

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF ALLIED HEALTH SCIENCE
DEPARTMENT OF NURSING AND MIDWIFERY

**PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG
MEDICAL AND SURGICAL OUTPATIENTS IN DESSIE REFERRAL
HOSPITAL, NORTH EASTERN AMHARA, ETHIOPIA, 2017**

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ACRONYMS

AIDS- Acquired Immune Deficiency Syndrome

AOR-adjusted odds ratio

CI-Confidence Interval

ERB-Ethical Review Board

FMOH- Federal Minister of Health

HIV- Human Immune Virus

ICCMH – Integrated Community and Clinical Mental Health

LMIC – Low and Middle Income Countries

MDG- Millennium Development Goal

MSC- Master of Science

OPD-Out patient department

OR-Odds ratio

PHQ-Patient Health Questionnaires

SD-standard deviation

SPSS- Statistical Package for Social Science

WHO-World Health Organization

YLD-Years Lived with Disability

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Abstract

Back ground: Depression is a mental disorder that pervasive in the world and affects us all. It affects up to 50.6% in medical settings out patients in Ethiopia. While the disorder can be reliably diagnosed and treated in primary care, it's unrecognized and under managed (0 % detection rate in some medical settings).

Objective: To assess the prevalence and associated factors of depressions among adult in patients in medical and surgical outpatient departments in Dessie referral hospital, north eastern, Ethiopia, 2017

Methods: An institution based cross-sectional study was conducted from 10-15 March 2017 at Dessie referral hospital and comprised patients in the Medical and Surgical outpatient departments at the time. The sample size was determined using a single population proportion formula. Participants were selected using systematic random sampling techniques. The calculate sample size was 424 adult patients. The prevalence of depression was assessed using Patient Health Questionnaire-9. Descriptive statistics, bivariate and multivariate were performed using SPSS 20.

Results: Among the 414 study participants, 214(51.7%) were males. The mean age of the respondents was 39.01 (SD± 16) years. In this study, female were 2 times more likely to experience depression compared with male $P=0.012$ [AOR=1.926, 95% CI: 1.152, 3.221] and Participants who were divorced and widowed were 3 times more likely to have depression as compared with participants who were married $P = 0.03$ [AOR=3.076, 95% CI: 1.114,8.490)].

Conclusion and recommendation: The prevalence of depression among patients in medical and surgical OPDs in Dessie referral hospital was relatively high (39.1%). Depression had statistically significant association with age, sex, marital status, occupational status, chronic illness, substance use and family history of mental illness. The major implication of these study findings on the health system is the importance of ensuring support to primary health care services for early detection and referral of depression.

Key words: Depression; Prevalence; Associated factors; Medical and Surgical out patients.

1. INTRODUCTION

1.1 Back ground information

According to the World Health Organization's (WHO) definition, "Mental health is a state of well-being in which an individual can realize his or her own abilities, interact positively with others, cope with the stressors of life and study, work productively and fruitfully, and contribute to his or her family and community." It should be noted the definition does not refer exclusively to the absence of "mental illness", but also addresses the concept of "mental wellness"(1).

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. Moreover, depression often comes with symptoms of anxiety(2-5). These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide. Almost 1 million lives are lost yearly due to suicide, which translates to 3000 suicide deaths every day. For every person who completes a suicide, 20 or more may attempt to end his or her life(2, 3, 6).

Depressive episode involves symptoms such as depressed mood, loss of interest and enjoyment, and increased fatigability. Depending on the number and severity of symptoms, a depressive episode can be categorized as mild, moderate, or severe. An individual with a mild depressive episode will have some difficulty in continuing with ordinary work and social activities, but will probably not cease to function completely. During a severe depressive episode, on the other hand, it is very unlikely that the sufferer will be able to continue with social, work, or domestic activities, except to a very limited extent(2, 3).

While the global burden of depression poses a substantial public health challenge, both at the social and economic levels as well as the clinical level, there are a number of well-defined and evidence based strategies that can effectively address or combat this burden(2, 7).

The development of the national mental health strategy for Ethiopia represents the federal ministry of Health's (FMOH) commitment to address Ethiopia's needs for accessible, effective, sustainable, and affordable mental health services. In fact depression free society is important for MDG achievement(1).

On the other hand, psychiatric professionals in Ethiopia are few (fewer than 50 psychiatrists in a country with a population well above 80 million). Furthermore, depression is not well-recognized within the community as mental illnesses and case detection and treatment at health facility level also very low (7-10).

1.2 Statement of the problem

Depression is a mental disorder that pervasive in the world and affects us all. It is a significant contributor to the global burden of disease and affects people in all communities across the world. Today, depression is estimated to affect 350 million people. The world mental health Survey conducted in 17 countries found that on average about 1 in 20 people reported having an episode of depression in the previous year. One out of ten people suffer from major depression and almost one out of five persons has suffered from this disorder during his (or her) lifetime (one-year prevalence is 10% and lifetime prevalence 17%)(2).

Who gets depression varies considerably across the populations of the world. Lifetime prevalence rates range from approximately 3 percent in Japan to 16.9 percent in the United States, with most countries falling somewhere between 8 to 12 percent. While depression is the leading cause of disability for both males and females, the burden of depression is 50% higher for females than males. It also have link with chronic illness(3).

Depression is currently the leading cause of non-fatal burden when considering all mental and physical illnesses, accounting for approximately 10% of total years lived with disability (YLD) in Low and Middle Income Countries (LMICs)(1, 3, 11).

In Ethiopia, Depression is the leading non-communicable disorder in terms of burden. Indeed, in a predominantly rural area of Ethiopia, depression included in the top ten most burdensome conditions, out-ranking HIV/AIDS(7). The burden depression is up to 50.6% among patients in medical setting (12) ((13-17).

A particular tragic potential outcome of depression is suicide. Most people who die are depressed. 7.7person/100000/year completed Suicide in Ethiopia. These startling statistics show that depression have been overlooked as a major health priority in Ethiopia and other LMICs, and underscore the need for public health programs targeting depression(7).

In fact, Depression is important for achievement of MDG 6 (combating HIV/AIDS, malaria and other diseases). HIV/AIDS is commonly complicated by depression. In Ethiopia, over one-third (38%) of people receiving antiretroviral therapy are estimated to be suffering from undetected

depression. When depression is present in persons living with HIV/AIDS and/or tuberculosis, quality of life is reduced, adherence to medication is impaired and survival is decreased(1). The link between cardio vascular diseases, surgery, stroke, Alzheimer, Diabetic mellitus and depression also raise the burden of depression by hospitalization, slow recovery and disability (1, 13, 15, 18-21). It is also strongly associated with poverty, making them relevant to MDG 1 (eradicating extreme poverty and hunger). Persons with severe depression and their families are amongst the poorest in society. Findings from studies in Ethiopia shown strong associations between depression, unemployment and poverty(1, 5).

Although depression is common and it associated with a high burden due to disability and mortality, only a small percentage of these disorders are recognized and treated(4, 22-24). Data on depression in the medical and surgical patients in Ethiopia are scarce particularly in the study area. Therefore, the major aim of this study was to investigate the prevalence and associated factors leading to depression among adult in medical and surgical OPDs.

1.3 Significance of the study

Currently, Depression is the one of depression is the leading cause of disability worldwide in terms of total years lost due to disability on medical setting. Therefore, this study would be helpful to provide basic information for health care practitioners on prevalence of depression and factors associated to it among medical and surgical out patients. It might be also helped heath care provider to initiate early screening, diagnosing and management of depression in medical and surgical out patients based on the finding. Additionally it could be contributed to a body of knowledge to further study and other researchers who might be to conduct a study on related topic and also for organizations working on depression.

2. REVIEW OF LITERATURE

2.1 Prevalence of depression among medical and surgical out patients

According to WHO report 2012, one out of ten people suffer from depression and almost one out of five persons has suffered from this disorder during his (or her) lifetime (one-year prevalence is 10% and lifetime prevalence 17%)(2).

Studies conducted among out patients in France, China, Australia, revealed that the prevalence of depression was among 21%, 14.39% and 15.7% respectively (25-27).

Findings from community based studies conducted at Malaysia indicated that the prevalence of depression was 10.3%(28). Another community based cross sectional study conducted at North West Ethiopia showed that the prevalence of depression was 17.5%, while findings from Ethiopian national health survey and a review literature on prevalence and risk factors of depression in Ethiopia reported the prevalence of depression was only 9.1%, 6.8% respectively(11, 29, 30). Compared to general population, depression is more common in medical than in community settings and some studies reported that up to 50.6 % of the patients in general medical and surgical outpatient are depressed and require treatment(8, 23).

