

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

PREVALENCE AND ASSOCIATED FACTORS OF SUICIDAL IDEATION AND ATTEMPT AMONG PATIENTS VISITING TIKUR ANBESSA SPECIALIZED HOSPITAL AND ZEWDITU MEMORIAL HOSPITAL EMERGENCY DEPARTMENTS, A FACILITY-BASED CROSS-SECTIONAL STUDY

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2026 G.C.



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A THESIS SUBMITTED TO THE DEPARTMENT OF PSYCHIATRY, SCHOOL OF MEDICINE, COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY FOR THE PARTIAL FULFILMENT OF THE SPECIALTY CERTIFICATE IN PSYCHIATRY

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APRIL 1, 2026

ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, SCHOOLS OF MEDICINE, DEPARTMENT OF PSYCHIATRY

ACRONYMS

ART – Antiretroviral Therapy

DASS-21 – Depression, Anxiety, and Stress Scale-21

DSM-5-TR – Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition Text Revision

ED – Emergency Department

GAD-7 – Generalized Anxiety Disorder-7

HADS – The hospital anxiety depression scale

HIV/AIDS – Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

ICD-9/ICD-10 – International Classification of Diseases, 9th/10th Revision

MINI PLUS – Mini International Neuropsychiatric Interview Plus

NIDA – National Institute on Drug Abuse

OSSS-3 – Oslo Social Support Scale-3

PHQ-8 – Patient Health Questionnaire-8

PHQ-9 – Patient Health Questionnaire-9

SBQ-R – Suicidal Behaviors Questionnaire-Revised

SOM – School of Medicine

SPSS – Statistical Package for the Social Sciences

TASH – Tikur Anbessa Specialized Hospital

WHO – World Health Organization

WHO CIDI – World Health Organization Composite International Diagnostic Interview

ZMH – Zewditu Memorial Hospital

ACKNOWLEDGEMENT

I want to acknowledge Dr Ribka Birhanu and Dr Meron Getachew for their immense contributions in guiding me through the preparation of this thesis report through their expert remarks on the overall idea and practical implementation of the study.

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ABSTRACT

Background

Suicidal ideation and outcomes of suicidal attempts are treated in the emergency setting, which makes it an ideal point to treat as well as prevent suicidal behaviors by describing the target sections of a community.

Objectives

This study aimed to assess suicidal ideation and attempt magnitude in patients visiting the emergency departments of Tikur Anbessa Specialized Hospital and Zewditu Memorial Hospital.

Methods

The study employed a facility-based cross-sectional study design, which included patients from the emergency departments of TASH and ZMH. The study was done from December 2025 to March 2026. The World Health Organization Composite International Diagnostic Interview (CIDI) was used to assess suicidal ideation and attempt.

Results

A total of 316 patients were interviewed using a structured questionnaire. A total of 5.1% and 2.2% of the participants had suicidal ideation and attempt was respectively. Having Depression and Anxiety were found to increase risk of suicidal ideation in the past month by 5.93 times and 38.73 times respectively.

Conclusions

In this study the suicidal ideation prevalence among ED patients was comparable with other studies. Accordingly depression and Anxiety were shown to be factors that increase suicidal ideation.

Recommendations

Emergency Department visit at Hospitals should be used to screen patients for suicidal ideation as well as depression and anxiety.

Keywords: Suicidal, Ideation, attempt, Emergency, Prevalence

1. INTRODUCTION

1.1 Background of the study

Suicide is defined as an intentional act that ends one's life. Suicidal behaviors include a range of thoughts and acts that are closely associated with Suicide, which include suicidal ideation, planning, attempting, and completing Suicide.(1) The main feature of suicidal behaviors is that they are done to some extent with the knowledge that the act would cause one's death.(2)

Suicide is one of the major public health emergencies globally. It is among the leading causes of mortality in the world. This figure is higher than deaths from major diseases like HIV/AIDS, breast cancer, or war and homicide.(3) Each year, more than 1% of global mortality is caused by Suicide.(4)

Suicidal attempts are also a major contributor to morbidity worldwide. For every Suicide, there is a significantly higher ratio of suicidal attempts.(5) Although many suicidal attempts might not be reported, a significant number need medical attention and lead to emergency visits, causing a significant health care cost.(6) In the general population, the most important risk factor for Suicide is a prior suicidal attempt.(1)

One of the indicators of the United Nations' sustainable development goal is the prevention of premature deaths from non-communicable diseases like mental health conditions, leading to Suicide.(7)

In order to prevent Suicide deaths, there should be a high-quality data registration of suicidal behaviors and attempts. This can help as an input that can be used to identify risk factors in the general population and mental health care settings. Identified individuals with significant risk should have access to interventions to prevent future attempts of Suicide.(1,8)

Several biological, psychological, and social risk factors have been identified worldwide, including age, sex, previous attempt, suicidal ideation, chronic pain, mental health condition, and severe emotional symptoms. Screening and

identification of these factors is recommended as a strategy to decrease the overall incidence and impact of suicidal behaviors.(9–11)

1.2 Statement of the problem

The previous studies about suicidal ideation and behaviors are widely based on research done in non-clinical settings.(12–16) These studies mostly involve university and high school students from different regions of Ethiopia. This has created a wide range of results that are difficult to objectively use for clinical purposes. More studies are needed to clearly depict the magnitude and factors for use in a clinical context.(17,18)

The other significant portion of studies focuses on the psychiatric setting, which exclusively focuses on assessing psychiatric patients on follow-up. This might lead to a significant bias, as most mentally ill patients in the country are not engaged in any treatment. This might also overly estimate suicidality, as most patients with severe mental illness would be overrepresented in the studies.

To the author's understanding, there are only a few studies that addressed suicidality in the emergency setting. However, there remains a considerable gap in the understanding of the trends of suicidal behaviors, which, if addressed, can help design strategies for timely screening and intervention, thereby decreasing the rates of Suicide.(18)

1.3 Rationale of the study

The Emergency Department often serves as the first point of contact for individuals presenting with suicidal ideation or following a Suicide attempt.(19)

Despite this, there is a scarcity of data on the prevalence and characteristics of suicidal behaviors in emergency settings, particularly within our local context. This study will add to the very scarce data on suicidal ideation and attempts in the emergency settings, showing the current sociodemographic data. By identifying patterns and associated factors of suicidal ideation and attempts, the study will enable early identification of high-risk individuals and support the implementation of timely and effective interventions.

The study will also aim to describe factors associated with suicidal ideation and attempts try to clear the significant discrepancies in previous reports using consistent and context-specific methods of data collection and analysis. In doing so, it will help in developing targeted interventions that are culturally and socially appropriate.

The study will also provide recommendations on strategies to improve screening and interventions in emergency settings.

1.4 Literature review

The World Health Organization (WHO) estimates around 727,000 people die because of Suicide each year. Every forty-three seconds, a person dies from Suicide.(3) Suicide is also the third leading cause of mortality in individuals between the ages of 15-29. These deaths that occur in the young have far-reaching consequences in the social, economic, and psychological well-being of individuals, families, communities, and countries around the globe. It has become a major public health concern.(1)

Suicide also has a significant impact on the economies of countries due to the loss of lives, especially young and middle-aged men who have a future of starting their professional careers. A study from the USA in 2010s estimated the cost could be higher than 1 million dollars per each Suicide death. Although the majority of suicides happen in Lower and middle-income countries, which have poor data, the costs of Suicide are bound to have a significant economic impact.(4)

In addition to the mortality from Suicide, Suicidal attempts are much more prevalent. The Global Burden of Disease study in 2021 estimated the ratio of suicidal attempts to suicide ranged from 10 to 30 times. These numbers are higher for females than for males.(11) Consequences from suicidal attempts can include severe physical impairments due to injury, in addition to the psychological and mental health impact on the individual and their social circle. The health system will also face significant increases in resources allocated to treat the consequences. Suicidal attempt has also been identified as the most important predictor for subsequent Suicide.(1)

On the other hand, suicidal ideation has been problematic in assessing and reporting because of its different aspects, including being transient and self-reported. Global studies have reported wide ranges. In 2022, the Centers for Disease Control and Prevention of the United States of America reported that about 13.2 million individuals had serious suicidal ideation, which is roughly 8 times the number of individuals who attempted Suicide.(20) Suicidal ideation is also highly linked with subsequent suicidal attempt occurring in up to 60 percent of individuals worldwide.(21)

The WHO estimates that 3 out of 4 Suicides occur in the low to middle-income countries where most of the world's population reside. There are several differences in the prevalence of Suicide among high-income countries compared to low and middle-income countries. The highest age-standardized rate of Suicide was in high-income countries of 11.8 per 100000 population. The rate in low- and middle-income countries ranged from 7 to 10.5 per 100,000. There is also an increase in the rate of Suicide in the Americas, while there is a decrease in the rate in other regions. From 2000 to 2021, there was only 3% decrease in the suicide rate in Africa, while a 48% decrease was reported in Europe.(9)

The United Nations Sustainable Development Goal aims at decreasing the rate of Suicide by 33% by the year 2030, which is highly dependent on the availability of high-quality evidence in low and middle-income countries, which account for the majority of the suicidal deaths. The strategies can be decreasing access to suicidal methods while increasing ethical reporting of Suicide. It also aims to increase interventions in at-risk groups like adolescents and individuals with suicidal ideation or attempts.(9)

One of the Suicide prevention strategies is increasing data collection on suicidal behaviors. Hospital based data is one of the sources which includes data from emergency department where injuries due to suicidal behaviors are treated. However, medical recording has not been consistent in identifying injuries as due to suicidal behaviors, making results unreliable. There needs to be standardization of recording procedures in order to identify trends and risk factors of suicidal presentations to emergency departments, which will clarify which areas and groups are highly affected, which helps for preventive interventions.(1)

High-Income countries

In the USA, 0.6% of emergency department visits are due to suicidal behaviors, but when patients are assessed universally for suicidal ideation, the prevalence was found to be 20-fold. For this reason, There was a study in 2010 to determine the prevalence of suicidal behaviors in medically ill patients visiting six emergency departments. The study used a modified scale that combines the Colombia suicide rating scale and PHQ-9, administered to 1068 participants. The results of the study were that the prevalence of suicidal ideation was present among 7.5% percent of

participants, and 12.8 % reported prior suicidal attempt in their life. Among the lifetime suicidal attempters 26% had current suicidal ideation. This result shows that suicidal ideation was significantly commonly encountered in those with a history of suicidal attempts. The prevalence of Depression was around 34.1%. Depression was reported 91 % of the time in patients having suicidal ideation. Although Depression was assessed with having either of the two core criteria of Depression, there were also significant differences of up to 3 folds in the prevalence of suicidal ideation and attempts at different Emergency departments. The significant result from the study was that 3.3% of patients who reported current suicidal ideation and an attempt history did not report a mental health problem initially, which may be a strong argument to screen for suicidality in all patients coming to the ED. (22)

