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# Prevalence of Depression and Associated Factors Among Elderly People in Womberma District, Northwest, Ethiopia

Nebiyu, Mulat

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**BAHIRDAR UNIVERSITY COLLEGE OF MEDICINE AND  
HEALTH SCIENCE SCHOOL OF PUBLIC HEALTH  
PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS  
AMONG ELDERLY PEOPLE IN WOMBERMA DISTRICT,  
NORTHWEST, ETHIOPIA.**

**BY**

**NEBIYU MULAT (BSC)**

**A THESIS TO BE SUBMITTED TO THE DEPARTMENT OF HEALTH  
SERVICE MANAGEMENT AND HEALTH ECONOMICS, SCHOOL OF  
PUBLIC HEALTH, COLLEGE OF MEDICINE AND HEALTH SCIENCE IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
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**BAHIRDAR UNIVERSITY COLLEGE OF MEDICINE AND  
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<b>FULL TITLE OF THE THESIS</b>	<b>PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG ELDERLY PEOPLE IN WOMBERMA DISTRICT, NORTHWEST, ETHIOPIA, 2020.</b>
<b>STUDY AREA</b>	<b>WOMBERMA DISTRICT</b>
<b>STUDY PERIOD</b>	<b>March 10/2020 - April 08/2020</b>

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I hereby certify that I have supervised, read, and evaluated this thesis titled “prevalence of depression and associated factors among elderly people in Womberma district by Nebiyu Mulat” prepared under my guidance. I recommend the thesis be submitted for oral defense.

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Signature

Date

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## ABSTRACT

**Background:** Depression is a common mental disorder that affects many elderly people. It is the commonest and the most reversible mental health problem in elderly people. It results an increased risk of suicide. The elderly people is neglected, their problems are overlooked and no efforts are made to mitigate their suffering. It is both underdiagnosed and undertreated in primary care settings.

**Objective:** To assess the prevalence and associated factors of depression among elderly people in Womberma District, North West Ethiopia.

**Methods:** A community based crosssectional study was conducted from March 10/2020 - April 08/2020. From 2269 study population 959 study participants were selected by using computer generation method from selected kebeles. Geriatric depression scale item 15 was used to conduct face-to-face interview. The EPI data version 3.1 software was used for data entry and statistical package for social science version 23 for analysis. Variables with p-value less than 0.20 in the bivariable analysis was entered to the multivariable analysis. Adjusted odds ratio with 95% confidence interval was reported and statistical significance was declared at P-values < 0.05.

**Results:** The prevalence of depression among elderly people was found to be 45% [95% CI: 41.7% - 48.5%]. Being female [AOR = 1.60, 95% CI [(1.15-2.23)], (age  $\geq$ 75 years [AOR=7.95, 95% CI (4.98-12.68)], age 70-74 years. [AOR=5.52, 95% CI (3.52-8.66)], age 65-69 years [AOR=2.39, 95% CI (1.54-3.70)]; divorced [AOR=2.53, 95% CI (1.59-4.03)], widowed [AOR=2.65, 95% CI (1.61-4.34)]; poor social support [AOR=3.32, 95% CI (1.77-6.23)] and known chronic disease [AOR=1.91, 95% CI (1.30-2.81)] were significantly associated with depression.

**Conclusion and recommendation:** Forty-five percent of elderly people were found to be depressed, factors such as; age, female sex, divorced, widowed, known chronic disease and poor social support were significantly associated with depression. Better emphasis to the management of chronic physical illness like hypertension, diabetes mellitus and heart diseases for elderly people.

**Key words:** Prevalence, Depression, Elderly people, Womberma District, Ethiopia.

## LIST OF ABBREVIATIONS AND ACRONYMS

AOR .....	Adjusted Odds Ratio
ASSIST .....	Alcohol Smoking and Substance Involvement Screening Test
BDU .....	Bahir Dar University
CES-D .....	Centre Epidemiological Studies Depression Scale
CI .....	Confidence Interval
COR .....	Crude Odds Ratio
DCR .....	Diagnostic Criteria
GDS .....	Geriatric Depression Scale
HIV/AIDS .....	Human Immune Virus /Acquired Immune Deficiency Syndrome
ICD .....	International Code of Disease
OPD .....	Out Patient Department
SPSS .....	Statistical Package for Social Science
USA .....	United States of America
WHO .....	World Health Organization
ZDSRS .....	Zung Depression Self-Rating Scale

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# 1. INTRODUCTION

## 1.1. Background information

Depression is a mental disorder characterized by feelings of depressed mood, loss of interest or pleasure in activities, and loss of energy at least 2 weeks. The elderly people presents changes in appetite or sleep, feelings of worthlessness, or recurrent thoughts of death or suicidal ideation. Older age is the last stage in the life processes of an individual (1). It is the commonest and the most reversible mental health problem in elderly people and results an increased risk of suicide (2).

