recommended.
- Further study should be done by covering wide range of samples from different higher institutions in different geographical locations and by including variables that were not include in this study like ethnicity, religion, residence, etc.

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Appendix

Addis Ababa University

Education and Behavioral Studies

Clinical Psychology Post Graduate program

The aim of this questionnaire is to assess the prevalence of Depression in association with Gender. So you are kindly requested to give as a genuine information this questionnaire didn't have a right or wrong answer so you are expected to write only what you feel.

Thank you for your cooperation!!!!

PART I- BACKGROUND INFORMATION

This part of the questionnaire is presented to assess your personal back ground.

Age: _____

Sex: female____ male_____

Study year: first year____ second year____ third year_____

Study college: _____

Families' marital status:

Live together_____

Separated _____

Widowed _____

What is your father educational level?

Illiterate _____

Elementary school_____

Secondary school _____

Graduate _____

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What is your mother educational level?

Illiterate_____

Elementary school_____

Secondary school _____

graduate_____

Does your father have a job?

No _____

Yes _____

Does your mother have a job?

No _____

Yes _____

PART II -DEPRESSION ASSESSMENT

Instruction- The following part of the questionnaire have 21 items each respondents are expected to read every details of the alternatives and to circle on the feeling which is the same with them. If you got more than one alternative for the same group choose an alternative which have maximum degree

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1	Sadness	2	Pessimism
0	I do not feel sad	0	I am not discouraged about my future
1	I feel sad much time	1	I feel more discouraged about my future than I used to be
2	I am sad all the time	2	I do not expect things to work out for me.
3	I am so sad or unhappy that I cannot stand it much of the time	3	I feel my future is hopeless and will only get worse.
3	past failures	4	Loss of pleasure
0	I do not feel like a failure	0	I get as much pleasure as I ever did from the things I enjoy.
1	I have failed more than I should have	1	I do not enjoy things as much as I used to
2	When I see the past everything I do is failed	2	I get very little pleasure from the things I used to enjoy
3	I feel I am a total failure as a person	3	I cannot get any pleasure from the things I used to enjoy
5	Guilty feeling	6	punishment feeling
0	I do not feel particularly guilty	0	I do not feel I am being punished
1	I feel guilty over many things I have	1	I feel may be punished
2	I feel quite guilty most of the time	2	I expect to be punished
3	I feel guilty all of the time	3	I feel I am being punished
7	self dislike	8	self-criticalness
0	I feel the same about myself	0	I do not criticize or blame myself more than

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			usual
1	I have lost confidence in myself	1	I am more critical of myself than used to be
2	I am disappointed in myself	2	I criticize myself for all of my faults
3	I dislike myself	3	I blame myself for ever thing bad that happens
9	suicidal thoughts or wishes	10	Crying
0	I do not have any thought of killing myself	0	I do not cry any more than I used to
1	I have thought of killing myself, but I would not carry them out	1	I cry more than I used to
2	I would like to kill myself	2	I cry over every little thing
3	I would kill myself if I had the chance	3	I feel like crying, but I cannot
11	Agitation	12	loss of interest
0	I am no more restless or would up than usual	0	I have not lost interest in other people or activities
1	I feel more restless or would up than usual	1	I am less interest in other people or thing s than before
2	I am so restless or agitated that is hard to stay still	2	I have lost most of my interest in other people or things
3	I am so restless or agitated that I have to keep moving or doing something	3	It is hard to get interested in anything
13	Indecisiveness	14	worthlessness
0	I make decision about as well as ever	0	I do not feel I am worthless
1	I find it more difficult to make decision than	1	I do not consider myself as worthwhile

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	usual		and useful as I used to
2	I have much greater difficulty in making decision than I used to	2	I feel more worthless as compared to other people
3	I have trouble making any decisions	3	I feel utterly worthless
15	loss of energy	16	Changes in sleep patterns
0	I have as much energy as ever	0	I have not experienced any change in my sleeping pattern
1	I have less energy than I used to have	1	I sleep somewhat more than usual
2	I do not have enough energy to do very much	2	I sleep somewhat less than usual
3	I do not have enough energy to do thing	3	I sleep a lot more than usual
17	Irritability	18	Change in appetite
0	I am no more irritable than usual	0	I have not experience any change in my appetite
1	I am more irritable than usual	1	My appetite is somewhat less than usual
2	I am much more irritable than usual	2	my appetite is somewhat greater than usual
3	I am irritable all the time	3	I crave food all time
19	Concentration difficulties		Tiredness or fatigued
0	I can concentration as well as ever	0	I am no more tired or fatigued than usual
1	I cannot concentrate as well as usual	1	I get more tired or fatigued more easily than usual
2	it is hard to keep my mind on anything for	2	I am too tired or fatigued to do a lot of the

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	very long		thing I used to do
3	I find I can't concentrate on anything than	3	I am too tired or fatigue to do most of the things I used to do
21	loss of interest in sex		
0	I have not noticed any recent changes in my interest in sex		
1	I am less interested in sex than I used to be		
2	I am much less interested in sex now		
3	I have lost interest in sex complete		

