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

Common symptoms of depression among patients with depressive disorders receiving outpatient care in tertiary hospitals in A.A., Ethiopia:

A cross sectional study

Prepared by: Eyerusalem Solomon (M.D. Third year Psychiatry Resident)

Advisors:

Barkot Milkias (Assistant professor of Psychiatry)

Mahlet Yared (Assistant professor of Psychiatry)

Girmay Medhin(Associate Professor of Epidemiology and Biostatistics)

January, 2022 G.C **Addis Ababa, Ethiopia**

Common symptoms of depression among patients with depressive disorders receiving outpatient care in tertiary hospitals in A.A., Ethiopia: A cross sectional study

By: Eyerusalem Solomon (MD)

Email: eyerusalemsolomon4@gmail.com

Advisors:

Barkot Milkias, MD, Assistant Professor of Psychiatry, AAU, CHS, SOM, Department of Psychiatry

Signature: _____

Mahlet Yared, MD, Assistant Professor of Psychiatry, AAU, CHS, SOM, Department of Psychiatry

Signature: _____

Examiners:

Ribka Birhanu, MD, Assistant Professor of Psychiatry, AAU, CHS, SOM, Department of Psychiatry

Signature: _____

Beakal Amare, MD, Assistant Professor of Psychiatry, AAU, CHS, SOM, Department of Psychiatry

Signature: _____

content

Abstract

Background

The major assessment tool that is of use in Ethiopia to diagnose and treat depressive disorders is DSM 5. However, DSM -5 might not represent the diverse symptomatology of depression in a country with diverse ethnic and cultural background. Having a clear knowledge of the type of common presentations or complaints of patients with depression coming to outpatient services in tertiary hospitals has significant implication for clinicians to provide appropriate patient care.

Objective

To identify the common presenting symptoms of depressive disorders among patients who came to receive outpatient care for depressive disorders in tertiary hospitals in Addis Ababa. Another objective is to identify common symptoms along the domains and to investigate its association with sociodemographic factors of the study participants.

Method

A cross sectional facility-based study design was used. The study participants included patients who visited outpatient psychiatric services in 3 tertiary hospitals in Addis Ababa in the past 2 years, by mainly focusing on patients who are currently visiting the OPDs and going back up to 2 years until the sample size was reached. Potentially eligible patients were selected by filtering those who have been diagnosed with depressive disorders. Then, using the inclusion and exclusion criteria samples were identified until the sample size which was needed reached starting from the most recently recorded patient (consecutive sampling). Consecutive patients were recruited starting from those currently on follow up to until about those who were seen in the past 2 years at least once. Study participants were interviewed through Face to Face interview. Descriptive statistical methods were used to summarize the collected data and to help us understand the collected information. The most distressing symptom domains were analyzed. Cross tabulation was done to see association between sociodemographic and symptom domains.

Results- Feeling down, depressed or hopeless were the most frequently endorsed symptoms occurring in >90% of the patients. All items were rated with fainting spells being the lowest rated occurring in only 10.9% of the patients. At least one symptom was seen in 98.8% of them from somatic domain, 96.4% from affective, 93.3% from other and 78.2% from cognitive domains. From the patients who reported most distressing symptoms, around 58(35.2%) of them mentioned symptoms from the affective domain as their most distressing symptom, 46(27.8%)

mentioned symptoms from somatic domain, 21(12.7%) mentioned two or more symptom combinations from different domains, 12(7.2%) from cognitive and 1(0.6%) from other domain.

Conclusion- Above 90 % of the study participants reported to have symptoms from the 3 domains of depression which are affective, somatic, and other. Around 78% of the patients also reported to have one or more symptoms from cognitive domain of depression. When expressing symptoms which are most distressing to them, significant proportion of the patients reported symptoms which are combinations from all the 4 domains of depression. Symptoms which are not included in DSM criteria and screening tools being used in clinical setup are shown to be reported in high frequency and also as most distressing in this study.

Acronyms

AA- Addis Ababa

BDI-Beck depression inventory

CDC- Centers for disease control

CESD- Center for epidemiological study of depression scale

DSM- Diagnostic statistical manual

HAMD-Hamilton depression rating scale

LAMIC- Low- and middle-income countries

PDD- Persistent depressive disorder

PHQ- Patient health questionnaire

SRQ- Self reporting questionnaire

SSI- Somatic symptoms inventory

TASH- Tikur Anbessa specialized hospital

USA- United States of America

ZMH- Zewditu Memorial Hospital

Acknowledgment

I would like to pass my heartfelt gratitude to my principal advisor Dr. Barkot Milkias who was guiding and helping me beginning from the proposal preparation all the way to thesis submission without hesitating to offer her expertise and knowledge.

I would like to thank Dr.Mahlet Yared who was also giving me guidance along the way. And many thanks to Dr. Girmay Medhin who also contributed in the making of this thesis.

I am thankful to all the participants and data collectors in this study and Addis Ababa University for the funding.

And I finally want to thank my family and friends who have been supporting me in every step of this research.

1.Introduction

1.1Background

Depression is a state of low mood and aversion to activity. Depression can affect a person's thoughts, behavior, motivation, feelings, and sense of well-being. The core symptom of depression is said to be anhedonia, which refers to loss of interest or a loss of feeling of pleasure in certain activities that usually bring joy to people. Depression may feature sadness, difficulty in thinking and concentration and a significant increase or decrease in appetite and time spent sleeping (Encyclopedia, n.d.).

Depression is a common illness worldwide, with more than 264 million people affected (WHO, world health organization, 2020).The Centers for Disease Control and Prevention (CDC) Trusted Source estimates that 8.1 percent of American adults ages 20 and over had depression in any given 2-week period from 2013 to 2016 (CDC, 2018).Depression affects an estimated 1 in 15 adults (6.7%) in any given year. And one in six people (16.6%) will experience depression at some time in their life. Depression can occur at any time, but on average, first appears during the late teens to mid-20s. Women are more likely than men to experience depression. Some studies show that one-third of women will experience a major depressive episode in their lifetime. There is a high degree of heritability (approximately 40%) when first-degree relatives (parents/children/siblings) have depression (APA, 2013).

Globally, mental health problems account for 13% of the total burden of disease and 31% of all years lived with disability (WHO, 2004). According to World Health Organization (WHO) estimates, major depressive disorder (MDD) is projected to become the leading cause of disability and the second leading contributor to the global burden of disease by 2020 (WHO, 2004).

More than 80% of this disease ‘s burden is among people living in low- and middle-income countries. However, a study lead by EMERALD ‘s coordinator from the Centre for Global Mental Health of Institute of Psychiatry, Psychology and Neuroscience, King’s College London, found that only 1 out of every 3 people with depression in low-/lower-/middle-income countries (LAMIC) recognized a need for treatment (Commision, 2017).

The symptomatology of depression includes somatic, cognitive and affective domains. The affective and cognitive impairments are those which include sadness, negative thoughts, anhedonia or loss of interest, indecisiveness and suicidal ideation. Somatic symptoms of depression include fatigue, poor appetite, concentration difficulty, bodily discomfort, poor memory or forgetfulness and loss of sexual drive (Teng Cheng, Chun Ho, & Yu Hung, 2018).

The two "core" symptoms of depression are low mood and loss of interest in activities. In addition to those, people may also experience changes in appetite, trouble sleeping, tiredness, feelings of guilt, trouble concentrating, or thoughts of death. The DSM-5 recognizes several different types

of depressive disorders. The two most common types include clinical depression, also referred to as major depressive disorder (MDD), and persistent depressive disorder (PDD). People with PDD often experience the same type of symptoms as those with MDD, but they are typically less severe and last longer. There are over 1,000 different combinations of symptoms that could lead to an MDD diagnosis (Schimelpfening, 2020).

Different research showed that culture has a high impact on depression symptoms presentation. But there is not much evidence on the way it impacts depression symptoms exactly. The fact that depression is diagnosed by using DSM criteria worldwide does not mean that the different cultural groups are represented sufficiently. And DSM criteria might not be fully representative of the diverse depressive symptomatology worldwide (Ryder & Chentsova-Dutton, 2012).

One of the essential prerequisites to diagnose mental disorders is having a reliable measure. The dilemma of finding reliable major depressive disorder measures hasn't been resolved. And the different symptomatology and explanatory model of depression hasn't been well studied, and major depression was among the least reliable diagnoses in the DSM-5 field trials (Regier, Kuhll, & Kupfer, 2013).

1.2 Statement of the problem

The major assessment tool that is of use in Ethiopia to diagnose and treat depression is DSM 5. However, DSM 5 might not represent the diverse symptomatology of depression in a country with diverse ethnic and cultural background. DSM criteria of depressive disorders mainly emphasizes on detecting the affective and cognitive domains of presentation, with little emphasis on the somatic domain as well as some other types of symptomatology which can differ at different sociocultural contexts. There could be a gap in clinical detection of depressive disorders. There was a study conducted by IDEAS project in Sodo, which tried to explore how depression is conceptualized and communicated among community members and primary care attendees with depression in rural Ethiopia. In this study, they have found that there are somatic and emotional symptoms of depression which were being reported by the patients, that are not included in DSM5. These were considered as local idioms of distress. So this study aimed to also look at the common presentations and common symptoms along the domains in patients with depressive disorders in the urban setting of Ethiopia.

1.3 Significance of the study

This study aims to identify the common presentations or complaints of patients with depression coming to outpatient services in 3 tertiary hospitals, in A.A, Ethiopia. This study also aims to assess patients who have depression along the 3 domains and even more and to describe the

common patterns of presentation. The finding will significantly improve the clinical management of patents that come with depression which are reported by patient in symptoms not covered within DSM-5. It will lead a way for further research on the need for better assessment tools and conceptualization of depression in Ethiopia's cultural context.

2. Literature review

Prevalence and burden of depression

Depression is a common illness worldwide, with more than 264 million people affected. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially, when long-lasting and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. At its worst, depression can lead to suicide. Close to 800 000 people die due to suicide every year. Suicide is the second leading cause of death in 15-29-year-olds (WHO, world health organization, 2020).

In the United States alone, depression costs the U.S. economy more than 210 billion dollars per year. The top ten countries which are suggested to have the highest level of depression are China, India, U.S., Brazil, Bangladesh, Russia, Indonesia, Nigeria, Pakistan, and Iran. Culture is a very important factor for determining depression rates. Culture also impacts the way people communicate their distress and that explains why specific symptom clusters of depression are more common in some cultures than others. The lack of appropriate screening tools and lack of mental health services might lead to the lower rate of depression in LMIC's. Those from less developed countries may feel a high, cultural stigma against depression and mental illness, and may be reluctant to seek help from a doctor. Another factor which can influence the statistics of depression rate in high income versus low income countries is that some countries may have better access to mental health screening services, but lower access to mental health treatment (Depression rates from all around the world, 2021).

Although there are known, effective treatments for mental disorders, between 76% and 85% of people in low- and middle-income countries receive no treatment for their disorder. Barriers to effective care include a lack of resources, lack of trained health-care providers and social stigma associated with mental disorders. Another barrier to effective care is inaccurate assessment. In countries of all income levels, people who are depressed are often not correctly diagnosed, and others who do not have the disorder are too often misdiagnosed and prescribed antidepressants (WHO, 2020).

High-income countries

In a study done in USA, which researched the transcultural aspects of somatic symptoms in the context of depressive disorders, it showed that there were ethnic and racial variations in the reporting of somatic symptoms. It also revealed in sociocultural contents which have stigma for mental illness with larger population of depressed patients who reported somatic symptoms. The review showed that a tendency for Latino, Black and Asian populations with depression to emphasize somatic symptoms in their clinical presentations. But that was not a unique experience to non- Caucasians since somatic symptoms were also experienced by a significant number of Caucasians (Bagayogo, Interian, & Escobar, 2013).

Core depression symptoms might be universal but, in a study, which screened depression using an 18-item major depressive screener, there were similarities and also major differences in symptom clustering between groups of people from different countries, who speak different languages. This study was done in the United States and they used an online multilingual depression screening. The study population included Spanish speakers from Latin America; English speakers from Southeast Asia; Russian speakers from the former Soviet bloc; English speakers from English-speaking Western countries; and Chinese speakers from China. So what they found out was suicide-related items formed a separate cluster for most cultures, but in the Latin-American group, worthlessness was highly associated with suicidality. Changes in appetite and changes in weight were associated with different factors. Hypersomnia was related with psychomotor agitation, and core depression symptoms were also correlated with physical symptoms, except for the Russian group. And they finally conclude that, looking at the different manifestations of depression that we should address depression in a culturally sensitive manner (Goodmann, et al., 2021).