The World Health Organization(WHO) considers elderly people in developing countries age older than 60 years, and in developed countries age older than 65 years. Ageing is a normal process, which is associated with physical, social and psychological changes. In 2050, 80% of older people will be living in low- and middle-income countries (3).

In sub-Saharan Africa, families traditionally had been the primary care and support for older people with the majority of older adults residing with their adult children and their families. These intergenerational living arrangements stem from strong cultural traditions of intergenerational reciprocity as well as a near nonexistence of old age pension programs and other form of social assistances that enable them to live more independently (4).

There is growing evidence that increased mortality of working age adults from HIV/AIDS epidemic weakening of the support network of older people and leading to increased proportion of elders living alone and in skipped generation –households with older adult and young children in the absence of a working age adult (5).

Older men who live to 60 can expected to live an additional 15 years and older women an additional 16 years after their 60th birthday. Approximately 83 percent of Ethiopia’s population lives rurally, but migration to urban areas for work, family support and medical care increasingly bring older persons to city centers. Regardless of location, Ethiopia’s elder people are vulnerable to poverty, food insecurity, limited access to social and health services, and limited options for livelihoods diversification and security (6).

## 1.2. Statement of the problem

Globally, the world's population is rapidly ageing and according to WHO, between 2015 and 2050, the number is expected to increase from 900 million to 2 billion of people aged 60 and above. Mental and neurological disorders among elder adults account for 6.6% of the total disability for this age group and approximately 15% of adults aged 60 and over suffer from a mental disorder mainly depression (7).

The overall prevalence rate of depressive disorders among the elderly estimated to range between 10% and 29% depending on cultural situations (8). Suicide is the worst complication of depression, with an estimated 800,000 people died due to suicide every year. Depression occurs in people of all genders and ages, and it is projected to be the first cause of years lived with disability in 2020 (9).

Elderly adult faces many problems which include physical problems, psychological problems, nutritional problems like anemia and malnutrition, socio-economic problems. These health problems lead to various disabilities found that about one third of elderly are suffering from psychiatric illnesses and depression alone account for more than 50%. There is growing evidence that chronic diseases may lead to depression (10, 11).

Various factors were reported to be associated with the development of depression. Being unmarried, being female, low educational status, low income, living alone, bereavement, and illnesses were reported attributes of depression which could present variably in different contexts (12). Increasing age there is progressive decline in normal functioning of body resulting in poor mobility, impaired vision and hearing ability, decline in memory, inability to control certain normal functions. There is increased burden of diseases affecting different systems with advancement of age, apart from that economic loss, dependency on others, loss of self-worth perpetuate sufferings of elder age (13).

There are remarkable indicators that depressed elderly people often experience low cognitive functioning status. Cognitive decline in elderly is characterized by impairments in daily activities including memory, decision-making ability, planning, organization and mental flexibility (14).

A population based study showed that depression amplifies the functional disabilities caused by physical illness, interferes with treatment and rehabilitation and further contributes to a decline in

physical and cognitive functioning of a person (15). The consequences of psychiatric morbidity especially depression, if it is not identified and treated early, can be severe. These include suicide, loss of jobs and relationships, loss of productivity and deterioration in physical health(16).

In low-income countries where malnutrition and infectious diseases are common, mental disorders, which were regarded as not life threatening is given very low priority. However, it is a well-known fact that mental illness leads to poverty, malnutrition, infection and debility; consequently, to increased risk for mortality (17).

The most vulnerable age group is the elderly people. At the same time this population is neglected, their problems are overlooked and no efforts are made to mitigate their suffering (18). Depression is both under diagnosed and undertreated in primary care settings. Symptoms of it in elderly people are often overlooked and untreated because they coincide with other late life problems (2).

In most developing countries, depression issues are neglected within health care policy, planning and only limited resources are allocated to mental health services. There are many studies done on magnitude of late life depression and its associated factors in developed countries (19, 20).

In Ethiopia, mental illness is the leading non-communicable disorder in terms of burden. Indeed, in a predominantly rural area of Ethiopia, mental illness comprised 11% of the total burden of disease. Despite the priority and launching national mental health policy of Ethiopia, interventions against the problem are still limited (21).