Hospital based studies at Karimnagar in Pakistan and Shariati in Tehran concluded prevalence of depression was high (70.9 % and 53 % respectively) in a hospital setting(16, 31). Similarly, more than half(53.6%) the participants of the study in tertiary care hospital Karachi, Pakistan reported depression (31). Another study on prevalence of depression among patients on medical and surgical wards of Chaudhry Rehmat Memorial Trust and Saira Memorial Hospitals Lahore Pakistan indicated prevalence depression was 51.2% in Medical and 53.6% in Surgical patients which mostly unrecognized by their clinicians(12).

Study on the prevalence of depression among out patients and its detection by primary health care workers at Matawale Health Centre in Malawi showed the prevalence of depression among patients attending the outpatients department was found to be 30.3% while detection rate of depression by clinician was 0%(32). Similarly, studies conducted in a primary care setting in Nigeria and Ugandan regional referral hospital indicated that the prevalence of depression

among patients attending the general medical hospital out-patients were 47.8 % and 60% respectively (33, 34).

According to findings from study conducted in Gonder referral hospital, 58.6% medical surgical patients had symptoms of depression. (23). Another study on prevalence of depression and associated factors among patients attending medical outpatient department in Adare Hospital, Hawassa, Ethiopia indicated among study subjects 24.5% were identified as having a depressive episode in the 2 weeks preceding the survey, while detection rate of depression by the clinician was 0%(35).

The cross sectional study done on the prevalence of depression and its determinants among adult patients admitted in governmental hospitals, Mekelle, Tigray indicated that the prevalence of depression 54.6% while males accounts 62.7% and female were 48.8%. Out of the total depression on study participants 54.2% had mild depression, 21.5% had moderate depression 7.2% had severe depression and 17% had very severe depression(8).

2.2 Associated factors of Depression among medical surgical out patients

Based on WHO 2012 report Worldwide, there are certain risk factors that make some persons more likely to get depression than others. This includes Being female, poverty, low education, genetics, exposure to violence, being separated or divorced, had chronic illness(2)

Studies across the world indicated that depression among medical surgical out patients associated with socio demographic, clinical and behavioral factors (20, 36-40).

Concerning to socio demographic variables, studies conducted in Ethiopia, Saudi, Pakistan, Iran, France, Sri lanka showed sex, age marital status, employment and educational status were associated with depression (11, 15, 25, 30, 42, 43).Odds ratios for depression were significantly higher for older age, divorced and widowed and unemployed. Income were significantly associated with depression in most studies(11, 16, 35) while few of the studies ignore its association with depression(23, 30).

According to study conducted in Gondar university hospital, northwest Ethiopia, patients who had formal education are less likely to have depression than those who are unable to read and write(23). Another study conducted on prevalence of depression and associated factors among patients attending medical outpatient department in Adare Hospital, Hawassa revealed that women were 1.6 times as likely as men to exhibit symptoms of depression and the likelihood of having depression symptoms was 3 times higher in those who were divorced (35).

Age and educational status were socio demographic variables showed significant association with depression on a cross sectional study done among adult patients in governmental hospitals, mekelle, tigray, Ethiopia[(8)] .

One of clinical predictor of depression was chronic illness. Studies conducted in Ethiopia, Nigeria, Uganda, Malawi, India, China and Iran agreed there association between chronic illness and depression (11, 20, 21, 23, 40, 44-47). Family history of mental illness is another clinical predictor of depression reported by studies. Those patients who had family history of mental illness were at high risk for depression (29, 33, 48, 49).

An important behavioral predictor variable for depression episodes is substance use (Khat chewing, alcohol drinking and cigarette smoking) as indicated by various studies conducted in Ethiopia, Nigeria and Uganda (21, 33, 50, 51). Patients who used tobacco and depression had significantly associated at [AOR=4, 95% CI (1.1, 15.28)]. The odds of having depression among who used tobacco were four times more likely than the odds of non users. Among patients who used alcohol in their lifetime had significant association with depression in [AOR=2.9, 95% CI (1.82, 4.69)]. The odds of having depression to alcoholic patients were three times more likely than the odds of non-alcoholic(22). khat chewing [OR = 10.07, CI: 5.57 - 18.25], cigarette smoking [OR= 3.15, CI: 1.51 - 6.58], and shisha usage [OR = 3.04, CI: 1.01 - 9.19] were significantly and independently associated with depression(36).

Conceptual frame work

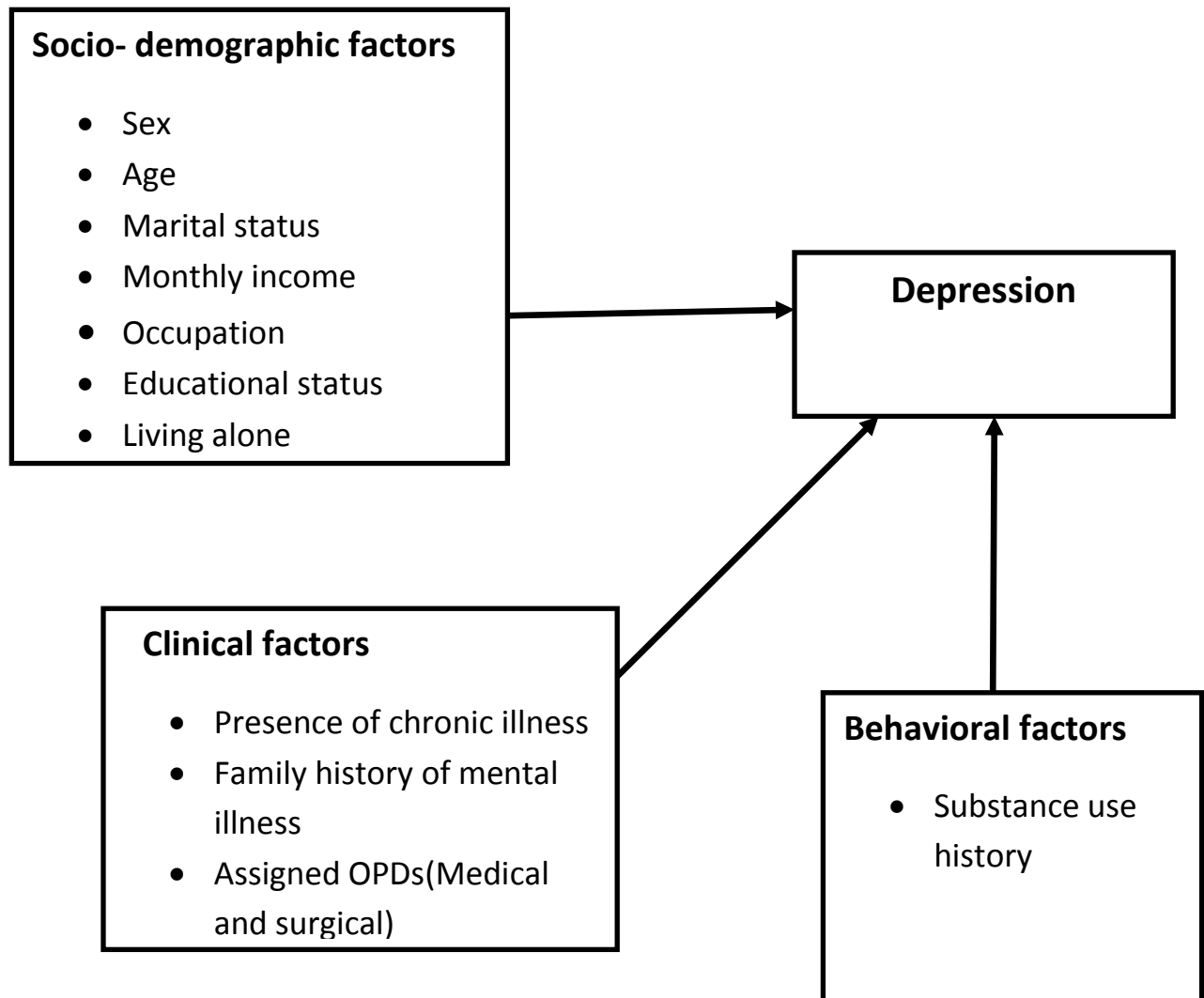


Figure 1: - Conceptual framework for factors affecting depression among medical and surgical OPDs patients in Dessie referral hospital developed through reviewing different literatures(5, 30, 32, 33, 35, 36, 38, 52)

3. OBJECTIVES OF THE STUDY

3.1 General objective of the study

- To assess the prevalence and associated factors of depressions among out patients in medical and surgical OPDs in Dessie referral hospital, North eastern,Amahara,2017

3.2 Specific objectives of the study

- To determine the prevalence of depression among out patients in medical and surgical OPDs in Dessie referral hospital, North eastern,Amahara,2017
- To identify factors associated to depression among out patients in medical and surgical OPDs in Dessie referral hospital, North eastern,Amahara,2017

4. METHODS

4.1 Study area

This study was conducted at Dessie referral hospital in Dessie city, which is the capital of South Wollo Zone of the Amhara National Regional State. It is found on the North east edge of north Central high land of Ethiopian, 400 kms to the North of Addis Ababa, at 11°15' latitude and 39° 40' E Longitude.

