ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, SCHOOL OF MEDICINE,
DEPARTMENT OF PSYCHIATRY.

PREVALENCE AND ASSOCIATED FACTORS OF SUICIDAL IDEATION AND ATTEMPT AMONG UNIVERSITY STUDENTS AT ADDIS ABABA UNIVERSITY; A CROSS-SECTIONAL STUDY.

PRINCIPAL INVESTIGATOR: ETSUBDINK MEKBIB

MARCH 2024
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A THESIS PROPOSAL SUBMITTED TO THE DEPARTMENT OF PSYCHIATRY, SCHOOL OF MEDICINE, COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR A SPECIALITY CERTIFICATE IN PSYCHIATRY.

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Abbreviations

AAU – Addis Ababa University

APA- American Psychological Association

ASEAN- Association of Southeast Asian Nations

ASSIST- The Alcohol, Smoking and Substance Involvement Screening Test

CDC- Center for Disease Prevention

CGPA- Cumulative Grade Point Average

CMD- Common Mental Disorders

CTQ- Childhood Trauma Questionnaire

GAD7- Generalized Anxiety Questionnaire 7

OSSS 3- Oslo Social Support Scale

PHQ9- Patient Health Questionnaire 9

SBQ-R- Suicidal Behaviors Questionnaire- Revised

SPSS- Statistical Package for Social Sciences

WHO- World Health Organization

UK- United Kingdom

UNICEF- United Nations International Children's Emergency Fund

US- United States (of America)

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Contents

Abstract

Introduction: Suicide is a self-inflicted harm to oneself with the intent of dying. Suicidal ideation is the act of considering, contemplating, or intending to commit suicide; while suicidal attempt is when someone harms themselves with the intention of ending their life but does not pass away because of their acts. It affects people in all age groups across the world. Suicide is one of the major public health concerns affecting many people around the world. The contributing factors to the rise in suicide rates among university students in Ethiopia, as well as in Addis Ababa could be availability of mental health resources and support, the stigma surrounding mental health and lack of awareness and education about suicide prevention. Understanding the prevalence and contributing factors to suicide among university students is crucial in developing effective prevention strategies.

Objective: To determine the prevalence and associated factors of suicide among undergraduate university students attending AAU.

Methods: A cross-sectional study was conducted among a sample of 413 students attending 3 campuses of AAU. Data was collected through structured self-administered questionnaires.

Result: The prevalence of any form of suicidal behavior was 16%. Age (p-value 0.005), frequent alcohol use over the past 3 months (p-value 0.05), feeling about the past year's result (p-value 0.05), higher depression scores on PHQ-9 (p-value 0.02) and emotional abuse (p-value <0.001) were found to be associated with suicidal outcomes.

Conclusion: The findings in our study showed that suicidal outcomes are high among university students attending AAU. The factors associated with suicidal outcomes were age, emotional abuse during childhood, recent alcohol use history, depression and feeling about the past year's result. The associated factors were also in line with previous literature regarding suicide as well as with scientific knowledge.

1. Introduction

1.1. Background

Suicide is a self-inflicted harm to oneself with the intent of dying. Suicidal ideation is the act of considering, contemplating, or intending to commit suicide; while suicidal attempt is when someone harms themselves with the intention of ending their life but does not pass away because of their acts. It affects people in all age groups across the world.(1)

Suicidal behavior is an intricate process that consists of suicidal ideation, planning, attempts, and the final act of suicide. It is a complex phenomenon that results from the interaction of many factors, including genetic, psychological, and environmental factors.(2)

Suicide is highly correlated with psychiatric disorders, and it is one of the common presentations. 90% of the people who commit suicide have a psychiatric disorder. Among these, more than half fulfill the criteria for a current depressive disorder.(3) Studies show it is estimated that 4% of patients with depression and 10-15% of patients with bipolar disorder die by suicide.(4) A meta-analysis from 2019 showed the lifetime prevalence of suicidal attempt in patients with schizophrenia to be 26.8%.(5) Suicide is also seen in patients with anxiety disorders and another meta-analysis found that these patients tend to experience suicidal ideation and attempt suicide.(6)

Suicide is one of the major public health concerns affecting many people around the world. The 2023 WHO suicide report shows that more than 700,000 people die by suicide every year. It is the fourth leading cause of death among those aged 15-29 years globally.(7) Suicide among university students is becoming a huge burden worldwide as well as in Ethiopia; thus it requires attention from university administrations and policymakers.

Ethiopia has a population of approximately 123 million people.(8) Among these, youth between the ages of 10-24 are found to be approximately 34.8% of the total population based on reports by the UNICEF.(9) Addis Ababa is the capital city of Ethiopia with a current estimated population of over 5.4 million people. It is estimated that there are more than 450,000 students enrolled in higher education in Ethiopia.(10)

As of 2022, there are 79 universities in Ethiopia, located in different regions of the country. Among these 42 are public universities.(11) There are also numerous private colleges all over the country.

Addis Ababa University is the oldest university in Ethiopia. It is one of the public universities in the country and has 14 campuses. AAU runs 70 undergraduate and 293 graduate programs and several specializations in Health Sciences. It has a total of 47,610 students, among which 29,872 are undergraduate students. The main campus of AAU (6 kilo campus) is in Gulele sub-city and is found next to Yekatit 12 Hospital Medical College. It has 8 colleges and institutes teaching social sciences. The AAU 4 kilo campus is a natural sciences campus located in Arada sub-city, next to Menelik II Secondary School and it comprises 4 colleges and institutes. AAU 5 kilo campus is also located in Arada sub-city and is one of the institutes of AAU and called Addis

Ababa Technology Institute. It is composed of 6 schools. (12) These three campuses were selected by the primary investigator for this study.

1.2. Statement of the problem

The prevalence of suicide among youth has become a major public health concern across the globe and it is also becoming a growing concern in Ethiopia. Suicide is a complex issue with multiple causes, yet the lack of proper understanding of the risk factors and underlying causes of suicide has made it difficult to address this issue effectively.

The contributing factors to the rise in suicide rates among university students in Ethiopia, as well as in Addis Ababa could be availability of mental health resources and support, the stigma surrounding mental health and lack of awareness and education about suicide prevention.

The main problem to be addressed in this study is to identify the factors that contribute to the prevalence of suicide among university students in Addis Ababa University. This study aims to investigate the social, economic, and psychological factors that influence suicidal behavior among university students.

Understanding the prevalence and contributing factors to suicide among university students is crucial in developing effective prevention strategies.

1.3. Significance of the study

To my knowledge, there is no recent study done regarding suicide in university students in Addis Ababa aside from medical students. Assessing suicide in this population will shed light on the current prevalence and impact and can be a beginning for future studies in this area.

This study can provide data regarding the prevalence of suicide among university students in AAU and identify the associated factors. This can help in developing and implementing targeted interventions in order to prevent and manage suicide in this population.

It could also have some role in raising awareness about the issue of suicide among university students which can help in reducing stigma and encourage open discussions regarding this topic.

1.4. Research questions

Among first year university students attending AAU:

- What is the prevalence of suicidal ideation and attempt?

- What are the factors associated with suicidal ideation and attempt?

2. Literature Review

2.1 Prevalence of suicide

High-income and upper middle-income countries

Suicide is a growing concern among university students all over the world. There are various studies done in both undergraduate and postgraduate university students regarding suicidal behavior and other symptoms of mental distress.

A systematic review with metanalysis which was conducted in 2021 analyzed 66 articles published over 34 years and found the pooled prevalence of suicide-related outcomes to be 14% and the prevalence of depression to be 25%.(13) The 12 nations study, which was published in 2015 surveyed 5,572 university students using self-administered questionnaires from 12 countries in Europe and Asia and the US and found the prevalence of suicidal ideation to be 28.8% and suicidal attempt to be 7%.(14) Similarly, another study done based on web-based self-report surveys from 8 countries showed comparable results with lifetime prevalence of suicidal ideation, plan and attempt of 32.7%, 17.5% and 4.3% respectively. This study included both low-middle- and high-income countries, most of which were from Europe, but it also included Australia, US, Mexico and South Africa.(15)

A study done in the US analyzed data collected from undergraduate and postgraduate students through a web-based survey from the Healthy Minds Study which was administered at 79 universities and examined mental health and related factors and found the 12-month prevalence of suicidal ideation to be 12.6% and suicidal plan and attempt to be 5.7% and 1.3% respectively.(16) Another prospective study was also done in the US in one mid-Atlantic University by conducting face-to-face interviews with 1253 students over a course of 4 years. The study had similar findings with the Healthy minds study and found 12% of individuals had suicidal ideation at some point during college. However, the prevalence of suicidal attempt was 0.9% which was slightly lower.(17)

Among studies done in Europe, a 2018 cross-sectional study conducted using an online questionnaire among 220 first year undergraduate university students in Ireland found the prevalence of suicidal ideation to be 28.5%.(18) Comparably, a web-based study done in 2018 in one public university in Spain found the prevalence of suicidal ideation to be 26.9% and it also assessed suicidal attempt which was 5.2%.(19) Another study published in 2018 in Norway also showed similar results. It analyzed data collected from a national health survey for higher education and assessed 50,054 full-time students and the prevalence of lifetime suicidal ideation and attempt were 21% and 4.2% respectively. It also assessed the 12-month prevalence of both which were 7.2% and 0.4% respectively.(20)

In contrast, a more recent cross-sectional study done in UK assessed 1273 students using online questionnaires and the prevalence of suicidal ideation was higher than the above studies, which was 42.2%. The study also assessed prevalence of suicidal plan and attempt which were 20.1% and 10.8% respectively.(21)

A study done in Australia which was published in 2009, assessed 1678 undergraduate students and found the 12-month prevalence of suicidal ideation was 61.5% which is much higher than the studies done in Europe and US. The 12-month prevalence of suicidal attempts was 11%. This study also assessed health-seeking behavior and found that half of the group who reported suicide attempts did not use any type of mental health services.(22)

Among the studies done in Asia, a serial prevalence study done in Japan over a period of 23 years among university students found that suicide rates increased throughout the 23 years. Overall, suicide accounted for 42.4% of all deaths. Only 16.4% had received an official psychiatric diagnosis and 16.0% had received services through the university health center prior to the suicides.(23)

A 2006 cross-sectional study done in students from 2 state Universities in Turkey found the lifetime prevalence of suicidal ideation to be 11.4% and suicidal attempts to be 7.1%, which is lower when compared to the studies done in Europe, US and Australia.(24) In comparison, a cross-sectional study conducted in 2008 among university students in South Korea found a lower prevalence of lifetime suicidal attempt which was 3.3%. This study also assessed the 2-week prevalence of suicidal ideation which was 9.8%.(25) A 2016 cross-sectional survey conducted in China assessed the 12-month prevalence of suicidal outcomes and the findings were 13.2%, 3.3% and 3.4% for suicidal ideation, plan and attempt respectively.(26) These results are comparable to the study done in Norway.

Lower middle- income and low-income countries

A cross-sectional study published in 2017 assessed university students from 6 countries of the Association of Southeast Asian Nations (ASEAN countries), which include Cambodia, Indonesia, Malaysia, Myanmar, Thailand, and Vietnam. The study surveyed 4675 undergraduate students and found the lifetime prevalence of suicidal ideation and attempt to be 11.7% and 2.4% respectively.(27) Comparably, a cross-sectional study done in India surveyed 1817 undergraduate college students and found the lifetime prevalence of suicidal ideation and attempt to be 11.7% and 4% respectively.(28) Another cross-sectional study done in Bangladesh found the 12-month prevalence of suicidal ideation to be 13.8%.(29) A 2017 cross-sectional study done in one public university in Brazil found the 1-month prevalence of suicidal ideation to be 9.9%.(30) These findings are comparable to the studies done in the US and Asia but lower than the findings from Europe and Australia.