Two studies analyzed data from Emergency departments across the USA using a nationally representative sample from several randomly selected ED units to show any significant trends over a combined span of 15 years, from 2006 to 2013 and 2011 to 2020, respectively. The first study that spanned 7 years showed emergency visits for suicidal attempts accounted for 0.4% of all ED visits and stayed stable, in contrast to the second study, which showed that ED visits for suicidal attempts increased steadily by 20% a year to reach 2.1 % of all ED visits by 2019-2020. Both studies found that females attempted Suicide more frequently than men in the ED. Suicidal attempts in men peaked at an older age than in females. The commonest suicidal attempt method was poisoning in both studies, with 65-70 % of the total attempts. The first study used ICD-9 diagnosis for mental disorders, which showed that 82.7% had at least one during the ED visit. Mood disorders were present in 42% of the time, while substance use disorder. Alcohol use disorder and Anxiety disorder accounted for the rest. In the second study, mood disorders decreased by 5 % each year, while substance use disorders increased by 6 % each year. In addition, the second study also found that an increased number of patients who attempted Suicide had no psychiatric diagnosis. Being an adolescent or young adult compared to the 65 years or older group had an increased ED visit for suicidal attempt. Additional risk factors like mood disorders and substance use disorder were found to be significantly correlated.(23,24)

In another study assessing ED visits for suicidal ideation from 2016 up to 2020 from data collected by the national ambulatory medical care survey, it was found that ED

visits due to Suicide varied among different sociodemographic factors. The results showed that males had a 35% percent increased likelihood of having visited emergency services due to suicidal ideation than females. The peak age for males was found to be from 35-44 years, while for females it was from 14-18 years. Among the Race and ethnicity groups, non-Hispanic blacks were found to have the highest ED visits for Suicidal ideation. Different regions of the country also reported different levels, the lowest being in the Northeast and the highest being in the West. This study shows the overall differences in ED visits, which may indicate vulnerable groups that can be candidates for preventive interventions.(25)

Low and Middle-income countries

In 2015 a cross-sectional study was conducted among patients visiting two emergency care centers in Cape Town, South Africa. The study evaluated 200 participants using the mini Neuropsychiatry Interview, which is compatible with ICD-10 10 as well as questionnaires assessing trauma history and witnessing violence. The study revealed that patients presenting with suicidal attempt showed a higher prevalence of mental disorders, mostly with major Depression, which was 28% and Substance use disorder 50%. Previous suicidal attempt and unemployment were also significant risk factors for current suicidal attempts.

Another cohort study in South Africa, done in 2015 with 270 participants who presented to the ED of a Hospital in the urban city of Cape Town, determined that a higher educational level of secondary school or higher was found to be significantly associated with a 4 times increased severity of suicidal ideation. The study also identified males having 3 times the prevalence of suicidal intent. Participants with multiple reasons for suicidal attempt had higher levels of suicidal ideation.(26)

A descriptive retrospective cohort study was done from 2018 to 2023 in Kenya at a tertiary hospital involving all patients presenting to both the Emergency care and psychiatric clinic. A total of 497 patients were included in the study, with a locally validated tool assessing the sociodemographic and clinical data from records. The study revealed that 29 % of cases had a record of self-harm. Female gender and younger age were significantly related to self-harm. The average age of self-harm was 26.5. Being single was also significantly associated with suicidality. Around 90 % of individuals with self-harm had a previous history of a psychiatric diagnosis,

compared to only 33% of patients who reported no suicidal attempt. Those who reported self-harm had a previous attempt in 80% of the time. Among psychiatric diagnoses, Depression was reported in around 90 % of the cases with self-harm, while Anxiety and bipolar disorder occurred in 28% and 17% respectively. (27)

In Ethiopia, studies regarding suicidal ideation and attempts are very scarce. The total research data on suicidal behaviors is mostly done sporadically in settings that are non – clinical like educational institutes. The lack of preventive strategies to decrease future attempts may be due to lack of evidence on the associated factors among clinical populations specifically among patients visiting Emergency department. There is a better data available on suicidal ideation and attempt among general population and vulnerable groups. The findings even in these studies are highly variable in magnitude but similar in identified risk factors. The significant majority of studies use the WHO-CIDI questionnaire, although there are studies that use the SBQ-R.(14,28)

The prevalence of suicidality in the Ethiopian general population has been reported in different studies with often contradictory results. In a review of studies in Ethiopia from 1999 to 2022, among the general population studies on the prevalence of suicidal ideation, attempt, and deaths revealed a wide range of figures. Lifetime Suicidal ideation was reported to range from 1% to 55% while lifetime suicidal attempt ranged from 0.6%-14%. Suicide deaths were reported as 7-8 per 100000 population.(18)

A systematic review and meta-analysis of studies among high school students in Ethiopia found the pooled prevalence of suicidal ideation and suicidal attempt accounts for 16% and 10% respectively.(14) A similar review in adolescents and youth reported a lifetime prevalence of suicidal attempt at 12.5%.(28)

Special populations that are at risk of having a higher prevalence of suicidality have been studied. A cross-sectional study conducted in adults on follow up for HIV at ART follow-up clinics at a governmental hospital in Ethiopia using the WHO Composite International Diagnostic Interview found the prevalence of suicidal ideation was 22.8% with 5% having suicidal ideation in the past 1 month. The same study revealed 0.8% had an attempt in the past month and 13.5% had a lifetime suicidal attempt.(29) Two hospital-based cross-sectional studies done among adult

cancer patients reported the prevalence of suicidal ideation and attempts were 16-24% and 5-10% respectively.(30,31) Among Patients attending a psychiatry clinic at a public hospital, the magnitude of suicidal behavior was reported to be 46.3%.(32)

Gender

Most studies found female gender to be associated significantly with the probability of a suicidal attempt.(12,28,30). A hospital-based cross-sectional study done in Jimma University Cancer Center among 271 adult cancer patients revealed that being female was associated with a 5 times higher likelihood of attempting Suicide.(30) This is consistent with global trends of suicidal attempts being more frequent in females; by contrast, deaths from Suicide are more common in males. On the contrary, a school-based, cross-sectional study done among high school students found a slightly higher prevalence of suicidal attempt in boys compared to girls. Most studies support that the female gender is significantly associated with increased suicidal attempts.(28)

Education

There are several aspects of education that are linked with suicidal attempts; this can be the level of education achieved, ongoing academic stress, or disappointment in academic results. A cross-sectional study which evaluated psychiatric patients in 2020 indicated that having a college degree or above was associated with less likelihood of suicidal ideation and attempt, while only achieving a primary or secondary educational level increased the risk 6 and 4 times, respectively.(33) A cross-sectional study based on high school students showed academic failure as a reason the students gave for attempting Suicide.(13) One systematic review and meta-analysis done to assess studies done on high school students from 2020 to 2024 identified academic disappointment as a significant risk factor. A meta-analysis of studies among medical students globally also indicated that facing academic difficulty doubles the risk of suicidality.(34) Education can have a major impact on suicidal attempt risk.

Marital status

Marriage is one of the vital stages of a person’s life in cultures worldwide. Different cultural practices have been established over centuries around marriage. In Ethiopia,

there are diverse cultures and attitudes about marriage. Child marriages were associated with doubling the levels of suicidal attempts when compared with girls who had never been approached or gotten married in a 2007 survey done among adolescent girls in the Amhara region, Ethiopia.(35) Another study of a population-based cohort, which followed patients with severe mental illness for 10 years on average, reported that being married doubled the risk of having a suicidal attempt.(36) On the other hand, studies on HIV positive patients reported that being single was associated with 8 8-fold increase in suicidal attempts compared to their married partners.(37) The contradictory evidence reflects the significance of marriage in different groups.

Social support

Strong social support is one of the important factors that decreases the chances of suicidal attempts. A study done in a high school setting in Dangila town, Ethiopia, using the Oslo Social Support Scale identified that adolescents who had strong social support had approximately a 5-fold decrease in the likelihood of attempting Suicide.(13) Similar findings are reported among studies done in populations with chronic medical illnesses as well.(30,37,38). Studies conclude that poor social support can lead to decreased coping with stressful life events, which may be the reason for the higher risk of suicidal attempts.

Family history

Among the crucial factors associated with suicidal attempts is a family history of suicidal attempts, especially in adolescents. Two systematic reviews and meta-analyses of studies done in adolescents in Ethiopia report finding that family history of suicidal attempt has a significant correlation with attempting Suicide.(14,28) Several institutional cross-sectional studies in adolescents in different regions of Ethiopia showed that having a family history of suicidal attempt can be a factor that increases the likelihood of attempting Suicide.(15,16,39,40). Further Studies are needed to explore the family history of suicidal attempts in the general population.

Alcohol Use

Alcohol has been one of the frequently studied substances in assessing the risk of attempting Suicide. A 2021 community-based study in Jimma Town in Ethiopia found

there was no association between hazardous alcohol use and suicidal attempts. However, several studies concerning suicidal attempts reveal there is a statistically significant correlation of current alcohol use and suicidal ideation and attempt.(32,41) A study in Mettu University also indicated that lifetime alcohol use can increase suicidality.(40) Using substances can influence and also cause several dysfunctions in a person's life that can lead to increased suicidal risk.

History of Mental Illness

Although Depression and Anxiety are the most implicated, a history of mental illness can also predispose a person to attempt Suicide. In 2 studies conducted using the WHO CIDI questionnaire and A semi-structured interview, both found that having a mental illness, regardless of taking medications, will increase the likelihood of attempting Suicide more than 3 times that of a person with no history or treatment for a mental illness.(38,42) These are also evidenced by increased prevalence of suicidal attempts among psychiatric patients of 42-46.3% which is ten times more than in the overall population, as concluded by a meta-analysis of 12 studies.(17,32)

Depression

Having comorbid Depression has been linked with an increase in suicidal attempts in almost all studies conducted in different groups. A meta-analysis of 25 studies on medical students reported that having comorbid Depression was the only consistent link between risk of suicidal ideation and suicidal attempt, increasing by more than 10 times the risk. (34) In Ethiopia, a study done in the Harari region in 2022, which involved psychiatric clinics of 2 public hospitals, concluded that a suicidal attempt was 2 times more likely to be found in patients who had a history of Depression.(32) This is in line with established criteria of Depression, which include signs of suicidality as a feature of the diagnosis.