Dessie referral hospital emerged in 1954 E.C during the regime of Emperor Haile Silase. It is governmental hospital, which has Medical, Surgical, Gynecology and obstetrics, emergency and psychiatric OPDs. There are **3 medical OPDs and 2 surgical OPDs**, and one psychiatry clinic which run by four psychiatric nurses and two Msc psychiatric professionals according to data from Dessie referral hospital information desk office, 2017.

4.2 Study design and period

An institution-based quantitative cross sectional study was conducted from 10-25 March, 2017.

4.3 Source population

All Adult patients who were attended in Dessie referral hospital medical and surgical OPDs.

4.4 Study population

Those who were attending adult medical and surgical OPDs at Dessie referral Hospital during the study period and who fulfilled inclusion criteria and selected were considered as study population.

4.5 Inclusion and exclusion criteria

4.5.1 Inclusion criteria

- All patients in medical and surgical OPDs aged 18 years and older.

4.5.2 Exclusion criteria

- Those patients who were mentally or physically unable to give interview.

4.6 Study variables

4.6.1 Dependant variable

- Depression

4.6.2 Independent variable

- Age
- Sex
- Religion
- Occupation
- Ethnicity
- Monthly Income
- Marital status
- Living alone
- level of education
- Presence of chronic illness
- Family history of mental illness
- Substance use history
- OPDs(Medical and surgical)

4.7 Operational definition

Based on Patient Health Questionnaire- 9 (PHQ -9)

- Deperessed: PHQ -9 score ≥ 5
- Not deperessed : PHQ-9 less than or eequal to 4
- No depression: Patient Health Questionnaire 9 score was 0
- Minimal depression: Patient Health Questionnaire 9 score was 1-4
- Mild depression: Patient Health Questionnaire 9 score was 5-9
- Moderate depression: Patient Health Questionnaire 9 score was 10-14
- Moderately severe depression: Patient Health Questionnaire 9 score was 15-19
- Severe depression: Patient Health Questionnaire 9 score was 20-27

- Adult means those who are in the age group of 18 years and older
- Substance use history: A participant who will ever have a history alcohol drinking, Khat chewing and cigarette smoking.
- Presences of chronic illness: Presence of one or more diseases among hypertension, heart disease, cancer, diabetes, and stroke.

4.8 Sample size determination and sampling procedure

The sample size was determined using a single population proportion formula considering the following assumptions: standard normal distribution with confidence interval (CI) of 95% ($Z=1.96$), absolute precision or tolerable margin of error ($d=0.05$), and anticipated proportion of patients who experience depression =50 % (P) and added 10 % non response rate; so, the final sample size was 424.

$$n = \frac{(z\alpha/2)^2 \times p(1-p)}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.5(0.5)}{(0.05)^2}$$

$n = 385$ by considering 10% for non responses then, the final sample size will be 424.

All medical and surgical OPDs in Dessie referral hospital were included in study. The total number of patients who was attended in the hospital medical surgical out patients (3 medical and 2 surgical) over a month is 35000, per 2 week 1750 (1050 from medical out patients and 650 from surgical out patients). The average number patients attended each OPDs per day is 35. A systematic sampling technique used to select from 1750 patients and the final sample size become 424. The sampling fraction is: $1750/424 = 4$. Therefore, the sample interval is 4. We select the first individual with lottery method (random start at 3), Individuals are chosen at regular intervals (every 4th) and with same K selected 85 patients from the five OPDs interviewed by data collectors. (See fig.2)

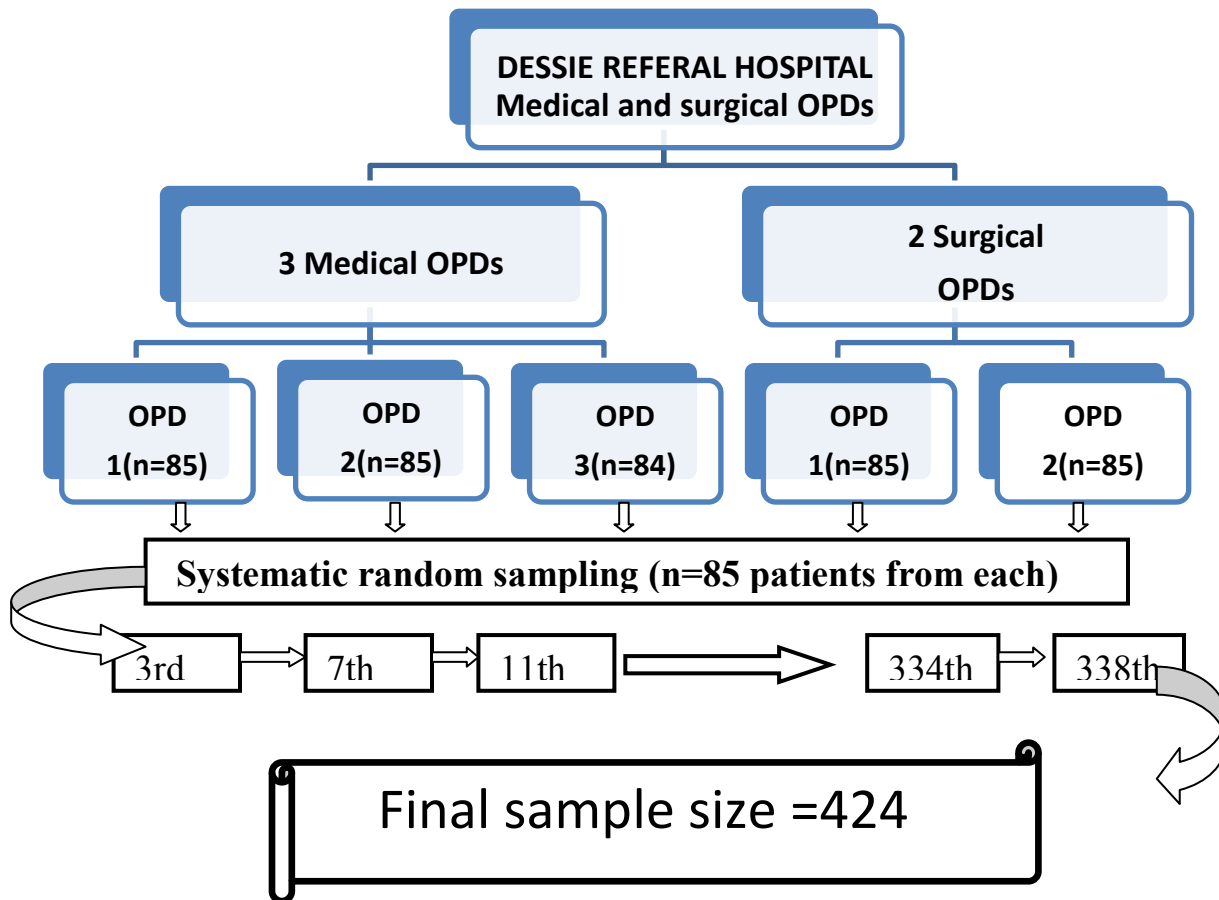


Figure 2 : - Schematic presentation of sampling procedure of the study of depression among medical surgical outpatients in Dessie referral hospital in 2017/18 (n=424)

4.9 Method of data collection

Data were collected by 10 clinical nurses using pretested interviewer administered questionnaire. Depression was assessed using the Patient Health Questionnaire 9. PHQ-9 is a 9-item questionnaire, commonly used to screen for symptoms of depression in outpatients. It was translated (local language Amharic) and validated in Ethiopia with sensitivity=86% and specificity=67% (53). It was an easy depression screening tool which was a brief questionnaire that scores each of 9 DSM-IV criteria for depression as “0” (not at all) to “3” (nearly every day). Patients were considered as depressed when their PHQ -9 score ≥ 5 . PHQ-9 scores of 5, 10, 15, and 20 represent mild, moderate, moderately severe and severe depression, respectively. A structured questionnaire was used to collect data on socio demographic characteristics, clinical and behavioral variables.