Among the studies done in Africa, a systematic review published in 2014 assessed suicide outcomes in Africa and crude estimates suggested over 34,000 suicides per year, with an overall incidence rate of 3.2 per 100,000 population. However, the study found regional or national suicide incidence data only for less than 1/3rd of the countries during the time the research was conducted. Suicide was found to be 3 times more common in men and the most frequently used methods identified were hanging and pesticide poisoning.(31)

A study published in 2021 in South Africa used a cross-sectional web-based survey and assessed first year university students from 2 universities and the lifetime prevalence of suicidal ideation, plan, and attempt were found to be 46.4%, 26.5% and 8.6% respectively. The 12-month

prevalence of suicidal ideation, plan and attempt were 30.6%, 16.6% and 2.4% respectively.(32) These findings are higher than most high- and middle- income countries. In contrast, another cross-sectional study done in 2020 in another university in South Africa included 826 university students and found the lifetime prevalence of suicidal ideation and plan to be 24.5% and 11.4% respectively and the 12-month prevalence of suicidal plan was 9.6%.(33)

Comparably, a recent 2021 cross-sectional study done in 4 universities in Uganda found similar results to the studies done in South Africa. The study assessed 540 undergraduate university students using online surveys and found the 12-month prevalence of suicidal ideation to be 31.8% and suicidal plan and attempt to be 8.2% and 6.1% respectively.(34) In contrast, a 2019 cross-sectional study done in Nigeria assessed students from 6 state universities and found the lifetime prevalence of suicidal ideation to be 7.5%(35), which is significantly lower than both studies from South Africa.

Another cross-sectional study done in Ghana assessed 1003 university students and found the lifetime prevalence of suicidal ideation, plan and attempt to be 15.2%, 6.8% and 6.3% respectively.(36) The rate of lifetime suicidal ideation is lower than the findings from South Africa and Uganda, but the other suicide outcomes are comparable to the findings from these countries. Similarly, a recent study done in 2 universities in Kenya assessed 431 undergraduate students and found the lifetime prevalence of suicidal ideation, plan and attempt to be 17.1%, 5.9% and 7.8% respectively. This study also assessed the prevalence of self-harm which was 5.5%.(37)

According to a cross-sectional study done in Addis Ababa, lifetime prevalence of suicidal attempt in adults was found to be 0.9%.(38) Among the other studies done on university students in Ethiopia, a meta-analysis that was published in 2021 analyzed 13 papers on suicidal ideation and attempt among university students published over the course of 11 years (1999-2010) in Ethiopia and found the 12-month pooled prevalence of suicidal ideation and attempt to be 9% and 4% respectively.(39) This finding is comparable to the results from US and Norway among the high-income countries and to Bangladesh from the low-income countries, however it is significantly lower than most findings from Africa such as South Africa and Uganda.

A community-based cross-sectional study was conducted in 2019 among youth living in Northwest Ethiopia in central, north, and west Gondar zones from the information collected for the assessment of common health problems and risky behaviors among youth. The study assessed 1597 youth between the ages of 15-24 and found the lifetime prevalence of suicidal ideation and attempt to be 9.9% and 5.5% respectively.(40) These findings are lower than most studies from high-income countries as well as the findings from other African countries. However, this study was not conducted among university students so comparing it with the other studies might not be reliable.

There are many studies which tried to assess mental distress among university students in Ethiopia and they showed that it was high in most students. According to a meta-analysis that analyzed 11 papers and published in 2022, the pooled prevalence of mental distress among university students was found to be 35%.(41) Other cross-sectional studies conducted in different universities also showed comparable results; 21.6% in Adama university(42), 29.1% in Mekelle

university(43) and 30% among students in Hawassa University(44). It was shown in some of the studies that suicide outcomes are higher in students who have mental distress.

There are also other studies which assessed the prevalence of CMD such as depression and anxiety among university students in Ethiopia. The presence of CMD is also shown to be associated with suicide outcomes. There was a high prevalence of depression shown in some of the studies; 26.8% in students attending Haramaya university(45), 28.2% in Jimma university(46) and 32.2% in Ambo university(47).

Medical school is considered stressful and difficult due to the extensive workload, studying and clinical practice it requires. Thus, there are several studies done among medical students in Ethiopia. A 2019 cross-sectional study done among medical students in Haramaya University assessed 757 students and found the 12-month prevalence of suicidal ideation and attempt to be 23.7% and 3.9% respectively. It also assessed the lifetime prevalence of suicidal ideation and attempt which was 29.3% and 6.3% respectively(48). Even though this study was conducted only among medical students, the findings are comparable to most of the studies done in Africa. This study also assessed the most common methods used for suicide attempts which were hanging, poisoning, and using sharp tools. Another cross-sectional study conducted in the same year among medical students attending University of Gondar assessed 393 students and found the lifetime prevalence of suicidal ideation to be much lower than the study done in Haramaya which was 14%. The lifetime prevalence of suicidal attempt was 7.4% which is comparable to the former study.(49) Similarly, a cross-sectional study done among 423 medical students in AAU in 2018 found the prevalence of suicidal attempt to be 8.2%.(50)

Among the studies done in non-medical undergraduate students, a cross-sectional study done in 2011 among 413 students in Adama university found the 1-month prevalence of suicidal ideation to be 0.9%(42), which is comparable to most findings from other African countries. Comparably, another institutional based cross-sectional study was conducted in 2017 in Mekelle university and assessed 406 students and found the 1-month prevalence of suicidal ideation and attempt to be 17% and 0.7% respectively.(43)

In contrast, a recent study done in 2019 done in Mettu University assessed the lifetime and 12-month prevalence of suicidal ideation and attempt among undergraduate university students from a sample of 523 students. The findings were comparable to most of the findings from Europe as well as the findings from Australia and South Africa. The lifetime prevalence of suicidal ideation, plan and attempt was 58.3%, 37.3% and 4.4% respectively while the 12-month prevalence of suicidal ideation was found to be 34%(51). As opposed to what would be expected, these findings show higher suicide outcomes than students attending medical school.

An institution based cross-sectional study was conducted in 2016 in Dilla university among 537 first year students and found that 42.5% of the sample had difficulties with adjusting. The adjustment problems were in areas of being familiar to the institution, academic problems and emotional and social problems.(52)

Thus, assessing the prevalence of suicidal ideation and attempt among university students will help understand the level of difficulty students face during their stay in campus. It will also give

a general idea about the prevalence of suicide related outcomes among non-medical university students attending AAU.

2.2. Factors associated with suicide.

High-income and upper middle-income countries

A systematic review conducted in 2018 analyzed 19 studies and assessed the association between sleep problems and suicidal and self-harm behaviors among university students and it was found that frequency of insomnia symptoms was temporally associated with suicidal ideation and overall poor sleep increased suicidal ideation in the acute period regardless of symptoms of depression.(53) Similarly, another systematic review published in 2019 analyzed 29 studies and found that sleep difficulties were related to suicide outcomes, and it also identified other risk factors such as depression, sense of hopelessness and a disconnection from others to be significant risk factors for suicide outcomes.(54) Comparably, the findings from another meta-analysis done in 2021 showed that having a current mental health problem, childhood adversity and financial difficulties significantly predicted suicide-related outcomes.(55)

In the 2019 Healthy Minds Study from the US, emotional, physical or sexual abuse were found to be highly associated with suicide outcomes.(16) The other study done in the US in the mid-Atlantic university also found childhood or adolescent exposure to domestic violence to be associated with persistent suicidal ideation, and it also identified other risk factors such as low social support, maternal depression and high self-reported depressive symptoms.(17)

Among the studies in Europe, the study conducted in UK also found depression to be highly associated with suicide outcomes and it also found psychosis and psychological stress to be correlated.(21) In contrast, the 2018 cross-sectional study done in Ireland found suicidal ideation to be correlated with poor relationship with parents and financial stress.(18) Another Irish study conducted in 2015 among 493 University students using an online survey assessed factors related to suicide behavior such as stigma associated with suicide, help-seeking behavior and the role of group identification. It found that group identification was highly related to help-seeking attitudes of people. Those who identified more strongly with their university demonstrated a higher stigma of seeking help from their university mental health service.(56)

In contrast, the study done in Spain in 2018 found suicidal behavior was highly correlated with using substances such as marijuana and sedatives, but it found social support to be a protective factor.(19) The study done in Norway also found social support to be a major determinant of suicide outcomes and being single and living alone were found to be associated factors. Additionally, low annual income and being an immigrant were also found to be associated with suicide outcomes.(20)

Based on the 2009 study from Australia, suicidal ideation was found to be highly correlated with previous use of mental health services and living arrangements and was higher in those living alone.(22)

Among the studies done in Asia, a systematic review done from literatures studied in South Korea over a period of 20 years on attitudes towards suicide and risk factors for suicide attempts among university students found that factors such as negative attitudes towards the self, confusion of meaning in life, anxiety and stress about academic achievement, family problems, hopelessness, depression and bipolar disorders were highly associated with suicide outcomes.(57) In contrast, the serial study done in Japan found suicide outcomes to be more common among male students, those in the final year of their program, medicine majors, students who completed extra years of schooling and those who took academic leaves of absence.(23)

On the contrary, the 2016 cross-sectional study done in China found suicidal behavior to be more common in female students. Additionally, it found factors such as depression, quality of life, not living together with university roommates and family history of psychiatric illness to be associated with suicide outcomes(26) which is similar to the other studies in Asia as well as most studies from Europe and the US.

Lower middle- income and low-income countries

The ASEAN study identified childhood sexual abuse, depressive symptoms, involvement in physical fights and poor academic performance to be associated with suicide outcomes.(27) Similarly, the study done in Bangladesh found exposure to traumatic events to be significantly associated and it also identified other factors such as being female, lower socioeconomic status and family history of suicide.(29) The study conducted in India also found socioeconomic status to be associated with suicidal behavior and stressful experience of religious conflict was also implicated in the findings.(28) Comparably, based on the study in Brazil, depressive symptoms and suicidal attempt in the family were found to be highly associated with suicide outcomes.(30)

Among the studies done in Africa, the 2014 systematic review found interpersonal difficulties, mental and physical health problems, socioeconomic status and alcohol and drug abuse to be associated with suicide outcomes .(31) Likewise, the 2021 study done in South Africa also found common mental disorders to be associated with suicide outcomes.(32) Comparable to the findings from the systematic review, the study in Uganda found chronic medical conditions and socioeconomic status were highly associated with suicidal behavior and showed suicidal ideation was higher in those students who had difficulty paying their tuition fees.(34)

The study done in Kenya found suicidal behavior was more common in female students and those attending private university and found factors such as depression, hopelessness, anxiety, financial difficulty, family conflicts and academic challenges to be risk factors for suicidal behaviors.(37) Similarly, the study conducted in Ghana showed psychological distress was significantly associated with suicide outcomes.(36) In contrast, the study done in Nigeria showed alcoholism and helplessness were found to be significantly associated with suicide outcomes.(35)

From the studies done in Ethiopia, according to the youth community-based study conducted in Gondar, the factors found to be associated with suicide outcomes were depression, current khat use and poor social support. All suicide outcomes were more commonly seen among females.(40) In contrast, the 2021 meta-analysis did not identify any significant difference among males and females regarding all suicide outcomes.(39)

The meta-analysis published in 2022 identified being female and khat use to be highly associated with mental distress and it also identified other factors such as financial distress, alcohol use, disagreement with friends, not being interested in the field they are learning and family history of mental illness to be associated with mental distress.(44)

Among the studies done on medical students, the study conducted in Haramaya university identified depression, anxiety, current alcohol use, poor social support and CGPA were the factors found to be correlated with suicide outcomes.(48) Similarly, the study done in AAU also found poor social support to be associated with suicide outcomes. This study also identified other factors such as being female, presence of chronic medical illness, psychological distress, excessive course load and daily internet use for more than 3 hours to be associated. (50)

Regarding the studies done in non-medical students, according to the 2011 study done in Adama, family history of mental illness, frequent disagreements with friends, use of khat and not attending religious programs were closely linked to mental distress.(42) Like most of the studies done in Ethiopia, the findings from Mettu university showed that suicidal behavior was higher among female students. This study also found being a freshman, poor social support, family history of suicidal attempt, lifetime alcohol use, coming from rural part of the country and less frequent engagement in religious practices to be associated with suicide outcomes.(51)

3. Objectives

3.1 General Objective

- To determine the prevalence and associated factors of suicidal behavior among undergraduate university students attending AAU.