Anxiety

In addition to Depression, Anxiety has been reported in several studies as a contributing factor to suicidal attempts. A school-based cross-sectional study in Jimma town in Ethiopia assessed Depression and Anxiety using the DASS-21 scale among more than a thousand adolescents, which yielded that Anxiety was related to increased suicidal attempts except in mild form.(15) Another study which used the

same scale in one multi-center cross sectional study in Harari found Anxiety doubled the risk for suicidal attempts among high school students.(16) Other studies have also resulted in similar or slightly increased associations between Anxiety and suicidal attempts.(30,41,43)

Emergency department

In Ethiopia, studies on emergency department visits are scarce. There were only two studies available publicly. A facility-based cross-sectional study was done at the emergency care of two hospitals in Hawassa city in southern Ethiopia in 2015. It used semi-structured questionnaires and the Mini International Neuropsychiatric Interview version 5 (MINI PLUS) to assess the sociodemographic and mental health profiles of suicidal attempters who visited the ED. It found that 78% of the participants were below the age of 25 years. 61% of the individuals were students when they attempted Suicide. The study only found that 3% had mood or substance use disorder. The findings in the study are highly inconsistent as it didn't find a significant ratio of suicidal attempters associated with a mental illness. (44)

The second study done in the Addis Ababa Burn Emergency and Trauma hospital in 2018. It was a facility-based, quantitative, cross-sectional study. The study findings were that suicidal behaviors were 8% among all patients coming to the emergency department. In contrast, it found a smaller percentage of suicidal ideation of 1.7 %. The gender distribution was equal among males and females. However, females were more likely to be younger at the time of the attempt. About a quarter of the attempts were attributed to mental illnesses, while half were due to social reasons.(45)

1.5 Conceptual framework

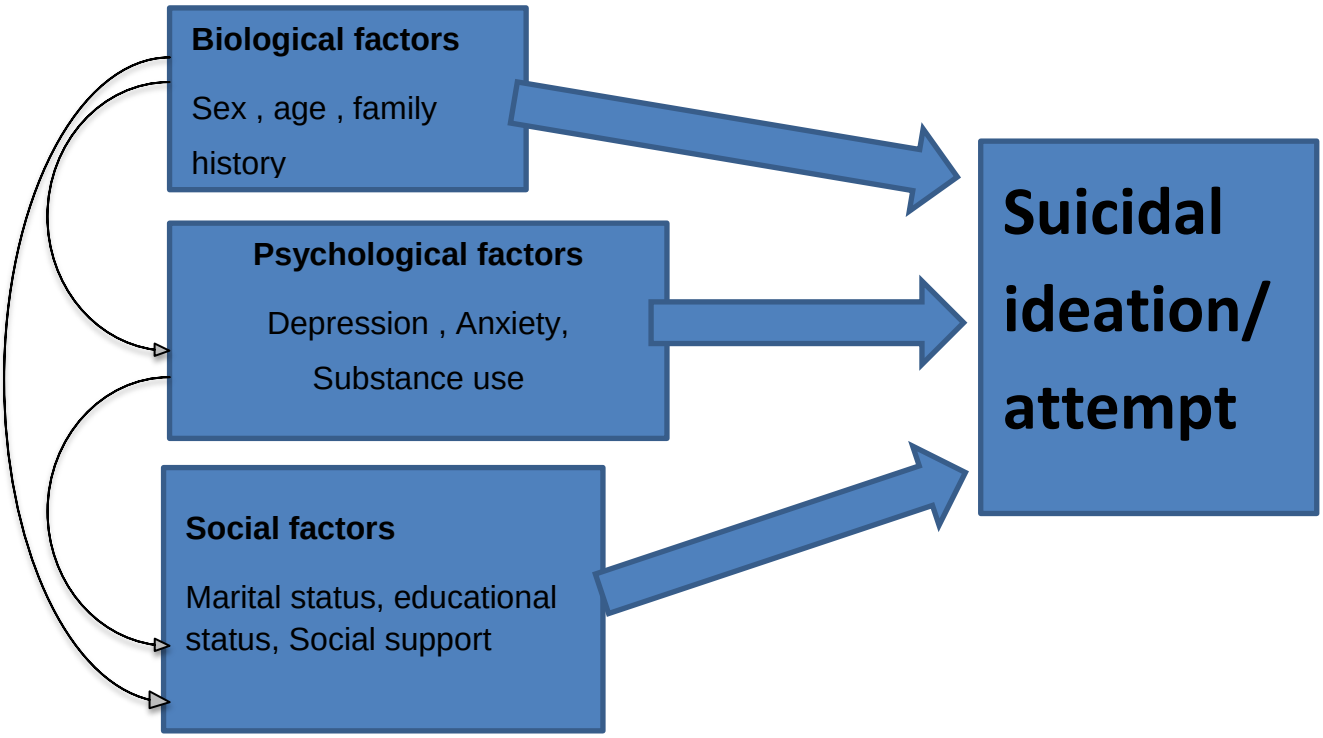


Figure 1 – Conceptual framework of risk factors related to suicidal attempts

Suicidal attempt is a multifactorial behavior that is influenced mainly by depression, anxiety, and Substance use. In addition, there are several sociodemographic and environmental factors that contribute to the vulnerability of individuals to attempt Suicide.

2 RESEARCH QUESTION

- What is the magnitude of suicidal ideation and attempts among patients visiting Emergency departments of Tikur Anbessa specialized hospital and Zewditu Memorial Hospital?
- What are the factors that are associated with suicidal ideation and attempts among patients visiting Emergency departments of Tikur Anbessa specialized hospital and Zewditu Memorial Hospital?

3 OBJECTIVES

3.1 General objective

- This study aims to assess factors and their association with suicidal ideation and attempt among patients visiting emergency departments at Tikur Anbessa Specialized Hospital and Zewditu Memorial Hospital from September 12, 2025, to December 12, 2025.

3.2 Specific objectives

- The study aims to determine the proportion of patients who report suicidal ideation and attempt from the overall patients visiting the ED.
- The study aims to describe the sociodemographic and clinical aspects of patients with suicidal ideation and attempt visiting emergency departments.
- This study aims to determine the association of Depression, Anxiety, Substance use and Social support with suicidal ideation and attempts in the ED.

4 RESEARCH METHODS AND MATERIALS

4.1 Study setting

This study was conducted at two of the largest hospitals found in Addis Ababa, Ethiopia; Tikur Anbessa Specialized Hospital, Zewditu Memorial Hospital.

Tikur Anbessa Hospital is the most well known specialized hospital in Ethiopia. It started to operate in 1972; the hospital started the first school for training Medical Doctors. The hospital is under the administration of the College of Health Science of Addis Ababa University which also serves as the training inistitution for undergraduate and postgraduate medical proffessionals. The emergency department gives 24-hour service to patients from all over the country. The emergency department treats around 18000 patients per year.(46)

Zewditu Memorial Hospital (ZMH) is one of the major tertiary care hospitals in Addis Ababa. Zewditu Hospital was established in central Addis Ababa, Ethiopia, opposite the public spa and within walking distance of the TASH. It was constructed, financed and organized by the Seventh-day Adventist Church. It was transferred to public ownership during the Derg regime in 1976. It includes outpatient and inpatient services. The emergency department offers 24-hour services to patients. The adult emergency department has a capacity of 20 beds with several trained medical professionals. It serves around 10,000 patients per year.(47)

4.2 Study period

The study was conducted from Dec 2025 to March 2026.

4.3 Study design

The study employed Facility based cross sectional study design. Study sites were the Emergency departments of TASH and ZMH.

4.4 Source population

All patients who visited the emergency departments of TASH and ZMH from December 30, 2025 to March 5, 2026.

4.5 Study population with eligibility criteria

Participants were patients who are admitted to the emergency department of TASH and ZMH who met the eligibility criteria.

4.5.1 Eligibility criteria

- All participants who are aged 18 years old or above who are admitted to the emergency department of both hospitals who are willing to participate will be included while patients who are critically acutely ill or have severe cognitive impairments at the time of data collection will be excluded.
- Participants should be able to consent to be included in the study.
- All participants will be approached after they have had at least their first medical evaluation.
- Participants should be able to respond in Amharic, which will be the language used in the questionnaires.

4.6 Sample size determination

The sample size of the study is calculated using the single population formula.

$$n = \frac{(z_{\alpha/2})^2 \cdot pq}{d^2}$$

P – Proportion of patients with suicidal ideation

Q - Proportion of patients without suicidal ideation

n is the final sample size, d is the marginal error of 0.05

$Z\alpha/2$ is the critical value of 1.96 corresponding to a 95% confidence interval

Prevalence of suicidal ideation is used to calculate the sample size because it is expected to have a higher prevalence than suicidal attempt, as reported in multiple meta-analyses. (17,48). Prevalence of suicidal ideation has been reported in the general population and non-clinical population, ranging between 16 % to 20 %.(14,49) Prevalence in psychiatric patients was reported at 36%.(32) Taking an estimate of the prevalence of suicidal ideation in the ED would be higher than in the general population but lower than in the psychiatric population. We can take 25 % conservatively.

$$n = \frac{(1.96)^2 \times (0.25)(0.75)}{(0.05)^2} = 288$$

By adding a 10% non-response rate,

The final calculated sample size is 288+28=316

Since TASH is expected to serve twice the number of patient that ZMH will serve The Sample size will be proportionally divided.

TASH sample = Total sample size x $2/3^{rd}$ = 316 x 2/3 = 210

The ZMH sample will be 106 participants.

4.7 Sampling technique/procedure

The first study participants who are admitted to the emergency department at ZMH and TASH from December 30, 2025 to March 5, 2026 were identified to fulfill the eligibility criteria were contacted and when consenting they were included in the study.

4.8 Operational definitions

- Suicidal ideation – Participants who responded yes to questions of suicidal thinking and plan on the Suicidality section of the questionnaire.
- Suicidal Attempt – Participants who responded yes to questions on suicidal attempt on the Suicidality section of the questionnaire
- Suicidal behavior – Participants who fulfill the above criteria for suicidal ideation and suicidal attempt

- Associated factor - Any variable which is found to be significantly associated with an increased probability of suicidal behaviors.
- At Risk of Suicide – If a participant reports current or past suicidal ideations, plans or attempt in the past 1 month.