In a study done in Canada which described the association between depression and somatic symptoms, they started out with a concept that significant number of patients with depression had somatic complaints which could be both painful and non-painful. They did the research on collected data from 2191 patients, from randomized controlled trials run by pharmaceutical companies. They used Somatic Symptoms Inventory (SSI) to assess for somatic symptoms and the Hamilton Depression Rating Scale (HAMD) was used to assess symptoms of depression. The most common somatic symptom reported by patients with MDD was feeling fatigued, weak, or tired all over, which was seen in about 78 percent of the patients with depression. Then it was followed by feeling of not being in as good physical health as others, not feeling well for most of the time in the past few years, feeling of weakness in some parts of the body and also soreness in the muscle. And the other finding was that the most common painful somatic experience in patients with depression was headache. The somatic symptoms showed strong correlation with severity of depressive symptoms which were diagnosed using Hamilton depression rating scale (Anthony L. Vaccarino a, 2008).

In one article review done by L J Kirmayer, it suggested that there are several culture specific symptoms which usually get under diagnoses and misidentified by physicians since they are not well recognized by most. And that it was previously thought by most research findings that somatic

symptoms of depression are most common in nonwestern countries. But that they suggest to the contrary that somatization is universally present and is ubiquitous. They also suggested that somatic symptoms could be serving as idioms of distress in several ethno cultural societies. They recommend for health workers to be kin in finding out what those symptoms are representing in that specific culture (Kirmayer L. J., 2001).

It was previously known that East Asian populations experienced less depressive symptoms than Americans did but a later study was done about differences in depressive symptoms between Korean and American outpatients with major depressive disorder. The study included 1592 Korean and 3744 American outpatients who were 18 years of age or older and met the Diagnostic and Statistical Manual of Mental Disorders, 4th ed. criteria for single or recurrent episodes of nonpsychotic MDD, and evaluated their symptoms of depression using the Hamilton Depression Rating Scale and the Quality of Life Enjoyment and Satisfaction Questionnaire Short Form. The results showed that the Korean participants had lower scorings in guilt feeling and depressed mood and they had higher scoring in suicidality and hypochondriasis than the American participants. Korean patients showed symptoms of melancholic features such as loss of weight, agitation, and late insomnia, but with noticeably less guilt. They didn't find much difference in the quality and function of daily life between the two groups. And they concluded that early diagnosis of and intervention for depression and suicide may be delayed in the Korean population because of cross-cultural difference in depression symptoms. That difference being less depressed mood and guilt feelings expressed in the Korean population (HJ, et al., 2014).

In previous studies, it has been implied that, in patients who have depression (seen by primary care physicians), somatic symptoms have been reported. And from these patients, the majority of them reporting somatic symptoms were those from non-western countries than from those who were from western countries. In contrary to the previous findings, one study conducted from 1991 to 1992, it used data a from the World Health Organization's study of psychological problems in general health care to examine the relation between somatic symptoms and depression. It also included screening of 25,916 patients at 15 primary care centers in 14 countries on 5 continents. A total of 5447 of the patients underwent a structured assessment of depressive and somatoform disorders. The results showed that 69% of the patients diagnosed with major depressive disorder had somatic complaints. And most of those with somatic complaints were those who didn't have a continuous type of follow up and contact with their primary care physician. And half of the patients with depression had unexplained somatic symptoms. With just direct questioning, 11% of the patients just denied any psychological symptoms of depression. In the different countries the prevalence of depression differed, but there was a comparable frequency of somatic and affective symptoms. It was finally concluded in this study that, even though there are several countries with somatization symptoms as part of the depressive disorder that depends on several factors. Those are how somatization is defined in that setup, the attitude of the physicians and also the culture of the country (Simon, Vonkorf, Piccinelli, Fullerton, & Ormel, 1999).

In a paper which reviewed the epidemiology of pain in depression, it was mentioned that there is a relationship between pain and depression. They found out that 75 percent of patients in primary care complained of painful physical symptoms such as headache, stomach pain, neck and back pain as well as non-specific generalized pain. And most patients who visited primary health centers, and who have a chronic and debilitating type of pain were found to have depression and anxiety symptoms. There may be an underlying genetic component common to the two conditions. It would seem likely that both conditions may arise from a common underlying neurochemical dysfunction, which could sometimes express itself initially as chronic pain and sometimes initially as depression. And those patients who have depression and severe pain were the ones with more severe symptoms of depression and also worse prognosis and outcomes. Painful symptoms might be an integral part of depression and that major depression should be considered as a disorder characterized by a triad of psychological, somatic symptoms and painful physical symptoms. Even though that has been suggested in different studies, this paper criticizes the fact that pain still hadn't been incorporated as core criteria of depression in the diagnostic manual and also in many diagnostic instruments which are widely used to screen and treat depression in primary care settings. For example, some somatic like symptoms such as fatigue, loss of appetite and sleep disturbance have been included in the DSM criteria for depression and somatic symptoms have been assessed with HAMD but there is no question relating pain with depressive symptoms. The presence of pain has been shown to negatively affect the recognition and treatment of depression on top of the close correlation between the two (Briley, 2004).

Low and middle-income countries

A study which was done in Nigeria from those who were recruited from the Nigerian army personnel evaluated the weight of somatic symptoms in depressed patients in Africa. The study sample was recruited from 868 Nigerian Army personnel. The army was composed of men who have different cultural and ethnic backgrounds. For data collection instrument, a modified version of patient health questionnaire was used which included somatic factors as well. Component analysis and a logistic regression model were used to determine the contribution of the somatic symptoms in comparison with other symptoms. It indicated that although somatic symptoms may be florid among patients with depression, they have considerably less weight than core depressive symptoms in the diagnosis of depression and a cognitive factor also emerged. The study finally suggests that even though the weight of somatic factors was lower than expected the peculiar symbolic representation of somatic symptoms shouldn't be undermined (Okulate, Olayinka, & Jones, 2004).

A research was conducted in Zimbabwe for about 15 years covering ethnographic and epidemiological studies in a range of populations and compared it with findings from western and industrialized countries in terms of validity of instruments and also symptom presentation of depression. This was published in 2001. It noted that most patients with depression had somatic complaints which were mostly headache and fatigue. But they also found out that with further

inquiry, patients also admitted emotional and cognitive complaints. The WHO self-reporting questionnaire was used in studies in Zimbabwe in the 1980s and also a 14 item Shona symptom questionnaire (SSQ), written in the local language, was developed. There was a high degree of agreement between the two questionnaires. The data collected in Zimbabwe showed that there is strong correlation between depression and anxiety, and this was also replicated in other studies which had a multinational coverage (Patel V. , Abas, Broadhead, Todd, & Reeler, 2001).

Sub-Saharan countries

In a study done in Uganda women, 115 women were screened for depression in one community in Uganda, and 87 were found to be depressed using the SRQ-20. The cognitive impairment and decreased energy sub-scales of the SRQ-20 were more indicative of depression in this study. Then they interviewed the 87 women and found that, their dominant complaints were somatic, and that their expectation for treatment was to receive medical tests and medications. The women expected a magical cure from medications and medical investigations. This study was done in Kisoro women of Uganda and had strong outcomes because it used mixed quantitative and qualitative methods. The main conclusions about how women in Kisoro view their predicament come as a result of the one stream of data elaborating on the other. Violence and gender inequality are among the factors that have been shown to be social determinants of depression in this Uganda population of women. So for those health workers who couldn't interpret the social meaning of the somatic idioms of distress, they could contribute to somatic preoccupation of depression symptoms of the patients. They recommended that health workers should find the meaning of the illness to the patient since what they found out from the study was that, the women most importantly wanted to feel better and be heard after visiting a health worker (Fischer, Ramaswamy, Fischer-Flores, & Mugisha, 2018).

Systematic review of studies assessing the validity of screening instruments for depression, anxiety, and mental distress in sub-Saharan Africa was done in 2014, and it showed that majority of brief screening instruments was developed in Western countries and that made them question their relevance in the vast sociocultural difference which is found in African countries. Even though there are universal symptoms of depression, they concluded that there could be differences in the expression of depressive symptoms in the different sub-Saharan countries (Sweetland, Belkin, & Verdeli, 2014).

When assessing depression, specific symptoms are used as indicators for a presumed underlying disorder. While the DSM-5 relies on nine criterion symptoms for MD, common rating scales comprise multiple items not part of the DSM criteria. For instance, the Beck Depression Inventory (BDI) includes irritability, pessimism, and feelings of being punished, the Hamilton Rating Scale for Depression (HRSD) covers anxiety, genital symptoms, hypochondriasis, and insights into the depressive illness, and the Center for Epidemiological Studies Depression Scale (CESD) includes frequent crying, talking less, and perceiving others as unfriendly. This inconsistency implies a lack

of consensus regarding the construct and measurement of depression (Fried, Epskamp, Nesse, Tuerlinckx, & Borsboom, 2015).In a study done in a rural part of Ethiopia while working with the SRQ-20 to screen for mental illness in a rural Ethiopian adult population, they found three meaningful factors, ‘‘interference with intellectual and work functioning, emotionality and somatic expression’’ (Tafari, Aboud, & Larson, 1991).

A research was done in Ethiopia, which was a cross-sectional survey in eight health centers serving a population of over 160,000 people. A validated version of the 9-item patient health questionnaire (PHQ-9) was administered as an indicator of probable depression. It indicated that although it was not gold standard, , over 98% of cases with PHQ-9 depression were undetected. Failure of recognition of depression may pose a serious threat to the scale up of mental healthcare in low income countries. Addressing this threat should be an urgent priority, and requires a better understanding of the nature of depression and its presentation in rural low-income primary care setting (Fekadu, et al., 2017).

A validation study was done in Ethiopia on brief depression questionnaires in a small town, on patients visiting primary health facilities. It showed that only 11 out of 18 participants diagnosed as having MDD by the experienced Ethiopian mental health professionals reported either of the core mood symptoms. It also found out that the most presented complaint in people who were diagnosed to have MDD in the primary care was somatic and it was less discriminating than cognitive symptoms. Seven out of the other eight people with MDD presented with irritability. In this study the probable explanation given for the lesser expression of sadness or anhedonia by patients and more expression of irritability is that, sadness might not be well accepted in such a religious and collectivist country. Yet irritability or anger will provoke societal reaction which is bigger than that provoked by sadness. So the study suggests addition of irritability to core diagnostic criteria for depression even though that area is complex and requires further research (Hanlon, et al., 2015).

The diagnosis and treatment of depressive disorders remains low in developing countries due, in part, to the lack of skilled mental health workers, stigma associated with mental illness, lack of cross-culturally validated screening and diagnostic instruments, and the prominence of somatic presentations of mental disorders (Gelaye, et al., 2013).

There are different studies that assessed depressive disorder assessment tools and their validation. And there are also other papers showing the under detection of depression in Ethiopia and other countries with low socioeconomic status. But there is lack of evidence when it comes to the prevalence of symptomatology along domain of presentation and most distressing symptoms of depressive disorders and their association with socio-demographic factors. This study will be targeting these aspects.

3. Research Question

What are the common symptoms of depressive disorders in patients who are receiving outpatient care for depressive disorders in tertiary hospitals in Addis Ababa, Ethiopia?

What factors are associated with the different clinical presentations of depressive disorders among in patients who are receiving outpatient care for depressive disorders?

4. Objectives

General- To identify the common presenting symptoms of depressive disorders among patients who are receiving outpatient care for depressive disorders in tertiary hospitals in Addis Ababa, Ethiopia.

Specific

-To explore the most commonly endorsed depressive symptoms along the line of somatic, cognitive, affective and other domain

-To look at association between socio-demographic factors with symptom presentation of depressive disorder

5. Methods

5.1 Study design

Facility based cross sectional study design was used. Study sites are outpatient departments of psychiatry in TASH, Zewditu Memorial Hospital, and Yekatit -12 Hospital.

5.2 Description of Study setting

Tikur Anbessa Specialized Hospital (TASH) was established in 1972; the hospital became the only institution for training Medical Doctors. In 1998, the TASH, the largest referral hospital in the country, with 700 beds, was transferred to Addis Ababa University by the Federal Ministry of Health, and it has since become a University teaching hospital. The psychiatric outpatient department serves 20 to 30 patients per day, and around 350 to 450 patients per month. The most commonly seen disorders are schizophrenia and depression but others like Bipolar disorder, OCD, Anxiety disorders, somatic symptom and related disorders are also seen in the psychiatric OPD. The psychiatric outpatient department of the hospital also has a service for children and adolescents

as well. Both pharmacological and psychotherapeutic treatment modalities are provided by Residents, clinical psychologists and seniors as well.