አዲስ አበባ ዩኒቨርሲቲ

የትምህርት እና ስነ-ባህሪ ጥናት ኮሌጅ

የሃይኮሎጅ ትምህርት ቤት

በዩኒቨርሲቲ ተማሪዎች የሚሞላ መጠይቅ

የዚህ መጠይቅ ዓላማ ድባቱ (Depression) ከያታ አንጻር ያለው ግንኙነት በተመለከተ ለማጥናት የሚረዱ መረጃዎችን ለመሰብሰብ ነው። የዚህ ጥናት አስተማማኝነትና ትክክለኛነት የሚወሰነው አንተ/ች ለእያንዳንዱ ጥያቄ በምትሰጠው/ጭው ትክክለኛ ምላሽ ላይ ነው። ለመጠይቁ የምትሰጠው/ጭው ምላሽ ምስጢራዊ ተጠቃሚ ለጥናቱ ዓላማ ብቻ የሚውል ይሆናል። በመጠይቁ ማንኛውም ገጽ ላይ ስም መጻፍ አያስፈልግም። በቅድሚያ ጊዜህን/ሽን ወስደህ/ሽ መጠይቁን ስለሞላህ/ሽ አመሰግናለሁ።

ክፍል አንድ : አጠቃላይ መረጃ

መመሪያ: ለሚከተሉት ጥያቄዎች "✓" ምልክት በማድረግ ወይም የተጠየቀውን መረጃ በመጻፍ መልስ ሰጥ/ጭ።

- 1. እድሜህ /ሽ/ ስንት ነው? _____
- 2. ጾታ: ሴት ወንድ
- 3. የትምህርት ደረጃ: 1ኛ አመት 2ኛ አመት 3ኛ አመት
- 4. የትምህርት ክፍል/ ኮሌጅ: _____
- 5. የቤተሰብ የጋብቻ ሁኔታ: በጋራ ይኖራሉ ተለተኝል በሞት ምክንያት ተለያይተዋል
- 6. የአባትህ/ሽ/ የትምህርት ደረጃ: ያልተማረ የመጀመሪያ ደረጃ ትምህርት ሁለተኛ ደረጃ ትምህርት ተመረቀ
- 7. አናትህ /ሽ/ የትምህርት ደረጃ: ያልተማረች የመጀመሪያ ደረጃ ትምህርት ሁለተኛ ደረጃ ትምህርት የተመረቀች
- 8. አባትህ/ሽ/ ቁሚ ስራ አለው ? ለውም አለው
- 9. እናትሽ ቁሚ ስራ አላት? የላትም አላት

ክፍል ሁለት: ቤ ትባቱ (depression) መለኪያ መጠይቅ

ህ መቅ 21 ዓጾቁ ሲሆን አያንዳንዱ የቡድኑ አባላት በጥንቃቄ በማንበብ በአያንዳንዱ ግሩፕ ውስጥ ካሉት ዝርዝር ውስጥ አንተን/አንችን ሊገልጽ የሚችለውን ማለትም ባለፉት ሁለት ሳምንት የሚሰማህን/ሽን ዛሬን ጨምሮ ምረጥ/ጭ። መግለጫው ፊት ለፊት ያለውን ቁጥር አክብ/ቢ። ሆኖም በግሩፕ ውስጥ ከ 1 በላይ የሚሰማህን/ሽን ካገኘህ/ሽኅ ክፍተኛ የሆነ ምርጫ ያለውን ቁጥር አክብ/ቢ።

Depression among Addis Ababa University...