In addition, compared with other health services, evidence of depressive disorders tends to be relatively poor. Thus, the level of its burden among elder adults is not well addressed in Ethiopia. Lack of adequate evidence about depression in elderly people is a factor that contributes to poor or in- consistent mental health care at community level (22).when studies done in Ambo and Harar town the population was urban but at the study area the populations are both urban and rural (23, 24).

Similarly, there is no study conducted on depression and associated factors among elderly population in Ethiopia particularly the study area. So, this study aims to assess the prevalence

and associated factors of depression on individuals whose age is 60 years and above in both urban and rural community of Womberma District.

### 1.3. Significance of the study

Depression is one of the leading cause of disability worldwide in terms of total years lost due to disability among elderly people. Therefore, it might be used as an input for planning and designing effective interventions against the problem. It is used to timely screening of depressive symptoms like other chronic medical illness and implementing appropriate treatment in a strengthened manner. It is important to prepare health providers to meet the specific needs of elder people.

The study finding might be serving as a baseline for researchers in order to done further studies. It helps to create awareness of the community on the existing problem. Additionally, after the study is done, the patient was benefited on early diagnosis and treatment of depression. This will be reduced bad outcome of depression.

## 2. LITERATURE REVIEW

### 2.1. Prevalence of depression among elderly people

The Study conducted in USA (with a total of 19,114 individuals aged  $\geq 65$  years by using CES-D-10 score  $\geq 8$ ,  $\geq 10$ ), Southern Portugal (one urban and one rural catchment area according to ICD-10 criteria,) and Turkey (on 482 elders age  $>65$  by GDS 15) which were community based cross-sectional study found that the prevalence of depression were 5%, 4.4 % and 18.5% respectively (19, 25, 26).

The cross-sectional study conducted in (Brazil and Portugal) and China on the sample consisted of (211 Brazilian seniors and 342 Portuguese seniors) and 411 consecutively hospitalized patients aged over 60 years who were selected by stratified sampling technique revealed that the prevalence of depression was (49.76% and 61.40%) and 32.8% respectively by using GDS-15 with a cut point of five (27, 28).

Studies conducted in Brazil and China using GDS-15 and GDS-30 on a sample of 1656 and 1910 elder people showed that 23.9% and 10.5% of the participants had depression respectively (29, 30). A study, conducted among 229 and 690 elderly aged 60 years and above residing in the urban and rural India who were selected by systematic random and cluster sampling technique using a geriatric depression rating scale (GDS 30), the prevalence of depression was found to be 75.5% and 35.5% respectively (31, 32)

A study that was conducted in Pakistan and India among those aged 60 years and above from 284 community dwelling elders and 162 consenting participants who were selected through a convenience and multi staged cluster sampling using GDS 15, the prevalence of depression was 16% and 52.5% respectively (32, 33).

A community based cross-sectional study conducted which include 299 elderly living in Vietnam using Zung self-rating depression scale (ZSDS) revealed that depression among the elderly was 66.9% (34). The community based study which was conducted in Sri Lanka among elders (60–74

years) who permanently reside in the town assessed by using GDS 15 Sinhalese version (cut-off score  $\geq 8$ ) among 1283 subjects showed that the overall prevalence of depression was 13.9% (35).

A study conducted in Nepal on 185 elders using GDS 15 showed that the prevalence of depression was 57.8% (36). Another cross-sectional study undertaken in Nepal 203 elderly people residing in old age homes who were selected by random sampling technique using GDS 15 showed that, 47.3% of population had depression (37). Study conducted in Mexico the prevalence of depression was 43% by using the cutoff point of depression (38).

A community based study conducted in Sudanese among 300 elderly people age 60+ years which was carried out stratified sampling the prevalence was 41.1% using GDS 15 (39). In a facility based cross-sectional study conducted in South Africa using GDS 15 among 255 geriatric outpatients, who was randomly selected showed that the prevalence of depression was 40% (40).

The descriptive, cross-sectional study conducted in rural communities in rural Nigeria and Assiut city, Egypt among 600 and 487 elders with age 60 years and above, selected using a multi stage sampling technique assessed by GDS 15 found that the prevalence of depression was 44.7% and 44.4 % respectively (41, 42). The institutional based descriptive, cross-sectional survey carried out two care centers in Addis Ababa among 116 elderly participants with age 60 years and above, purposefully selected by using GDS 15 found that the prevalence rate of depression was 68.1% (43).