Zewditu Hospital is a hospital located in central Addis Ababa, Ethiopia, in front of Fil wuha at a working distance from the TASH. It was built, owned and operated by the Seventh-day Adventist Church, but was nationalized during the Derg regime in about 1976. The psychiatric outpatient department in Zewuditu memorial hospital serves for about 400 patients per month on average. From these numbers of patients who visit the OPD, about 80 to 90 suffer from depressive disorders. Other disorders like schizophrenia and other psychotic disorders, substance use disorder and substance related disorders, Bipolar disorder, OCD, Anxiety disorders, Neurocognitive disorders, somatic symptom and related disorders are also seen in the psychiatric OPD. ZMH has a substance detoxification wad which has 4 beds and also an outpatient section which serves patients with substance use and related disorders. It has recently started a new service for children and adolescents. Both pharmacological and psychotherapeutic treatment modalities are provided in this hospital by Residents, clinical psychologists and seniors.

The third one is Yekatit 12 Hospital which was known by the name “Haile Selassie I Hospital” named after Emperor Haile Selassie I Until the Ethiopian revolution of the 1970's, . This hospital is located around 6 kilo, the main campus and seat of the Addis Ababa University Administration. The psychiatric outpatient department in Yekatit serves around 300 to 400 patients per month on average. The most commonly seen disorders are schizophrenia and Autism spectrum disorder. But others such as depressive disorders, anxiety disorders, neurocognitive disorders, somatic and related disorders, other common childhood disorders are also seen. It also has an adult unit and child and adolescent unit. Both pharmacological and psychotherapeutic treatment modalities are provided by Residents, clinical psychologists and seniors.

All the above 3 hospitals have psychiatric outpatient services. These services provided by the department of psychiatry of the college of health sciences.

5.3 Study period

Data collection was done from June 2021 until September 2021.

5.4 Source population

All the patients who have been getting a psychiatric outpatient service at the above mentioned 3 hospitals for the past 2 years.

5.5. Study Population

All the patients with a diagnosis of depressive disorders who visited either one of the 3 different OPDs (Yekatit 12 hospital, Black lion hospital, and Zewditu memorial Hospital) who are currently following up, and we went back to those who visited the OPD's up to June, 2020.

5.6. Sample size

Using simple proportion sample size calculation, 11% (Bitew, 2014)

Sample size= (Z score) ^{2}* p*(1-p) / (margin of error) ^{2}

Considering confidence interval of 95%, Z score= 1.96, P= 11% = 0.11 and margin of error of 5%= 0.05

n= $(1.96)^2$*0.11*(1-0.11) / $(0.05)^2$

n= 3.8416*0.0979/0.0025

n=150.437

Considering contingency of 10% (non-responders)- final sample size is **165**.

5.7. Sampling techniques

Study participants were be recruited consecutively from the patient registration list focusing on those that fulfill the inclusion criteria stated below. Recruitment in each hospital was started from the most recently diagnosed and continue to go back up to 2 years until adequate sample size was obtained.

Inclusion criteria

Participants must fulfill all of the inclusion criteria below to be recruited into this study.

- Above age 18.
- Received a diagnosis of Major depressive disorder and Persistent Depressive Disorder by a psychiatry resident or a senior psychiatrist.
- Newly diagnosed in the past one year. If diagnosis was made over a year ago, the patient must not be in remission during the study period.

- Has a record of at least one visit to the selected hospitals in the past 2 years.
- Able to participate in an interview that will be conducted in Amharic.
- Able to give informed consent.

Exclusion criteria

Patients who meet any of the exclusion below were not recruited into this study.

- Patients who have other comorbid mental conditions or general medical conditions.
- Patients who have communication barrier.
- Patients who had a diagnosis of depressive disorders over one year ago but who are in remission during the study period.
- Patients who are acutely disturbed or distressed.

5. 8 Measures and data collection

Data was collected using a combination of sociodemographic/clinical factors extraction tool, PHQ-9 and PHQ-15 assessment tools. The questionnaire has socio demographic components and questions assessing clinical information. This will include age, sex, address, educational status, marital status, religion, occupation, economic status. It also included clinical information which includes chief complaint of the patient, duration of illness, initial diagnosis, insight about the illness, most and least severe/distressing symptoms, onset of treatment and types of treatment they are involved in.

The PHQ-9 is a widely used depression screening scale for PHC globally. The nine items of the PHQ follow the Diagnostic and Statistical Manual (DSM) version IV (American Psychiatric Association, 1994) diagnostic criteria for a depressive episode, including suicidal ideation, and ask about symptoms present in the preceding two weeks. The four response categories refer to the amount of time that the symptom was present (from 'not at all' (0) to 'nearly every day' (3)). A tenth item asks about the functional impact of the symptoms. Responses to the PHQ-9 can be summed to give a total symptom score. Alternatively, the DSM diagnostic algorithm for a major depressive episode can be applied to give a categorical diagnosis of depression. PHQ-9 has been extensively used and locally validated; it was found to have good reliability and validity (sensitivity (86%) and specificity (67%)) for diagnosing MDD among Ethiopian adults. The internal consistency reliability was also found to be excellent (ICC= 0.92 and Cronbach's alpha = 0.81). A threshold of ten on the PHQ-9 was the most appropriate cutoff and offered the optimal discriminatory power in detecting MDD. In addition, the study also provided strong evidence for the construct validity of the Amharic version of PHQ-9 questionnaire (Gelaye, et al., 2013).

The PHQ-15 is 15 items self-administered screening instrument that has been used as a tool in a number of studies to screen somatic symptoms. Participants were asked to respond to the following questions: During the last four weeks, how much have you been bothered by any of the following problems? A response was elicited for severity of the following 13 symptoms: stomach pain, back pain, pain in arms, legs or joints, menstrual cramps or symptoms, pain with sexual intercourse, headache, chest pain, dizziness, fainting, pounding heart, and shortness of breath, gastrointestinal symptoms, and nausea. The severity of the symptoms were rated as 0=not being bothered at all, 1 being bothered a little, and 2 being bothered a lot. For scoring, response options for these two symptoms are coded as 0 ("not at all"), 1 ("several days"), or 2 ("more than half the days" or "nearly every day"). The total PHQ-15 score ranges from 0 to 30 and scores of ≥5, ≥10, ≥15 and represents mild, moderate and severe levels of somatization. The reliability and validity of the PHQ-15 are high in clinical settings (Kocalevent, Hinz, & Brahler, 2013). In addition, PHQ 15 has been extensively used and it is known to have high reliability and validity among the Ethiopian population (Zeleke, Minaye, & Kanyongo, 2015)

For the purpose of this study one additional item was added to the PHQ- 15 which is burning sensation in the head which is a local somatic idiom commonly expressed in the Ethiopian settings.

And on PHQ 9 items those added is irritability, disliking noise and urge to shout or disappear/ run which are also local idioms of distress (Tekola, et al., Understanding of depression among community members and primary health care attendees in rural Ethiopia: a qualitative study, 2020). In addition, two items, trouble sleeping and fatigue, were omitted from PHQ 15 as they are already covered with PHQ 9.

5.9 Sampling procedure

The initial step was identifying the study population by retrieving all the patient's charts who visited the 3 OPDs in the past 2 years. In a setup like Black Lion Hospital, review was via the Electronic Medical Records of the patient's. The next step was identifying the potentially eligible patients by filtering those who have been diagnosed with depressive disorders. Then, using the inclusion and exclusion criteria samples were identified until the sample size which is needed was reached starting from the most recently recorded patient (consecutive sampling). These steps were done by the researcher and the hospital staffs that were participating in the study. But we mainly focused on those who were coming for follow up visits initially.

5.10 Data collection

The interview part of the data collection was done via face to face interview using the Amharic version of PHQ-9 and PHQ-15. Initially informed consent was secured verbally from the study sample or the patients participating in the study. Then the data was collected using the questionnaire prepared. The data collection was done via face to face interview by 8 psychiatric nurses working in the three different hospitals.

5.11. Operational definition

All the items were categorized into four main symptom domains, Affective, Somatic, Cognitive and others, based on evidence from literatures (Patel V. , Abas, Broadhead, Todd, & Reeler, 2001; Sobin & Sackeim, 1997; Azendo, Roest, Hoen, & Jonge, (2014)) and expert consensus.

Affective- Little interest or pleasure in doing things, feeling down, depressed, hopeless, Irritability

Somatic- Tired/ low energy, Sleep problem, Appetite problem, stomach pain, Back pain, pain in your arms, legs, or joints (knees, hips, etc), Headaches, Burning sensation in the head, Chest pain, Dizziness, Fainting spells, Feeling your heart pound or race, Shortness of breath, Pain or problems during sexual intercourse, Constipation, loose bowels, or diarrhea, Nausea, gas, or indigestion, Menstrual cramps or other problems with your periods [Women only]

Cognitive- Feeling bad about self, Trouble concentration, Suicidal thoughts

Others –Psychomotor agitation/ retardation, Noise intolerance, urge to disappear/ run/shout

5.12 Data analysis

Data was screened for any missingness, outliers were cross checked. Data extraction sheets were coded, and data entry, cleaning, and analysis was done using SPSS version 26. It used descriptive frequencies and cross tabulations to analyze the association of depressive disorder symptoms with sociodemographic factors.

6. Ethical consideration

Ethical permission was sought from the Department of Psychiatry, College of Health Sciences, and Addis Ababa University. Permission was also sought from each of the hospitals where the data was collected. The Names of patients were not mentioned in the study to keep confidentiality. Verbal consent was also provided to every patient.

If patients are identified as not adequately treated, mismanaged, and with risks of self-harm, they were linked to the physicians working at the specific sites where the patients were identified for management. And if patients were identified as non-adherent to treatment, the barrier to treatment was sought and psychoeducation was provided accordingly.

7. Dissemination and utilization of findings

The results of the study will be presented to the Department of Psychiatry as part of a Postgraduate thesis. We hope to publish the finding as well. We hope the findings will lead a way for further research that look for better assessment tools that helps to identify patients with depressive disorders.

8.Results

Sociodemographic and clinical characteristics of respondents

Sociodemographic characteristics

The study involved outpatients seen in 3 tertiary hospitals in Addis Ababa, TASH, ZMH and Yekatit 12 hospitals. The study included a total of 165 participants, among which 53(32.1%) were from TASH, 63 (38.2%) ZMH and 49(29.7%) Yekatit 12 Hospital. The majority of the participants, 103 (62.4%) were female, and 62 (37.6%) were male. Their age ranged from 18 to above 60, with the largest proportion (48.5%) being between 20 and 40. From the total number of participants, 70(42.4%) were single, 90 (54.5%) were employed, 141 (85.5%) were from Addis Ababa, and 150 (90.9%) had formal education. Please see **Table -1**

Table-1: Sociodemographic characteristics of participants

	N	Percent (%)
Age in years		
Below 20	7	4.2
20 to 40	80	48.5
40 to 60	70	42.4
Above 60	8	4.8
Gender		
Male	62	37.6
Female	103	62.4
Area they came from		
Addis Ababa	141	85.5
Out of Addis Ababa	24	14.5
Marital status		
Single	70	42.4
Married	64	38.8
Divorced/Separated	6	3.6

Widowed/Widower	25	15.2
Occupation		
Employed	90	54.5
Unemployed	25	15.2
Housewife	24	14.5
Student	16	9.7
Missing	10	6.1
Religion		
Muslim	24	14.5
Orthodox Christian	116	70.3
Protestant Christian	23	13.9
Other	2	1.2
Level of formal education		
None	15	9.1
Elementary	30	18.2
High school	54	32.7
Higher level Education	66	40

Clinical Characteristics

The diagnosis of study participants was mainly MDD in 147 (89.1%), PDD in 11 (6.7%), MDD with anxious distress in 4 (2.4%), Dysthymia and MDD in 1(0.6%), MDD R/O GAD in 1 (0.6%) and MDD R/O PDD in 1(0.6%). See **Table 2**

The mean duration of treatment in this study is 43.44 months (3.6 years). The shortest duration of treatment was for those who are newly diagnosed and not on any treatment yet (22 participants) and the longest was is 216 months or 18 years. And the majority of them (47.3%) were involved in both psychotherapy and pharmacotherapy. 43% take only pharmacotherapy and 9.7% take only psychotherapy as modalities of treatment. See **Table 3**