1	ራሴን ለማጥፋት አሰባሰቡ ነገር ግን ላደርገው አልችልም	1	ከዚህ በፊት ከማለቅሰው በላይ አለቅሳለሁ
2	ራሴን ለማጥፋት <input type="checkbox"/> አ <input type="checkbox"/> ል <input type="checkbox"/> ለሁ	2	በትናንሽ ነገር አለቅሳለሁ
3	እድሉን ባገኝ ራሴን አጠኛለሁ	3	አልቅስ አልቅስ <input type="checkbox"/> ለኛል ግን አላለቅስም
11	መቁነጥነጥ	12	የፍላጎት ማጣት
ወ	ከዚህ በፊት ከነበረው በተለየ መልኩ አልቁነጠነጥም	ወ	በሌሎች ሰዎች ድርጊቶች ላይ ፈላጎት አላጣሁም
1	ከ <input type="checkbox"/> ህ በፊት በተለየ የመቁነጥነጥ ስሜት ይሰማኛል	1	በሌሎች ሰዎች ወይም ነገሮች ላይ ከዚህ በፊት ከነበረው የተወሰነ ፍላጎት አጥቻለሁ
2	አንድ ቦታ <input type="checkbox"/> ለመቀመጥ በሚያዳግት ሁኔታ <input type="checkbox"/> የመቁነጥነጥ ስሜት ይሰማኛል	2	በሌሎች ሰዎች ወይም ነገሮች ላይ አብዛኛውን ፍላጎቴን አጥቻለሁ
3	በ <input type="checkbox"/> ም ከመቁነጥነጤ የተነሳ መንቀሳቀስ ወይም የሆነ ነገር መስራት አለብኝ	3	በማንኛውም ነገር ላይ ፍላጎት ማግኘት አዳጋች ሆኖብኛል
13	ውሃኔ መስጠት	14	የተፈላጊነት እሰጣለሁ
ወ	ከዚህ በፊት ከነበረው በተመሳሳይ ሁኔታ ውሃኔ እሰጣለሁ	0	አንደበፊቱ ተፈላጊ መሆኔ ይሰማኛል
1	ከዚህ በፊት ከነበረው በበለጠ ውሃኔ ለመስጠት እችላለሁ	1	ከዚህ በፊት <input type="checkbox"/> አንደነበረው ተግባራዊ መሆኔን አላስብም
2	ከዚህ በፊት ከነበረው በተለየ መልኩ ውሃኔ ለመስጠት በከፍተኛ ሁኔታ እችላለሁ	2	ከሌሎች ሰዎች ጋር ራሴን ሳነጸጸር ያለመፈለግ ስሜት <input type="checkbox"/> ሰማኛል
3	ማንኛውንም ነገር ላይ ውሃኔ ለመስጠት በከፍተኛ ሁኔታ እችላለሁ	3	በብዛት አንደማልፈልግ ይሰማኛል
15	የአቅም ማነስ	16	<input type="checkbox"/> መተኛት ሂደቶች መለዋወጥ
ወ	ከዚህ በፊት ከነበረው በተመጣጣኝ ሁኔታ አቅም አለኝ	ወ	<input type="checkbox"/> መተኛት ሂደት ለውጥ አላጋጠመኝም
1	ከዚህ በፊት ከነበረው ባነሰ ሁኔታ <input type="checkbox"/> አቅም አለኝ	1	ከዚህ በፊት ከነበረው በላይ <input type="checkbox"/> አተኛለሁ
2	ሁሉን ነገር ለማከናወን ተፈላጊው አቅም የለኝም	2	ከዚህ በፊት ከነበረው ባነሰ ሁኔታ እተኛለሁ
3	ማንኛውንም ነገር ለማድረግ አቅም የለኝም	3	ከዚህ በፊት ከነበረው እጅግ በበለጠ <input type="checkbox"/> ሁኔታ እተኛለሁ
17	ግልፍተኝነት	18	የምግብ ፍላጎት ላ <input type="checkbox"/> ለውጥ
ወ	ከዚህ በፊት ከነበረው በበለጠ ሁኔታ <input type="checkbox"/> ልክተኛ	ወ	የምግብ ፍላጎት ላይ ምንም ዓይነት ለውጥ አላጋጠመኝም

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	አይደለሁም		
1	ከዚህ በፊት ከነበረው በላይ ግልፍተኛ ነኝ	1	የምግብ ፍላጎት ከበፊት የቀነሰ ነው
2	ከዚህ በፊት ከነበረው በላይ በጣም <input type="checkbox"/> ልክተኛ ነኝ	2	የምግብ ፍላጎት ከበፊት የጨመረ ነው
3	በማንኛውም ሰዓት ግልፍተኛ ነኝ	3	በማንኛውም ቋ <input type="checkbox"/> ም <input type="checkbox"/> ብ እ <input type="checkbox"/> ል <input type="checkbox"/> ለሁ
19	የትኩረት ችግር	20	ትኩረት
ወ	ከበፊት <input type="checkbox"/> እኩል ትኩረት አለኝ	ወ	ከበፊት በተለየ መልኩ የድካም ስሜት አይሰማኝም
	ከበፊት በተመጣጣኝ ሁኔታ ትኩረት የለኝም	1	ከበፊት በተለየ መልኩ የድካም ስሜት ይሰማኛል
2	ለረጅም ጊዜ አገምግሞን በአንድ ቦታ መሰብሰብ ያስቸግረኛል	2	ከዚህ በፊት የማደረጋቸውን ነገሮች ለማድረግ የድካም ስሜት <input type="checkbox"/> ሰማኛል
3	በማንኛውም ነገር ላይ ትኩረት መስጠት አዳግቶኛል	3	ከዚህ በፊት የማደረጋቸውን አብዛኛውን ነገሮች ለማድረግ የድካም ስሜት ይሰማኛል
21	በወሲብ ላይ ፍላጎት ማጣት		
ወ	በወሲብ ላ <input type="checkbox"/> ጸለ የፍላጎት ለውጥን በቅርብ ጊዜ አልተመለከትኩትም		
1	ከዚህ በፊት ከነበረው ባለ ሁኔታ <input type="checkbox"/> የወሲብ ፍላጎት አለኝ		
2	በአሁን ወቅት በወሲብ ላይ እጅግ አናሳ ፍላጎት አለኝ		
3	በአሁን ሰከት ምንም የወሲብ ፍላጎት የለኝም		

አመሰግናለሁ።

DECLARATION

I, the undersigned declare that this thesis is my original work, has not been presented for a degree in any other university and that all sources of materials used for the thesis has been duly acknowledged.

Name: Yalemwork Gashaw

Signature _____

Date: March, 2015

This thesis has been submitted for examination with my approval as university advisor

Dr. Robert Todd Wise