4.10 Data quality assurance

Two weeks prior to the actual data collection, the questionnaire was pre-tested on 5% of the sample among medical surgical out patient who were not included in the main study area, in Weldiya hospital. The purpose of the pre-test was to ensure that the respondents were able to understand the questions and to check the wording, logic and skip order of the questions in a sensible way to the respondents. Amendments were made accordingly after the pre-test. 10 clinical nurses who were received 2 days intensive training on data collection techniques was involved in data collection. Data collection was supervised, and each questionnaire was checked for completeness by the principal investigator on a daily basis.

4.11 Data processing and analysis

Data was entered into EpiData version 3.1 and imported to SPSS version 20 software package for data analysis. Descriptive statistics was done to identify the distribution of socio demographic, clinical and behavioral characteristics of the study participants. It was processed by using descriptive analysis, including frequency distribution, cross tabulation and summary measures Bivariate and multivariate logistic regression and odds ratio with 95% confidence interval was used to identify the associated factors with Depression. Variables with p-value (≤ 0.05) was used as the cut-off point and independent variables with p-value ≤ 0.05 in bivariate logistic analysis will be fitted in to multivariate logistic regression to identify independently associated factors in the final model. Finally, finding of study were presented on table, Chart and graph.

4.12 Ethical consideration

Ethical clearance was obtained from Addis Ababa University School of Allied Health science ethical review board. A formal letter was given and permission was obtained from Dessie referral hospital and respective OPDs. After a detail explanation of the purpose of the study, verbal and written consent was obtained from each study participants. Participants who were refused to participate in the study were not being forced and participants can withdraw from the study at any time. Those study participants who had depression based on PHQ 9 and suicidal

ideation symptom was linked to the respective health care provider for further diagnosis and treatments.

5. RESULTS

5.1 Socio demographic characteristics of the study participants

From a total of 424 participants recruited, 414 participated in the study while 10 unwilling to participate in the study, yielding the response rate of 97.7%. Among the 414 study participants, 214(51.7%) were males. The mean age of the respondents was 39.01 (SD± 16) years. More than half of the respondents, 248 (59.9%) were followers of Muslim, 160(38.6%) were orthodox Christianity and 6(1.4%) were protestants. The predominant ethnic group was Amhara 403(97.3%). Majority of the respondents 264(63.8%) were married, 254(61.4%) of the study participants were unemployed (see table 1).

Table 1: - The socio-demographic characteristics of medical surgical outpatients in Dessie referral hospital in 2017/18 (n=414)

Variables	Frequency (n=414)	Percent (%)
Sex		
Male	214	51.7
Female	200	48.3
Age		
18-30	170	41.1
31-40	85	20.6
41-50	65	15.8
51-60	48	11.7
>61	44	10.7
Ethnicity		
Amhara	403	97.3
Oromo	8	1.9
Afar	3	0.7
Religion		
Muslim	248	59.9
Orthodox	160	38.6
Protestant	6	1.4
Occupation		
Unemployed	254	61.4
Employed	160	38.6
Educational status		
Unable to read and write	149	36.0
Able to read and write	34	8.2
Primary	53	12.8
Secondary	80	19.3
Diploma	47	11.4
Degree and above	51	12.3
Marital status		
Married	264	63.8
Single	124	30.0
Divorced	26	6.3
Income		
>750 ETB	167	40.3
750-1200 ETB	111	26.8
<1200 ETB	136	32.9
Living alone		
No	301	72.7
Yes	113	28.3

Abbreviation: ETB Ethiopian Birr

5.2 Clinical, substance use and behavioral characteristics of participants

Out of the total participants, 161(38.9%) had chronic illness. Majority of the study participants 301(72.7%) had no history depression (Table 2).

Table 2: - Clinical, substance use and behavioral characteristics of participants

Variables	Frequency(n=414)	Percent (%)
OPD		
Medical	252	60.9 %
Surgical	162	39.1%
Chronic illness		
No	253	61.1%
Yes	161	38.9%
Family history of mental illness		
No	317	76.6%
Yes	97	24.4%
Substance use history		
No	297	71.7%
Yes	117	28.3%

Abbreviation: OPD outpatient department

5.3 The prevalence of depression

The overall prevalence of depression among medical surgical out patients was 39.1% when a cut-off score of PHQ -9 ≥ 5 was used (See fig. 3)

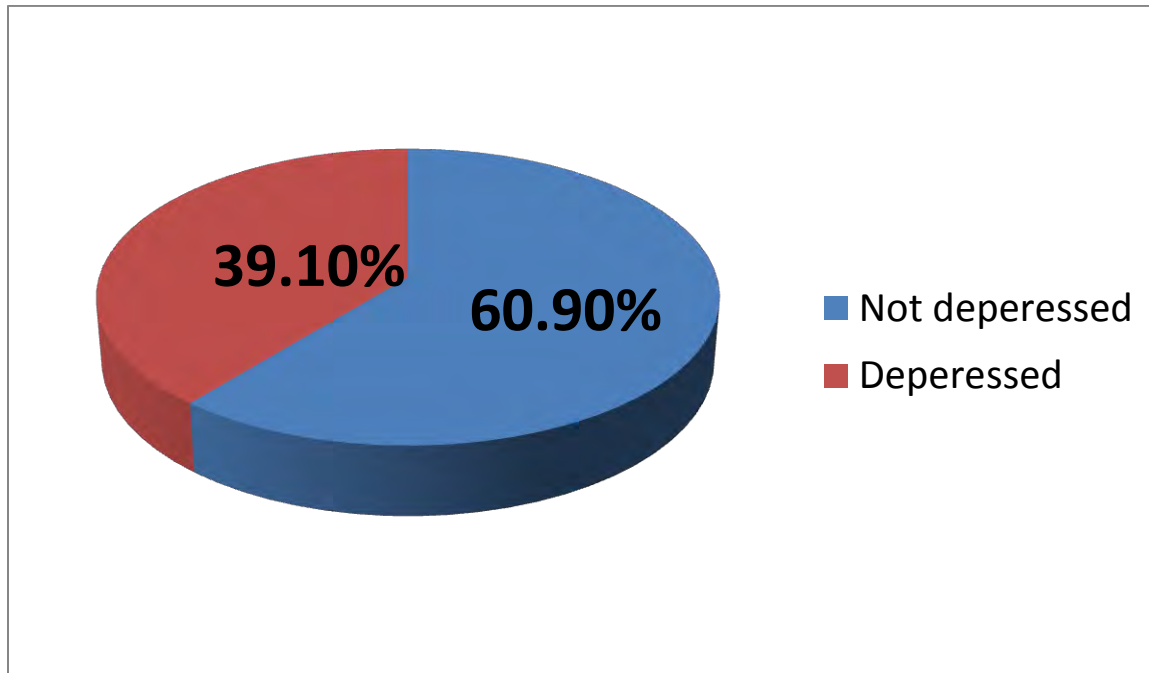


Figure 3: - Magnitude of depression among medical surgical outpatients in Dessie referral hospital in 2017/18 (n=414)

5.4 Severity of depression

From the total participants; 83(20.0%) fulfilled the criteria for mild, that was, PHQ9 score 5-9, 56(13.5%) for moderate, that was, PHQ 9 score 10–14, 18(4.3%) for moderately severe, that was PHQ9 score 15–19, and 5(1.2%) for severe, that was PHQ 9 score 20–27 form of depression two weeks prior to the study period respectively (refer fig.2).