Table 2- Diagnosis of study participants

Diagnosis	MDD	PDD	MDD with anxious distress	Dysthymia + MDD	MDD R/O GAD
N	147	11	4	1	1
%	89.1	6.7	2.4	0.6	0.6

Table 3- Treatment type

Treatment type	Number (N)	Percent (%)
Pharmacotherapy	71	43
Psychotherapy	16	9.7
Both	78	47.3

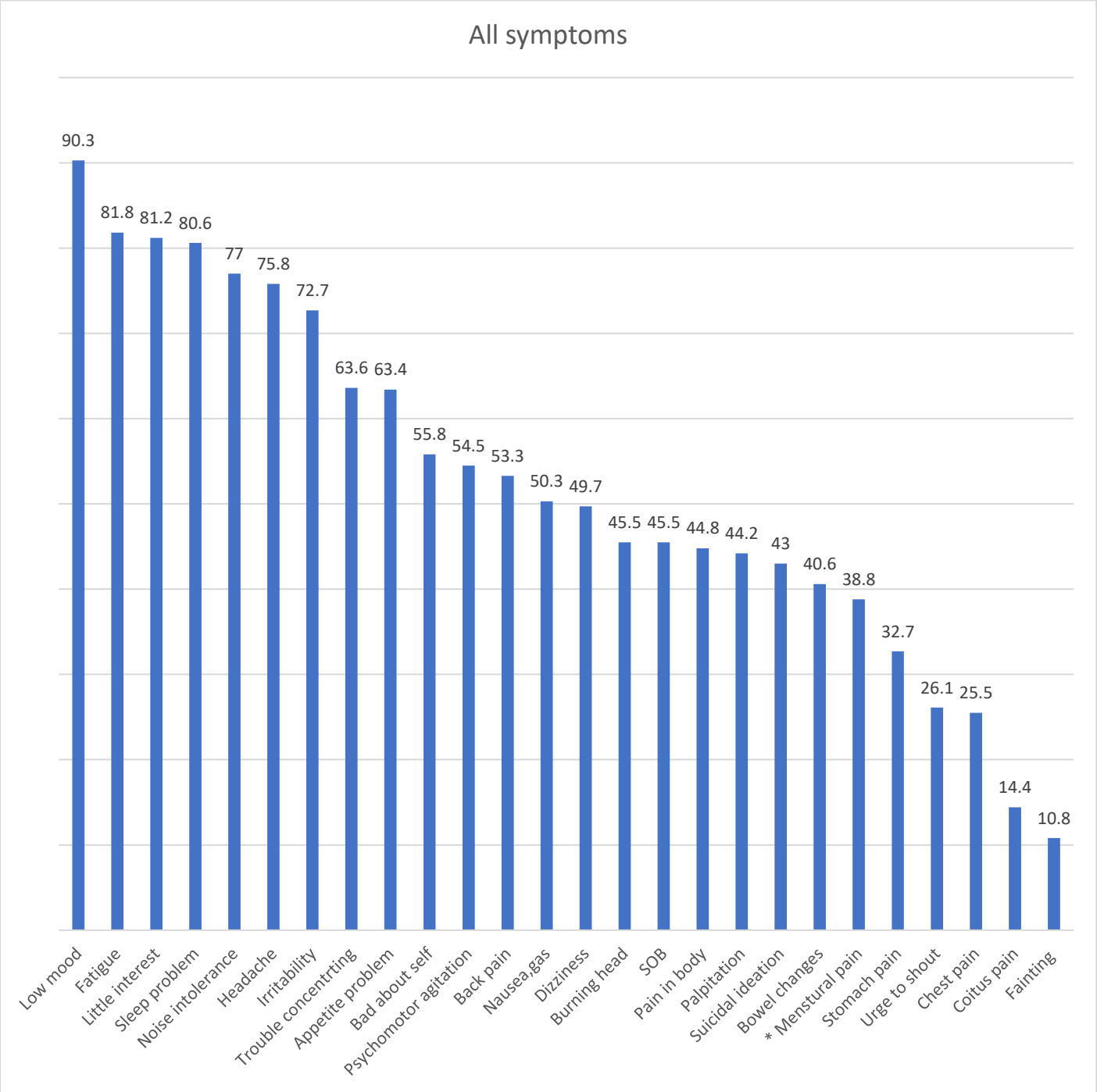
Symptom presentations of the participants

The most common chief complaint of the study participants was “depressed mood”, “loss of sleep”, “hopelessness” and “irritability”. Other chief complaints mentioned were feeling distressed, fatigue, headache, loss of interest, very sleeping, burning sensation on the head, forgetfulness, loss of appetite, suicidal ideations, noise intolerance, feeling heavy in the head, loss of concentration, decreased social activity, feeling worried, boredom and disliking life.

Figure 1 presents the symptom profile of the 165 patients with depression. The symptom profiles are based on the 26 items used in PHQ-9, PhQ-15 and 3 additional symptoms questionnaires. Feeling down, depressed or hopeless were the most frequently endorsed symptoms occurring in 90.3% of the patients. All items were rated with fainting spells being the lowest rated occurring in only 10.9% of the patients. Eleven items of the 26 (42.3%) were found in 50 % or more of the participants. These items were low mood (90.3 %), fatigue (81.8%), loss of interest (81.2%), headache (75.8%), trouble concentrating (63.6%), negative thoughts (55.8%), psychomotor changes (54.5%), back pain (53.3%), nausea, gas, indigestion (50.3%) and two additional items that were added as locally common idioms of distress, noise intolerance (77%) and irritability (72.7%). There were no significant differences in symptom presentation among the three sites.

Additional symptoms of Depression

From the study participants, there were 9 patients who reported to have other symptoms which are not included in the 26 symptom lists that were included in the study. From these, 5 reported to have forgetfulness, 3 reported feeling of worry and 1 reported poor hygiene.



**** only out of 103 female cases**

Fig-1. Proportion of patients with specific symptoms of depression from PHQ-9, PHQ- 15 and additional symptoms questionnaires.

Domains of Depressive symptoms

All the items were categorized into four main symptom domains, Affective, Somatic, Cognitive and others, based on evidence from literatures (Patel V. , Abas, Broadhead, Todd, & Reeler, 2001; Sobin & Sackeim, 1997; Azendo, Roest, Hoen, & Jonge, (2014)) and expert consensus. As shown in Figure 2, almost all the participants endorsed having experienced at least one symptom from the somatic, affective and other domains while only 78% reported having cognitive difficulties. See **Fig 2**

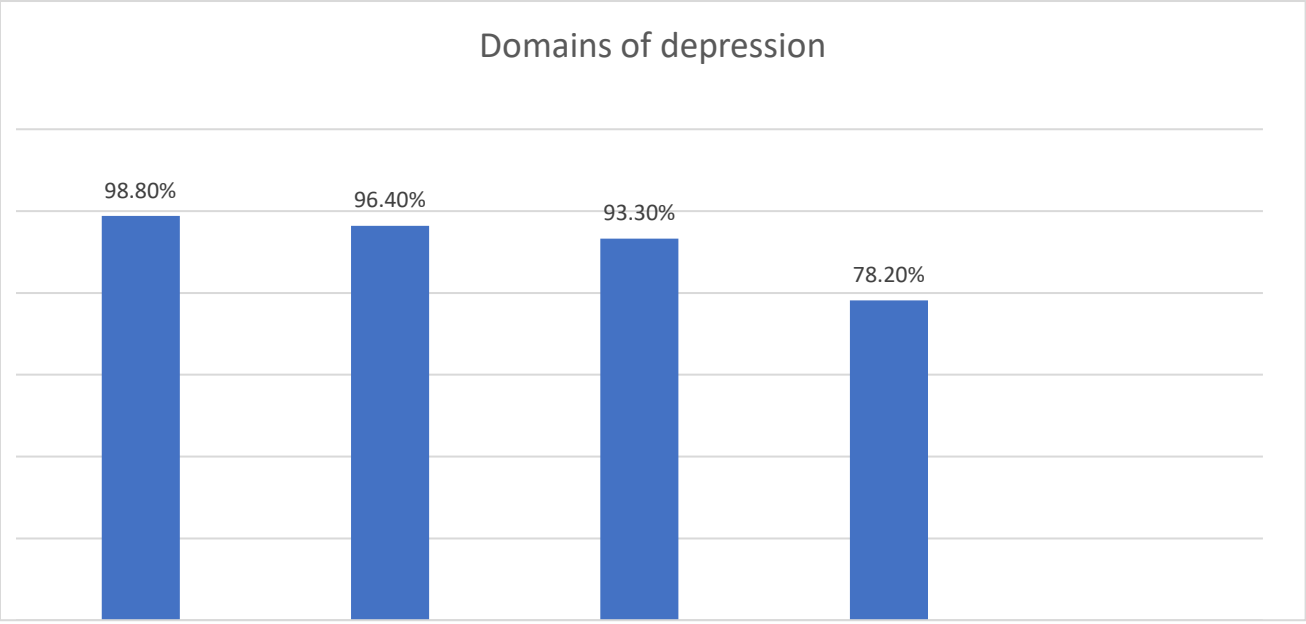
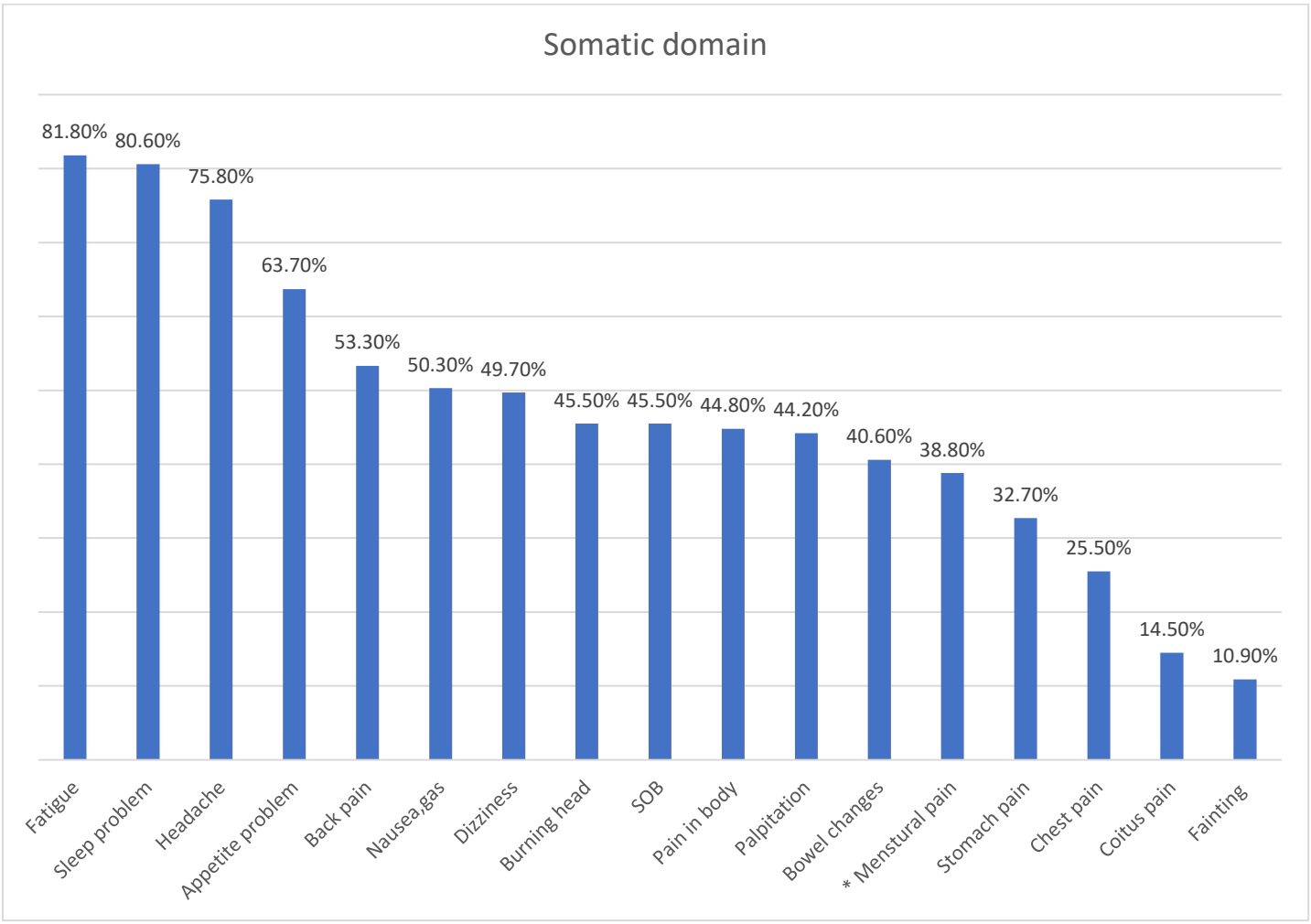
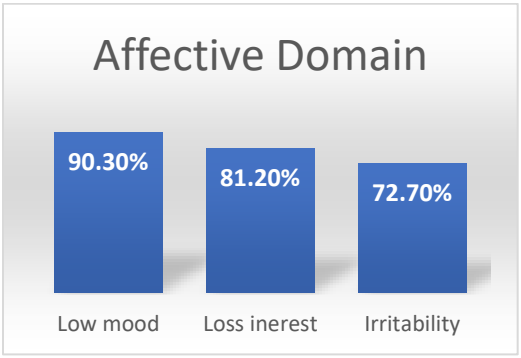