A cross-sectional study conducted in Ambo and Harar Ethiopia from a sample of 800 and 344 respondents who were selected by systematic random sampling by using GDS 15 revealed that 41.8% and 28.5 % of the participants had depression respectively (23, 24) .

## 2.2. Factors associated with depression of elderly people

### 2.2.1. Socio demographic factors

A community based cross-sectional studies, age was significantly associated with depression in Brazil, India, Vietnam and Sirilanka (29, 31, 34, 35). Similarly, Sex was significantly associated with depression in Turkey, Brazil, India, Sirilanka and Egypt respectively (26, 29, 31, 35, 42). Educational status was significantly associated with depression in rural Nigeria, in which illiterate people are more depressed than educated people but had not significant association in Indian study (41).

A community based cross sectional study conducted in Mannisa Turk among 546 individuals elderly people using GDS 15 residence were significantly association with depression (44).An institution based crossectional studies that included 211 elderlies from Brazil and 342 from Portugal, all residing in long stay institutions using GDS 15 reported that marital status was a significant predictor of geriatric depression (45). In Sri Lanka study, being unmarried, separated, divorced, or widowed were positively associated with depression (35). An association between depression and widowed was found in a study conducted in south Africa (46).

In a community based crossectional study in Ambo Ethiopia showed that female sex, trading, living with children and retirement were associated with depression among older age people (23). Similar study in Harar Ethiopia revealed that being female, not married, no formal education, elderly who attended primary school, living alone were factors associated with depression (24).

#### 2.2.2. Clinical, perceived psycho-social and substance use factors

According to a community based crossectional study done in China by including 1910 old age people and in Sri Lanka among 1283 elders (60–74 years) revealed that factors such as, low social support, chronic diseases, loneliness and good relationship with neighbors were significantly associated with depression (35, 47). Similarly, use of sleep medications, lack of support from social and physical disability were significant predictors for depression in Italy (48).

A community-based, cross-sectional analytical study done in Sri Lanka among 1283 elders (60–74 years) revealed that, limitation in performing one or more instrumental activities of daily living unsatisfactory partner relationship were significantly related with depression (35). In accordance with a study conducted in USA among 19,114 old people, current smoking and using alcohol in the past were significantly associated with depression (19).

A community based, crossectional study done in Harar Ethiopia revealed that those who had chronic illness, elderly with cognitive impairments were factors associated with depression whereas occupational status and family history of depression were not a predictor of depression (24). However, the study done in Ambo town, Ethiopia reported that depression had no significant association with substance use, clinical and psychosocial factors (23).