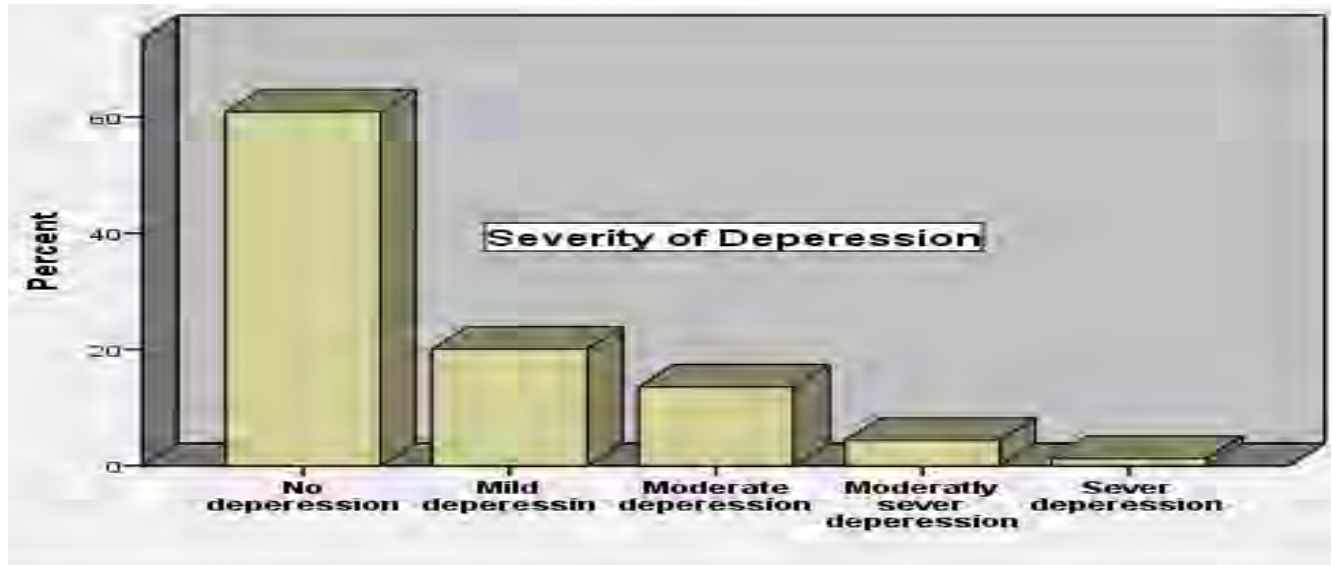


Figure 4: - Severity depression among medical surgical outpatients in Dessie referral hospital in 2017/18 (n=414)

5.6 Frequency of PHQ-9 depressive symptoms and their effect on day to day activity of study participants

From the total of nine items, feelings of tiredness (65.7%) and loss of interest (56 %) were the most common symptoms reported among participants (Table 2).

Table 3: - Symptom of depression measured by PHQ 9 among adult patients attended medical and surgical OPDs in Dessie referral hospital, north eastern Amahara, Ethiopia, 2017

PHQ 9 Symptoms	Frequency	Percent (%)
Loss of interest	232	56.0
Feeling down	200	48.3
Insomnia or hypersomnia	208	50.2
Feeling tired	272	65.7
Poor appetite or over eat	227	55.0
Feeling bad about yourself	160	38.7
Lack of concentration	185	44.8
Restlessness	141	34.1
Suicidal thought	96	23.2

Abbreviation: PHQ 9 Patient Health Questionnaires 9

Among participants who experienced depressive symptoms almost half of them reported that they had no any trouble on their life and day to day activities because of these symptoms (refer fig:3).

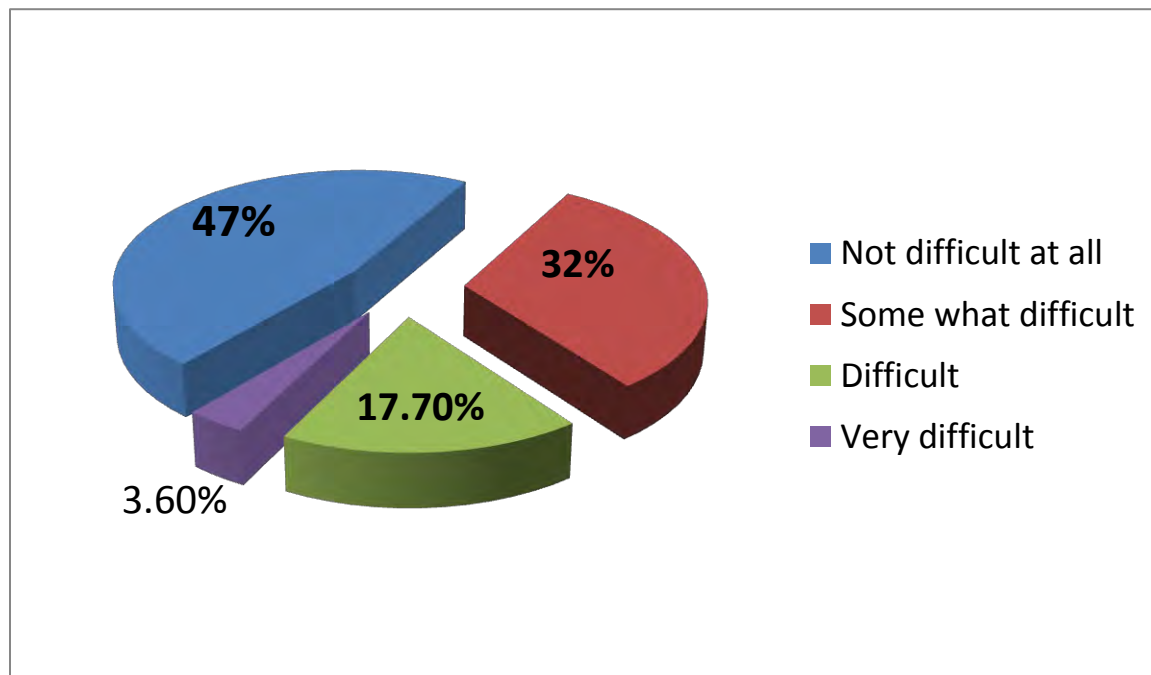


Figure 5: - figure that show how much depression symptoms affect day to day activities among medical surgical outpatients in Dessie referral hospital in 2017/18 (n=414)

5.7 Factors associated with depression

In this study, female were 2 times more likely to experience depression compared with male $P=0.012$ [AOR=1.926, 95% CI: 1.152, 3.221]) and Participants who were divorced and widowed were 3 times more likely to have depression as compared with participants who were married $P = 0.03$ [AOR=3.076, 95% CI: 1.114,8.490)].

A strong positive association was obtained during multivariate analysis between depression and age. Study subjects aged >61 years were 3.5 times more likely to develop depression as compared with those aged 18–30 years and patients in the age group of 51-60 had 2.7 times more odds to develop depression than patients with aged 18–30 years.

Age, sex, marital status, employment, family history of mental illness, chronic illness and substance use history, were a significant predictor of depression according to the finding of this study. There is no statically significant relationship between educational status, income, assigned OPDs (medical or surgical), and living alone (see table 4).

Table 4: - Covariates associated with depression among adult patients attended medical and surgical OPDs in Dessie referral hospital, north eastern Amahara, Ethiopia, 2017

Variables	<u>Depression</u>		OR(95% CI)	
	Yes	No	COR	AOR
Sex				
Female	92	108	1.752 (1.176-2.611)	1.926(1.152-3.221) **
Male	70	144	1	1
Age				
>61	27	17	3.706(1.859-7.387)	3.585(1.413-9.097) **
51-60	24	24	2.333(1.213-4.488)	2.749(1.135-6.658) *
41-50	25	40	1.458(.802-2.651)	1.269(.573-2.811)
31-40	35	50	1.633(.950-2.810)	2.152(1.000-4.456)
18-30	51	119	1	1
Marital status				
Divorced/ window/ separated	19	7	4.673(1.896-11.517)	3.076(1.114-8.490) *
Single	46	78	1.015(.653-1.580)	2.034(1.106-3.742) *
Married	97	167	1	1
Educational status				
Degree and above	19	32	.635(.331-1.219)	1.675(.675-4.156)
Diploma	13	34	.409(.200-.836)	.918(.345-2.447)
Secondary	19	61	.333(.182-.611)	.822(.375-1.803)
Primary	27	26	1.111(.593-2.079)	1.798(.815-3.969)
Able to read and write	12	22	.583(.269-1.264)	1.150(.453-2.917)
Unable to read and write	72	77	1	1
Occupation				
Unemployed	160	59	3.036(2.015-4.575)	4.405(2.541-7.636) ***
Employed	92	103	1	1
Income				
>1200 ETB	43	93	.581(.362-.933)	1.485(.782-2.819)
750-1200 ETB	45	66	.857(.527-1.394)	.0571 (.579-1.932)
<750 ETB	74	93	1	1
Substance use				
Yes	63	54	2.333(1.508-3.609)	2.834(1.612-4.981) ***
No	99	198	1	1
Family history of mental illness				
Yes	69	28	1.804(1.103-2.953)	2.041(1.130-3.688)***
No	183	134	1	1
Living alone				
Yes	59	54	2.100(1.354-3.259)	1.239(.701-2.190)
No	103	198	1	1
Chronic illness				
Present	96	65	4.185(2.745-6.38)	3.599(2.164-5.986) ***
None	66	187	1	1