4.9 Instruments for data collection with justification and psychometric performance

- Sociodemographic and clinical factors extraction tool, The Oslo social support scale (OSSS-3), The National Institute on Drug Abuse Quick Screen, The Generalized Anxiety Disorder 7-item scale (GAD-7), Patient Health Questionnaire (PHQ-8) and the World Health Organization Composite International Diagnostic Suicidality Module were used in data collection.
- The Sociodemographic section included age, sex, residence, religion, educational level, occupation, marital status, economic level. The clinical factors included chief complaint, initial diagnosis, prior history of mental illness, prior history of medical illness, first diagnosis.
- The Oslo social support scale (OSSS-3) was used to measure overall social support. OSSS-3 is a three item scale which asks about number of close persons, sense of care or interest from other people and difficulty of getting practical help from neighbors. The OSSS-3 has been adapted to Amharic and use in studies related to suicide but it has not been validated.(29,33)
- The National Institute on Drug Abuse Quick Screen was used to screen for substance use across all groups of substances and the frequency of use.
- The Generalized Anxiety Disorder 7-item scale (GAD-7) was used to screen for generalized Anxiety disorder. It has seven items that measure the number of Anxiety symptoms over the past two weeks, with participants rating each item on a scale from "not at all" to "nearly every day." The GAD-7 has been validated in a study done among university students in 2017 with results showing a good internal consistency and convergent validity with the Perceived stress scale indicating a good psychometric validity.(50)
- The Eight-item Patient Health Questionnaire (PHQ-8) which refers to a version of PHQ-9 without suicidality question, it was used to assess as a screening and diagnostic tool for Depression. Each of the eight items reflects

a DSM-5 symptom of Depression. A validation study done in Butajira town to assess cultural validation of the PHQ-9 demonstrated that PHQ-9 was found to be an important screening tool in health care in Ethiopia.(51)

- The Suicidality module of World Mental Health survey initiative version of the World Health Organization Composite International Diagnostic Interview was used to screen suicidal behavior. The module includes 5 items which assess suicidal ideation, plan and attempt. If suicidal attempt is confirmed, then 3 items that assess the frequency and treatment after the attempt was administered. The Amharic version of The World Health Organization (WHO) CIDI has been assessed for diagnostic validity in east African population which showed a valid internal reliability (Cronbach's alpha = 0.97) among Ethiopian adults.(52)

4.10 Data collection procedures

Data were collected via face to face interviews with Amharic language and Amharic versions of questionnaires. The principal investigator and 4th year medical students of AAU conducted the interview.

4.11 Data processing and analysis

SPSS version 27 was used for data coding, organizing, cleaning and analysis. Proportions, percentages, ratios, frequency tables, determinants of central tendency and determinants of dispersion were used to describe the data on the prevalence of suicidal ideation and attempt. Fisher exact tests were used to assess for association between sociodemographic characteristics of participants. Bivariate and Multivariate analysis was determined with binary logistic regression to identify factors while controlling confounders with significant association sequentially.

4.12 Data quality assurance

The Amharic versions of the questionnaires are validated in Ethiopia and have been previously successfully used in clinical population. The data collectors were introduced on how to conduct the tools by the primary investigator. Data completeness was checked by the primary investigator within a week of data collection.

4.13 Ethical considerations

Ethical permission was successfully acquired from the Department of Psychiatry, College of Health Sciences, Addis Ababa University; Addis Ababa City Administration Health Bureau and Zewditu Memorial Hospital. The Names of patients was not collected to keep anonymity. Written consent was filled by each participant before collecting data**.**

If there is reported risk of suicidal behavior the treating physician was informed for psychiatric consultation in the respective hospitals psychiatry department**.**

4.14 Dissemination of findings

The results of the study were submitted to the Department of Psychiatry, College of Health Sciences, Addis Ababa University and to the hospitals in the study. Publication may be sought in the future.

5 RESULTS

Among the final 316 consenting participants were interviewed in the data collection. Out of the participant 66.5% (210) were interviewed at Tikur Anbessa specialized hospital and the remaining were at Zewditu Memorial Hospital.

5.1 Sociodemographic characteristics of participants

The mean age of participants was 44.5 years ranging in between 18 years to 85 years. Men accounted for more than half of the participants 56.3% (178). 69.3% (219) of the participants followed the orthodox Christian religion. In terms of the level of education of participants, 35.1% (111) had primary educational level, and 24.1% (76) were educated up to secondary education while 22.8 % (72) had no formal education. (Table 1)

Table 1 - Sociodemographic characteristics of participants among patients visiting TASH and ZMH (n = 316)

Characteristics	Frequency	Percentage
Age groups		
18 – 40	148	46.8 %
40 – 65	112	35.4 %
65 – 85	56	17.7 %
Median Age 42.5		
Sex		
Male	178	56.3 %
Female	138	43.7 %
Religion		
Orthodox	219	69.3 %
Muslim	48	15.2 %

Protestant	40	12.7 %
Other	9	2.8 %
Educational status		
No formal education	72	22.8 %
Primary	111	35.1 %
Secondary	76	24.1 %
Higher	57	18 %
Occupation		
Unemployed	130	41.1 %
Employed	186	58.9 %
Marital status		
Single	99	31.3 %
Married	187	59.2 %
Divorced	18	5.7 %
Widowed	12	3.8 %

5.2 Clinical characteristics of participants

22.8 % (72) of participants visited the emergency department with a chief complaint of respiratory distress. The commonest first diagnosis were of gastrointestinal illnesses 15.2% (48) followed by cardiac illness 14.6% (46) and respiratory illnesses 13.9% (44). 52.5% (166) denied any prior illness prior to their emergency department visit. (Table 2)

Table 2 - Clinical characteristics of patients visiting EDs of TASH and ZMH (n = 316)

Chief Complaint		
Respiratory Distress	72	22.8 %
Pain	53	16.8 %
Swelling	39	12.3 %
Neurological deficit	39	12.3 %
Bleeding	23	7.3 %
Gastrointestinal	21	6.6 %
Injury	19	6.0 %
Taking pills	4	1.3 %
Other	46	14.6 %
First Diagnosis		
Gastrointestinal illness	48	15.2 %
Cardiac illness	46	14.6 %
Respiratory illness	44	13.9 %
Oncological disease	30	9.5 %
Renal illness	27	8.5 %
Trauma	19	6.0 %

Neurological illness	12	3.8 %
Psychiatric Illness	5	1.6 %
Other illnesses	85	26.9 %
History of prior medical illness		
No previous diagnosis	166	52.5 %
One prior diagnosis	97	30.7 %
Two prior diagnoses	37	11.7 %
Three prior diagnoses	13	4.1 %
Four prior diagnoses	3	0.9 %
Type II DM		
Yes	41	87
No	275	13
Hypertension		
Yes	51	16.1 %
No	265	83.9 %
RVI		
No	308	97.5 %
Yes	8	2.5 %

5.3 Psychosocial characteristics of participants

A total of 68.7 % (217) of the participants reported strong social support responding to the Oslo Social Support Scale. Screening for depression using the PHQ-8 yielded a result of 18.7 % (59) of participants had moderate to severe depression. Generalized anxiety disorder screened using GAD-7 showed that 6.6% (21) of participants had moderate to severe anxiety. (Table 3)

Table 3 - Psychosocial characteristics of patients visiting EDs of TASH and ZMH (n = 316)

Social support		
Poor Social Support	39	12.3 %
Moderate Social Support	60	19 %
Strong Social Support	217	68.7 %
Anxiety		
Minimal	246	77.8 %
Mild	49	15.5 %
Moderate	17	5.4 %
Severe	4	1.3 %
Depression		
No symptoms	113	35.8 %
Mild	144	45.6 %
Moderate	46	14.6 %
Moderately Severe	10	3.2 %
Severe	3	0.9 %

Among the entire participants, the percentage of participants who used alcohol, khat and tobacco at least weekly were 16.4% (50), 10.2 %(32) and 8.2 %(26) respectively. (Table 4)

Table 4 Substance use among patients visiting EDs of TASH and ZMH (n = 316)

Alcohol use frequency		
Never	264	83.5 %
Monthly	2	0.6 %
Weekly	19	6 %
Once or Twice a week	6	1.9 %
Almost Daily	25	7.9 %
Khat use frequency		
Never	282	89.2 %
Monthly	2	0.6 %
Weekly	11	3.5 %
Once or Twice a week	2	0.6 %
Almost Daily	19	6 %
Tobacco use frequency		
Never	290	91.8 %
Weekly	4	1.3 %
Once or Twice a week	2	0.6 %
Almost Daily	20	6.3 %
Prescription drugs		
Never	315	99.7 %

Almost Daily	1	0.3 %
Illicit drugs use frequency		
Never	312	98.7 %
Monthly	1	0.3 %
Once or Twice a week	2	0.6 %
Almost Daily	1	0.3 %

5.4 Prevalence of suicidal ideation and attempt

The prevalence of suicidal ideation and attempt in the last one month was found to be 5.1% (16) and 2.2% (7) with a 95% CI of (2.7% - 7.5%) and (0.6% - 3.8%) respectively. The frequency of attempt was once in the last month for all suicidal attempters. Among the seven participants who reported attempting suicide, four received treatment at a health facility. (Table 5)

Table 5 - Prevalence of suicidal ideation and attempt among patients visiting EDs of TASH and ZMH (n = 316)

Variables	Category	Frequency	Percentage
Accident in the past month	Yes	25	7.9
	No	291	92.1
Thought a lot about dying in the past month	Yes	52	16.5
	No	264	83.5
Seriously thought about ending your life in the past month	Yes	16	5.1
	No	300	94.9
Planned to end your own life in the past month	Yes	13	4.1
	No	303	95.9
Tried to end your life in the past month	Yes	7	2.2
	No	309	97.8
How many times have you tried	1	7	100%
Did you received medical care	Yes	4	57.1%
	No	3	42.9%

5.5 Factors Associated with Suicidal ideation

The association of sociodemographic variables and suicidal ideation was assessed using Fisher Exact tests. Age showed a slight level association (x^2 = 3.5, P-value = 0.17) with using the broader criteria of p-value less than 0.2. It shows with increased age there was a decrease in the prevalence of suicidal ideation. Other variables of Sex, Religion, Educational status, Occupation, and Income did not show significant association with Suicidal ideation. (Table 6)

Table 6 Sociodemographic factors associated with suicidal ideation in patients visiting EDs in TASH and ZMH (n=316)