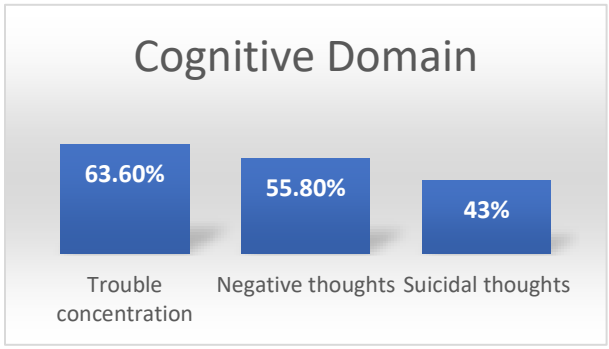
Fig -2- Proportion of patients with at least one symptom in specific domains of depression

From somatic domain of depression, the most frequently endorsed symptom by the participants was fatigue (81.8%) and the least common symptom was fainting(10.9%). From the affective domain of depression, the most common symptom was low mood (90.3%)**Fig-3**



*** only out of 103 female cases**





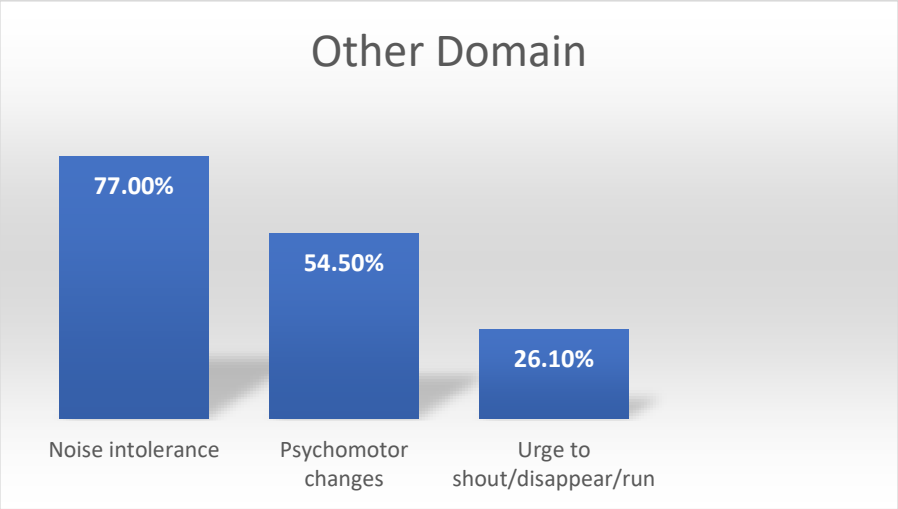


Fig-3: Frequency of domain specific symptoms

Most distressing symptoms

The most common reported most distressing symptom is sleep problem followed by depressed mood. Other symptoms that were mentioned frequently were hopelessness, feeling worried, headache, irritability, lack of motivation, loss of interest, depressed mood together with other symptoms such as burning sensation on the head, fatigue, guilt feeling, lack of concentration and sleep problem. Rarely reported symptoms were impotence, joint pain, back pain and appetite problem. **Table 4**

Table 4- Frequency of most distressing symptoms

		Frequency	Percent
	Missing	27	16.4
	Sleep problem	26	15.8
	Depressed mood	24	14.5
	Hopelessness	13	7.9
	Feeling worried	8	4.8
	Headache	7	4.2
	Irritability	6	3.6
	Fatigue	6	3.6
	Suicidal thought	5	3.0
	Lack of motivation	4	2.4
	Lack of concentration	3	1.8

	Loss of interest	3	1.8
	Appetite problem	3	1.8
	Noise intolerance	1	.6
	Poor communication	1	.6
	Back pain	1	.6
	Forgetfulness	1	.6
	Impotence	1	.6
	Negative thoughts about self	2	1.2
	Burning sensation in the head	2	1.2
	Depressed mood and Sleep problem	2	1.2
	Irritability and depressed mood	2	1.2
	Back pain and depressed mood	1	.6
	Back pain and Loss of sleep problem	1	.6
	Depressed mood and burning sensation in the head	1	.6
	Depressed mood and fatigue	1	.6
	Depressed mood and feeling worried	1	.6
	Depressed mood and guilty feeling, irritability	1	.6
	Depressed mood and hopelessness	1	.6
	Depressed mood and lack of concentration	1	.6
	Fatigue and headache	1	.6
	Fatigue and Hopelessness	1	.6
	Headache and feeling worried	1	.6
	Headache and Hopelessness	1	.6
	Irritability and abdominal pain	1	.6
	Irritability and Forgetfulness	1	.6
	Joint pain	1	.6
	Loss of interest and hopelessness	1	.6
	Stomach pain and irritability	1	.6

From the research participants around 27(16.4%) of them did not report their most distressing symptom but from those who did around 58(35.2%) of them mentioned symptoms from the affective domain as their most distressing symptom, 46(27.8%) mentioned symptoms from somatic domain, 21(12.7%) mentioned two or more symptom combinations from different domains, 12(7.2%) from cognitive and 1(0.6%) from other domain. See **Fig 4**

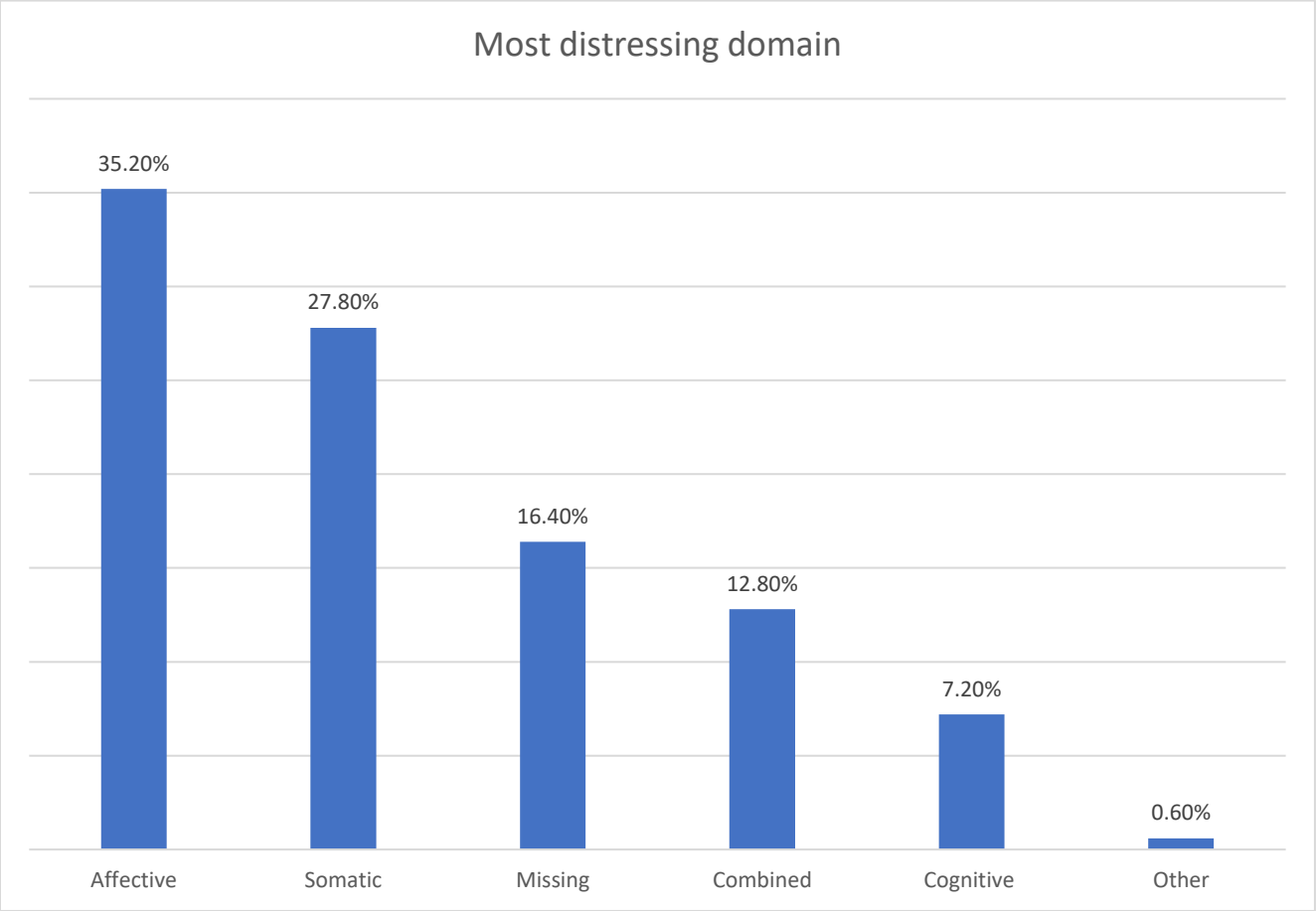


Fig 4- Most distressing symptoms according to domain classification

From all of the participant 30 (18.2%) of them reported that they have low mood nearly every day, while 7 (4.2%) of the participants reported that they have urge to shout/ disappear or run nearly every day. **Table 5**

Table 5- Symptoms from PHQ-9 and additional symptoms endorsed nearly everyday

About 30 (18.2%) of the participants reported headache as it bothered them a lot and 3 (1.8%) reported

Symptoms	N	%
Little interest	26	15.8
Low mood	30	18.2
Sleep problem	26	15.8
Appetite problem	23	13.9
Fatigue	26	15.8
Bad thoughts about self	18	10.9
Trouble concentrating	9	11.5
Psychomotor agitation/retardation	9	5.5
Suicidal thought	11	6.7
Irritability	11	6.7
Noise intolerance	16	9.7
Urge to shout/disappear/run	7	4.2

Fainting as it bothered them a lot. **Table 6**

Table 6-Symptoms from PHQ-15 which bothered the patient a lot

Symptoms	N	%
Stomach pain	7	4.2
Back pain	28	17
Body pain	17	10.3
Headache	30	18.2

Burning in the head	15	9.1
Chest pain	9	5.5
Dizziness	13	7.9
Fainting spell	3	1.8
Palpitation	14	8.5
SOB	12	7.3
Coital pain	5	3
Bowel change	19	11.5
Nausea/gas/indigestion	19	11.5
Menstrual pain	6	3.6

Association between the domains of depression and sociodemographic characters

Table-7: Association of affective domain of depression with sociodemographic characteristics

Characteristics	**Having Affective Symptoms**					**P value**
	Total	**Yes**		**No**		
		n	**%**	**N**	**%**	
Age						0.496
Below 20	7	7	100%	0	0	
20-40	80	77	96.2%	3	3.8	
40-60	70	67	97.1%	3	2.9%	
Above 60	8	7	87.5%	1	12.5%	
Sex						0.595
Male	62	60	96.8%	2	3.2%	
Female	103	99	96.1%	4	3.9%	

Residence						0.617
Addis Ababa	141	136	96.5%	5	3.5%	
Out of Addis Ababa	24	23	95.8%	1	4.2%	
Level of Education						0.923
No	15	15	100%	0	0	
Elementary	30	29	96.7%	1	3.3%	
High school	54	51	94.4%	3	5.6%	
Higher level education	66	64	97%	2	3%	
Occupation						0.911
Employed	90	88	94.6%	5	5.4%	
Unemployed	25	27	96.4%	1	3.6%	
House wife	24	24	100%	0	0	
Students	16	16	100%	0	0	
Marital Status						0.458
Single	70	69	98.6%	1	1.4%	
Married	64	60	93.8%	4	6.2%	
Widowed	25	24	96	1	4%	
Divorced /separated	6	6	100%	0	0	
Religion						1
Muslim	24	23	95.8%	1	4.2%	
Orthodox Christian	116	112	96.6%	4	3.4%	
Protestant	23	22	95.7%	1	4.3%	
Other	2	2	100%	0	0	