3.2 Specific Objectives

- To determine the prevalence of suicidal ideation and attempt.

- To identify factors associated with suicidal ideation and attempt.

4. Methods

4.1. Study setting

The study was conducted in three campuses of Addis Ababa University which are 4 kilo, 5 kilo and 6 kilo campuses. AAU is Ethiopia's first and oldest university and was established in 1950 G.C. The main campus of AAU (6 kilo campus) is in Gulele sub-city and is found next to Yekatit 12 Hospital Medical College. It has 8 colleges and institutes teaching social sciences. The 4-kilo campus is a natural sciences campus located in Arada sub-city, next to Menelik II Secondary School and it comprises 4 colleges and institutes. The 5-kilo campus is also located in Arada sub-city, in front of the National Museum of Ethiopia. It has 6 schools and 4 centers. The other campuses of the university were not included because of limited time and resources available during the research period.

All campuses teach programs that take 3-5 years to complete. For this study, College of Social Sciences was selected from 6 kilo campus. Data was collected from 3rd and 4th year students from 4 kilo and 6 kilo campuses, and 3rd, 4^{th,} and 5th year students from 5 kilo campus. 1st and 2nd year students were not attending classes in all campuses during the data collection period.

4.2. Study period

The study was conducted from October – November 2023.

4.3. Study design

A cross-sectional study design was employed.

4.4. Population

The source population was all students enrolled in AAU at the three selected campuses.

There were a total of 2378 students registered for the first semester in all campuses. The total number of students in College of Social Sciences was 356 among which females accounted for 45.4%. There were 12 students with visual impairments. There were a total of 1307 students in Addis Ababa School of Technology among which females accounted for 23%. The total number of students in College of Natural Sciences was 713 among which 37.1% were females.

4.5. Inclusion criteria

- Undergraduate students registered and attending first semester at 4-kilo, 5-kilo, and 6-kilo campuses of AAU.

4.6. Exclusion criteria

- Those students who were not willing to fill out the questionnaires.
- Those students with visual impairments.

4.7. Sample size

$$\frac{N = \ Z2\ x\ p(1-p)}{d2}$$

Z- is the standard normal deviation (set at 1.96 for a 95% confidence interval).
p- is the estimated prevalence of suicide among undergraduate non-medical university students from previous literatures. The study done in Mettu was selected by the primary investigator because it had the highest prevalence of suicide which was 58.3% for suicidal ideation, 37.3% for suicidal plan and 4.4% for suicidal attempt. So, the higher value of 0.58 was taken.
d- is the desired level of precision (set at 0.05).

N = 374

Considering a contingency of 10% (non-responders), and an additional 10% because of the sensitivity of the study topic, the final sample size was N=449.

4.8. Dependent variables

- Suicidal ideation
- Suicidal attempt

4.9. Independent variables

- Socio-demographic characteristics
- Financial status
- Academic performance
- Social support
- Family history of mental illness and suicide
- Relationship with family and friends
- Symptoms of depression
- Symptoms of anxiety
- Substance use
- Chronic medical illness
- Childhood adversity

4.8. Sampling procedure

After obtaining ethical clearance from the ethical committee of the Department of Psychiatry, School of Medicine, College of Health Science, Addis Ababa University, and administration offices in all three campuses selected for the study, the list of all students registered for the current academic year was collected from the dean offices of each campus.

The sample was distributed according to the proportion of students in each campus. It was then further distributed proportionately among each year, department, and section. Then students were selected using stratified random sampling.

4.9. Data collection procedure

The student council presidents in each campus were communicated and contacts of the representatives in each department were obtained. Then, detailed description of the study was discussed with the representatives of each department prior to dissemination of the questionnaires.

The questionnaires were distributed in post cards which the students could seal before returning it back to the representatives. There was an information sheet stating the purpose, risks, benefits and confidentiality of the study and their rights of not participating in the study if they didn't want to. It also included a list of emergency hotlines and list of governmental and private hospitals and clinics in the city with their respective phone numbers.

Regular monitoring was done by the principal investigator and filled questionnaires were reviewed for completeness and consistency.

Among the selected students, 45 refused and were replaced by other students. 36 questionnaires had incomplete data and were removed from the study. The final sample was 413.

4.10. Data collection tools

A structured self- administered questionnaire was prepared in Amharic language. The questionnaire included socio-demographic factors and other standardized questionnaires.

Social support was assessed using the Oslo Social Support Scale (OSSS-3) which is a three item self-reported measure of level of social support. The questionnaire consists of three aspects which are the number of closest friends, a sense of concern from others and relationship with neighbors that focus on accessibility to practical help. The overall scores range from 3-14 with three major domains and are scored as: insufficient support from 3-8, moderate support from 9-11 and high support from 12-14.(58) This scale has been validated in our country and was used on most of the studies from Ethiopia and Africa.

Patient Health Questionnaire (PHQ-9) was used to assess depression. This is a tool that has 9 items, and it was found that a PHQ-9 score of 10 or above highly suggested severe depression with a specificity and sensitivity of 88%.(59) The tool has been validated in Ethiopia in Amharic language and has been in use in clinical practice.(60)

Anxiety was assessed using the Generalized Anxiety Disorder questionnaire (GAD-7) which is a tool used to screen and assess the severity of generalized anxiety disorder. It is utilized in outpatient and primary care settings. The tool was found to detect anxiety starting from scores of 7-10.(61) GAD-7 is also validated in Ethiopia, and it is utilized in clinical settings as well as in research.(62)

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) was used to assess substance use. This tool was developed by WHO and has 8 items to assess use and severity of the different substances and the responses are rated from 0-27.(63)

Childhood Trauma Questionnaire (CTQ) is a self-report questionnaire developed in 1994 which is used to assess childhood adversities retrospectively. It has 5 categories and assesses abuse and neglect during childhood.(64)

Suicidal ideation and attempt were assessed using the Suicide Behaviors Questionnaire-Revised version (SBQ-R). This tool has 4 items and assesses the presence of suicidal ideation and attempt during the lifetime as well as in the past 12 months.(65)

4.11. Data analysis

After collection, data was checked for completeness and outliers were cross-checked. Data extraction sheets were coded, and data entry, cleaning and analysis was done using SPSS version 26.

Descriptive statistics was done to assess prevalence of suicidal behavior and to describe the sociodemographic, family, and psychosocial characteristics. Factors associated with suicide were evaluated using multivariable binary logistic regression analysis. The results were reported using text and tables.

5. Ethical considerations

Ethical clearance was obtained from the ethical committee of the Department of Psychiatry, School of Medicine, College of Health Science, Addis Ababa University prior to initiation of the study.

Permission was also sought from the administration of Addis Ababa University as well as registrar and dean offices of the AAU 4-kilo, 5-kilo, and 6-kilo campuses.

After ethical clearance was obtained, each participant was informed about the purpose and importance of the study and asked for written informed consent. The data collection was anonymous, and confidentiality was maintained at all levels of the study.

6. Results

6.1 Sociodemographic and family characteristics of participants

6.1.1 Sociodemographic characteristics

The study included a total of 413 participants with a response rate of 92%. The majority of the participants (63.4%) were males (n=256). The mean (±SD) age of the participants was 21.8 (±1.4) years. Among the participants, 31.5% were from the College of Natural Sciences' 4-kilo campus, 53% were from the Addis Ababa Institute of Technology's 5-kilo campus and the 15.5% were from the College of Social Sciences' 6-kilo campus. The median (IQR) income reported was 2000 birr (2000 birr). Among the respondents, 346 students (83.8%) were from urban areas and 332 (80.4%) live in dormitory. (Table 1)

Table 1- Sociodemographic characteristics of participants

Variable	**Category**	**Frequency**	**Percentage (%)**
Gender	Male Female	256 148	63.4 36.6
Age	Mean Standard deviation	21.8 ±1.4	
Field of study	Natural science Social science	349 64	84.5 15.5
Campus	4-kilo 5-kilo 6-kilo	130 219 64	31.5 53.0 15.5
Place of residence	Urban Rural	346 67	83.8 16.2
Current living circumstance	Dormitory With family Rental house	332 79 2	80.4 19.1 0.5
Religion	Orthodox Musim Protestant Others Not practicing any religion	262 58 77 9 7	63.4 14.0 18.6 2.2 1.7
Relationship status	Single In a relationship Married Divorced Other	326 71 3 4 9	78.9 17.2 0.7 1.0 2.2
Average monthly income	Median IQR	2000 birr 2000 birr	

6.1.2 Family characteristics of participants

Among the participants, 21.8% reported separation or divorce of parents and 16.9% reported death of at least one of their parents. Ten students reported having an unsatisfactory relationship with their close family members, while the majority of participants (72.6%) said they had a satisfactory relationship. The income of their family members ranged from 1000 birr to 900,000 birr with a median (IQR) income of 15,000 birr (20,000 birr). 63.7% of the participants considered their family's income as medium when compared to others. (Table 2)

Table 2- Family characteristics of participants

Variable	**Category**	**Frequency**	**Percentage (%)**
Separation or divorce of parents	Yes No	90 323	21.8 78.2
Death of at least one parent	Yes No	70 343	16.9 83.1
Relationship with close family members	Satisfactory Medium Non-satisfactory	300 103 10	72.6 24.9 2.4
Average income of family members	Median IQR	15,000 birr 20,000 birr	
Comparison of family's income with others	Good Medium Low	83 263 67	20.1 63.7 16.2

6.2 Psychosocial and substance related factors

6.2.1 Psychosocial factors related to participants.

The reported CGPA range for the previous year was between 2.00 to 3.99, with a mean (SD) of 3.32 (±0.45). Among the respondents, the majority (56.9%) expressed satisfaction with their score. The number of close friends ranged from 0 to 20. Most of the students stated they had 5 close friends and 4.7% stated they had no close friends. The majority of the students (87.4%) stated that their relationships with close friends were satisfactory. Among the participants, 43.1% often attended religious rituals. Sixteen participants disclosed having a chronic medical condition and the most common reported medical illnesses were diabetes and cardiac illness. (Table 3).

Table 3- Psychosocial factors related to participants.

Variable	Category	Frequency	Percentage (%)
CGPA of the past year	Mean SD	3.32 ±0.45	
Feeling about the result	Excellent Very good Good Bad	29 116 235 33	7.0 28.1 56.9 8.0
Attending religious rituals	Everyday Often Sometimes Rarely Never	103 178 96 24 12	24.9 43.1 23.2 5.8 2.9
Number of close friends	Mode Frequency	5 77	
Relationship with close friends	Satisfactory Medium Non-satisfactory	361 32 1	91.6 8.1 0.3
Known chronic medical condition	Yes No	16 397	3.9 96.1

6.2.2 Psychosocial factors related to family members.

The presence of mental illness in a close family member was 12.1%, 7.5% said a close family member had attempted suicide and 5.8% said a close family member had died by suicide. (Table 4)

Table 4- Psychosocial factors related to family members.

Variable	Category	Frequency	Percentage (%)
Mental illness of close family member	Yes No	50 363	12.1 87.9
Suicidal attempt of a close family member	Yes No	31 382	7.5 92.5
Death by suicide of a close family member	Yes No	24 389	5.8 94.2

6.2.3 Symptoms of depression and anxiety

Symptoms of depression were assessed using the PHQ-9 tool. The total sum of the responses varied from 0 to 24, with a mean (SD) value of 4.78 (±4.82). The most prevalent symptoms reported were feeling tired 47.5%, loss of interest and difficulty concentrating each reported by 43.3% of participants and 40% gave a positive response of feeling depressed. Among the respondents, 16.2% reported passive death wish. (Table 5).

Table 5- Symptoms of depression measured using the PHQ-9 tool.