Variable		Suicidal ideation		X^2	P-value
		Yes	No		
Age group	18-40	11 (7.40%)	137(92.60%)	3.498	0.215
	40-65	4 (3.60%)	108(96.40%)		
	65-85	1 (1.80%)	55 (98.20%)		
Sex	Female	9 (6.50%)	129(93.50%)	1.084	0.314
	Male	7 (3.90%)	171 (96.10%)		
Religion	Orthodox	9 (4.10%)	210 (95.90%)	1.734	0.358
	Muslim	3 (6.30%)	45 (93.80%)		
	Protestant	3 (7.50%)	37 (92.50%)		
	Other	1 (11.10%)	8 (88.90%)		
Education	No education	1 (1.40%)	71(98.60%)	4.457	0.384
	Primary	8 (7.20%)	103 (92.80%)		
	Secondary	3 (3.90%)	73 (96.10%)		

	Diploma	2 (9.50%)	19 (90.50%)		
	Degree	2 (6.30%)	30 (93.80%)		
	Masters	0 (0.00%)	3 (100.00%)		
	PHD	0 (0.00%)	1 (100.00%)		
Occupation	Unemployed	8 (6.20%)	122(93.80%)	0.546	0.603
	Employed	8 (4.30%)	178 (95.70%)		
Marital status	Single	7 (7.10%)	92 (92.90%)	1.719	0.647
	Widowed	0 (0.00%)	12(100.00%)		
	Divorced	1 (5.60%)	17 (94.40%)		
	Married	8(4.30%)	179 (95.70%)		
Income	No income	9 (5.50%)	155 (94.50%)	0.391	0.953
	Below 5000	3 (3.90%)	74 (96.10%)		
	5000-10000	3 (5.90%)	48 (94.10%)		
	10000-15000	1 (4.20%)	23 (95.80%)		

Clinical variables were categorized in to smaller groups that decreased smaller proportions in order to increase the statistical power of analysis. Binary Logistic regression was done to evaluate the significant association between clinical variables and suicidal ideation as a crude odds ratio. Binary logistic regression showed significant association between suicidal ideation with Social support, Major depression disorder and generalized anxiety disorder (P-value < 0.05). On Multivariable logistic regression the association with Social support was not statistically significant while major depression disorder had a significant association with p-value less than 0.01(AOR = 5.93, 95% CI 1.63 – 21.59) as well as generalized anxiety disorder (AOR = 38.73, 95% CI 6.14 – 244.33). (Table 7)

Table 7 - Clinical factors associated with suicidal ideation among patients visiting EDs in TASH and ZMH (n=316)

Variable		Suicidal ideation		COR (95%CI)	P-value	AOR (95%CI)	P-value
		Yes	No				
Prior Dx	Yes	8	142	1.113 (0.41, 3.05)	0.835	0.458 (0.09, 2.40)	0.356
	No	8	158	1	-	1	-
DM	Yes	2	39	0.956 (0.21, 4.41)	0.954	2.039 (0.22, 18.64)	0.528
	No	14	261	1	-	1	-
HTN	Yes	2	49	0.732 (0.16, 3.32)	0.686	0.52 (0.06, 4.44)	0.55
	No	14	251	1	-	1	-
RVI	Yes	1	7	2.79(0.32, 24.10)	0.351	3.265 (0.05, 233.40)	0.587
	No	15	293	1	-	1	-
Alcohol use	Yes	2	50	0.714 (0.16, 3.25)	0.663	1.46 (0.24, 8.98)	0.683
	No	14	250	1	-	1	-
Social support	Poor	6	33	4.202 (1.41, 12.53)	0.01*	0.448 (0.05, 4.40)	0.491
	Moderate	1	59	0.392(0.05, 3.16)	0.379	1.718 (0.41, 7.22)	0.46
	Strong	9	208	1	-	1	-
MDD	Yes	10	49	8.537(2.90, 25.15)	0.001*	5.925 (1.63, 21.59)	0.007*
	No	6	251	1	-	1	-
GAD	Moderate to Severe	9	12	45.375(6.64, 310.08)	0.001*	38.725 (6.14, 244.33)	0.001*
	Mild	3	46	3.946 (0.85, 18.25)	0.079	2.731 (0.53, 13.99)	0.228
	Minimal	4	242	1	-	1	-

6 DISCUSSION

Our study objective was to determine the prevalence of suicidal ideation and attempt as well as the factors associated in patients visiting the emergency department. We included a total 316 participants using trained data collectors with in-person interviews. Among the participants males accounted for 56.3 %(178) and 43.7 %(138) were females.

The prevalence of suicidal ideation and attempt was evaluated to be 5.1% (16) and 2.2 %(7) with a 95% CI of (2.7% - 7.5%) and (0.6% - 3.8%) respectively. The greatest prevalence of suicidal ideation was found in participants in the age group of 18-40 years. The study determined the prevalence of MDD and GAD to be 18.6% and 6.6% respectively. MDD and GAD were found to be statistically significant factors associated with suicidal ideation. The prevalence of suicidal attempt was very low to conduct further analysis with any significance.

Prevalence of suicidal attempt in the past month was reported to be 2.2%, which was similar to findings in studies which analyzed emergency department data in the USA which showed suicidal attempt accounted for 2.1% among ED visits in 2019-2020.(24) Our findings are also in line with a study done among five low and middle income countries also showed a similar result with 2.2% of primary care visiting participants had suicidal attempt in the past 12 months.(53)

In Ethiopia, studies have reported a wide range of results over 20 years with findings of life time suicidal attempt ranged from 0.6%-14%.(18) Our findings of a prevalence of 2.2% of suicidal attempt in the past 1 month are within the same estimate of findings. In comparison, Our study findings are higher than findings of studies done on at risk clinical groups like ART clinics which reported 0.8% had an attempt in the past month.(37) Compared with a study done among patients attending psychiatry clinic in a hospital in Addis Ababa which found lifetime suicidal attempt to be 55% our findings are significantly lower.(33) In contrast, our study finding were lower compared to a 2018 study among patients found in the emergency department of a hospital in Addis Ababa which reported lifetime suicidal attempt to be 6.3%.(45) Our study finding being lower than findings in psychiatric settings while being higher than medical setting might show that patients visiting the emergency department have a

risk of suicidal attempt that is higher than medical patient while having a lower risk of patients with mental illnesses.

The Magnitude of suicidal ideation in the past month was found to be 5.1% in our study. This result is in line with the trends of findings assessing prevalence of suicidal ideation in Ethiopia which were in the range of 1% - 55%.(18)Although the result is in the lower end of the range this might be because assessment of suicidal ideation was limited to a one month period (the past month) rather than the past year or one's life time. For example, A 2021 study assessing suicidal ideation among prisoners found that prevalence assessed over the past month was half (10.6%) the prevalence of the life time suicidal ideation(21.9%).(54) A 2014 study done among epilepsy patients at Amanuel Mental Specialized Hospital showed lifetime prevalence was decreased by 34.4% when the time length of assessment shifted from lifetime to the last 12 months.(38) This could account for the low prevalence of suicidal ideation and attempt in our study as our study specifically assessed suicidal ideation and attempt in the past one month before visiting the emergency department.

Among the study participants who reported suicidal ideation 68 %(11) were younger than 40 years of age while only 6.2 %(1) were older than 65. In this regard, the association results did not show any statistically significant association between age and suicidal ideation. This is in congruence with other studies which showed no significant association between suicidal ideation and age range, A 2024 study done among residents of Jimma town in Ethiopia showed similar finding of lack of association between age range and Suicidal behaviors.(49) The distribution of the age of our study participants was concentrated on the age range of 18-40 years with a median age of 42.5 which may further explain the majority of participants with suicidal ideation being in the same range.

Other sociodemographic characteristics such as gender, educational status, occupation and marital status did not show any degree of association to suicidal ideation in our study. However, female participants had the greater percentages of suicidal ideation and attempt, i.e. 9(56%) and 5(71%) respectively compared to male counterparts with 7(44%) and 2(29%) respectively despite accounting for 43.7 %(138) of the total participants. Although Female gender has been previously identified

as a significant factor in a study done among 271 Ethiopian adult cancer patients in 2023 with 5 times increased risk of suicidal ideation as compared to males, our study did not show any significant association with female gender. Our findings show that gender may not be a common risk factor among all patient populations for suicidal ideation rather more towards suicidal attempt in the Emergency department.

In our study, being married did not have a significant association with the risk of having Suicidal ideation. This goes with the contradictory reports by different studies at different times that have found both positive and negative correlation of suicidal behaviors with being single or married. In a 2015 study among HIV positive patients at outpatient clinic, being single was associated with 8 times more odds of suicidal attempt. (37) While another study from Butajira Ethiopia of patient with severe mental illness who were followed for 10 years showed married individual were 2 times at an increased likelihood of having suicidal attempts in those who were never married.(36)Our study might fall in the middle of these studies as finding no association between marital status and suicidal ideation or attempt as the sample population is patients visiting the emergency department may lie between studies in the general population versus those studied in severe mental illness.

Educational status was not significantly associated with the level of suicidal ideation in findings of this study which is contrary to a previous study done in a psychiatry outpatient clinic in Ethiopia which reports that having higher level of education decreased the level of suicidal ideation by six fold as compared to only having a primary or secondary level education.(33) In our study the association of level of education and suicidal ideation was not statistically significant. In addition to educational status, other sociodemographic characters such as religion, occupation, marriage and income level did not show statistically significant association with suicidal ideation. This is in line with several studies done in Ethiopia among non-clinical population samples with no significant association compared to studies that were conducted in psychiatric settings, around 80% of our study participants had no diagnosis of any mental disorder which makes the results compatible being more in line with studies conducted among the non-clinical population setting than psychiatric settings.(49)

Several clinical factors such as having a prior medical diagnosis, Diabetes, Hypertension or Retroviral infection didn't show any significant association with suicidal ideation.

In addition, Alcohol use of any level was not shown to increase or decrease the likelihood of having suicidal ideation in the past month. This is contradictory to a previous study conducted among patients visiting a psychiatric clinic in Harar, Ethiopia which found using alcohol increased the likelihood of suicidal behaviors by 1.8 times.(32) In contrast a study on Emergency department patients didn't find any significant association with alcohol use and suicidal behaviors.(45) Our study findings showed a prevalence of alcohol use to be 16.6% which is comparable with A 2019 WHO report stating 20% of adults in Ethiopia use alcohol.(55) Our study finding are in congruence with the study in EDs as compared with studies in psychiatric settings which might be over representation of alcohol use in a psychiatric clinic population.(55)

Although social support showed a crude association in relation to suicidal ideation during bivariate analysis, on multivariate analysis it showed no statistically significant association with suicidal ideation. Previous studies done among patients with chronic medical conditions showed decreased level of immediate social support was significantly associated with increased suicidal ideation by two to three folds.(41) The crude association in our study with lack of association in multivariate analysis may show our sample size might be small to show significant association with higher statistical significance.