*** P= 0.00, ** P< 0.02, *P< 0.05, P< 0.05 statistically significant

6. DISSCUSSION

This study revealed that the magnitude of depression was 39.1%. Similar findings were reported in many international studies [(44, 45, 51, 54)]. On the other hand, the current study finding was higher than the finding of studies done in Malawi (30.3%), Nigeria (23.1%), and India (30.1%) [(21, 26, 32, 44)] and lower than the studies done in Kenya(45%), Nigeria(47.8%),Nigeria(Logos Iceland)(50%) ,Saudi Arabia (49.9%), Pakistan(57.4%) and Iran(77.9%) [(12, 20, 28, 31, 33, 55)]. The prevalence of depression reported from the studies conducted in Jimma Hospital on TB out patients, Hawassa Adare Hospital on medical outpatients, Addis Ababa Black Lion Specialized Hospital and Saint Paulo's Hospital on Chronic Kidney Disease (CKD) patients, Addis Ababa at Black Lion Teaching and Zewuditu Memorial Hospitals on departments of neurology Parkinson's disease patients, Bahire dare Felege Hiwot hospital on DM patients and Mekelle governmental hospitals on Medical and surgical inpatients were 49%, 24.5%,29.4%, 57.4%, 40.4% and 56.4% respectively[(8, 14, 35, 50, 56, 57)]. This variation of findings across various studies might be due to cross-cultural limitations of diagnostic tools and reporting biases, differences in socio economic environments. Prevalence estimates also are likely to be influenced by stigma and discrimination.

Compared to general population, it can be assumed that patients are more likely to have depression, because of their health status .Comparing this study results with a Community based cross-sectional study done in Northwest Ethiopia, we found our rates to be higher across the board; mild cases (20% vs 10.7%), moderate (13.4 % vs 4.2%), moderate to severe cases (4.3% vs 1.9%), and severe (1.2 % vs 0.6%)[(11)]. The higher magnitude in the current study might reflect the particular psycho-social stresses experienced by this group of patients. Several factors can explain the much higher prevalence of depression among the patients in this study than in the general population. First, it was a survey among people attending medical surgical outpatient clinic, who are, by definition, less healthy than people in the general population. Furthermore, the patients in this study were interviewed in a hospital setting and at an outpatient clinic. Therefore, in addition to having major social problems, they may have had organic diseases, some of them chronic and anxiogenic.

Being female was significantly associated with depression $P=0.012$ [AOR=1.926, 95% CI: 1.152, 3.221]. Similar relation was reported in many studies conducted in Ethiopia, Kenya, Uganda, Nigeria, Pakistan, Portugal, Poland, Iran and France [23, 29, 33, 35, 39, 42, 46, 58]. This might be due to low social and economic status, cultural discrimination, sexual harassment at work place, the affective nature of females response to stressful life, and hormonal changes that leads female to be more depressed than male.

This study found a strong positive association between depression and age. Study subjects aged >61 years were 3.5 times more likely to develop depression as compared with those aged 18–30 years and the odds of having depression among patients in the age group of 51–60 were 2.7 times higher than patients with aged 18–30 years. The finding was supported by studies done in Ethiopia, Nigeria and Pakistan [(11, 29, 36, 42)]. The possible reasons may be inability to perform daily activities, loss of function and independence, sedentary life style, and occurrence of concomitant medical illness. It also due to aging leads to neurotransmitter level decline, which affects communication in nerve cells, which leads to common depression and increased the magnitude of physical co morbidity with advancing age.

Participants who were divorced and widowed were 3 times more likely to have depression as compared with participants who were married $P = 0.03$ [AOR=3.076, 95% CI: 1.114, 8.490]. It was in line with the studies conducted in India, Ethiopia and Nigeria which showed that being divorced and widowed is a risk factor for depression [23, 29, 36, 48]. The finding implies the unstable marital relationship and the loss of partner increase the risk of having depression episodes. This may be due to those who are married are more likely to have settled and share the burden of increasing living cost and show more positive health behaviors that may contribute to reduced depression. On the other hand, widowed subjects might have depression, when they loss the beloved one and feel insecurity and loneliness.

In agreement with reports of WHO 2012 and studies result from Ethiopia and Nigeria [(3, 33, 39)], this study indicated unemployment significantly associated with depression $P=0.000$ [AOR=4.4, 95% CI: 2.54, 7.63]. The possible explanation may be that unemployment leads to depression in a number of ways. When patients become unemployed, it is a stressful

event that affects their self-esteem. Employment generates income play a role on develop positive identity and improve the ability to follow healthy lifestyles, while unemployment leads to impoverishment, psychological stress and participate in health threatening coping behaviors such as Khat chewing, tobacco consumption, alcohol abuse and promiscuity.

Although causal relationships and biological mechanisms underlying associations of depression with chronic illness have yet to be clearly established, studies indicated there is significant association between depression and chronic illness [(29, 47, 49, 59)].consistently, result of this study reflected, patients with chronic illness were 3.6 times more likely to report depression as compared with those without chronic illness[AOR=3.6, 95% CI: 2.16,5.98)].The possible explanation may be that medical illness can cause tremendous life changes which may limit mobility and independency, interferes with doing enjoyable activities, and consequently decreases self-confidence that results in depressive symptoms. More ever, some medication used to treat chronic condition like DM, cardiac; Hypertension and renal diseases may cause depression.

An important behavioral predictor variable for depression episodes in this study is substance use as indicated by various studies[(11, 29, 36, 49)].However, some authors propose that depression episodes disappeared during Substance (Khat, Alcohol and Cigarette) use sessions [(60)]. But these depressive symptoms crop up on cessation of substance use. This might be due to the fact that substances contains psychoactive chemicals that have amphetamine like action in the brain which activates the release of mono aminergic neurotransmitters such as dopamine [(60)] in the limbic system, resulting in reward sensations but after the cessation of substance, it leads to depression.

On the other hand, other works in literature explained that depression and substance use show bidirectional relationship [(36)]. Substance use increases the risk of depression [(11, 36)]. Persons with depression tend to abuse substances and have difficulties when they try to stop. There are thousands of chemicals are present Khat, Alcohol and cigarette, of which one or several may affect mood in the same way as a group of antidepressant medications called monoamine oxidase inhibitors or (MAOIs) does [(60)]. These MAOIs effectively increase levels of specific neurotransmitters involved in the regulation of mood. Substance use, therefore, may be one way for depressed individuals to alleviate depressive symptoms.

Patients who had family history of mental illness were 2 times more likely to develop depression as compared to patients who had no family history of mental illness $P=0.018$ [AOR=2.041, 95% CI: 1.13, 3.68)]. The observed difference might be because of the presence of a family history of a range of psychiatric disorders was significantly associated with a slight reduction in general cognitive ability. Cognitive ability of a person again have link with genetics. This study speculates that genetic factors associated with a range of mental disorders.

In this study income, educational status, assigned OPDs (medical or surgical) and living alone had not statically significant association with depression as other studies found out [(8, 16, 22, 61)].

7. STRENGTHS AND LIMITATIONS OF THE STUDY:

7.1 The Strengths of the study

The use of contextually adopted validate and translated questionnaire, maximum sample size (P=0.5) and since there is limited study conducted in the area, it can contribute a lot as baseline information for future studies.

7.2 Limitations

Due to cross sectional study design establishing a temporal relationship between depression and significant associated factors like substance use and chronic illness is impossible.

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

The prevalence of depression among patients in medical and surgical OPDs in Dessie referral hospital was relatively high (39.1%) in comparison with other findings (32, 35, 48). Depression is more common to encounter a patient with health care facilities as compared to the general population. It had statistically significant association with age, sex, marital status, occupation, chronic illness, substance use and family history of mental illness.