Variable	Category	Frequency	Percentage (%)
Loss of interest	No	234	56.7
	Yes	179	43.3
Feeling depressed	No	248	60.0
	Yes	165	40.0
Sleep difficulty	No	255	61.7
	Yes	158	38.3
Feeling tired	No	217	52.5
	Yes	196	47.5
Change in appetite	No	285	69.0
	Yes	128	31.0
Feeling worthless	No	307	74.3
	Yes	106	25.7
Difficulty in concentration	No	234	56.7
	Yes	179	43.3
Psychomotor agitation/retardation	No	325	78.7
	Yes	88	21.3
Passive death wish	No	346	83.8
	Yes	67	16.2

The GAD-7 tool was used to measure anxiety symptoms, and the total sum of the responses had a mean (SD) value of 4.82 (±4.84) and a range of 0 to 21. The most frequently reported symptoms were excessive worrying about many things (56.7%), irritability (45.8%) and feeling nervous or on edge (41.4%). (Table 6)

Table 6- Symptoms of anxiety measured using the GAD-7 tool.

Variable	Category	Frequency	Percentage (%)
Worrying too much about many things	No	179	43.3
	Yes	234	56.7
Inability to control worrying	No	254	61.5
	Yes	159	38.5
Trouble relaxing	No	247	59.8
	Yes	166	40.2
Restlessness	No	248	60.0
	Yes	165	40.0
Irritability	No	224	54.2
	Yes	189	45.8
Fear of something bad happening	No	245	59.3
	Yes	168	40.7
Feeling nervous, anxious or on edge	No	242	58.6
	Yes	171	41.4

6.2.4 Childhood trauma

The CTQ-SF was used to assess experiences of childhood trauma and it assessed five domains of trauma. A greater total value for physical, emotional, and sexual abuse, and physical neglect was correlated with a higher childhood exposure to traumatic events. Positive correlation was found between lower values in the emotional neglect domain. The most frequently reported domain was physical neglect with values ranging between 5 to 20 and a mean (SD) value of 12.3 (±2.00). (Table 7)

Table 7- Childhood trauma measured by CTQ-SF

Variable	**Category**	**Frequency**
Physical abuse	Range Mean SD	4 to 14 4.96 ±1.58
Emotional abuse	Range Mean SD	5 to 25 6.88 ±2.95
Sexual abuse	Range Mean SD	4 to 16 4.6 ±1.6
Physical neglect	Range Mean SD	5 to 20 12.3 ±2.00
Emotional neglect	Range Mean SD	5 to 25 20.8 ±4.36

6.2.5 Substance use

Substance use was assessed using the ASSIST questionnaire using the first 2 questions. The life-time use of alcohol was 42.9% and alcohol use over the past 3 months was 38%. Lifetime use of khat and tobacco were found to be 7% and 6.1% respectively. (Table 8)

Table 8- Substance use assessed using the ASSIST questionnaire.

Variable	Frequency	Percentage (%)
Lifetime use of tobacco	25	6.1%
Lifetime use of alcohol	177	42.9%
Lifetime use of khat	29	7%
Lifetime use of cannabis	18	4.4%
Lifetime use of tramadol/ other medications	12	2.9%
Tobacco use over 3 months	17	4.1%
Alcohol use over 3 months	157	38%
Khat use over 3 months	22	5.3%
Cannabis use over 3 months	12	2.9%
Tramadol/ other medication use over 3 months	4	1%

6.2.6 Social support

Social support was assessed using the OSS-3 tool with a total possible score of 3-14. The responses ranged from 3 to 14 with a mean (SD) value of 10.87 (±2.41).

6.3 Prevalence of suicide

The overall prevalence of suicidal behavior was measured using the SBQ-R tool and the responses ranged from 3 to 15 with a mean (SD) value of 4.16 (±2.24). A value of 7 was taken as a cut point and the prevalence of suicidal behavior was found to be 13.3%.

The 2nd, 3^{rd,} and 4th choices of the 1st question of SBQ-R were used to assess lifetime prevalence of suicidal ideation and the last 2 choices were used to assess lifetime prevalence of suicidal attempt and they were found to be 16.9% and 4.4% respectively.

The 12-month prevalence of suicidal ideation was found to be 14.5%. 10.7% of the participants had told someone about the intent of committing suicide and 23.7% responded positively about the possibility of future attempt. The prevalence of suicidal behavior was higher among female students (18.9%) when compared to males (10.5%). (Table 9)

Table 9- Suicide behavior distribution across males and females.

Gender	High risk of suicidal behavior	Low risk of suicidal behavior
Male	27 (10.5%)	229 (89.5%)
Female	28 (18.9%)	120 (81.2%)

The prevalence of suicidal ideation, attempt and possibility of future plan were also higher among female students. (Table 10)

Table 10- Distribution of SBQ-R items across males and females.

Gender	Lifetime suicidal ideation	Lifetime suicidal attempt	12-month suicidal ideation	Telling someone about the intent of committing suicide	Possibility of future attempt
Male	37 (14.5%)	9 (3.5%)	31 (12.1%)	17 (6.7%)	55 (21.4%)
Female	33 (22.3%)	9 (6.1%)	29 (19.6%)	27 (18.3%)	42 (28.5%)

6.4 Factors associated with suicide outcomes.

Bivariable binary logistic regression was done on each independent variable and majority of the variables were found to be significantly associated with the dependent variable. (Table 11)

Table 11- Bivariable binary logistic analysis

Independent variables	Values	P-value	Crude odds ratio
Gender	Male Female	1 0.02	1.98 (1.12, 3.51)
Age		0.03	0.76 (0.59, 0.97)
CGPA of the past year		0.06	0.55 (0.29, 1.04)
Feeling about the result	Excellent Very good Good Bad	1 0.04 0.98 0.57	 0.26 (0.74, 0.93) 0.99 (0.35, 2.74) 0.66 (0.16, 2.74)
Attending religious rituals	Everyday Often Sometimes Rarely Never	1 0.51 0.03 0.57 0.02	 1.32 (0.59, 3.02) 2.58 (1.10, 6.02) 1.49 (0.37, 5.99) 5.22 (1.31, 20.79)

Relationship status	Single In a relationship Married Divorced Others	1 0.11 0.99 0.04 0.06	 1.75 (0.88, 3.49) 0.00 7.81 (1.07, 57.11) 3.90 (0.94, 16.28)
Number of close friends		0.09	0.91 (0.82, 1.02)
Relationship with close friends	Satisfactory Medium Non-satisfactory	1 0.003 1.00	 3.45 (1.53, 7.79) 0.00
Relationship with close family members	Satisfactory Medium Non-satisfactory	1 <0.001 0.24	 3.74 (2.06, 6.79) 2.64 (0.53, 13.06)
Average monthly income of family members		0.19	1.00
Comparison of family's income with others	Good Medium Low	1 0.68 0.15	 1.18 (0.54, 2.58) 1.98 (0.79, 4.96)
Mental illness in the family		0.06	2.05 (0.98, 4.28)
Suicidal attempt of close family member		<0.001	4.23 (1.89, 9.40)
Death by suicide of close family member		0.005	3.64 (1.48, 8.97)
Lifetime use of tobacco		<0.001	7.41 (3.18, 17.26)
Lifetime use of alcohol		0.32	1.34 (0.78, 2.36)
Lifetime use of khat		<0.001	4.72 (2.09, 10.65)
Lifetime use of cannabis		0.016	3.53 (1.27, 9.84)
Lifetime use of tramadol/other medications		<0.001	10.29 (3.14, 33.73)
Use of tobacco over the past 3 months	Never Once or twice Weekly Monthly Daily/ almost daily	1 0.02 0.001 0.03 0.42	 7.61 (1.49, 38.82) 22.83 (2.33, 224.05) 15.22 (1.35, 171.14) 2.54 (0.26, 24.89)
Use of alcohol over the past 3 months	Never Once or twice Weekly Monthly Daily/ almost daily	1 0.29 0.21 0.37 0.04	 0.66 (0.30, 1.44) 1.74 (0.74, 4.12) 1.84 (0.49, 6.95) 13.52 (1.19, 153.23)

Use of khat over the past 3 months	Never Once or twice Weekly Monthly Daily/ almost daily	1 0.15 0.09 0.44 0.99	 2.75 (0.70, 10.71) 4.88 (0.79, 29.96) 2.44 (0.24, 23.94) 0.00
Use of cannabis over the past 3 months	Never Once or twice Weekly	1 0.13 0.18	 2.94 (0.74, 11.74) 6.86 (0.42, 111.44)
Use of tramadol/other medications over the past 3 months	Never Once or twice Monthly Daily/ almost daily	1 0.99 1 1	 0.00
Emotional abuse		<0.001	1.33 (1.22, 1.46)
Sexual abuse		<0.001	1.26 (1.10, 1.44)
Emotional neglect		0.003	0.92 (0.86, 0.97)
Physical neglect		0.53	0.96 (0.83, 1.09)
Physical abuse		<0.001	1.29 (1.12, 1.49)
Depression		<0.001	1.24 (1.17, 1.31)
Anxiety		<0.001	1.16 (1.10, 1.23)
Social support		<0.001	0.78 (0.69, 0.87)

The multivariable binary logistic regression revealed several factors significantly associated with suicidal behavior among university students. These include age (p-value 0.005), frequent alcohol use over the past 3 months (p-value 0.05), feeling about the past year's result (p-value 0.05), higher depression scores on PHQ-9 (p-value 0.02) and emotional abuse (p-value <0.001). (Table 12)

As students grow older, there is a decreased likelihood of engaging in suicidal behavior, indicated by a 0.56 times decrease for each unit increase in age. Feeling 'Bad' about academic performance in the past year was linked to an increased likelihood of suicidal behavior compared to feeling 'Excellent.'

Higher scores on the PHQ-9, indicative of more severe depression symptoms, showed a significant association with a 1.13 times increased risk of suicidal behavior. Additionally, frequent alcohol use over the past 3 months was positively linked to suicidal behavior, displaying an Adjusted Odds Ratio (AOR) of 7.23. Emotional abuse emerged as a highly significant factor, with higher scores correlating to a 1.33 times increased likelihood of engaging in suicidal behavior.

Table 12- Multivariable binary logistic regression

Independent variables	**Values**	**P-value**	**Adjusted odds ratio (95% CI)**
Gender	Male Female	1 0.12	 2.07 (0.82, 5.23)
Age		0.005	0.56 (0.38, 0.84)
Feeling about last year's result	Excellent Very good Good Bad	1 0.05 0.26 0.42	 0.16 (0.03, 1.00) 0.41 (0.08, 1.96) 0.66 (0.05, 3.46)
Attending religious rituals	Everyday Often Sometimes Rarely/Never	1 0.95 0.55 0.28	 0.96 (0.31, 3.09) 1.50 (1.39, 5.67) 2.52 (0.48, 13.27)
Relationship with close friends	Satisfactory Medium	1 0.15	 2.52 (0.72, 8.86)
Relationship with close family members	Satisfactory Medium Non-satisfactory	1 0.88 0.49	 1.08 (0.41, 2.84) 0.35 (0.02, 7.14)
Comparison of family's income with others	Good Medium Low	1 0.14 0.15	 2.57 (0.74, 8.99) 3.13 (0.66, 14.80)
Mental illness in the family		0.56	0.67 (0.17, 2.61)
Suicidal attempt of close family member		0.22	2.66 (0.57, 12.54)
Death by suicide of close family member		0.25	2.23 (0.57, 8.75)
Use of tobacco over the past 3 months	No Yes	1 0.62	 1.65 (0.23, 11.95)
Use of alcohol over the past 3 months	Yes Occasionally Frequently	1 0.29 0.02	 0.57 (0.19, 1.64) 7.23 (1.37, 38.29)
Use of khat over the past 3 months	No Yes	1 0.12	 4.69 (0.66, 33.43)
Use of cannabis over the past 3 months	No Yes	1 0.39	 0.28 (0.02, 5.19)

Use of tramadol/other medications over the past 3 months	No Yes	1 0.99	1.04
Depression		0.02	1.13 (1.02, 1.26)
Anxiety		0.57	1.03 (0.93, 1.15)
Emotional abuse		<0.001	1.33 (1.14, 1.55)
Sexual abuse		0.25	1.14 (0.91, 1.44)
Emotional neglect		0.21	1.08 (0.96, 1.22)
Physical neglect		0.99	0.99 (0.81, 1.23)
Physical abuse		0.56	1.08 (0.85, 1.37)
Social support		0.19	0.88 (0.73, 1.07)

7. Discussion

This study aimed to assess the prevalence and associated factors of suicidal behavior among university students attending AAU. It included a total of 413 participants selected from the university's three campuses: 4-kilo, 5-kilo, and 6-kilo campuses. The findings of the study described the socio-demographic and family characteristics of the participants and psychosocial factors affecting suicidal behavior. Understanding the prevalence and associated factors of suicidal behavior in this population can aid in understanding the severity of the issue and in devising appropriate measures. Previous research done in a comparable demographic in Addis Ababa was restricted to medical students; therefore, information about the suicide outcome among students in other academic fields was not provided. Hence, this study aimed to bridge this gap.