Presentation stat						0.582
New	22	21	95.5%	1	4.5%	
Follow up	143	138	96.5%	5	3.5%	

There is an association between the educational level, religious status of study participants and symptoms from other domains. Most of those whose educational level is at elementary and higher-level education seem to endorse symptoms from other domain. see **Table-8**

Table-8- Association of other domain of depression with sociodemographic characteristics

Characteristics	**Other domain**					**P-value**
	Total	**Yes**		**No**		
		Number	**Percent**	**Number**	**Percent**	
Age						**0.543**
Below 20	7	7	100%	0	0	
20-40	80	76	95%	4	5%	
40-60	70	64	91.4%	6	8.6%	
Above 60	8	7	87.5%	1	12.5%	
Sex						0.334
Male	62	56	90.3%	6	9.7%	
Female	103	98	95.1%	5	4.9%	
Residence						0.202
Addis Ababa	141	133	94.3%	8	5.7%	
Out of Addis Ababa	24	21	87.5%	3	12.5%	
Level of Education						0.006
No	15	13	86.7%	2	13.3%	

Elementary	30	30	100%	0	0	
High school	54	46	85.2%	8	14.8%	
Higher level education	66	65	98.5%	1	1.5%	
Occupation						0.392
Employed	90	89	95.7%	4	4.3%	
Unemployed	25	26	92.9%	2	7.1%	
House wife	24	22	91.7%	2	8.3%	
Students	16	14	87.5%	2	12.5%	
Marital Status						0.170
Single	70	65	92.9%	1	7.1%	
Married	64	62	96.9%	2	3.1%	
Widowed	25	21	84%	4	16%	
Divorced / separated	6	6	100%	0	0	
Religion						0.027
Muslim	24	19	79.2%	5	20.8%	
Orthodox Christian	116	110	94.8%	6	5.2%	
Protestant	23	23	100%	0	0	
Other	2	2	100%	0	0	
Presentation stat						1.000
New	22	21	95.5%	1	4.5%	
Follow up	143	133	93%	10	7%	

Table 9- Association of somatic domain of depression with sociodemographic characteristics

Characteristics		Somatic Symptoms				
	Total		Yes	No		P-value
Age		N	%	N	%	1.000
Below 20	7	7	100%	0		
20-40	80	79	98.8%	1	1.2%	
40-60	70	69	98.6%	1	1.4%	
Above 60	8	8	100%	0	0	
Sex						0.612
Male	62	61	98.4%	1	1.6%	
Female	103	102	99%	1	1.2%	
Residence						0.729
Addis Ababa	141	139	98.6%	2	1.4%	
Out of Addis Ababa	24	24	100%	0	0	
Level of Education						0.578
No	15	15	100%	0	0	
Elementary	30	29	96.7%	1	3.3%	
High school	54	54	100%	0	0	
Higher level education	66	65	98.5%	1	1.5%	
Occupation						0.668
Employed	90	92	98.9%	1	1.1%	
Unemployed	25	27	96.4%	1	3.6%	
House wife	24	24	100%	0	0	
Students	16	16	100%	0	0	
Marital Status						1.000
Single	70	69	98.6%	1	1.4%	
Married	64	63	98.4%	1	1.6%	

Widowed	25	25	100%	0	0	
Divorced / separated	6	6	100%	0	0	
Religion						1.000
Muslim	24	24	100%	0	0	
Orthodox Christian	116	114	98.3%	2	1.7%	
Protestant	23	23	100%	0	0	
Other	2	2	100%	0	0	
Presentation stat						0.750
New	22	22	100%	0	0	
Follow up	143	141	98.6%	2	1.2%	

Newly diagnosed patients had higher cognitive symptoms than those who were on follow-up and that has a statistically significant association with the domain. **Table-10**

Table-10- Association of cognitive domain of depression with sociodemographic characteristics

Characteristics			**Cognitive Symptoms**			
	Total	**Yes**		**No**		**P-value**
Age		**N**	**%**	**N**	**%**	**0.370**
Below 20	7	7	100%	0	0	
20-40	80	64	80%	16	20%	
40-60	70	51	72.9%	19	27.1%	
Above 60	8	7	87.5%	1	12.5%	

Sex						0.339
Male	62	46	74.2%	16	25.8%	
Female	103	83	80.6%	20	19.4%	
Residence						0.430
Addis Ababa	141	111	78.7%	30	21.3%	
Out of Addis Ababa	24	18	75%	6	25%	
Level of Education						0.061
No	15	11	73.3%	4	26.7%	
Elementary	30	26	86.7%	4	13.3%	
High school	54	36	66.7%	18	33.3%	
Higher level education	66	56	84.8%	10	15.2%	
Occupation						0.391
Employed	90	72	77.4%	21	22.6%%	
Unemployed	25	20	71.4%	8	28.6%	
House wife	24	19	79.2%	5	20.8%	
Students	16	15	93.8%	1	6.2%	
Marital Status						0.525
Single	70	58	82.9%	12	17.1%	
Married	64	48	75%	16	25%	
Widowed	25	19	76%	6	24%	
Divorced / separated	6	4	66.7%	2	33.3%	
Religion						0.123
Muslim	24	15	62.5%	9	37.5%	
Orthodox Christian	116	91	78.4%	25	2.7%6	

Protestant	23	21	91.3%	2	8.7%	
Other	2	2	100	0		
Presentation stat						0.049
New	22	21	95.5%	1	4.5	
Follow up	143	108	75.5%	35	24.5%	

9.Discussion

This study was done with the aim of exploring the common symptom presentations of patients with depressive disorders. There are few studies such as qualitative studies which were done in rural part of Ethiopia which showed the cultural variation, understanding, and expression of depressive disorders (Tekola, et al., Understanding of depression among community members and primary health care attendees in rural Ethiopia: a qualitative study, 2020). But this study is the first study which explores the symptom presentation of depressive disorders in the urban part of Ethiopia. Understanding the common symptom presentation of depressive disorders will guide future studies in incorporating most common and most distressing symptoms along with locally relevant idioms of distress into tools that are used for screening and clinical diagnostic purposes that can be used in clinical and research settings.

The study included about 165 depressed participants and the majority, 103 (62.4%), were female and 62 (37.6%) were male. According to different studies, the gender difference in depression is generally 2 times as common in females than in males. In a study, the year prevalence of MDD was 5.8% in females and 3.5% in males (Salk, Hyde, & Abramson, 2017) (Ferrari, 2013)

From the PHQ-9 symptoms feeling down, depressed, or hopeless was the commonest symptom which was seen in 90.3% of the participants and suicidal ideations were the least common symptoms which was seen in 43% of the participants. Symptoms such as irritability, noise intolerance and urge to shout/ disappear or run; which were assessment questions that were added for this study as local idioms occurred in large proportion of the participants which was 72.7%, 77% and 26.1% respectively. The commonest symptom seen was the noise intolerance. From the symptoms in PHQ-15 the commonest symptom was headache which occurred in 75.2% of the participants (also its highest in frequency as the most bothering to patients from the PHQ-15 symptoms) and the least common was fainting spells which only occurred in about 10.9% of the participants. From all the symptoms classified in the somatic domain, fatigue accounted to be the highest in frequency (81.8%). Next to low mood it was found to be the most common symptom presentation from the overall 26 symptoms in this study. This finding resonates with findings from a study in Zimbabwe which reported somatic symptoms such as Headache and fatigue as the most common symptom presentations of depression (Patel V. , Abas, Broadhead, Todd, & Reeler, 2001). There are studies which show that symptoms such as irritability to be culturally accepted expressions of distress and disorders such as depression (culture and depression, GMH) and this was replicated in the finding of this research as well. The study also notes that pain and fatigue to be very common in depression as seen in this study as well, and it mentions around 2/3rd of patients with depression to have significant pain. This also reciprocate in this study which showed around 75.8% of patients with depression to have pain such as headache.

In one study, it was mentioned that somatic symptoms which are bodily forms of distress may or may not be the causes or caused and exacerbated by depression. That they might just stand in their own but it was very difficult to differentiate between those that are caused and exacerbated by depression or those directly associated with them and those which are indirectly associated (Kirmayer, Gomez-Carrillo, & Veissiere, 2017). So, the high prevalence symptoms endorsed from somatic domain (98.8%) observed in this study has its own limitations. But to decrease the bias of confounding factors, we included comorbid physical and other psychiatric conditions as excluding criteria.

From the 4 domains, the commonly endorsed symptom of at least one symptom from each was found to be somatic which accounted for 98.8% followed by affective domain (96.4%), other domain (93.3%) and cognitive domain (78.2%). As these results show that the number of patients with somatic symptoms is significantly high. The number of participants who endorsed somatic symptoms is very high (98.8%). But when looking at the domains frequency in general, all the 4 domains as classified in this research seem to have a comparable frequency, except for cognitive domain which seemed to have the lowest frequency. In a research which studied the outpatient and inpatient, medicated unmedicated patients with depressive disorder and the prevalence of cognitive impairment, they found out a lower number of cognitive impairments in the outpatients and a higher prevalence in the inpatient (Douglas, et al., 2018).

From the research participants around 58(35.2%) of them mentioned symptoms from the affective domain as their most distressing symptom, 46(27.8%) mentioned symptoms from somatic domain, 21(12.7%) mentioned two or more symptom combinations from different domains, 12(7.2%) from cognitive and 1(0.6%) from other domain. This shows a significant number of patients had cluster of symptoms from all the four domains as most distressing. On a research done Latino immigrants, participants were asked to describe how they felt when they had symptoms of depression. They stated that they were distressed with themes overlapping on symptoms like crying, sadness, anxiety, nervousness, tension and experience of loneliness, personal losses and trauma (Caplan, 2010). The most common reported most distressing symptom is sleep problem followed by depressed mood. Other symptoms that were mentioned frequently were hopelessness, feeling worried, headache, irritability, lack of motivation, loss of interest, depressed mood together with other symptoms such as burning sensation on the head, fatigue, guilt feeling, lack of concentration and sleep problem. These symptoms are highly endorsed as most frequent and also most distressing at the same time. On a study done in United Kingdom ,2800 participants were included of which, 97% reported sleep difficulties while depressed and 59% of them said they were significantly affected by it (Nutt, Wilson, & Paterson, 2008).The most common associated daytime symptom was lack of concentration followed by feeling of exhaustion and fatigue. As we can see some of the findings in this research also is replicated in our study.

There are also symptoms which are not endorsed with high frequency by patients but which are reported as being most distressing such as Forgetfulness, Bowel changes, Nausea, Sexual problems (impotence). This shows that even though there is a lower proportion of being expressed by patients, some symptoms can be most distressing and a major concern for the individual. In south Africa, it was seen that poor work performance in depressed patients was related to problems in concentrating, forgetfulness and indecisiveness (Stander, et al., 2016).

In this research around 5 patients reported to have forgetfulness, which is part of the cognitive impairment seen in depressed patients and 3 others showed worry, 1 said they have poor hygiene. Studies show that depression affects memory negatively by interfering with ability to complete memory task (Sheltona & Brock , 2013). In 2015, a research found that spending much time on mood congruent information in depressed patient interferes with information processing and negatively affects working memory (Hubbard, Joanna, Monroe, & Janelle, 2015). Another study supported this by finding that when depressed thoughts are active in patient's aware experience, memory deficits will result (Hubbard A, Joanna L. , D. , & Bart, 2016). But a study done in 2019 indicates that depressed patients have better memory for negative life events than non-depressed people (Wetsman, 2019). In Ethiopia, a study was done on adherence of anti-retroviral treatment in depressed patients and considered forgetfulness, poor concentration, impairment in memory, low executive functioning as reasons for non-adherence (Asrat, Lund, Ambaw, Garman, & Schneider, 2020).

The local idioms of distress also were reported with significant number of participants which are noise intolerance (77%) and irritability (72.7 %). There is also a finding from another research which was done in Sodo which was a qualitative study which showed the most common symptoms which were spontaneously reported by participants included disliking noise, sleep disturbance and Fatigue which resonates with the findings in this study (Tekola, et al., Understanding of depression among community members and primary health care attendees in rural Ethiopia: a qualitative study, 2020). Sleep problems account for 80.6% and fatigue (81.8%). In this study it also included symptom such as urge to run/disappear or shout as one of the most common symptoms of depressive disorders whereas this was not replicated in this study, which showed only 26.1% of study participants reported to have that experience. This shows the need for local idioms of distress and somatic symptoms to be included in the assessment criteria of depressive disorders.