### 2.3. Conceptual framework of depression among elderly people

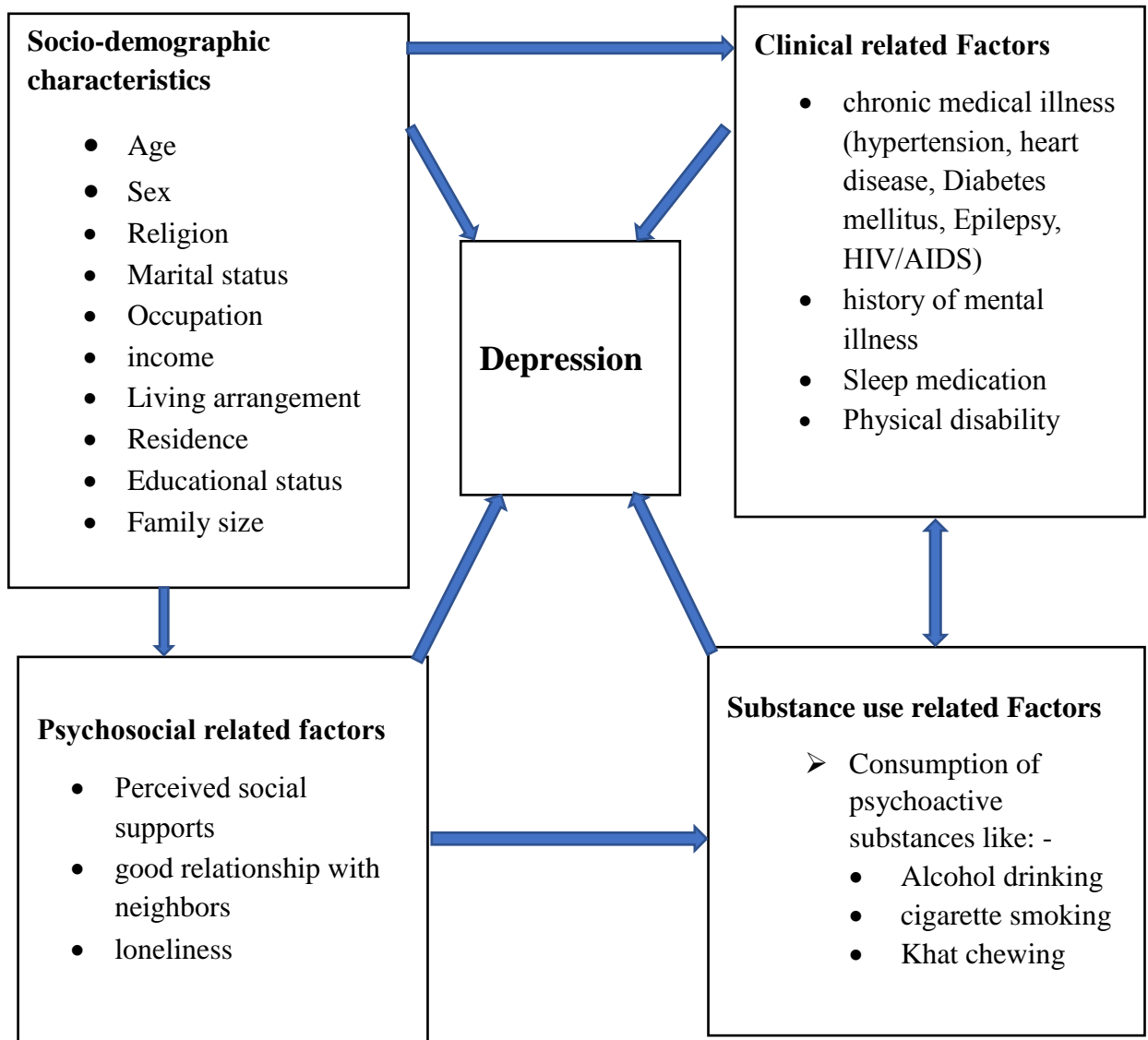


Figure 1: Conceptual framework adapted from literatures on the Prevalence and associated factors of depression among elderly people, in Womberma District, North West, Ethiopia, 2020.

### 3. OBJECTIVES

#### 3.1. General objective

To assess depression and associated factors among elderly people in Womberma District, Ethiopia, 2020.

#### 3.2. Specific objectives

To determine depression among elderly people in Womberma District, Ethiopia, 2020.

To identify factors associated with depression among elderly people in Womberma District, Ethiopia, 2020.

## 4. METHODS AND MATERIAL

### 4.1. Study design and period

A community based cross-sectional study was conducted. The data collection period was from March 10/2020 - April 08/2020.

### 4.2. Study area

This study was conducted in Womberma District which is found in west Gojjam zone of Amhara region, and located 427 km from Addis Ababa, 172km from Bahirdar, the capital city of Amhara region and 42 km from fenote selam, west Gojjam zonal town. The district has 21 kebeles of which 19 are rural and 2 kebeles are urban and there are 30785 households in the district.

The total population of the District is 132375 of which the rural population is 116412 and the urban population is 15963, based on sex, 66849 are female and 65526 are male. And a total of 5457 are with age of  $\geq 60$  years from community health information system/CHIS/ registration (49). The weather condition is 52% woynadega, 48% kola. There are 5 health centers, 19 health posts, 3 private medium clinics and 10 private primary clinics and 5 drug stores. But there is no OPD for mental health service in any of health institutions (49).

### 4.3. Source population and study population

#### 4.3.1. Source population

All elderly people who live in Womberma District.

#### 4.3.2. Study population

All elderly people live in Womberma District of selected kebeles.

### 4.4. Inclusion criteria and exclusion criteria

#### 4.4.1. Inclusion criteria

Elderly people with age 60 years and above who live in the district and available during the study period.

#### 4.4.2. Exclusion criteria

Elderly people with unable to communicate were excluded from the study.

## 4.5. Sample size determination and procedure

### 4.5.1. Sample size determination

The sample size of this study was determined by a single population proportion formula with the assumptions of 95% confidence interval, 5% margin of error, and taking the prevalence of depression ,41.8% which is a community based study done in Ambo town (23).