Using the SBQ-R questionnaire, the overall prevalence of suicidal behavior among university students was 13.3%. This aligns closely with a meta-analysis published in 2021, which identified the pooled prevalence of suicide related outcomes to be 14%. (13) However, it notably contrasts with studies conducted at Mettu University in Ethiopia (28.9%) (51) and in the UK (37.3%) (21). Both studies employed the SBQ-R but differed significantly in demographics and sample sizes, potentially accounting for these discrepancies.

The lifetime prevalence of suicidal ideation in our study was found to be 16.9%. These results are in line with the findings from Ghana (15.2%) (36) and Kenya (17.1%) (37). It is lower when compared to the findings from UK (42.2%) (21), Spain (26.9%) (19), Norway (21%) (20), and South Africa (46.4%) (32). This could be due to the sociodemographic differences between the settings as well as the sample size and the type of tools used. The Paykel Suicide Scale was used in the Spain study, and the data came from a national survey involving over 50,000 participants in the Norway study. The Columbia Suicidal Severity Rating Scale was utilized in the South African study with a sample size of 1402 participants. Our results were higher when compared to the studies done in Turkey (11.4%) (24), India (11.7%) (28) and Nigeria (7.5%) (35) and these differences could be attributed to the tools used to measure suicide.

Assessing the lifetime prevalence of suicidal attempts yielded a rate of 4.4% in our study, which is comparable to the findings from Norway (4.2%) (20) and India (4%) (28). The results were lower than the studies done in UK (10.8%) (21), Turkey (7.1%) (24), South Africa (8.6%) (32), Kenya (7.8%) (37) and Ghana (6.3%) (36) and higher when compared to South Korea (3.3%) (25). These differences could be attributed to the differences in the sociodemographic characteristics of the population.

Moreover, our exploration of the 12-month prevalence of suicidal ideation among university students revealed a rate of 14.5%, aligning closely with findings from China (13.2%) (26) and Bangladesh (13.9%) (29). It was lower when compared to studies done in Australia (61.5%) (22) and Uganda (31.8%) (34). These disparities could be attributed to variations in sample sizes, with the former study encompassing a larger cohort of 1678 participants, and differing assessment tools utilized in both studies.

Across various studies conducted in Ethiopia, notably among medical students, intriguing differences in the prevalence of suicidal ideation and attempts have emerged. At Haramaya University, lifetime suicidal ideation and attempts among medical students were reported at 29.3% and 6.3%, respectively. These figures align with the anticipated higher stress levels associated with medical school, though variations could also stem from disparities in measurement tools employed. The 12-month prevalence of suicidal ideation (23.7%) was also higher when compared to our results (48). Within AAU, the prevalence of lifetime suicidal attempt was also consistent with expectation of higher stress and burden among medical students and found to be 8.2% (50). Conversely, the lifetime prevalence of suicidal ideation among medical students at University of Gondar was lower compared to our study (14.4%) but the prevalence of suicidal attempt was higher (7.4%) (49). These disparities might be attributed to the different tool used by this study which was the WHO suicide assessment tool.

A study done in Mettu university was conducted among non-medical students and the lifetime prevalence of suicidal ideation was significantly higher (58.3%) compared to our findings. This discrepancy might be attributed to the study setting. Additionally, differences in interpreting the SBQ-R, utilizing only a portion of the questionnaire to assess suicidal ideation in the study done in Mettu university, may have led to this elevated prevalence. Nevertheless, the prevalence of suicidal attempts between this study and ours remained similar at 4.4%, while the 12-month suicidal ideation was higher (34%) (51). These variations highlight the complexities in measuring and understanding suicidal behavior, influenced by both methodological differences and the specific student demographics under study.

In this study, age emerged as a protective factor against suicidal outcomes among university students. This trend could potentially be attributed to the longer duration of older students' stay on campus, fostering a better adaptation to the university environment. With age, students may develop increased maturity and healthier coping mechanisms to help them better manage negative emotions, contributing to a reduced likelihood of suicidal behavior.

Feelings about the past year’s result were also found to be associated with suicidal outcomes with more negative feelings being associated with higher suicidal outcomes. A systematic review from South Korea found that anxiety about academic performance was associated with suicide behaviors. (57) The study also found an association with depressive symptoms, which is also implicated in our findings. However, it also found other factors such as family problems and bipolar disorder to be related to suicide outcomes. The ASEAN study also found poor academic performance and depression to be associated with suicide outcomes and it also found childhood sexual abuse to be significantly associated. (27)

The other factor which was found to be significantly associated with suicide outcomes in our study was the presence of depressive symptoms. Notably, evidence from a systematic review in 2019 and individual investigations conducted in the UK (21), Brazil (30), Kenya (37), and Haramaya University in Ethiopia (48) consistently showed the strong association between higher depressive symptoms and suicidal tendencies. In addition to depressive symptoms, diverse risk factors have been identified across these studies. The UK study identified psychosis as significantly associated with suicide outcomes, while family history of suicide was implicated in the study done in Brazil. Anxiety and financial difficulties were found to be contributory factors

in the Kenyan study, while Haramaya University's research highlighted the impact of anxiety, current alcohol use, poor social support, and academic performance (measured by CGPA) on suicidal behavior.

Alcohol use over the past three months has consistently emerged as a contributing factor to suicide outcomes across multiple studies. The research conducted at Haramaya University (48), alongside a systematic review in 2014 (31), highlighted the association between recent alcohol consumption and increased risk of suicide. The latter study also found drug abuse and socioeconomic status to be associated with suicidal behavior. Furthermore, a similar study conducted at Mettu University specifically linked lifetime alcohol use to suicidal outcomes (51).

History of emotional abuse during childhood was found to have a highly significant association with suicide outcomes. A recent meta-analysis done in 2021 revealed a strong connection between childhood adversity and the risk of suicidal behavior. (55) Similarly, an investigation conducted in Bangladesh specifically identified exposure to traumatic events during childhood as a key contributor to adverse outcomes related to suicide outcomes (29).

Differences in findings emerged when comparing our study to a similar study conducted at Mettu University. Their study identified poor social support, family history of suicidal attempt, being from rural part of the country and less involvement in religious practices to be associated with suicidal outcomes (51). These disparities may be due to contrasting student demographics between the two studies. Notably, our study predominantly included students from urban areas, potentially influencing the observed variations in the factors associated with suicidal outcomes.

In summary, the findings of this study align with a global pattern highlighting the multifaceted nature of factors contributing to suicidal behavior among university students. While some factors, like symptoms of depression and substance use, are recurrent themes, the influence of demographics and social support show the complexities underlying this critical issue.

7.1. Strengths of the study

The study involved 413 students from three campuses, enabling the representation of the university student population. While most prior studies done among university students focused on medical students, this research included participants from different academic disciplines, filling a gap in understanding suicidal tendencies among non-medical student populations. This study also explored multiple potential factors associated with suicide which shed light on the main associated factors in this population.

7.2. Limitations of the study

The study's focus on a single university in Addis Ababa might limit the generalizability of findings to other university settings or regions with distinct socio-cultural backgrounds. Additionally, the study was limited to three campuses within this university, potentially introducing variability that could arise from differences across other campuses. The study employed a cross-sectional design which can describe suicidal behavior at a specific point but

lacks the ability to infer causation or track changes over time. Additionally, the reliance on self-reported data through surveys raises concerns about response bias. Participants might have hesitated or exaggerated in disclosing sensitive information pertaining to suicidal behavior, potentially skewing the accuracy of the reported findings. While the study utilized the SBQ-R—a widely recognized assessment tool for suicidal behavior—variations in measurement tools across studies may impact direct comparison and interpretation of prevalence rates. Lack of validity of this tool in our setup could also have an impact in the findings of the study.

8. Conclusion and recommendations

The findings in our study found the prevalence of suicidal behavior to be 13.3%, showing the gravity of this issue within the academic setting. The study also explored various factors associated with suicidal behavior, highlighting the multifaceted nature of contributors such as depression, age, recent alcohol use, childhood emotional trauma, and negative feelings towards academic performance. These factors were in line with previous literature regarding suicide as well as with scientific knowledge.

The findings of the study show that the prevalence of suicidal behavior is high among this population. Thus, our findings emphasize the need for comprehensive interventions and tailored strategies to address suicidal outcomes among university students. Moreover, recognizing the influence of demographics and psychosocial factors on suicidal behavior is crucial in devising targeted prevention and intervention strategies.

Based on the findings of this research, we recommend:

Future studies to assess the health seeking behavior of university students with suicidal ideation and other mental health conditions could be helpful in detecting and managing any gaps regarding suicide prevention and treatment.

Secondly, developing and implementing evidence-based suicide prevention programs tailored to the university environment aimed at addressing stress, depression, substance abuse, and childhood trauma through awareness campaigns, workshops, and support groups could have a strong positive impact for students.

We also recommend collaboration between academic institutions, mental health professionals, and community organizations to create a holistic support system addressing the various needs of students facing mental health challenges.

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10. Annex-1

10.1. Participants' information sheet

The purpose of this information sheet is to describe the research project in which you have been asked to participate. It outlines the purpose of the study and your involvement in it.

Purpose: The goal of the study is to find out the prevalence of suicidal ideation and attempt among university students and the factors associated with it.

Procedure: A self-reported questionnaire will be distributed by your class representatives. You have been selected to participate in this study by using stratified random sampling method. The questionnaire has 8 sections with a total of 70 questions. It will take you 8-10 minutes to fill it out.

Risks: There are no risks associated with participating in this study, and there will be no consequences if you refuse to participate.

Benefits: The aim is to learn more on how common suicidal behavior is among university students and to identify strategies on how to help those experiencing it.

Incentives: There is no incentive or payment for taking part in this research.

Confidentiality: This data of the study will remain private. Only the research team will have access to your personal information.

If you have any active suicidal ideation or plans, you can call Ethiopia Emergency hotline on **997** or **991** for help regarding how you feel. You can also speak with your campus guidance counsellor or consult a local psychiatric clinic in your area (links will be provided below).

Ethics committee office: +251 115 538734

Primary Investigator: Dr. Etsubdink Mekbib, Email address: etsubitmek123@gmail.com

10.2. Consent

Dear participant,

After understanding the above explanation and the purpose of this study, I would like to ask for your consent to participate in this study.

Participating in this study will only depend on your decision to do so and you have all the right to withhold information, refuse or drop out of the study any time you want to do so without any need to explain to anyone. Withdrawing from the study will have no effect on you.

All the information you give during the study will be kept confidential. Your honest answers to these questions will help us understand the magnitude of suicidal ideation and attempt among university students. You have all the right to ask and get clarification at any time. In case you have doubts or questions, you can use the above address to contact the research team.

If you agree to participate in this study, please confirm your agreement by your signature.