8.2 Recommendation

The major implication of these study findings on the health system is the importance of ensuring support to primary health care services for early detection and referral of depression. Thus, Based on this study finding the following recommendation was given.

1. To Amhara Regional health bureau

- According to these findings, Amhara Regional Health bureau should be emphasized the management of co-morbid depression; because it is very common in people with chronic physical illness like HTN, DM and heart diseases.

2. Dessie referral hospital

- We recommend for the hospital that strong referral linkage between medical and surgical OPDs and psychiatry clinic has to be set functional and further integration of mental health care in to medical and surgical OPDs has to be considered

3. Health educator and Researcher

- Health educators should be provide continuous health information, education and communication towards raising awareness about the possibilities of co-morbidities and early sign and symptoms of depression has to be delivered for patients in regard to promoting early detection .
- Researchers should be further investigated and repeat the study with a comparison or control group to see the difference and the direction of relation.

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ANNEXES: INFORMED CONSENT AND QUSTIONARIES

Questionnaire ID: -----

I. Participant's information sheet

Greeting: Good morning/afternoon

My name is-----I am working on behalf of research conducted by Minilk Estifanos student of School of Allied health science, Addis Ababa University. I would like to ask few questions which take around 7 minutes Depression. Your genuine responses that you are going to give are very important to identify problems related to Depression and design programs. You are selected purposefully to be participant of this study if you give me consent after you have understood the following information sheet:

Title of the study: The prevalence of depression and associated factors among medical surgical out patients in Dessie referral hospital, north eastern, Amahara, 2017

Back ground of the study: Depression is a mental disorder that pervasive in the world and affects us all. It affects up to 50.6% medical out patients in Ethiopia. While the disorder can be reliably diagnosed and treated in primary care, it's unrecognized and under managed (0 % detection rate in some medical settings).

Objective of the study: To assess the prevalence of depression and associated factors among out patients in Dessie referral hospital, North eastern, Amahara, Ethiopia, 2017.

Benefit of the study: The participants will not gain any direct benefit, yet the result can be used as a baseline for further studies that can be done in this hospital and identify problems associated to Depression in Dessie referral hospital as well as in our country. The result will be disseminated to School of Allied health science Addis Ababa University, and Dessie referral hospital.

Risk of the study: The study has no any risk for the participants and interview will be private to make safe participants from any fear.

Rights of participants: Participating and not participation is the full right participants and they can stop participating in the study at any time. They can also skip any question which they want to respond. They can ask any question which is not clear for them.

Confidentiality: Any information forwarded will be kept private and her/his name will not be specified.

II. Informed consent

I have read this form or it has been read to me in the language I comprehend and understand all conditions stated above. Are you willing to participate in this study?

1.No (Say Thank you) 2. Yes → signature participants.....

Continue your interview

Name of principal investigator: Minilk Estifanos;

Address: Cell phone: 0920318791; E-mail: estifanos9090@gmail.com

Name of institution: School of Allied health science Addis Ababa University

Address: AA, Ethiopia

Tel. No:

Signature of the interviewer certifying that the informed consent has been accepted by the participant _____ Date _____

Date of interview (**in Ethiopian calendar**) ____/____/____

Result of interview: 1. Completed 2. Respondent not available

3. Refused. 4. Partially completed

Checked by supervisor, name _____ Signature _____ Date _____

III. Structured English version questionnaire

Part I: Socio-demographic characteristics of the participants

Q.No.	Question	Choices	Remark
101	sex	1.Male 2.Female	
102	How old are You?(age in years)	Enter _____	
103	What is your ethnicity?	1.Amhara 2.Afar 3.Oromo 88. Others (specify)_____	
104	What is your religion?	1.Orthodox 2.Muslim 3.Protestant 4.Catholic 88. Others (specify)_____	
105	What is your educational level?	1.Unable to read and write 2. read and write 3.Primary 4.Secondary 5.Diploma 6.Degree and Above	
106	What is your occupation?	1.Government employee 2.Nongovernmental employee 3.Self employed 4.Farmer 6.Student 88.Other (specify)_____	
107	What is your marital status?	1.Single 2.Married 3.Widowed divorced separated 88.Other (specify)_____ Others	
108	Income	Enter _____ birr per month	
109	Living alone	1.Yes 2.No	

Part II: Other characteristics of the participants

No	Questions	Participants possible answer	
201	Family history of Mental illness	1. Yes 2. No	
202	Substance use history	1. Yes 2. No	
203	OPDs	1. Medical 2. surgical	
204	Chronic illness	1. None 2. Present	

Part III. Questionnaire for depression screening of patient (PHQ-9)

Instructions: this interview consists of nine items. Please listen carefully what I am going to read each items of statement for you, and then tell me the **one number** in each item that best describes the way you have been feeling during the **past two weeks including today**.

No	Questions	Respondents possible answers			
301	Little interest or pleasure in doing things	Not at all	Several days	More than half the days	Nearly every day
302	Feeling down, depressed, or hopeless	0	1	2	3
303	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
304	Feeling tired or having little energy	0	1	2	3
305	Poor appetite or overeating	0	1	2	3
306	Feeling bad about yourself- or that you are a failure or have let yourself or your family down	0	1	2	3
307	Trouble concentrating on things, such as reading the newspaper or watching Television	0	1	2	3
308	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
309	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
310	If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____			

THANK YOU

I have finished my interview

If you have any question/concern on the study

8. አባሪ

የአማርኛ መረጃ መሰብሰቢያ መሳሪያ

በደሴ ረፈራል ሆስፒታል በሚገኙ የውስጥ ደዌ እና ቀዶ ህክምና ተገኝቶ ታካሚዎች ድብርት ና ተያያዥ ጉዳዮችን ለማጥናት የተዘጋጀ መጠይቅ

የመጠይቅ መታወቂያ ቁጥር

ሀ. የተሳታፊዎች የጥናቱ መረጃ መግለጫ

ሰላምታ: እንደምን ዋልክ ወይም እንደምን አደርክ

ስሜይባላል፡፡ በአዲስ አበባ በህክምናና ጤና ሳይንስ ኮሌጅ የፂተኛ ድግሪ ተመራቂ ተማሪ የሆነው ሚኒሊክ እስጢፋኖስ በሚያካሂደው ጥናት ላይ የመረጃ ሰብሳቢ ነኝ ፡፡ ድብርትን አስመልክቶ እስከ 7 ደቂቃ የሚወስድ ጥያቄዎችን ልጠይቀዎ እወዳለሁ የእርስዎ መላሽ ድብርት ጋር ተያይዞ ያሉ ችግሮችን ለመለየት እና መፍትሄ አቅጣጫዎችን ለማስቀመጥ እንደሚያግዝ አምናለሁ፡፡ እርስዎ የተመረጡት በሌላ ምክንያት ሳይሆን በኢጋጣሚ እንደሆነ ልነግርዎት እወዳለሁ፡፡ ጥናቱን አስመልክቶ አንዳንድ ነገር ግልፅ ለማድረግ ያህል፡-

የጥናቱ ርዕስ:- በደሴ ረፈራል ሆስፒታል በሚገኙ የውስጥ ደዌ እና ቀዶ ህክምና ተገኝቶ ታካሚዎች ድብርት ና ተያያዥ ጉዳዮች የሚል ሲሆን የጥናቱ መነሻም የውስጥ ደዌ እና ቀዶ ህክምና ተገኝቶ ታካሚዎች ድብርት በትክክል ያልተልየና እና ተገቢው ህክምና እተደረገልት አይደልም ፤ በዚህም የተነሳ በደሴ ረፈራል ሆስፒታል በሚገኙ የውስጥ ደዌ እና ቀዶ ህክምና ተገኝቶ ታካሚዎች ድብርት ና ተያያዥ ጉዳዮችን ማወቅ ከድብርት ጋር ተያይዞ የሚመጡ ችግሮችን ለማስወገድ የሚጠቅሙ መፍትሄዎችን ለመቅረፅ አንደ መነሻ ሆኖ ያገለግላል የሚል ነው፡፡

የጥናቱ አላማ:- በደሴ ረፈራል ሆስፒታል በሚገኙ የውስጥ ደዌ እና ቀዶ ህክምና ተገኝቶ ታካሚዎች ድብርት ና ተያያዥ ጉዳዮችን መመርመር ነው፡፡