$n=(Za/2)^2 (P) (1-P)/d^2= (1.96)^2(0.418) (0.582) /0.0025 =373.8\approx 374$ , then by using design effect 2 which is  $374*2=748$  and Adding 10 percent for non-response rate =75. Therefore, the final sample size of the first objective was  $748 +75=823$ .

For the second objective sample size was calculated as follows: Sample size determination for associated factors using Epi info stat calc, by considering the following assumptions case to control ratio, power, AOR and 95% CI.

Table 1: shows sample size determination for factors associated with depression by using Epi info in womberma District, North West, Ethiopia, 2020.

	Factors	Ratio	Power %	CI %	AOR	Percent outcome in unexposed	Sample size
1	Sex/ reference= male /	1:1	80	95	1.72	37.95	436
2	Marital status/married vs. single/reference= married/	1:1	80	95	4.78	35.65	56
3	Occupation/employed vs. retired/reference= employed/	1:1	80	95	3.94	32.4	70
4	Occupation/employed vs. merchant/reference= employed/	1:1	80	95	2.44	32.4	156
5	Living arrangement/spouse vs. children/ reference= children/	1:1	80	95	3.19	35.2	98

The largest sample size in the second objective is 436. Then, by using design effect 2 which is  $436*2 = 872$  and adding 10 percent non-response rate =87. So,  $872 +87= 959$ . The sample size of the second objective is greater than the sample size of the first objective. Therefore, the final sample size was 959.

#### 4.5.2. Sampling technique and procedure

A multistage sampling technique was used. First, the kebeles were classified as 2 urban and 19 rural kebeles. Then 50% takes from urban and 40% of from rural kebeles) was selected by using simple random sampling technique.