Signature of participant_____ Date_____

_____

Signature of data collector_____ Date_____ ___

የጥናት ተሳታፊዎች መረጃ ቅፅ

የዚህ የመረጃ ቅፅ ዓላማ እርስዎ እንዲሳተፉ የተጠየቁበትን ጥናት ምንነት ለመግለጽ ነው። የጥናቱን ዓላማ እና በዚህ ውስጥ ያለዎትን ተሳትፎ ይዘረዝራል።

የጥናቱ ዓላማ፡ የጥናቱ ግብ ከዩኒቨርሲቲ ተማሪዎች መካከል ራስን የማጥፋት ሐሳብ እና ሙከራ ምን ያህል እንደሆነ እና ከሱ ጋር የተያያዙ ምክንያቶችን ማወቅ ነው።

የጥናቱ ሂደት፡ በክፍል ተወካዮች በኩል በፖስታ የሚሰጥዎት መጠይቅ ይኖራል። ለጥናቱ የተመረጡት ስርዓት ባለው የናሙና ዘዴ በመጠቀም ሲሆን እርስዎ የተመረጡበት ሌላ ምክንያት የለም። መጠይቁ 8 ክፍሎች ያሉት ሲሆን በድምሩ 70 ጥያቄዎች አሉት። ለመሙላት ከ 8-10 ደቂቃ ያህል ይወስዳል።

የጥናቱ ጉዳት፡ በቃለመጠይቁ መሳተፍ የሚያስከትልብዎ ጉዳት የለም። ለመሳተፍ ፈቃደኛ ካልሆኑም የሚያስከትልብዎ ችግር አይኖርም።

የጥናቱ ጥቅም፡ ዓላማው ራስን ማጥፋት ከዩኒቨርሲቲ ተማሪዎች መካከል ምን ያህል እንደሆነ የበለጠ ለማወቅ እና ያጋጠማቸውን ሰዎች መርዳት የሚቻልበትን መንገድ ለመፈለግ ነው።

ማካካሻ፡ በጥናቱ ላይ በመሳተፍዎ የሚያገኙት ማካካሻ ወይም ክፍያ የለም።

የመረጃ ምስጢራዊነት፡ የሚሰጡት መረጃ በምስጢር ይጠበቃል። የእርስዎ ማንነት እና የግል መረጃ ከጥናት ቡድኑ ውጪ ለማንም እንዳይተላለፍ ይደረጋል። መጠይቁን ከሞሉ በኋላ ለክፍል ተወካዩ ከመመለስዎት በፊት አብሮ የሚሰጥዎት ፖስታ ውስጥ በመክተት ያሽጉት።

ምንም አይነት ራስን የማጥፋት ሀሳብ ወይም እቅድ ካለዎት፣ የሚሰማዎትን ስሜት በተመለከተ እርዳታ ለማግኘት ወደ ኢትዮጵያ የድንገተኛ አደጋ ስልክ ቁጥር **997** ወይም **991** መደወል ይችላሉ። እንዲሁም ካምፓስ ውስጥ ወደሚገኘው የተማሪዎች ክሊኒክ በመሄድ ከባለሞያዎች ጋር መነጋገር ይችላሉ፣ አስፈላጊ ከሆነም በክሊኒኩ በኩል የአዕምሮ ህክምና ወደሚሰጥበት ሆስፒታል ሪፈራል ማግኘት ይችላሉ። በተጨማሪም በቀጥታ በአካባቢዎ ወደሚገኝ የአዕምሮ ህክምና ማዕከል በመሄድ ማማከር ይችላሉ (የማዕከሎች ዝርዝር ከዚህ በታች ቀርቧል) ።

ተጨማሪ መረጃ፡- ይህ ጥናት በአዲስ አበባ ዩኒቨርሲቲ የህክምና ትምህርት ቤት የአዕምሮ ህክምና ትምህርት ክፍል የስነምግባር ኮሚቴ ታይቶ የጸደቀ ነው። ተጨማሪ መረጃ ከፈለጉ ኮሚቴውን እንዲሁም አጥኚዋን በሚከተሉት አድራሻዎች ማግኘት ይችላሉ። የስነምግባር ኮሚቴ፡ +251 115 538734

አጥኚ፡ ዶ/ር እፁብድንቅ መክብብ ኢሜል አድራሻ፡ etsubitmek123@gmail.com

የአዕምሮ ህክምና የሚያገኙባቸው ቦታዎች፥

የመንግስት		**የግል**	
ቅዱስ አማኑኤል ስፔሻላይዝድ ሆስፒታል	0112 75 76 99	ለቤዛ የአዕምሮ ህክምና ማዕከል	0116 66 29 66/ 0966 11 11 11
ቅዱስ ጴጥሮስ ሆስፒታል	0112 75 37 05/ 75 20 13	ስጦታ የአዕምሮ ህክምና ማዕከል	0113 69 27 74/ 0911 91 27 49
ኤካ ኮተቤ አጠቃላይ ሆስፒታል		አቢቹ የአዕምሮ ህክምና ክሊኒክ	0941 76 76 76
ቅዱስ ጳውሎስ ሆስፒታል	0112 75 01 25	ሪዳ የአዕምሮ ጤና ማማከር አገልግሎት	0966 13 73 69
ዘውዲቱ ሆስፒታል	0115 51 80 85	ሃሌሉያ ሆስፒታል	0114 70 42 42
ጦር ሃይሎች ሆስፒታል	0113 71 20 20	ተክለሃይማኖት አጠቃላይ ሆስፒታል	0111 56 11 14
ፖሊስ ሆስፒታል	0115 15 50 17	አሚን አጠቃላይ ሆስፒታል	0116 18 03 69/ 0947 10 10 10
ጥቁር አንበሳ ሆስፒታል	0115 51 12 11/ 50 59 80	ቅዱስ ገብርኤል ሆስፒታል	0116 18 73 45
የካቲት 12 ሆስፒታል	0116 62 34 39	ቅዱስ ያሬድ ሆስፒታል	0116 45 46 97
ራስ ደስታ ሆስፒታል	0115 55 33 99	ኢትዮ ጠቢብ ሆስፒታል	0112 13 93 00/ 0935 40 20 78
ዳግማዊ ምኒልክ ሆስፒታል	0111 55 04 44	አዲስ ህይወት ሆስፒታል	0116 18 04 49
ጥሩነሽ ቤጂንግ ሆስፒታል	0114 34 23 30	ላንድማርክ ሆስፒታል	0115 52 57 19
አለርት ሆስፒታል	0115 52 71 00/ 0947 81 81 81	ግሩም ሆስፒታል	0112 75 76 76
		ዘንባባ ጀነራል ሆስፒታል	0114 43 19 92
		አብርሆት የአዕምሮ ጤና ማማከር አገልግሎት	0989 73 73 72

2. የተሳታፊዎች ፈቃደኝነት መግለጫ ቅፅ

በጥናት ተሳታፊዎች መረጃ ቅፅ ላይ የተዘረዘሩትን መረጃዎች ከተረዱ በኋላ በጥናቱ ላይ እንዲሳተፉ እጋብዝዎታለሁ። በጥናቱ መሳተፍ የእርስዎ ውሳኔ ይሆናል። በጥናቱ ለመሳተፍ ካልፈለጉ በማንኛውም ሰዓት ምክንያት መስጠት ሳይጠበቅብዎት በነጻነት ተሳትፎንዎን ማቋረጥ ይችላሉ። በዚህ ጥናት ለመሳተፍ ፈቃደኛ ባለመሆንዎ የሚደርስብዎት ችግር የለም። የሚሰጡን መረጃ በምስጢር ይጠበቃል። ጥናቱ በትክክል አላማውን እንዲመታ የእርስዎን ድጋፍ እንጠይቃለን። ለጥያቄዎቹ የሚሰጡን ሐቀኛ ምላሽ ከዩኒቨርሲቲ ተማሪዎች መካከል ምን ያህሉ ራሳቸውን ለማጥፋት እንደሚያስቡ እና ምክንያቶቹ ምን እንደሆኑ ለመረዳት ያስችለናል። ማንኛውንም አይነት ጥያቄ መጠየቅና ማብራሪያ ማግኘት ከፈለጉ በመረጃ መስጫ ቅፅ በተገለጹት አድራሻዎች ተጠቅመው መረጃ ማግኘት ይችላሉ። በመጨረሻም ፍቃድዎ ከሆነ የፍቃደኝነት ማረጋገጫ ፊርማ ከዚህ በታች እንዲያሰፍሩ በአክብሮት እጠይቃለሁ።

የተሳታፊ ፊርማ _____ ቀን _____

የመረጃ ሰብሳቢ ፊርማ _____ ቀን _____

11. Annex-2 Questionnaires

Part one - Socio-Demographic Questions

1. Gender A. Male B. Female

2. Age _____

3. Field of study A. Natural Science B. Social Science

4. What was your average CGPA of the past year? _____

5. How did you feel about your result A. Excellent B. Very good C. Good D. Bad

6. What kind of place are you from? A. Urban B. Rural

7. Current living place A. Dormitory B. Living with family C. Living in a rental house

8. Religion

A. Orthodox B. Muslim C. Protestant D. Catholic

E. Jehovah's witness F. Wake feta G. Not practicing any religion

I. Others, specify _____

9. How often do you attend religious rituals (e.g., prayer, dua, salutation, etc.)

A. Everyday B. Often C. Sometimes D. Rarely E. Never

10. Relationship status

A. Single B. In a relationship C. Married D. Divorced

E. Other, specify_____

11. How many close friends do you have_____

12. How is your relationship with your close friends

A. Satisfactory B. Medium C. Non-satisfactory

13. How much is your average monthly income in birr_____

14. Do you have any known chronic medical conditions such as HIV, Hypertension, Diabetes, Asthma, Cardiac, Renal or Liver disease A. Yes B. No

15. If your answer to the above question is yes, specify_____

Part two- Depression PHQ 9

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	Over half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6.Feeling bad about yourself or that you are a failure or have let yourself or your family down	0	1	2	3
7.Trouble concentrating on things, such as schoolwork, reading or watching television	0	1	2	3
8.Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

10. If you checked off any problems, how difficult have these problems made it for you in your school activity, to take care of things at home, or get along with other people?

A. Not difficult at all
B. Somewhat difficult
C. Very difficult
D. Extremely difficult

Part three- Anxiety- GAD 7

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen.	0	1	2	3

8. If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all _____
Somewhat difficult _____
Very difficult _____
Extremely difficult _____

Part four- Substance use, ASSIST questionnaire

1. Which of the following substances have you ever used in your lifetime?

	Yes	No
1.1 Tobacco	1	0
1.2 Alcohol	1	0
1.3 Khat	1	0
1.4 Cannabis	1	0
1.4 Tramadol or other medications	1	0

2. If your answer to the above question is yes, how often have you used the substances in the past 3 months?

	Never	Once/twice	Monthly	Weekly	Daily/Almost daily
2.1 Tobacco	0	2	3	4	6
2.2 Alcohol	0	2	3	4	6
2.3 Khat	0	2	3	4	6
2.4 Cannabis	0	2	3	4	6
2.5 Tramadol/other Medications	0	2	3	4	6