Among the 316 study participants screened for common mental illnesses 22.2 %(70) had either anxiety or depression. The separate prevalence for depression and anxiety were 16.8 %(59) and for 6.6 %(21) respectively. This is inferior to a study conducted at AaBET hospital in Ethiopia in 2018 which found the prevalence of common mental illnesses to be 43.7%.(45) The lower prevalence may be because our study used PHQ-8 and GAD-7 as a screening scale as compared to The Kessler Psychological Distress Scale (K10) used in the AaBET hospital study.

Furthermore, Having Depression was found to increase the odds of having suicidal ideation six times as compared with participants with no depression. This is in line with results which reported in a study with people living with cancer had a three

times increased risk of suicidal ideation compared with those with no depression.(30) Another study finding among psychiatric clinics in public hospitals in Ethiopia found depression to increase suicidal behavior by two fold.(32) Our study further consolidates the existing study reports about the positive association between suicidal behaviors and depression.

In Addition, Participants in our study with moderate to severe anxiety had suicidal ideation at odds thirty nine times that of participants with none to minimal anxiety symptoms. This is in congruence with a study conducted among people living with cancer in eastern Ethiopia assessed by The hospital anxiety depression scale (HADS) which showed participants with anxiety were at three times the odds of having suicidal ideation as compared to those with no anxiety.(43) In our study the magnitude of association was much higher than other studies because of using the GAD-7 Scale with comparison of moderate to severe anxiety with no symptoms which may be a higher threshold which will increase the magnitude of the association as compared to using a hospital anxiety depression scale (HADS) which uses a lower threshold for anxiety. Our study shows a moderate to severe diagnosis of anxiety was high correlated with odds of having suicidal ideation.

In our study, the level of suicidal ideation was found to be 5.1 % which is two times the prevalence of suicidal attempt (2.1%) among all patients visiting emergency departments of TASH and ZMH. There was a high degree of association between suicidal behaviors and common mental illnesses such as depression and anxiety. The study agreed with studies in South Africa and Kenya which show significant prevalence of suicidal behaviors in ED and psychiatric care settings with factors such as depression.(26,27) In addition our study showed between moderate to severe level of anxiety increased thirty nine times the odds of having suicidal ideation.

7 STRENGTH AND LIMITATIONS

Our study was conducted in Emergency departments of two large tertiary hospitals which make it the first of its kind as well as increasing the generalizability to other Emergency departments. The participants included were diverse in sociodemographic and clinical characteristics which shows the data is highly representative of the emergency department which gives it a greater chance of capturing the assessed variables as in a realistic setting.

The tools used in assessment covered a broad amount of variables which were used to assess association as well as decrease confounders which make the results more reliable. Conducting the face to face interview using electronic methods which guaranteed high response rate as most items were mandatory to continue with the rest of the questionnaire was a good measure to ensure of data completion as well as making it easier to conduct check by the principal investigator which increases the validity of the results.

Although the study was conducted in a multicenter setting, both hospitals involved were tertiary hospitals which receive referral from primary hospitals and health centers which could limit the generalizability to less specialized settings. The study was also limited in assessing some variables like substance use beyond screening and didn't include other mental illnesses which might limit the findings of the study as it may miss significant associations due to severe condition of substance use or serious mental health conditions which have been previously shown as factors for suicidal ideation that could not be assessed through screening.

Excluding the patients with severe distress might create a selection bias potentially showing lesser prevalence of suicidal behaviors leading to decreased accuracy of results. Using cross sectional study design might also limit the implication of associations between factors as it doesn't assess the temporal relationship. Using face to face interviews might also increase the desirability bias which might decrease the accuracy of the results.

The participants with a history of recent suicidal attempt were immediately planned to be evaluated by a psychiatry resident and subsequently managed for their suicidal

attempt. The participants with suicidal ideations were assessed by the attending physician at the emergency department and managed accordingly.

8 CONCLUSIONS

The study showed that one in twenty patients visiting emergency department had suicidal ideation in the past month while only half of them visiting the emergency departments for suicidal behaviors. This shows that a significant amount of cases are missed in assessment and management due to lack of screening for suicidal ideation.

Among the participant with suicidal ideations more than half were in the age group of 18-40 years which shows there needs to be focus among this age group in screening for suicidal behaviors.

One in five patients were found to have a common mental illness which was not previously diagnosed which shows the significant prevalence of common mental illnesses in this population.

Major depression and generalized anxiety disorder were identified as factors significantly increasing the risk of suicidal ideation by six times and thirty nine times respectively. The study shows that screening for common mental illnesses can be a used for screening to select those who are at an increased of having suicidal ideation which will increase the likelihood of providing mental health services. In addition, it would prevent future suicidal attempts.

9 RECOMMENDATIONS

Based on our findings, Patients visiting the Emergency department should be evaluated with consideration of suicidal behaviors even though they present with different arrays of clinical symptoms.

One of the considerations could be screening for common mental illnesses like depression and anxiety which our study have shown to have significant prevalence among emergency department patients as well as being highly associated with suicidal ideation.

Another recommendation from our study findings is that younger age groups could be a focus of screening for suicidal ideation which may increase the impact of intervention while decreasing expenses in limited resource settings.

Further study into suicidal behavior among emergency department patients may be needed to assess substance use and serious mental health conditions in depth.

Periodic studies into suicidal behaviors in emergency departments should be done to look for the trends of suicidal behaviors in the future which may show how changes in different sociodemographic or clinical factors influence suicidal behaviors at large.

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11 APPENDICES

11.1 Participant Information Sheet:

Title of the research: **Prevalence and associated factors of suicidal ideation and attempt among patients visiting Tikur Anbessa Specialized Hospital and Zewditu Memorial Hospital emergency departments, A facility-based cross-sectional study**

Principal Investigator: Abera Berhanu (MD,3rd Year Psychiatry Resident)

Supervisors : Ribka Birhanu (MD, Assistant professor of psychiatry at Addis Ababa University)

Meron Getachew (MD, Assistant professor of psychiatry at Addis Ababa University)

Coordinating office: Addis Ababa University, Schools of Medicine, Department of Psychiatry

We would like to invite you to participate in this original research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, you need to understand why the research is being done and what your participation will involve. Please take time to read to the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

This study is being conducted by Dr. Abera Berhanu. I am a 3rd year psychiatry resident at the Department of Psychiatry of Addis Ababa University.

The aim of the research is to determine the prevalence of suicidal ideation and attempts in emergency departments of TASH and ZMH. It also aims to assess factors associated with suicidal behaviors in the emergency.

In our research, Participants are randomly chosen from the emergency department patient list. You are being recruited because of your visit to the emergency department in the study period of the research.

The interview will only take 15 mins. The interviewer will ask you a list of structured questions which are the same to all participants and record the answers.

The questions in the study might be sensitive and create some discomfort. If you feel distressed you can take as much time or even discontinue the interview at any moment.

The data will inform us about the level and associated factors of suicidal ideation and suicidal attempt you are experiencing or might have experience in the past. If there is any identified risk the principal investigator will assess and involve available medical personnel to take appropriate helping measures. The overall data will help in creating preventive measures for suicide in the emergency departments in Ethiopia.

The records will only be used for this research and your name or other identifying information will not be recorded for confidentiality. Instead code numbers will be assigned that will be used on all research documents.

If you have any concern about this study or your participation in it please contact me, Dr Abera Berhanu through my E-mail address aberaberhanu1985@gmail.com or phone number +251912767737 from Monday to Friday during working hours.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to stop at any time and without giving a reason.

If this study has harmed you in any way you can contact the Department of Psychiatry, College of Health Sciences, Addis Ababa University.

You may withdraw your data from the research until the research is published. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

11.2 Consent Form

Please complete this form after you have read the Information Sheet about the research.

Title of Study: "Prevalence and associated factors of suicidal ideation and attempt among patients visiting Tikur Anbessa Specialized Hospital and Zewditu Memorial Hospital emergency departments, A facility-based cross-sectional study"

REC Ref number:

Thank you for considering taking part in this research. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this

Consent Form to keep and refer to at any time.

□ I understand that this research undertaking is a postgraduate degree partial fulfilment of a specialty certificate in Psychiatry.

□ I understand that if I decide at any time during the research that I no longer wish to participate, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data until they are published.

□ I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the national data protection rules.

□The information you have submitted will be published as a report. Please note that confidentiality and anonymity will be maintained and it will not be possible to identify you from any publications.

□ I agree that the research team may use anonymized data for future research.

Participant's Statement

I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the research. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed Date

Investigator’s Statement:

I confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Signed Date

11.3 የተሳታፊ መረጃ ወረቀት

የጥናቱ ርዕስ፡ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል እና ዘውዲቱ መታሰቢያ ሆስፒታል ድንገተኛ ክፍልን በሚነበኙ ታማሚዎች መካከል ራስን የማጥፋት ሃሳብ እና ሙከራ መጠን ና ተያያዥ ምክንያቶች

ዋና መርማሪ፡- አበራ ብርሃኑ (MD, 3ኛ ዓመት የአእምሮ ህክምና ነዋሪ)

ሱፐርቫይዘሮች፡ ርብቃ ብርሃኑ (MD፣ በአዲስ አበባ ዩኒቨርሲቲ የስነ አእምሮ ህክምና ረዳት ፕሮፌሰር)

ሜሮን ጌታቸው (MD፣ በአዲስ አበባ ዩኒቨርሲቲ የስነ አእምሮ ህክምና ረዳት ፕሮፌሰር)

አስተባበሪ፡- አዲስ አበባ ዩኒቨርሲቲ፣ የሕክምና ትምህርት ቤቶች፣ የአእምሮ ሕክምና ክፍል

በዚህ የመጀመሪያ የጥናቱ ፕሮጀክት ላይ እንድትሳተፉ ልንጋብዝዎ እንወዳለን። መሳተፍ ከፈለጉ ብቻ ይሳተፉ; ላለመሳተፍ ቢመርጡ የሚያሳጣዎት ነገር የለም ። ለመሳተፍ መፈለግዎን ከመወሰንዎ በፊት, ጥናቱ ለምን እንደሚደረግ እና የእርስዎ ተሳትፎ ምን እንደሚጨምር መረዳት ያስፈልግዎታል ። እባክዎን የሚከተለውን መረጃ ያንብቡት። ግልጽ ያልሆነ ነገር ካለ ወይም ተጨማሪ መረጃ ከፈለጉ ይጠይቁን።