የጥናቱ ጥቅም:- ምን እንኳን በጥናቱ ላይ የሚሳተፉ ሰዎች በቀጥታ የሚያገኙት ጥቅም ሳይኖርም ከጥናቱ የሚያገኘው መረጃ በደሴ ረፈራል ሆስፒታል በሚገኙ የውስጥ ደ እና ቀዶ ህክምና ተ ጥ ታካሚዎች ላይ ድባቱ(ከድብርት) ጋር ተያይዘው የሚመጡ ችግሮችን ለመቅረፍ ከማስቻል በላይ በሀገር ደረጃ የራሱ አስተዋጽኦ እንደሚኖረው ይታመናል፡፡

የጥናቱ ስጋት፡- በጥናቱ ላይ መሳተፍ ለተሳታፊዎች ምንም የሚያመጣው ችግር የሌለ እና የሚሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀ ነው፡፡

የተሳታፊዎች መብት፡- በጥናቱ ላይ መሳተፍም አለመሳተፍም ሙሉ መብት ያላቸው ሲሆን ተሳታፊዎችም በማንኛውም ጊዜ እራሳቸውን ከጥናቱ ማግለል ይችላሉ፤ ከዚህም በተጨማሪ በጥናቱ ላይ ማንም አይነት ጥያቄዎች ካሏቸው የበለጠ እንዲብራራላቸው መጠየቅ ይችላሉ፡፡

የጥናቱ ሚስጥራዊነት ፡-ማንኛውም መረጃ ሚስጥራዊነቱ የተጠበቀ ሲሆን በመጠይቁ ላይ የተሳታፊዎችን ስም መግለፅም አስፈላጊ አይደለም፡፡

ለ. የስምምነት ቅጽ

ከላይ ያነበብኩልዎትን መረጃ በሚገባ ከተረዱት በጥናቱ ላይ ለመሳትፍ ፈቀደኛ ነዎት ?

1) አይደለሁም (አመሰግናለሁ)

2)አዎ (ቃለ መጠይቁ ይቀጥላል)

ጥናቱን የሚያካሂደው ተማሪ ፡- ሚኒሊክ እስጢፋኖስ

ስልክ 0920318791

የተጠያቂው ፊርማ ቀን.....

ቃለ መጠይቁ የተካሄደበት ቀን.....

የቃለ መጠይቁ ዉጤት

1) የተፈጸመ

2) መልስ ሰጭ የለም

3) መልስ ሰጭው ፍቃደኛ ያልሆነበት

4) በክፊል የተሞላ

ያረጋገጠው ተቆጣጣሪ ስም.....ፊርማ.....ቀን.....

ክፍል 1:-ማህበራዊና ስነህዝባዊ መረጃዎችን በተመለከተ የተዘጋጀ ቃለ መጠይቅ

ቁ	ጥያቄ	የኮድ ክፍፋል
101	ዖታ	1. ወንድ 2. ሴት
102	ዕድሜህ/ሺ/	_____ ዓመት
103	ብሔር/ብሔረሰብህ /ሺ/	1. አማራ 4. አሮሞ 2. ትግሬ 5. ሌላ ይግለጹ _____ 3. አፋር
104	ሃይማኖትህ/ሺ/	1. ኦርቶዶክስ 4. ካቶሊክ 2. መስሊም 5. ሌላ ካለ ይግለጹ _____ 3. ፕሮቴስታንት
105	የትምህርት ደረጃ	1. ማንበብና መፃፍ የማይችል/ትችል 2. ማንበብና መፃፍ የሚችል/ትችል 3. 1 ^ኛ ደረጃ 4. 2 ^{ተኛ} ደረጃ 5. ዲፕሎማ 6. ድግሪ እና ከዚያ በላይ
106	የስራህ/ሺ/ ሁኔታ	1. የመንግስት ሰራተኛ 4. አርሶ አደር 2. የመንግስታዊ ያልሆነ ቅጥር 5. ተማሪ 3. የግል ስራ 6. ስራ ፈላጊ 7. ሌላ ካለ ይግለጹ _____
107	የጋብቻህ/ሺ/ ሁኔታ	1. ያገባ 3. ፈት 2. ያላገባ 4. ሌላ ካለ ይግለጹ _____
108	የወር ገቢ	ብር
109	የሚኖሩት ብቻውን ነው	1. አዎ 2. አይደለም

ክፍል 2:- የተሳታፊዎች ተዛማጅ ታሪክ በተመለከተ

201	ከቤተሰብዎችህ መካከል ተመሳሳይ ችግር ያጋጠመው ስው አለ?	1.አው 2.የለም
202	ጫት ሴጋራ መጠጥ(አልኮል) ተጠቅመህ ታውቃለህ/ሽ?	1. አዉ 2.አላውቅም
203	የምርመራ ክፍል?	1. የውስጥ ደዌ 2.የቀዶ ህክምና
204	<u>የቆየ ህምም አለበዎት?</u>	1.አው 2.የለም

ክፍል 3 ፡ ቀድሳቱ ስርጭትን በህመምተኞች ላይ መኖሩን ለማውቅ የተዘጋጀ መጠይቅ

እባክዎን የማነበውን እያንዳንዱን ጥ በጥሞና ያዳምጡ እና በለፉት ሁለት ሳምንታት ውስጥ በይበልጥ እርስዎን የሚሰማዎትን ይመልሱ፡፡					
ቁ	ጥያቄዎች	የኮድ ክፍፍል			
		0.በፈጽሞ 1.ከሰባት ቀናት ያነሰ 2.ከሰባት ቀናት በላይ 3.ከሞላ ጎደል በየቀኑ			
301	ነገሮችን ሲሰሩ ፍላጎትዎ ወይም የሚያገኙት ደስታ በጣም ትንሽ(እምብሃብ)ነበር?	0	1	2	3
302	የትክክል፣ የበታችነት፣የጭንቀት፣የመቶበር ወይም ተስፋ የመቁረጥ ስሜት ነበረብዎት?	0	1	2	3
303	እንቅልፍ የመተኛት፣ተኝቶ የመቆየት ችግር ወይም ከመጠን በላይ የመተኛት ችግር ነበረብዎት?	0	1	2	3
304	ድካም የመሰማት ወይም አቅም የማነስ ሁኔታ ነበረብዎት?	0	1	2	3
305	የምግብ ፍላጎት አለመኖር ወይም በጣም ብዙ የመብላት ችግር ነበረብዎት?	0	1	2	3
306	ስለራስዎ መጥፎ ስሜት ተሰምቶት ወይም አልተሳካልኝም ብለው አስበው ፤ወይም ቤተሰብን አሳፈርኩ ብለው አስበው ነበር?	0	1	2	3
307	ነገሮች ላይ ሀሳብዎትን መሰብሰብ ወይም ልብ የማለት ችግር ነበረብዎት፤ ለምሳሌ ጋዜጣ ሲያነቡ ወይም ቴላቪዥን ሲመለከቱ?	0	1	2	3
308	ከተለመደው ውጭ እረፍት የማጣት፤ወዱያ ወዱህ የማለት ወይም በተቃራኒው ሌሎች ሰዎች ለገነዘቡት በሚችሉት ሁኔታ ቀስ ብል የመናገር ወይም የመንቀሳቀስ ችግር ነበረብዎት?	0	1	2	3
409	ብሞት ይሻላልወይም እራሴን በሆነ መንገድ ብጎዳ ይሻላል ብለው ያሰቡበት ጊዜ ነበር?	0	1	2	3
310	ጠቅላላ ድምር=_____				
	ከላይ የጠቀስናቸው ችግሮች አጋጥሞዎት ከነበሩ፤ ችግሮቹ ስራዎትን እንዲይሰሩ የቤተሰብዎት ኃላፊነት እንዲይዙ፤ እራስዎን መጠበቅ ወይም ከሌሎች ሰዎች ጋር ባለዎት ግንኙነት ለእርስዎ ምን ያህል አስቸጋሪ(አዳገኝ)ነበሩ?	ምንም ችግር አልፈጠርም..... በመጠኑ ችግር ፈጥረዎል..... በጣም ተቸግረለሁ..... እጅግ በጣም ተቸግረለሁ.....			

አመሰግናለሁ!!!

ቃለ- መጠይቁንጨረሻለሁ፡፡

ማንኛውም ሀሳብ ካለዎት ሊሰጡኝ ይችላሉ፡፡

DECLARATION

I, the undersigned, declared that this thesis is my original work and has not been presented for a degree in this or any other university and all source materials used for the thesis has been fully acknowledged.

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