Part five- Family history

1. Did your parents ever get separated or divorced? A. Yes B. No

2. Did any of your parents die? A. Yes B. No

3. How do you describe your relationship with your close family members

A. Satisfactory B. Medium C. Non-satisfactory

4. How much is your family's monthly income in birr_____

5. How do you rate your family's income when compared to others?

A. Low B. Medium C. Adequate

6. Is there anyone in your close family with a known mental illness? A. Yes B. No

7. Did anyone in your close family attempt suicide? A. Yes B. No

8. Did anyone amongst your close family commit suicide A. Yes B. No

Part six- Childhood adversity- CTQ

Q	QUESTION	NEVER TRUE	RARELY TRUE	SOMETIMES TRUE	OFTEN TRUE	VERY OFTEN TRUE
When I was growing up						
1	I didn't have enough to eat.	1	2	3	4	5
2	I knew that there was someone to take care of me and protect me.	1	2	3	4	5
3	People in my family called me things like "stupid", "lazy", or "ugly".	1	2	3	4	5
4	My parents were too drunk or high to take care of the family.	1	2	3	4	5
5	There was someone in my family who helped me feel important or special	1	2	3	4	5
6	I had to wear dirty clothes	1	2	3	4	5
7	I felt loved.	1	2	3	4	5
8	I thought that my parents wished I had never been born	1	2	3	4	5
9	I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10	There was nothing I wanted to change about my family.	1	2	3	4	5
11	People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12	I was punished with a belt, a board, a cord (or some other hard object).	1	2	3	4	5
13	People in my family looked out for each other.	1	2	3	4	5
14	People in my family said hurtful or insulting things to me.	1	2	3	4	5
15	I believe that I was physically abused.	1	2	3	4	5
16	I had the perfect childhood.	1	2	3	4	5
17	I got hit or beaten so badly that it was noticed by someone like a teacher, neighbour, or doctor.	1	2	3	4	5
18	Someone in my family hated me.	1	2	3	4	5
19	People in my family felt close to each other.	1	2	3	4	5
20	Someone tried to touch me in a sexual way or tried to make me touch them.	1	2	3	4	5
21	Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22	I had the best family in the world.	1	2	3	4	5
23	Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24	Someone molested me (took advantage of me sexually).	1	2	3	4	5
25	I believe that I was emotionally abused.	1	2	3	4	5
26	There was someone to take me to the doctor if I needed it	1	2	3	4	5
27	I believe that I was sexually abused.	1	2	3	4	5
28	My family was a source of strength and support.	1	2	3	4	5

Part seven- Oslo Social Support Scale (OSSS-3)

1. How many people are so close to you that you can count on them if you have great personal problems?

A. None B. 1-2 C. 3-5 D. More than 5

2. How much interest and concern do people show in what you do?

A. None B. Little C. Uncertain D. Some E. A lot

3. How easy is it to get practical help from neighbors if you should need it?

A. Very difficult B. Difficult C. Possible D. Easy E. Very easy

Part eight- Suicidal ideation and attempt- SBQ-R

1. Have you ever thought about or attempted to kill yourself?
A. Never B. It was just a brief passing thought.
C. I have had a plan at least once to kill myself but did not try to do it.
D. I have had a plan at least once to kill myself and really wanted to die.
E. I have attempted to kill myself but did not want to die.
F.I have attempted to kill myself, and really hoped to die.

2. How often have you thought about killing yourself in the past year?
A. Never B. Rarely (1 time). C. Sometimes (2 times)
D. Often (3-4 times). E. Very Often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it?
A. No B. Yes, at one time, but did not really want to die.
C. Yes, at one time, and really wanted to die.
D. Yes, more than once, but did not want to do it.
E. Yes, more than once, and really wanted to do it.

4. How likely is it that you will attempt suicide someday?
A. Never B. No chance at all C. Rather unlikely D. Unlikely E. Likely
F. Rather likely G. Very likely

የፅሁፍ መጠይቅ

ክፍል 1- ሶሲዮዲሞግራፊ (ምርጫ ላላቸው ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

1. ፆታ	1. ወንድ	2. ሴት		
2. ዕድሜ _____				
3. የትምህርት ዘርፍ	1. የተፈጥሮ ሳይንስ	2. ማህበራዊ ሳይንስ		
4. የባለፈው አመት አማካይ ውጤትዎት (CGPA) ስንት ነበር? _____				
5. በውጤቱ ምን አይነት ስሜት ተሰማዎት?	1. እጅግ በጣም ጥሩ	2. በጣም ጥሩ	3. ጥሩ	4. መጥፎ
6. የመጡበት ቦታ	1. ከተማ	2. ገጠር		
7. አሁን በዋናነት የሚኖሩበት ቦታ	1. ዶርሚተሪ ውስጥ	2. ከቤተሰብ ጋር	3. በኪራይ ቤት	
8. ሀይማኖት	1. ኦርቶዶክስ	2. ሙስሊም	3. ፕሮቴስታንት	4. ካቶሊክ
	5. የይሖዋ ምስክር	6. ዋቄ ፈታ	7. የለኝም	8. ሌላ_____
9. የሀይማኖት ስነ-ስርዓቶችን በየስንት ጊዜው ይሳተፋሉ?				
	1. በየቀኑ	2. በሳምንት የተወሰኑ ቀናት	3. አልፎ አልፎ	
	4. ከስንት አንድ ጊዜ	5. አልሳተፍም		
10. የትዳር ሁኔታ	1. ፍቅረኛ የሌለው/ላት	2. ፍቅረኛ ያለው/ላት	3. ያገባ/ች	
	4. የፈታ/ች	5. ሌላ ከሆነ ይግለፁ_____		
11. ስንት የቅርብ ጓደኛ/ ጓደኞች አሉዎት? _____				
12. ከቅርብ ጓደኞችዎት ጋር ያለዎት ግንኙነት ምን ይመስላል?	1. ጥሩ ነው	2. መካከለኛ	3. ጥሩ አይደለም	
13. አማካኝ ወርሃዊ ገቢዎት በብር ምን ያህል ነው? _____				
14. አለብዎት የተባሉት የታወቀ ከባድ አካላዊ ህመም ለምሳሌ ኤች አይ ቪ (HIV)፣ የደም ግፊት፣ ስኪር፣ አስም፣ የልብ በሽታ፣ የኩላሊት በሽታ ወይም የጉበት በሽታ አለ?	1. አለ	2. የለም		
15. ከላይ ለተጠቀሰው ጥያቄ መልስዎት አዎ ከሆነ የህመሙን አይነት ይግለፁ_____				

ክፍል 2- ስለ ድብርት (ለሁሉም ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

ባለፉት ሁለት ሳምንታት ከታች በተዘረዘሩት ገጠመኞች ምን ያህል ተቸግረው ነበር?	በፍፁም	ብዙ ቀናት	ከግማሽ ቀናት በላይ	በየቀኑ
1. ነገሮችን ሲሰሩ ፍላጎትዎ ወይም የሚያገኙት ደስታ በጣም ትንሽ (እምብዛም) ነበረ?	0	1	2	3
2. የበታችነት፣የጭንቀት፣የመደበር ወይንም ተስፋ የመቁረጥ ስሜት ነበረዎት?	0	1	2	3
3. እንቅልፍ ለመተኛት ወይም ተኝቶ ለመቆየት ችግር ወይንም ብዙ ከመጠን በላይ የመተኛት ችግር ነበረዎት?	0	1	2	3
4. ድካም የመሰማት ወይንም አቅም የማነስ ሁኔታ ነበረዎት?	0	1	2	3
5. የምግብ ፍላጐት አለመኖር ወይንም በጣም ብዙ የመብላት ችግር ነበረብዎት?	0	1	2	3
6. ሰለራስዎ መጥፎ ስሜት መሰማት፣ የበታችነት ስሜት፣ ራስዎን መጣል ወይንም ቤተሰብዎን መተው ነበረዎት?	0	1	2	3
7. ለነገሮች የማተኮር ችግር ነበረብዎት? ለምሳሌ ጋዜጣ ለማንበብ ወይንም ቴሌቪዥን ለመመልከት	0	1	2	3
8. ከተለመደው ውጪ ወዲያና ወዲህ የማለት፣እረፍት የማጣት ወይንም በተቃራኒው ሌሎች ሰዎች ሊገነዘቡት በሚችሉት ሁኔታ ቀስ ብሎ የመናገር ወይም የመንቀሳቀስ ችግር ነበረብዎት?	0	1	2	3
9. ብሞት ይሻላል ወይንም እራሴን በሆነ መንገድ ብጐዳ ይሻላል ብለው ያሰቡበት ጊዜ ነበር?	0	1	2	3
10. ከእነዚህ ከጠቀስናቸው ችግሮች አጋጥሞዎት ከነበር፥ ችግሮቹ ስራዎትን ለመስራት፣ ቤትዎ ያለን ነገር ለመንከባከብ፣ ራስዎን ለመጠበቅ ወይንም ከሌሎች ሰዎች ጋር ባለዎት ግንኙነት ለእርስዎ ምን ያህል አስቸጋሪ ነበሩ?	ምንም አስቸጋሪ አልነበሩም 0	በተወሰነ ደረጃ ብቻ አስቸጋሪ ነበሩ 1	በጣም አስቸጋሪ ነበሩ 2	እጅግ በጣም አስቸጋሪ ነበሩ 3

ክፍል 3፡ ስለ ጭንቀት (ለሁሉም ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

ባለፉት 2 ሳምንታት ውስጥ በሚከተሉት ችግሮች ምን ያህል ጊዜ ተረብሸዋል?	በፍፁም	ብዙ ቀናት	ከግማሽ ቀናት በላይ	በየቀኑ
1. ስለ የተለያዩ ነገሮች ከመጠን በላይ መጨነቅ።	0	1	2	3
2. ጭንቀትን ማቆም ወይም መቆጣጠር አለመቻል።	0	1	2	3
3. ዘና ለማለት መቸገር።	0	1	2	3
4. በጣም እረፍት የሌለው መሆን ወይም ዝም ብሎ መቀመጥ ከባድ መሆን።	0	1	2	3
5. በቀላሉ የሚናደድ ወይም ብስጩ መሆን።	0	1	2	3
6. አንድ አስከፊ ነገር እንደሚከሰት የመፍራት ስሜት።	0	1	2	3
7. የመረበሽ ስሜት፣ የመስጋት ወይም በተጠንቀቅ የመሆን ስሜት።	0	1	2	3
8. ከእነዚህ ከጠቀስናቸው ችግሮች አጋጥሞዎት ከነበር፥ ችግሮቹ ስራዎትን ለመስራት፣ ቤትዎ ያለን ነገር ለመንከባከብ፣ ራስዎን ለመጠበቅ ወይንም ከሌሎች ሰዎች ጋር ባለዎት ግንኙነት ለእርስዎ ምን ያህል አስቸጋሪ ነበሩ?	ምንም አስቸጋሪ አልነበሩም 0	በተወሰነ ደረጃ ብቻ አስቸጋሪ ነበሩ 1	በጣም አስቸጋሪ ነበሩ 2	እጅግ በጣም አስቸጋሪ ነበሩ 3

ክፍል 4: የመጠጥ ፣ ማጨስና ዕጽ ተጠቃሚነት መለኪያ (ለሁሉም ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

1. ከሚከተለት ውስጥ በህይወት ዘመንዎ የትኛውን ንጥረ ነገር ተጠቅመዋል?	አልተጠቀምኩም	ተጠቅሜያለሁ
1.1 የትምባሆ ምርቶች /ሺሻ፤ሲጋራ፤የሚታኝክ ትምባሆ፤ኮሸ	0	1
1.2 የአልኮል መጠጦች/ጠላ፣ጠጅ፣አረቄ፣ቢራ፣ወይን፣ወዘተ	0	1
1.3 ጫት	0	1
1.4 ሀሺሽ፥ ጋንጃ፥ ካናቢስ፥ ዊድ	0	1
1.5 ትራማዶል የተባለ መድሃኒት ወይም ሌላ መድሃኒት ከታዘዘበት አላማ ውጪ ተጠቅመው ያውቃሉ?	0	1

የሁለም ጥያቄዎች መልስ አልተጠቀምኩም ከሆነ የሚከተሉትን ጥያቄዎች ዘለው ወደ **ክፍል 5** ይሂዱ። ለአንድ ወይም ከዚያ በላይ ጥያቄ "ተጠቅሜያለሁ" የሚል መልስ ከሰጡ የሚከተሉትን ጥያቄዎች ይመልሱ።

2. ባለፉት 3 ወራት ውስጥ ከላይ ተጠቅሜ አውቃለሁ ያሉዋቸውን ነገሮች በየስንት ጊዜው ተጠቅመዋል?