ይህ ጥናት እየተካሄደ ያለው በዶ/ር አበራ ብርሃኑ ነው። በአዲስ አበባ ዩኒቨርሲቲ የሥነ አእምሮ ትምህርት ክፍል የ 3 ኛ አመት የስነ አእምሮ ህክምና ሰልጣኝ ነኝ።

የጥናቱ አላማ ራስን የማጥፋት ሃሳብ እና ሙከራ በጥቁር አንበሳ ሆስፒታል እና በዘውዲቱ መታሰቢያ ሆስፒታል የድንገተኛ ክፍሎች ውስጥ ያለውን መጠን ና ተያያዥ ምክንያቶች ማወቅ ነው።

በየጥናታችን ውስጥ ተሳታፊዎች ከድንገተኛ ክፍል ታካሚ ዝርዝር ውስጥ በዘፈቀደ ይመረጣሉ። በምርምሩ የጥናት ጊዜ ውስጥ ወደ ድንገተኛ ክፍል በመጎብኘትዎ ምክንያት ሊመረጡ ችለዋል።

ቃለ መጠይቁ 15 ደቂቃ ብቻ ይወስዳል። ቃለ-መጠይቅ አድራጊው የተዋቀሩ ዝርዝር ጥያቄዎችን ይጠይቅዎታል። ለሁሉም ተሳታፊዎች ተመሳሳይ የሆኑ ጥያቄዎች ሲሆን መልሶቹን ይመዘገባል። በጥናቱ ውስጥ ያሉት ጥያቄዎች ስሜታዊ ሊያረጉ እና ምቾት ሊነሱ ይችላሉ። ምቾት ካልተሰማዎት የፈለጉትን ያህል ጊዜ ሊወስዱ ወይም በማንኛውም ጊዜ ቃለ መጠይቁን ማቋረጥ ይችላሉ።

መረጃው ስለ ራስን የማጥፋት ሃሳብ ደረጃ እና ተያያዥ ምክንያቶች ያሳውቀናል። እርስዎ አሁን እያጋጠሙዎት ያለ ወይም ከዚህ በፊት ያጋጠሞት ሊሆን ይችላል። አሁን ለህይወት የሚያሰጋ ህመም ካለ ዋና መርማሪው ያለውን ህክምና ይገመግመዋል ተገቢውን የእርዳታ እርምጃዎችን እንዲወስዱ ያደርጋል። አጠቃላይ መረጃው በኢትዮጵያ በድንገተኛ ክፍል ውስጥ ራስን ለማጥፋት የመከላከያ እርምጃዎችን መፍጠር ይረዳል።

መዝገቦቹ ለዚህ ምርምር እና የእርስዎ ስም ወይም ሌላ መለያ አይመዘገብም። ጥቅም ላይ የሚውሉት መረጃዎች ለሚስጥራዊነት በምትኩ ኮድ ቁጥሮች ይሆናሉ።

በዚህ ጥናት ወይም በዚህ ውስጥ ያለዎት ተሳትፎ የሚያሳስብዎት ነገር ካለ እባክዎን ያነጋግሩኝ ፣ ዶ/ር አበራ ብርሃኑ በኢሜል አድራሻዬ aberaberhanu1985@gmail.com ወይም ከሰኞ እስከ አርብ በስራ ሰዓት በስልክ ቁጥር +251912767737።

መሳተፍ ወይም አለመሳተፍ የእርስዎ ውሳኔ ነው። ለመሳተፍ ከወሰኑ በኋላ አሁንም በማንኛውም ጊዜ ምክንያት ሳይሰጡ ለማቆም ይችላሉ። ይህ ጥናት በማናቸውም መንገድ ጉዳት ካደረሰብዎት የአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፣ሳይካትሪ ዲፓርትመንቱን ማነጋገር ይችላሉ። ጥናቱ እስኪታተም ድረስ መረጃዎን ከምርምሩ ማውጣት ይችላሉ። ለመሳተፍ ከወሰኑ ይህን የመረጃ ወረቀት ይሰጥዎታል እና የስምምነት ቅጽ ለመፈረም ይጠየቃሉ።

11.4 የስምምነት ቅጽ

ስለ ጥናቱ የመረጃ ወረቀቱን ካነበቡ በኋላ እባክዎ ይህንን ቅጽ ይሙሉ።

የጥናቱ ርዕስ፡ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል እና ዘውዲቱ መታሰቢያ ሆስፒታል ድንገተኛ ክፍልን በሚነበኙ ታማሚዎች መካከል ራስን የማጥፋት ሃሳብ እና ሙከራ መጠን ና ተያያዥ ምክንያቶች

ኮድ

በዚህ ጥናት ውስጥ ስለተሳተፉ እናመሰግናለን። ማንኛውም ጥያቄ ካለዎት ቀደም ሲል ከተሰጥዎት የመረጃ ሉህ ወይም ማብራሪያ በመነሳት እባክዎን ይጠይቁ ለመሳተፍ ከመወሰንዎ በፊት የዚህ ግልባጭ ይሰጥዎታል።

በማንኛውም ጊዜ ለማቆየት እና ለመመልከት ይችላሉ።

- ይህ ጥናት የድህረ ምረቃ ድግሪ በሳይካትሪ ልዩ ሰርተፍኬት ከፊል ሙላት መሆኑን ተረድቻለሁ።
- በምርምርው ወቅት በማንኛውም ጊዜ መሳተፍ እንደማልፈልግ ከወሰንኩ ምንም አይነት ምክንያት ሳልገልጽ ወዲያውኑ መውጣት እንደምችል ተረድቻለሁ። በተጨማሪም፣ መረጃዎቼ እስኪታተሙ ድረስ መሰረዝ እንደምችል ተረድቻለሁ።
- ለተገለጹልኝ ዓላማዎች የግል መረጃዬን ለመስጥት ፈቃደኛ ነኝ። እንደነዚህ ያሉ መረጃዎች በብሔራዊ መረጃ ጥበቃ ደንቦች ውል መሠረት እንደሚስተናገዱ ተረድቻለሁ።
- የሰጡት መረጃ እንደ ሪፖርት ይታተማል። ነገር ግን ምስጢራዊነት እንደሚጠበቅ እርስዎን ከማንኛውም ሪፖርት መለየት እንደማይቻል ያስታውሱ።
- የጥናቱ ቡድን ለወደፊት ምርምር መረጃውን ሊጠቀም እንደሚችል አውቂያለሁ።

የ ተሳታፊ መግለጫ

ከላይ ስለተጠቀሰው የጥናት ፕሮጀክት በተሰጥኝን መረጃ ተረድቻለሁ። እናም በጥናቱ ላይ ለመሳተፍ ተስማምቻለሁ። ስለ ጥናቱ ሁለቱንም ከላይ የተፃፉትን ማስታወሻዎች እና የመረጃ ወረቀቱን አንብቢያለሁ እና የምርምር ጥናቱ ምን እንደሚያካትት ተረድቻለሁ።

ፊርማ ቀን

የመርማሪው መግለጫ

ለተሳታፊው የታቀደውን ምርምር ምንነት፣ ፍላጎቶች እና ሊታዩ የሚችሉ ስጋቶች በጥንቃቄ እንደገለጽኩ አረጋግጣለሁ።

ፊርማ ቀን

11.6 Study Questionnaire

EMR number -

11.6.1 Part 1 – Sociodemographic and clinical factors

1. Age
2. Sex
3. Religion
4. Educational status
5. occupation
6. marital status
7. economic status (monthly income)
8. chief complaint
9. initial diagnosis
10. History of Treatment
11. Known mental illness
12. Known medical illness

11.6.2 Part 2 - OSLO SOCIAL SUPPORT SCALE (OSSS-3)

INSTRUCTIONS: Check (✓) the box that best describes your situation.
1. How many people are so close to you that you can count on them if you have great personal problems?
☐ None
☐ 1–2
☐ 3–5
☐ 5+
2. How much interest and concern do people show in what you do?
☐ None
☐ Little
☐ Uncertain
☐ Some
☐ A lot
3. How easy is it to get practical help from neighbors if you should need it?
☐ Very difficult
☐ Difficult
☐ Possible
☐ Easy
☐ Very easy

11.6.3 Part 3 – National Institute on Drug Abuse Quick Screen (Substance Use History)

National Institute on Drug Abuse Quick Screen					
	How many times in the past year have you used the following substances?				
Substance					
	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
Alcohol	☐	☐	☐	☐	☐
Tobacco/Nicotine	☐	☐	☐	☐	☐
Prescription drugs for non-medical reasons?	☐	☐	☐	☐	☐
Illicit drugs (e.g., cannabis, khat, heroin, cocaine)?	☐	☐	☐	☐	☐

11.6.4 Part 4 - GAD -7

Over the Last 2 weeks, how often have you been bothered by any of the following problems?	NOT AT ALL	SEVERAL DAYS	MORE THAN 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 is 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

11.6.5 Part 4 - PHQ-8 Depression Scale

Over the <u>last 2 weeks</u>, how often have you been bothered by any of the following problems?	NOT AT ALL	SEVERAL DAYS	MORE THAN 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 reading the newspaper 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. If you checked off any problems on this questionnaire so far, how difficult have these problems made if 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
○ 0	○ 1	○ 2	○ 3

11.6.6 Part 6 - The suicidality module of the World Mental Health survey initiative version of the World Health Organization composite International diagnostic interview – English version

SECTION 5: SUICIDAL IDEATION AND ACTION (CIDI)				
501	In the past month, have you had an accident (including falling and being hit)?	No	0	Accident
		Yes	1	
502	At any time in the past month, have you thought a lot about dying?	No	0	Deaththou
		Yes	1	
503	How many times have you thought about ending your life in the past month?	No	0	SUITHINK
		Yes	1	
504	At any point in the past month, have you planned to end your own life?	No	0	SUIPLAN
		Yes	1	
505	Have you tried to end your life in the past month?	No	0	SUIATT
		Yes [→go to 506]	1	
If the answer to questions 503, 504 and 505 is no, go to the next section (601).				
506	If you have tried to end your life in the past month, how many times have you tried?	[ ] [ ] times		SUIATF
		Yes	1	
508	What kind of treatment did you receive? thoughts/attempts to end your own life?			SUITXO
	Note: If the answer is no and the respondent is still having suicidal thoughts, please refer the respondent to the study coordinator for further investigation.			