Educational status showed to have statistically significant association with both cognitive and other domains of depression. Those that have learnt higher level education and elementary endorsed symptoms from both the domains more frequently than those with no formal education and high school educational status. According to a study, low educational levels were significantly associated with both depression and anxiety (Bjelland, 2008). But this needs further exploration.

In this study, both somatic and cognitive symptoms of depression were highly endorsed with patients who are newly diagnosed and not engaged in any kind of treatment yet. There was a statically significant association between newly diagnosed patient status and cognitive symptoms. This could be because of the untreated depression for a prolonged time. This finding has resonated with another which showed higher level of cognitive impairments whenever the duration of untreated illness increases (Galimberti, et al., 2020).

The most common chief complaint in this study is mainly “depressed mood” followed by “loss of sleep”, “hopelessness” and “irritability” which somehow centers around affective symptoms rather than the other domains which is not replicated in other studies done in Asian populations which showed 76% of Chinese American primary care patients with depression had chief complaints centered on somatic symptoms (I.P., A.b, & J.I., 2013).

Strength and limitations of the study

These findings come from list of symptoms which were identified as being clinically relevant and evidence based for our local setting. The study included participants from all age groups, educational, occupational backgrounds and also both genders. In addition, almost all patients with active symptoms in the study period, excluding those with comorbidity, were included which adds to the representativeness of sample. We believe this strengthens the generalizability of this study’s findings to the larger population in the urban setting of Ethiopia.

There were several measures which were taken during selection of study participants, data collection to decrease bias. This includes using explicit inclusion and exclusion criteria to decrease confounding factors such as physical and other psychiatric comorbidities. The data collectors were mental health professionals and they were given training before data collection and were being checked up on in between for better data quality and to decrease inter-rater bias. Data collection was done via face-to-face interview to increase the generalizability of findings by increasing the diversity of the study participants, not to limit those who are able to use the phone.

Even though 26 items were used in assessment of the symptoms of depression, including additional local idioms of distress, there were patients who still reported symptoms that were not included in the items (such as forgetfulness). We have tried to capture these by questions that explored additional symptoms, most distressing symptoms and chief complains; however, there was significant number of missing data for these responses.

The design of the study being a cross sectional study may have limited representation of the symptoms profile of patients at onset or most severe period. However, using tools that assessed symptoms correctionally over the past weeks in those that are still symptomatic will capture the clinical picture of a depressive episode. The findings can serve as a good starting point for future studies that use other research designs.

Conclusion and recommendations

Above 90 % of the study participants reported to have symptoms from the 3 domains of depression which are affective, somatic, and other. And around 78% of the patients also reported to have one or more symptoms from cognitive domain of depression. When expressing symptoms which are most distressing to them, significant proportion of the patients reported symptoms which are combinations from all the 4 domains of depression. Symptoms which are not included in DSM criteria and screening tools being used in clinical setup are shown to be reported in high frequency and also as most distressing in this study.

Based on these findings of this research we recommend the following

We recommend that attention be given to not only affective symptoms, but for symptoms from all domains. Even if the symptoms might not be significantly endorsed by many patients, the level of distress it causes the patients should be given a paramount concern. And these distressing symptoms are not tailored to only affective domain. Our treatment strategies should also be tailored to be inclusive of the all symptoms not limited to affective domain.

We also recommend for future development of short screening tools which are inclusive of all domains of depression, local idioms of distress and other symptoms.

10. References

Bagayogo, I. P., Interian, A., & Escobar, J. I. (2013). Transcultural Aspects of Somatic Symptoms . *Adv Psychosom Med. Basel, Karger*, 64-74.

HJ, J., RS, W., A, I., JP, H., MJ, C., L, B., . . . D, M. (2014). Differences in depressive symptoms between Korean and American outpatients with major depressive disorder. *Europe PMC*, 29(3):150-156.

Patel, V., Abas, M., Broadhead, J., Todd, C., & Reeler, A. (2001). Depression in developing countries: lessons from Zimbabwe. *BMJ Clinical Research*, 322:482–4.

Sweetland, A. C., Belkin, G. S., & Verdeli, H. (2014). MEASURING DEPRESSION AND ANXIETY IN SUB-SAHARAN AFRICA. *DEPRESSION AND ANXIETY*, 31:223–232.

Zeleke, W., Minaye, A., & Kanyongo, G. Y. (2015). Mental Health and Somatic Distress among Ethiopian Migrant Returnees from the Middle East. *Sci Technol*, 7.

Anthony L. Vaccarino a, ☐. T. (2008). Prevalence and association of somatic symptoms in patients with. *journal of affective disorders*, 7.

APA. (2013). DSM 5. *APA*.

Asrat, B., Lund, C., Ambaw, F., Garman, E. C., & Schneider, M. (2020). Major depressive disorder and its association with adherence to antiretroviral therapy and quality of life: cross-sectional survey of people living with HIV/AIDS in Northwest Ethiopia. *BMC Psychiatry*, 20, 462.

Azendo, R. M., Roest, A., Hoen, P., & Jonge, P. ((2014)). Cognitive/affective and somatic/affective symptoms of depression in patients with heart disease and their association with cardiovascular prognosis: a meta-analysis. *Psychological Medicine*, 44, 2689–2703.

Bitew, T. (2014). Prevalence and risk factors of depression in Ethiopia: a review. *Ethiop J Health Sci.* , 161-169.

Bjelland, I. (2008). Does a higher educational level protect against anxiety and depression? The HUNT study.

Briley, J.-P. L. (2004). The epidemiology of pain in depression. *Wiley InterScience*.

Caplan, S. (2010). Subjective versus objective: An exploratory anaysis of Latino primary care patients with self-perceived depression who don not fulfill primary care evaluation of mental disorders patient health questionnaire criteria for depression.

CDC. (2018). prevalence of depression. *CDC*.

Commision, E. (2017, April 5). *CORDIS EU research results*. Retrieved from Emerald.

Depression rates from all around the world. (2021). Retrieved from Pulse TMS.

Douglas, K. M., Gallagher, P., Robinson, L. J., Carter, J. D., McIntosh, V. V., Frampton, C. M., . . . Porter, R. J. (2018). Prevalence of cognitive impairment in major depression and bipolar disorder. *wileyonlinelibrary.com/journal/bdi* , 1–15.

Encyclopedia. (n.d.). Retrieved from Encyclopedia.

Fekadu, A., Medhin, G., Selamu, M., W. Giorgis, T., Lund, C., Alem, A., . . . Hanlon, C. (2017). Recognition of depression by primary care. *BMC Family Practice*, 18:56.

Ferrari, A. J. (2013). Global variation in the prevalence and incidence of major depressive disorder: a systematic review of the epidemiological literature. *Psychological Medicine*, 471- 481.

Fischer, M., Ramaswamy, R., Fischer-Flores, L., & Mugisha, G. (2018). Measuring and Understanding Depression in Women. *Cult Med Psychiatry*, 18.

Fried, E. I., Epskamp, S., Nesse, R. M., Tuerlinckx, F., & Borsboom, D. (2015). What are 'good' depression symptoms? Comparing the centrality of DSM and non-DSM symptoms of depression in a network analysis. *Journal of Affective Disorders*, 23.

Galimberti, C., Bosi, M. F., Martina, V., Giordano,, F., Dell'Osso, B., & Viganò, C. A. (2020). Duration of untreated illness and depression severity are associated with cognitive impairment in mood disorders. *International Journal of Psychiatry in Clinical Practice*.

Gelaye, B., Williams , M. A., Lemma, S., Deyessa, N., Bahretibeb, Y., Teshome , S., . . . Zhou, X.-H. A. (2013). Validity of the patient health questionnaire-9 for depression screening. *Elsevier Psychiatry research*, 9.

Goodmann, R. D., Daouk, S., Sullivan, M., Cabrera, J., Liu, H. N., Barakat, S., . . . Leykin, Y. (2021). Factor analysis of depression symptoms across five broad cultural groups. *Elsevier*, 227-235.

Hanlon, C., Medhin, G., Selamu, M., Breuer, E., Worku , B., Hailemariam, M., . . . Fekadu, A. (2015). Validity of brief screening questionnaires to detect depression in primary care in Ethiopia. *Journal of Affective Disorders*, 32-39.

Higuera, V. (2020). Depression. *Healthline*.

Hubbard A, N., Joanna L. , H. L., D. , H. Z., & Bart, R. (2016). The enduring effects of depressive thoughts on working memory. *Journal of Affective Disorders* , 190, 208–213.

Hubbard, N. A., Joanna, J. L., Monroe, T., & Janelle, M. (2015). Depressive thoughts limit working memory capacity in dysphoria. *COGNITION AND EMOTION*.

I.P., B., A.b, I., & J.I., E. (2013). Transcultural Aspects of Somatic Symptoms in the Context of Depressive Disorders. *Alarcón RD (ed): Cultural Psychiatry. Adv Psychosom Med. Basel, Karger*, vol 33, pp 64-74.

Kirmayer, L. J. (2001). cultural variations in clinical presentations of depression and anxiety: implications for diagnosis and treatment. *J Clin Psychiatry*, 29-30.

Kirmayer, L. J., Gomez-Carrillo, A., & Veissiere, S. (2017). Culture and depression in global mental health: An ecosocial approach to the phenomenology of psychiatric disorders. *Social Science & Medicine*, 163-168.

Kocalevent, R. D., Hinz, A., & Brahler, E. (2013). Standardization of aStandardization of a screening instrument (PHQ-15) for somatization syndromes in the general population. *BMC Psychiatry*, 8.

Nutt, D., Wilson, S., & Paterson, L. (2008). Sleep disorders as core symptoms of depression. *Dialogues Clin Neurosci.*, 10(3):329-36.

Okulate, T. G., Olayinka, O. M., & Jones, O. B. (2004). Somatic symptoms in depression: evaluation Somatic symptoms in depression: evaluation. *British Journal Of Psychiatry*, 184, 422-427.

Patel, V., Abas, M., Broadhead, J., Todd, C., & Reeler, A. (2001). Depression in developing countries: lessons from Zimbabwe. *BMJ* , 322:482–4.

Patel, V., Abas, M., Broadhead, J., Todd, C., & Reeler, A. (2001). Depression in developing countries: lessons from Zimbabwe. *BMJ* , 322:482–4.

Regier, D. A., Kuhll, E. A., & Kupfer, D. J. (2013). The DSM-5: classification and criteria changes. *World Psychiatry*, 92-98.

Ryder, A. G., & Chentsova-Dutton, Y. E. (2012). Depression in Cultural. *Elsevier*, 15-36.

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender Differences in Depression in Representative National Samples: Meta-Analyses of Diagnoses and Symptoms. *Psychol bull*, 783-822.

Schimelpfening, N. (2020, December 13). *Verywell mind*. Retrieved from Mental health A-Z.

Sheltona, D. J., & Brock , K. C. (2013). A possible negative influence of depression on the ability to overcome memory interference. *Behavioural Brain Research* , 256,20– 26.

Simon, E. G., Vonkorf, M., Piccinelli, M., Fullerton, C., & Ormel, J. (1999). An international study of the relation betwen somatic and depressive symptoms. *The New England*, VOLUME 341.

Sobin, C., & Sackeim, H. A. (1997). Psychomotor Symptoms of Depression. *Am J Psychiatry*, 154:4–17.

Stander, M. P., Korb, F. A., Necke, M. d., Catharina de Beer, J., Miller-Janson, H. E., & Moont, R. (2016). Depression and the Impact on Productivity in the Workplace: Findings from a South African Survey on Depression in the Workplace. *Journal of Depression and Anxiety*.

Tafari, S., Aboud, F., & Larson, C. P. (1991). Determinants Of Mental Illness In Rural Ethiopian Adult Population. *Sot Scr Med*, Vol 32. No 2.p~ 197-201.

Tekola, B., Mayston, R., Eshetu, T., Birhane, R., Milkias, B., Hanlon, C., & Fekadu, A. (2020). Understanding of depression among community members and primary health care attendees in rural Ethiopia: a qualitative study. *unpublished*.

Tekola, B., Mayston, R., Eshetu, T., Birhane, R., Milkias, B., Hanlon, C., & Fekadu, A. (2020). Understanding of depression among community members and primary health care attendees in rural Ethiopia: a qualitative study. *unpublished*.