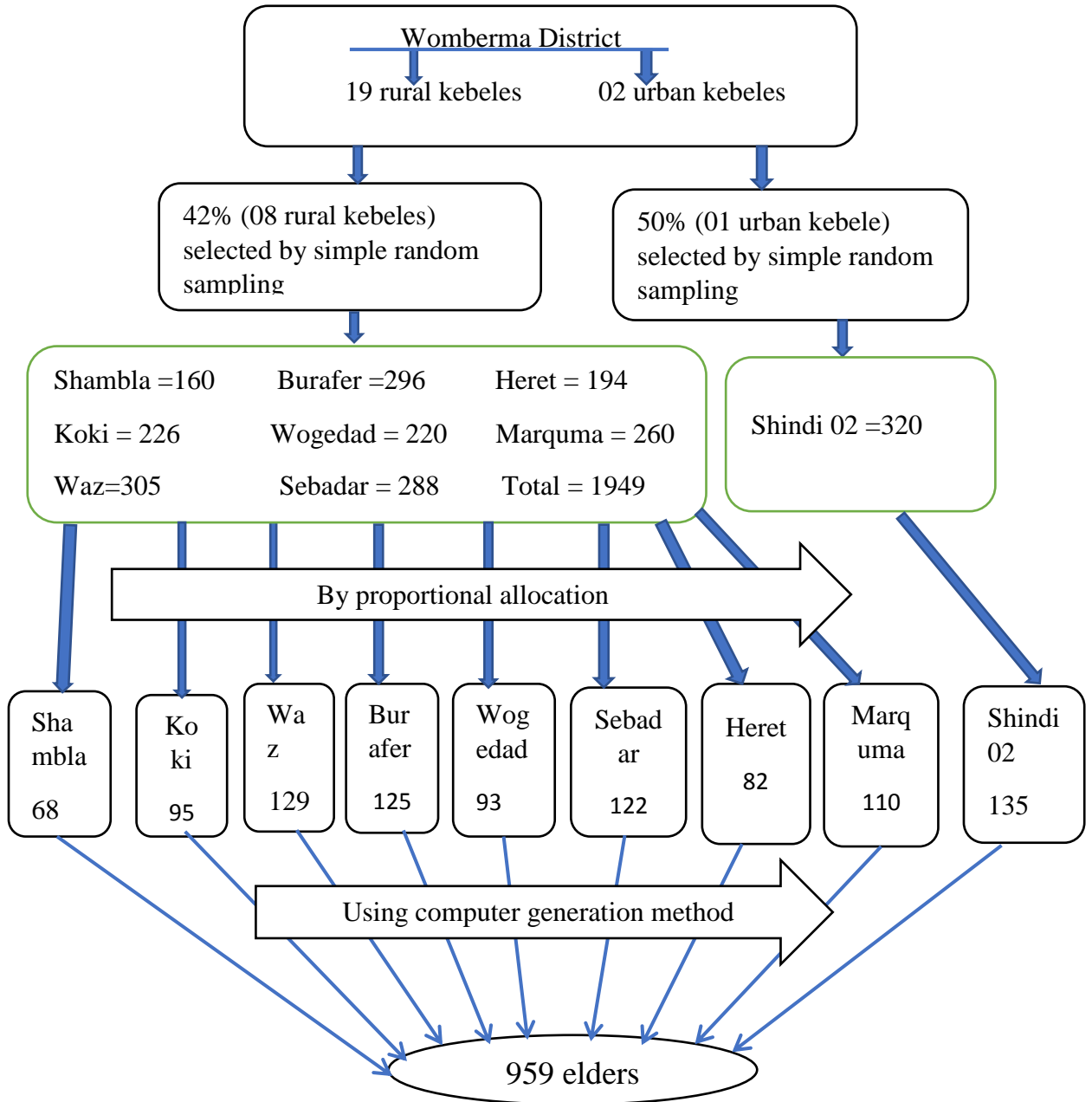


Figure 2: Schematic presentation of sampling procedure on prevalence of depression and associated factors among elderly people in Womberma District, North West Ethiopia, 2020.

## 4.6. Study variables

### 4.6.1. Dependent variable

Depression

### 4.6.2. Independent variables

Socio demographic characteristics: - Age, sex, Ethnicity, Marital status, occupation, income, religion, Living arrangement, Educational status, Family size, residence.

Clinical, Psychosocial and substance use related factors: - chronic medical illness (hypertension, heart disease, diabetes mellitus, epilepsy, HIV/AIDS), social support, good relationship with neighbors, Loneliness, past history of mental illness, Consumption of psychoactive substances like alcohol drinking, cigarette smoking, and kchat chewing; sleep medication, Physical disability.

## 4.7. Operational Definitions

Elder age: - those participants who are older than or equal to 60 years old age was considered as elder age people (3).

Depression: - it was measured by 15 items of geriatric depression scale and depression was operationalized as not depressed if they score below five and depressed if they score five and above. Scores of 0-4 are considered as normal, 5-8 indicate mild depression; 9-11 indicate moderate depression; and 12-15 indicate severe depression (50, 51). In Geriatric depression scale 15 items of five questions are negative worded questions. So, if participants respond as yes, it is recoded as “0” and if no, it is coded as “1”. On the other hand, positive GDS item 15 questions were label as if yes label as “1” and if no, label as “0”.

Perceived social support: - Social support has been described as support accessible to an individual through social ties to other individuals, groups, and the larger community. Perceived social support was operationalized as the following by using Oslo-3 scale and individuals score, 3-8 as Poor social support, Moderate social support if they score 9-11 and Strong social support if they score 12-14 (52).

Substance use: - Alcohol, tobacco, and khat use was measured using the WHO Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) (version 3.1)(53). The alcohol,

smoking and substance involvement screening test risk score ranges from 0 to 31 for tobacco smoking, and 0 to 39 for alcohol drinking and khat chewing. The risk score of the respondents obtained for alcohol is categorized into 'low' (0 to 10), 'moderate' (11 to 26) or 'high' risk (27+), for tobacco products 'low' (0 to 3), 'moderate' (4 to 26) and 'high' risk (27+) and for khat 'low' (0 to 3), 'moderate' (4 to 26) and 'high' risk (27+) (53).

Wealth index: is a composite measure of the cumulative living standard of a household. It is calculated using data on a household's ownership of set of assets, such as animals, television, radio, lands, televisions, bicycles, and cars (54).

#### 4.8. Data collection tools and procedures

Socio-demographic characteristics, wealth index, clinical, substance use and psychosocial factors of elderly people were collected through face to face interviews. Alcohol, smoking and substance involvement screening test was designed for use across different cultural settings. The instrument's psychometric properties have been tested using data from multiple countries, including low, middle, and high income countries and shown to be valid, reliable and easy to administer across settings (55). Psychoactive substance use were assessed if the participants used substances like alcohol, khat, cigarettes in the preceding last three months by using ASSIST (53).

We had also assessed clinical conditions that might contribute to depressions such as hypertension, diabetes mellitus, heart diseases, epilepsy and HIV/AIDS. Geriatric depression scale item 15 has been extensively tested and validated in low and middle-income countries such as India, Nepal, and other Asian countries (11, 37, 56). Geriatric depression scale item 15 was used to assess the presence of depression among elderly people has good sensitivity and positive predictive values for diagnosis of major depression consisting of 15 questions (57).