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11.7 የአማርኛ የጥናት መጠይቅ

- የ EMR ቁጥር -

፲፩.7.፩ ክፍል – ፩: አጠቃላይ እና የጤና መረጃ መጠይቅ

1. ዕድሜ _____

2. ጾታ _____

3. ሃይማኖት _____

4. የትምህርት ደረጃ _____

5. የስራ ሁኔታ _____

6. የጋብቻ ሁኔታ _____

7. የኢኮኖሚ ሁኔታ (የወር ገቢ) _____

8. ዋና የመጡበት ምክንያት _____

9. የመጀመሪያ ምርመራ ውጤት _____

10. የሕክምና ታሪክ _____

11. የታወቀ የአእምሮ ሕመም _____

12. የታወቀ አካላዊ ሕመም _____

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11.7.2 ክፍል 2 - አስሎ 3 አይተም ማህበራዊ ድጋፍ መመዘኛ ጥያቄዎች

ተ.ቁ ጥያቄዎች መልስ ሊሆኑ የሚችሉ ምርጫዎች አስተያየት
ነ. ከፍተኛ ችግር ቢያጋጥምዎ የቅርብ የሆኑ እና ይረዱኛል ብለው የሚተማመኑባቸው ምን ያህል ሰዎች ይኖራሉ?
☐ምንም
☐ ነ–2
☐ 3–5
☐ 5+
2. ሌሎች ሰዎች ስለ እርሶ ጉዳይ ምን ያህል ግድ ይላቸዋል ወይም ያስቡልዎታል
☐ምንም
☐ትንሽ
☐አላውቅም
☐የተወሰነ
☐በጣም
3. ከቤተሰቦችሽ/ህ ወይም ከዘመዶችህ እርዳታ/ድጋፍ ቢያስፈልግዎ ማግኘት ምን ያህል ቀላል ነው?
☐በጣም አስቸጋሪ
☐አስቸጋሪ
☐ቀላልም ባይሆን የሚቻል
☐ቀላል
☐በጣም ቀላል

11.7.3 ክፍል 3 – National Institute on Drug Abuse Quick Screen

National Institute on Drug Abuse Quick Screen					
	ባለፈው አመት ውስጥ ምን ያህል ጊዜ የሚከተሉትን ንጥረ ነገሮች ተጠቅመዋል?				
ሱስ አምጪ ንጥረ ነገሮች አይነት					
	በጭራሽ ወይም	አንድ ጊዜ ወይም ሁለት ጊዜ	በየወሩ	በየሳምንቱ	በየቀኑበየቀኑ ማለት ይቻላል
አልኮል	□	□	□	□	□
ሲጋራ/ትምባሆ	□	□	□	□	□
ጫት	□	□አ	□	□	□
በሃኪም ያልታዘዙ ሱስ አምጪ መድሃኒቶች (ለምሳሌ ትራማዶል?	□	□	□	□	□
አደንዛዥ እፆች (ለምሳሌ, ካናቢስ፣ ኮኬን እና ሄሮኢን)?	□	□	□	□	□

11.7.4 ክፍል 4 - GAD-7 Scale- Amharic version

ባለፉት ሁለት ሳምንታት ውስጥ በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?				
1	የመረበሽ የመጨነቅ ወይንም ውስጣዊ ስሜት ምቾት ማጣት	አይ	0	GADFN
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADFNF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
2	የስጋት ስሜትን ማቆም ወይም መቆጣጠር አለመቻል	አይ	0	GADSW
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADSW
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
3	ስለተለያዩ ነገሮች ከተገቢው በላይ መስጋት/የስጋ ስሜት መሰማት	አይ	0	GADWTM
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADWTMF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
4	በውስጥ ስሜት ዘና ማለት አለመቻል	አይ	0	GADTR
		አዎ	1	

	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADTRF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
5	ተረጋግቶ መቀመጥ እስከሚያቅት ድረስ መቄነጥነጥ	አይ	0	GADBSR
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADBSRF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
6	በቀላሉ መናደድ ወይም መበሳጨት	አይ	0	GADBSA
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADBSAF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	
7	አንድ አስከፊ ነገር ሊከሰት እንደሚችል እየተሰማዎት የፍርሃት ስሜት መሰማት	አይ	0	GADFA
		አዎ	1	
	አዎ ከሆነ፤ ባለፉት በሚከተሉት ችግሮችለምን ያህል ጊዜ አሳስቦዎት ነበር?	ለተወሰኑ ቀናት	1	GADFAF
		ከ 7 ቀናት በላይ	2	
		ከሞላ ጎደል በየቀኑ	3	

11.7.5 ክፍል 5 - PHQ-8 Amharic version

ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸው ችግሮች ውስጥ የትኛዎቹ ደርሰውቦት (በየትኛዎቹ ተቸግረው) እንደነበር እጠይቆታለሁ።

ማስታወሻ፡- አልፎ አልፎ ብቻ (2-6 ቀናት)፣ በዛ ላለ ጊዜ (7-11ቀናት) ከሞላ ጎደል በየቀኑ (12-14ቀናት) መሆኑን ይግለፁ።።

1	የእለት ተእለት ተግባርዎን ለማከናወን (ለመስራት) ያለዎት ተነሳሽነት ወይም ፍላጎት ቀንሶ ነበር;	የለም	0	PHLI
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHLIF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
2	የመከፋት፣ የመደበት፣ ወይም በብዙ ነገሮች ላይ ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር;	የለም	0	PHFS
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHFSF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
3.1	እንቅልፍ አልወስድዎ በብሎ፣ ወይም በደንብ መተኛት አቅቶዎት ይቸገሩ ነበር;	የለም	0	PHIS
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHISF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
3.2	እንቅልፍ በዝቶብዎት ይቸገሩ ነበር;	የለም	0	PHOS
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHOSF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
4	የድካም ወይም የአቅም ማነስ ስሜት ይይማዎት ነበር;	የለም	0	PHLE
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHLEF
		በዛ ላለ ጊዜ	2	

		ከሞላ ጎደል በየቀኑ	3	
5.1	የምግብ ፍላጎትዎ ቀነሶ ነበር;	የለም	0	PHLR
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHLRF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
5.2	የምግብ ፍላጎትዎ ከተለመደው በላይ ጨምሮ ነበር;	የለም	0	PHLA
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHLAF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
6	ራስዎን የመጥላት ወይም ዋጋ የለኝም ብሎ የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ የሚል ስሜት ተሰምትዎት ነበር;	የለም	0	PHFH
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHFHF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
7	በሚሰሩት ስራ ላይ ሃሳብዎን መሰብሰብ/ ትኩረት መስጠት አስቸግርዎት ነበር; (ለምሳሌ፣ ከሰዎች ጋር ሲጨዋወቱ ትኩረት ሰጥቶ ማዳመጥ)	የለም	0	PHDC
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHDCF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
8.1	ለሌሎች ሰዎች አስኪታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ብለው ነበር;	የለም	0	PHDT
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎ አልፎ ብቻ	1	PHDTF
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
8.2	ለሌሎች ሰዎች እስኪታወቅ ድረስ መረጋጋት አቅትዎት፣ አንድ ቦታ አርፎ መቀመጥ ወይም መቆም እስከማይችሉ ድረስ ሆነው ነበር;	የለም	0	PHDS
		አዎ	1	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ	አልፎ አልፎ ብቻ	1	PHDSF

	ተሰማዎት;	በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
10	ከላይ ከተዘረዘሩት ጥያቄዎች መካከል ለአንዳቸውም አዎ የሚል ምላሽ ከሰጡ የሚከተለውን ጠይቅ በእነዚህ ችግሮች ምክንይት ስራዎን ለመስራት፣ የቤት ሀላፊነትዎን ለመወጣት ወይም ከሰዎች ጋር ተስማምተው ለመኖር ምን ያህል አስቸጋሪ ሆኖብዎት ነበር;	በጭራሽ አልተቸገርኩም	0	PHDR
		በመጠኑ ተቸግሬ ነበር	1	
		በጣም ተቸግሬ ነበር	2	
		እጅግ በጣም ተቸግሬ ነበር	3	

11.7.6 ክፍል 6 - The suicidality module of the World Mental Health survey initiative version of the World Health Organization composite International diagnostic interview – Amharic version

SECTION 5: SUICIDAL IDEATION AND ACTION (CIDI)				
501	ባለፈው አንድ ወር ጊዜ ውስጥ፣ **አደጋ (መውደቅን እና መደብደብን ጨምሮ)** ደርሶብዎት ነበር?	አይ አዎ	0 1	Accident
502	ባለፈው አንድ ወር ውስጥ በማንኛውም ጊዜ፣ **ስለ መሞት ብዙ ጊዜ አስበው ነበር?**	አይ አዎ	0 1	Deaththou
503	ባለፈው አንድ ወር ጊዜ ውስጥ **ህይወትዎን ለማጥፋት ብዙ ጊዜ አስበው** ነበር?	አይ አዎ	0 1	SUITHINK
504	ባለፈው አንድ ወር ውስጥ በማንኛውም ጊዜ የገዛ **ህይወትዎን ለማጥፋት አቅደው** ነበር?	አይ አዎ	0 1	SUIPLAN
505	ባለፈው አንድ ወር **ህይወትዎን ለማጥፋት ሞክረው** ነበር?	አይ አዎ [→ወደ 506ይለፉ]	0 1	SUIATT
ጥያቄ ቁጥር 503፣ 504 እና 505 ምላሽ አይ ከሆነ ወደ ሚቀጥለው ክፍል ይሂዱ (601)				
506	ባለፈው አንድ ወር ህይወትዎን ለማጥፋት	አዎ	1	SUIATF
508 507	ምን አይነት ህክምና አገኙ? የራስዎን ህይወት ለማጥፋት በማሰብዎ/			SUITXO SUITX
	በመሞከርዎ ምክንያት የህክምና አገልግሎት አግኝተው ነበር? **ማስታወሻ፡** ምላሹ አይ ከሆነና ተጠያቂው አሁንም እራሱን የማጥፋት ሀሳብ ካለው እባክዎን ተጠያቂውን/ዋን ወደ ጥናቱ አስተባባሪ ለተጨማሪ ምርምር ይላኩ	ቁጥር 601ይለፉ]		

12 DECLARATION OF ORIGINAL WORK

I, the undersigned, declare that this thesis is my original work, where my work is indebted to the work of others, it has not been accepted or presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

If proven otherwise, I understand that appropriate actions will be taken based on the Senate Legislation of Addis Ababa University and the Guidelines provided by the Ministry of Education.

Name of Investigator: Dr Abera Berhanu

Signature: _____

Date of submission: 01/04/2026 GC

This thesis proposal has been submitted to DOP with my approval as a supervisor

- ✓ Name and Signature of the first Supervisor

  _____
- ✓ Name and Signature of the second supervisor

  _____