Teng Cheng, H., Chun Ho, M., & Yu Hung, K. (2018). Afective and cognitive rather than somatic symptoms of depression predict 3-year mortality in patients on chronic hemodialysis. *Scientific reports*, 12.

Wetsman, N. (2019). Depression’s Impact on Memory. *BrainFacts.org*.

WHO. (2017). Depression and other common mental disorders. *WHO* , 24.

WHO. (2020, January 30). *world health organization.*

11. Annex

Annex 1

Informed consent

Common Symptoms of depression in patients visiting outpatient psychiatric services in tertiary hospitals, A.A. Ethiopia

Dear participant Mr./ Miss/ Mrs……, This study is going to be researching the commonest Symptoms of depression in patients visiting outpatient psychiatric services and it will be conducted by me, Dr. Eyerusalem Solomon. I am doing my final year residency at Tikur Anbessa Specialized Hospital, department of psychiatry. This study is being done for the thesis on the topic and purpose that has been mentioned above. I would really appreciate your participation and I am asking you to complete a survey. The participation is completely voluntary and you are participating in this study only because you want to participate. If you choose to participate, please show your agreement and complete the survey according to the directions provided.

Tick here if consent gained ……..

Date ……..

Thank you for your time and participation in the matter. Dr. Eyerusalem Solomon

Amharic Version

የተከበሩ ተሳታፊ አቶ/ወ/ሮ/ወ/ሪት……, የዚህ ጥናት ዋና ዓላማ ለድብርት ህመም የሚታከሙ ሰዎችን ዋና ምልክቶች ማየት ነው ።
ይህ ጥናት በእኔ በዶ/ር እየሩሳሌም ሰለሞን ይካሄዳል። በጥቁር አንበሳ የመጨረሻ አመት የአዕምሮ ህክምና ተማሪ ነኝ። ይህ ጥናትም በሳይካትሪ ዲፓርትመንቱ ጸድቋል።

ስለተሳትፎዎት እያመሰገንኩ ይህንን የዳሰሳ ጥናት እንዲያጠናቅቁ በትህትና እጠይቃለሁ። ተሳትፎዎት ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሰረተ ይሆናል።

ለመሳተፍ ከመረጡ እባክዎን ስምምነትዎን ያሳዩ እና በቀረቡት መመሪያዎች መሰረት ጥናቱን ይሙሉ።

ስምምነት ከተገኘ እዚህ ምልክት ያድርጉ..... .....

ቀን…… ..

ስለጊዜዎ እና ተሳትፎዎ እናመሰግናለን ።

Annex 2

Sociodemographic Data extraction sheet

Initials of name:	☐New ☐Follow up
Date of presentation to the clinic:	
Age ☐Below 20 ☐20 – 40 ☐40 – 60 ☐Above 60	
Sex: ☐Male ☐Female	
Area they come from: ☐Addis Ababa ☐Out of Addis Specify:	
Formal education: ☐Yes ☐No	
If yes, ☐Elementary ☐High school ☐Higher level education	
Occupation: ☐Employed ☐Unemployed ☐Housewife ☐Student	
Marital status: ☐Single ☐Married ☐Widowed ☐Divorced/ Separated	
Religion:	

☐Muslim	☐Orthodox Christian	☐Protestant Christian	☐Other

If other, specify:_____

Annex 3

Clinical Information extraction sheet

Chief complaint:
Duration of illness:
Other symptoms which are not in the above assessment tools:
Initial diagnosis:
Insight about the illness ☐Fair ☐None
Most severe/distressing symptom: Least severe/distressing symptoms:
Onset of Treatment:
Types of treatment they are involved in ☐Pharmacotherapy ☐Psychotherapy ☐Both
Adherence to treatment ☐Fair ☐Poor ☐Non-adherent

Annex 4

English PHQ-9

Over the last two weeks, how often have you been bothered by any of the following problems?				
1-0	Did you have little interest or pleasure in doing things?	No	0	PHIL
		Yes	1	
1-1	If yes: for how many days did you feel it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
2-0	Were you feeling down, depressed, or hopeless?	No	0	PHFS
		Yes	1	
2-1	If yes: for how many days did you feel it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
3-0	Did you have trouble falling/staying asleep or sleeping too much?	No	0	PHIS
		Yes	1	
3-1	If yes: for how many days did you have it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
4-0	Were you feeling tired or having little energy?	No	0	PHLE
		Yes	1	
4-1	If yes: for how many days did you have it?	Several days	1	
		Most of the time	2	

		Nearly every day	3	
5-0	Did you have poor appetite or overeating?	No	0	PHLR
		Yes	1	
5-1	If yes: for how many days did you have it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
6-0	Did you feel bad about yourself – or that you are a failure or have let yourself or your family down?	No	0	PHFH
		Yes	1	
6-1	If yes: for how many days did you feel it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
7-0	Did you have trouble with concentration, such as reading the newspaper or watching television?	No	0	PHDC
		Yes	1	
7-1	If yes: for how many days did you have it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
8-0	Did you move or speak 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?	No	0	PHDT
		Yes	1	
8-1	If yes: for how many days did you feel it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
9-0	Did you ever have thoughts that you would be better off dead or of hurting yourself in some way?	No	0	PHWD
		Yes	1	

9-1	If yes: for how many days did you have it?	Several days	1	
		Most of the time	2	
		Nearly every day	3	
10	Total for PHQ1-PHQ9	_____		**PHQTOT**
	If the answer to any of the above questions is yes, ask how much it has affected her day to day activities like work, self-care or interaction with others?	Not at all	0	**PHDR**
		Mild impairment	1	
		Moderate impairment	2	
		Severe impairment	3	

For the sake of this study the symptoms listed below are added to the PHQ9 tool because they are very common in our setup and can be considered as idioms of distress.

Did you ever feel Irritable?	No	0
	Yes	1
If yes: for how many days did you have it?	Several days	1
	Most of the time	2
	Nearly every day	3
Do you find noise intolerable?	NO	0
	Yes	1
If yes: for how many days did you have it?	Several days	1
	Most of the time	2
	Nearly every day	3

Do you have an Urge to shout/disappear/Run?	No	0
	Yes	1
If yes: for how many days did you have it?	Several days	1
	Most of the time	2
	Nearly every day	3

Amharic PHQ-9

<u>ማስታወሻ</u>፡አልፎ አልፎ ብቻ (2-6 ቀናት)፣ በዛላለ ጊዜ (7-11 ቀናት)፣ ከሞላ ጎደል በየቀኑ (12-14 ቀናት) መሆኑን ይግለፁ።				**Code**
ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸው ችግሮች ውስጥ፤ የትኞቹ ደርስውብዎት (በየትኞቹ ተቸግረው) እንደነበር እጠይቅዎታለሁ።				
1.	የእለትተእለትተግባርዎንለማከናወን (ለመስራት) ያለዎት ተነሳሽነት ወይም ፍላጎት በጣም ቀንሶ ነበር?	አዎ	1	**PHLI**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
2.		አዎ	1	**PHFS**

	የመከፋት፣ የመደበት ወይም ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር?	የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
3.1	እንቅልፍ አልወስድ ብሎዎት ወይም በደንብ መተኛት አቅትቶዎት ይቸገሩ ነበር?	አዎ	1	**PHIS**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተቸገሩ?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
3.2	እንቅልፍ በዝቶብዎት ይቸገሩ ነበር?	አዎ	1	**PHOS**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተቸገሩ?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
4.	የድካም ወይም የአቅም ማነስ ስሜት ይሰማዎት ነበር?	አዎ	1	**PHLE**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	

		ከሞላ ጎደል በየቀኑ	3	
5.1	የምግብ ፍላጎትዎ ቀንሶ ነበር?	አዎ	1	**PHLR**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ቀንሶ ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
5.2	የምግብ ፍላጎትዎ ከተለመደው በላይ ጨምሮ ነበር?	አዎ	1	**PHLA**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ጨምሮ ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
6.	ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ የሚል ስሜት ተሰምቶዎት ነበር?	አዎ	1	**PHFH**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
7.	በሚሰሩት ስራ ላይ ሃሳብዎን ለመሰብሰብ/ትኩረት መስጠት አስቸግርዎት ነበር? (ለምሳሌ፣ ከሰዎች ጋር ሲጨዋወቱ ትኩረት ሰጥቶ ማዳመጥ?)	አዎ	1	**PHDC**
		የለም	0	
		አልፎ አልፎ ብቻ	1	

	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
8.1	ለሌሎች ሰዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ብለው ነበር?	አዎ	1	**PHDT**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
8.2	ለሌሎች ሰዎች እስከሚታወቅ ድረስ መረጋጋት አቅቶዎት፣ አንድ ቦታ አርፎ መቀመጥ ወይም መቆም እስከማይችሉ ሆነው ነበር?	አዎ	1	**PHDS**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
9.	ከምኖር ብሞት ይሻላል ብለው አስበው ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበው ነበር?	አዎ	1	**PHWD**
		የለም	0	
	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰምቶዎት ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	

10.	የ PHQ1-PHQ9 አጠቃላይ ድምር	_____		**PHQTOT**
11.	ከተዘረዘሩት ችግሮች ለአንዳቸውም አዎ የሚል መልስ ከተሰጠ የሚከተለውን ይጠይቁ። በእነዚህ ችግሮች ምክንያት ስራዎን ለመስራት፣ የቤት ሓላፊነትዎን ለመወጣት ወይም ከሰዎች ጋር ተስማምተው ለመኖር ምን ያህል አስቸጋሪ ሆኖብዎት ነበር?	በጭራሽ አልተቸገርኩም	1	**PHDR**
		በመጠኑ ተቸግሬ ነበር	0	
		በጣም ተቸግሬ ነበር	1	
		እጅግ በጣም ተቸግሬ ነበር	2	

English PHQ-15

During the *past 4 weeks*, how much have you been bothered by any of the following problems					
	Don't have it 0	Not bothered at all 1	Bothered a little 2	Bothered a lot 3	
A. stomach pain					STOM5A
B. Back pain					BACK5A

C. pain in your arms, legs, or joints (knees, hips, etc)					ARM5A
D. Headaches					HEAD5A
E. Burning sensation in the head					BURN5A
F. Chest pain					CHEST5A
G. Dizziness					DIZZY5A
H. Fainting spells					FAINT5A
I. Feeling your heart pound or race					HEART5A
J. . Shortness of breath					BREAT5A
K. Pain or problems during sexual intercourse					SEX5A
L. Constipation, loose bowels, or diarrhea					BOWEL5A
M. Nausea, gas, or indigestion					NAUS5A

N. Menstrual cramps or other problems with your periods [Women only]					MENBL 5A

Amharic PHQ-15

vKñƒ 4 dU”ታƒ ¾T>Ÿ}K<ƒ eT@„‹ ’u\w-ƒ; Ÿ’u\w-ƒe U” ÁIM ›e†Ó`-ƒ ’u`;					
	›M’ u⌈˜ U	uß^I ›Le† Ñ⌈˜ U 1	uØm˜ ›e† Óa —M 2	u×U ›e† Óa —M 2	
A. ¾JÉ QSU					STOM5A
B. ¾¨Ñw QSU					BACK5A
C. ¾ƛÏ (¡”É) ! ¾ƛÓ`! ¾SÑ×ÖT>Á xታ-‹ QSU					ARM5A
D. ^e Uታƒ					HEAD5A
E. ^e-” ¾TnÖM eT@ƒ					BURN5A
F. ¾Å[ƒ QSU					CHEST5A
G. ¾Tµ` eT@ƒ					DIZZY5A
H. }´KõMö ¾S¨<Åp G<’@ታ-‹					FAINT5A
I. Mw- „KA „KA ¾SUታƒ eT@ƒ					HEART5A
J. ƒ”ói ¾TÖ` (I`Ø I`Ø ¾TKƒ) eT@ƒ					BREAT5A
K. uÓw[YÒ Ó”–<<’ƒ ¨pƒ ¾QSU eT@ƒ ¨ÃU K?KA‹ ‹Óa‹					SEX5A
L. ¾JÉ SÉ[p (¾¯Ã’ UÉ` SÉ[p) ¨ÃU }pTØ					BOWEL5A
M. TpKiKi ' Ò´ T¨<×ƒ ¨ÃU ¾UÓw SðÚƒ ‹Ó`(UÓw JÉ LÃ lß ¾TKƒ eT@ƒ)					NAUS5A
N. ከ¨` ›uv ጋር የተያያዘ ቁርጠት ወይንምሌላ አይነት ችግር (ለሴቶች ብቻ የሚጠየቅ)					MENBL5A