	በጭራሽ	አንድ ወይም ሁለት ጊዜ	በየወሩ	በየሳምንቱ	በየቀኑ (ከሞላጎደል በየቀኑ)
2.1 የትምባሆ ምርቶች /ሺሻ፤ሲጋራ፤የሚታኝክ ትምባሆ፤ኮሸ	0	2	3	4	6
2.2 የአልኮል መጠጦች/ጠላ፣ጠጅ፣አረቄ፣ቢራ፣ ወይን፣ወዘተ	0	2	3	4	6
2.3 ጫት	0	2	3	4	6
2.4 ሀሺሽ፥ ጋንጃ፥ ካናቢስ፥ ዊድ	0	2	3	4	6
2.5 ትራማዶል የተባለ መድሃኒት ወይም ሌላ መድሃኒት ከታዘዘበት አላማ ውጪ	0	2	3	4	6

ክፍል 5- የቤተሰብ ታሪክ (ምርጫ ላላቸው ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

1. ወላጆችዎት ተለያይተው ወይም ተፋተው ያውቃሉ?	1. አዎ	2. የለም	
2. ከወላጆችዎት መካከል በሞት የተለየ አለ?	1. አዎ	2. የለም	
3. ከቅርብ ቤተሰቦችዎት ጋር ያለው ግንኙነት እንዴት ይገለፃል?	1. ጥሩ ነው	2. መካከለኛ	3. ጥሩ አይደለም
4. የቤተሰብዎ አማካኝ ገቢ በብር ምን ያህል ነው?_____			
5. ከሌሎች ጋር ሲወዳደር የቤተሰብዎ ገቢ እንዴት ይገለፃል?	1. ዝቅተኛ	2. መካከለኛ	3. ጥሩ
6. ከቅርብ ቤተሰብ የሚታወቅ የአዕምሮ ህመም ያለበት አለ?	1. አዎ	2. የለም	
7. ከቅርብ ቤተሰብ ራሱን ለማጥፋት የሞከረ አለ?	1. አዎ	2. የለም	
8. ከቅርብ ቤተሰብ ራሱን አጥፍቶ የሞተ አለ?	1. አዎ	2. የለም	

ክፍል 6- በልጅነት ጊዜ ያጋጠሙ ችግሮች (ለሁሉም ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

ከ 17 ዓመት በታች እድሜ በነበርኩ ጊዜ፣	**በፍፁም**	**ከስንት አንዴ**	**አንዳንዴ**	**ብዙ ጊዜ**	**በጣም ብዙ ጊዜ**
1. በቂ ምግብ አልነበረኝም።	1	2	3	4	5
2. የሚጎነባበከበኝና የሚጠብቀኝ ሰው እንዳለ አውቅ ነበር።	1	2	3	4	5
3. በቤተሰቤ ውስጥ ያሉ ሰዎች "ሞኝ"፣ "ሰነፍ" ወይም "አስጠሊታ" እያሉ ይጠሩኝ ነበር።	1	2	3	4	5
4. ወላጆቼ በጣም ሰክረው (ጠጪ ሆነው) ቤተሰባቸውን መጎከባከብ ያቅታቸው ነበር።	1	2	3	4	5
5. በቤተሰቡ ውስጥ ጥሩ የወደፊት ሕይወት እንደሚኖረኝ እንዲሰማኝ የረዳኝ ቢያንስ አንድ ሰው ነበር።	1	2	3	4	5
6. ልብሶቼ ከሌሎች በተለየ የቆሸሹ ነበሩ።	1	2	3	4	5
7. በቤተሰቦቼ እንደምወደድ ይሰማኝ ነበር።	1	2	3	4	5
8. ወላጆቼ ባትወለድ/ጂ ይሻል ነበር ብለውኝ ያውቃሉ።	1	2	3	4	5
9. ከቤተሰቦቼ መካከል በድብደባ ከባድ ጉዳት አድርሶብኝ ወደ ጤና ተቋም ተወስጄ አውቃለሁ።	1	2	3	4	5
10. ቤተሰቦቼ በተደጋጋሚ ይገርፉኝ/ይደበድቡኝ ስለነበር ሰውነቴ ላይ የቁስል ምልክት አለኝ።	1	2	3	4	5
11. በቀበቶ፣ በቦርድ፣ በገመድ ወይም በሌላ ከባድ/ጠንከር ባለ ነገር ተቀጥቼ አውቃለሁ።	1	2	3	4	5
12. ቤተሰቦቼ እርስ በርስ ይተጋገዙ ነበር።	1	2	3	4	5
13. ቤተሰቦቼ ከባድ ስድብ ይሰድቡኝ ነበር።	1	2	3	4	5
14. በጣም ከመደብደቤ የተነሳ አስተማሪዎቼ፣ ጎረቤት ወይም የጤና ባለሞያዎች አይተውት ስለሱ ጠይቀውኝ ያውቃሉ።	1	2	3	4	5
15. ከቤተሰቤ ውስጥ የሚጠላኝ/የማይወደኝ ሰው እንዳለ ይሰማኛል።	1	2	3	4	5
16. በቤተሰቤ ውስጥ ያሉ ሰዎች የእርስ በርስ ቅርርባቸው ጥሩ እንደነበር ይሰማኛል።	1	2	3	4	5
17. በጾታዊ ግንኙነት መልኩ ሊነካኝ ሞክሮ ወይም እንድነካው ያስደረገኝ ሰው ነበር።	1	2	3	4	5
18. ከእነሱ ጋር የጾታ ግንኙነት ካልፈፀምኩ በቀር እንደሚጎዳኝ ወይም ስለ እኔ በውሸት እንደሚያወራብኝ ዝቶብኝ የሚያውቅ ሰው አለ።	1	2	3	4	5
19. የጾታዊ ግንኙነት እንድፈጽም ወይም የጾታዊ ግንኙነት ነገሮችን እንድመለከት ሞክሮ የሚያውቅ ሰው አለ።	1	2	3	4	5
20. ፆታዊ ጥቃት ተፈፅሞብኝ ያውቃል።	1	2	3	4	5
21. ስሜታዊ/ሞራላዊ በደል ተፈጽሞብኛል ብዬ አምናለሁ።	1	2	3	4	5
22. የሚያስፈልገኝ ሲሆን ወደ ጤና ተቋም የሚወስደኝ ሰው ነበር።	1	2	3	4	5
23. ቤተሰቦቼ የብርታትና የድጋፍ ምንጭ ነበሩ።	1	2	3	4	5
24. ሌላ ልጅ ወይም በአሥራዎቹ ዕድሜ ውስጥ የሚገኝ ወጣት አካላዊ ጉዳት (ለምሳሌ መቃጠል፥ መቆረጥ፥ መቁሰል ወይም ሌላ) አድርሶብኝ ያውቃል።	1	2	3	4	5
25. ሌላ ልጅ ወይም በአሥራዎቹ ዕድሜ ውስጥ የሚገኝ ወጣት ስሜታዊ ወይም ሥነ ልቦናዊ ጉዳት አድርሶብኝ ያውቃል (ለምሳሌ ፍርሀት፣ መጥፎ ህልም፣ መታመም፣ ለብቻ መሆን መፈለግ፣ ማልቀስ ወይም ሌላ)።	1	2	3	4	5
26. አንድ ሰው ከወላጆቼ በአንዱ ላይ ጥቃት ሲፈፅም አይቻለሁ።	1	2	3	4	5
27. ከአቅሜ በላይ ለመሥራት እገደድ ነበር።	1	2	3	4	5
28. ወላጆቼ/አሳዳጊዎቼ ወደ ትምህርት ቤት እንዳልሄድ ይከለክሉኝ ነበር።	1	2	3	4	5
29. ወላጆቼ/አሳዳጊዎቼ ገንዘብ ወደሚያስገኝ ስራ ይልኩኝ ነበር።	1	2	3	4	5
30. በጣም አስፈሪ የሆነ ሌላ ሁኔታ ገጥሞዎት ከነበረ ይግለፁ_____					
31. ከወላጅ ቤተሰቦቼ አንዱ ወይም ሁለቱ ጋር ተለይቼ እኖር ነበር (ከ6 ወር በላይ)፥					
31.1 ከእናቴ ተለይቼ እኖር ነበር።	አዎ	እድሜዎት ስንት ነበር?	_____		
31.2 ከአባቴ ተለይቼ እኖር ነበር።	አዎ	እድሜዎት ስንት ነበር?	_____		

ክፍል 7- ማህበራዊ ድጋፍ (ለሁሉም ጥያቄዎች አንድ ምላሽ ብቻ ይምረጡ።)

1	ከጎረቤትዎ እርዳታ/ድጋፍ ቢያስፈልግዎ ማግኘት ምን ያህል ቀላል ነው?	በጣም ቀላል	5
		ቀላል	4
		ቀላልም ባይሆን የሚቻል	3
		አስቸጋሪ	2
		በጣም አስቸጋሪ	1
2	ከፍተኛ ችግር ቢያጋጥምዎ የቅርብ የሆኑ እና ይረዱኛል ብለው የሚተማመኑባቸው ምን ያህል ሰዎች ይኖራሉ?	5 እና ከዚያ በላይ	4
		3-5	3
		1-2	2
		ምንም	1
3	ሌሎች ሰዎች ስለ እርስዎ ጉዳይ ምን ያህል ግድ ይላቸዋል ወይም ያስቡልዎታል?	በጣም	5
		የተወሰነ	4
		አላውቅም	3
		ትንሽ	2
		ምንም	1

ክፍል 8- ራስን የማጥፋት ሃሳብና ሙከራ

1. ራስን ስለማጥፋት አስበው ወይም ራስዎን ለማጥፋት ሞክረው ያውቃሉ? (አንድ ምላሽ ብቻ ይምረጡ።)
   1. በፍፁም
   2. አንድ አፍታ መጥቶ የጠፋ ሃሳብ ነበር።
   3. ራሴን ለማጥፋት ቢያንስ አንድ ጊዜ እቅድ ኖሮኝ ያውቃል፣ ግን ላዳርገው አልሞከርኩም።
   4. ራሴን ለማጥፋት ቢያንስ አንድ ጊዜ እቅድ ኖሮኝ ያውቃል፣ እናም የእውነት ለመሞት ፈልጌ ነበር።
   5. ራሴን ለማጥፋት ሞክሬ ነበር፣ ግን ለመሞት አልፈለግኩም ነበር።
   6. ራሴን ለማጥፋት ሞክሬ ነበር፣ እናም የእውነት ለመሞት ፈልጌ ነበር።

2. ባለፈው አመት ውስጥ ራስዎን ስለማጥፋት ምን ያህል ጊዜ አስበው ያውቃሉ? (አንድ ምላሽ ብቻ ይምረጡ።)
   1. በፍፁም/በጭራሽ
   2. ከስንት አንዴ (አንድ ጊዜ)
   3. አንዳንድ ጊዜ (ሁለት ጊዜ)
   4. ብዙ ጊዜ (ከሶስት እስከ አራት ጊዜ)
   5. በጣም ብዙ ጊዜ (አምስት ጊዜ ወይም ከዚያ በላይ)

3. ራስዎን ለማጥፋት እንዳሰቡ ወይም ሊያጠፉ እንደሚችሉ ለሌላ ሰው ተናግረው ያውቃሉ? (አንድ ምላሽ ብቻ ይምረጡ።)
   1. አላውቅም
   2. አዎ፣ አንድ ጊዜ ፣ ግን የእውነት ለመሞት አልፈለግኩም ነበር።
   3. አዎ፣ አንድ ጊዜ፣ እናም የእውነት ለመሞት ፈልጌ ነበር።
   4. አዎ፣ ከአንድ ጊዜ በላይ፣ ግን የእውነት ላደርገው አልፈለግኩም ነበር።
   5. አዎ፣ ከአንድ ጊዜ በላይ፣ እናም የእውነት ላደርገው ፈልጌ ነበር።

4. አንድ ቀን ራስዎን የማጥፋት ሙከራ ሊያደርጉ የሚችሉበት ዕድል ምን ያህል ነው? (አንድ ምላሽ ብቻ ይምረጡ።)
   0. በጭራሽ/በፍፁም የለም
   1. ምንም ዕድል የለም
   2. በጣም ዝቅተኛ ነው
   3. ዝቅተኛ ነው
   4. የመሆን እድል አለው
   5. ከፍተኛ ነው
   6. በጣም ከፍተኛ ነው