The data was collected from study participants by face to face interview from house to house. The questionnaire was developed in English and translated into local language (Amharic) by language translator and translated back to English to keep the consistency prior to the actual data collection. Data were collected by seven clinical nurses who currently work in health centers and was supervised by two public health officers.

#### 4.9. Data processing and analysis

The questionnaire was coded and entered into Epi-Data version 3.1 and exported to SPSS version 23 for further analysis. Descriptive statistics, such as frequencies, prevalence and measure of central tendency according to nature of data were presented. Binary logistic regression technique was used. Variables with less than 0.20 p-values in the bivariable analysis were fitted to the multivariable logistic regression. Odds ratio with 95% CI was calculated and statistical significance was considered at P-values <0.05 in the multivariable logistic regression. Variable inflation factor was used to check multicollinearity between independent variables and chi square was used. Model fitness was checked by using Hosmer and Lemeshow goodness of fit test (p value 0.394), tables, graphs and texts were used for data presentation.

#### 4.10. Data quality assurance

The questionnaire was pre-tested on 5% of the sample size in adjacent Woreda Burie to check understandability of the questionnaires. One-day training was given to data collectors and supervisors on the study instrument, data collection procedure and the ethical principles of confidentiality. Two more additional visits were made if a respondent was not found in the first visit then replaced by other respondents. The collected data were reviewed and checked for completeness before data entry, but if incomplete data was present it was removed at data entry.

#### 4.11. Ethical consideration

Ethical clearance was obtained from the institutional review board of BDU College of Medicine and Health Sciences. A letter of cooperation was delivered to Womberma District Administration Office in order to get a letter of permission for rural and urban settings. Anyone who is not willing to participate in the study would not be forced to participate. Written informed consent was obtained from each study participant. The study participants were also provided information about the objectives and expected outcomes of the study. Information obtained from individual participants was kept secure and confidential. The benefit from this study was giving information for early diagnosis and treatment but there is no harm to respondents to participate in this study.

## 5. RESULTS

### 5.1. Socio-demographic characteristics

A total of 941 participants were involved with a response rate of 98.1%. Half of (50.8%) were females. The mean age of the participants was 69.04 (SD  $\pm$  6.602) years. More than half (55.5%) were married, 880(93.5%) were followers of orthodox, 520 (55.3%) living with their spouses, while 328 (34.8%) were living with their children. The majority, 860(91.4%) of the participants had no formal education. Most of the participants (85.6%) were rural residents. More than two third (73%) of the respondents were farmers. Around one fifth (20.1%) of the respondents were richest.

Table 2: Socio-demographic characteristics of elderly people at Womberma District, North West, Ethiopia, 2020 (n = 941)

Variables	Categories	Frequency	%
Sex	Male	463	49.2
	Female	478	50.8
Age	60-64 years	256	27.2
	65-69 years	249	26.4
	70-74 years	225	24
	$\geq$ 75 years	211	22.4
Residence	Urban	135	14.4
	Rural	806	85.6
Religion	Orthodox	880	93.5
	Muslim	55	5.8
	Protestant	6	0.7
Educational status	No formal education	859	91.4
	Primary education	55	5.8
	Secondary and above	27	2.8
marital status	Married	523	55.5
	Single	12	1.3
	Divorced	181	19.2
	Widowed	225	24
Living arrangement	Spouse	520	55.3
	Children	328	34.8
	Alone	93	9.9
Occupational status	Farmer	692	73.5
	Retired	74	7.8
	Merchant	19	2
	Others	156	16.7
Wealth index	Poorest	188	19.9

	Poor	189	20
	Medium	186	19.7
	Rich	188	20.3
	Richest	190	20.1
Family size	One	78	8.3
	Two	195	20.8
	Three	212	22.6
	Four	227	24
	Five and above	229	24.3

## 5.2. Clinical, perceived psychosocial support and substance use

The majority, 910(96.7%) of the respondents had no family history of mental illness. Two hundred three (21.6%) had a history of known chronic disease, of which 117 (57.6%) were hypertensive cases. The majority, (98.4%) of the respondents had no sleep medication. But majority,838 (89%) of the respondents had good relationship with neighbors. Eight hundred thirty-five (88.7%) of respondents had ever used alcohol but 922(98%) of respondents had no ever used tobacco smoking. More than half of the participants (70%) had moderate level of health risk of khat. Half of the participants, (50%) had perceived poor social support, while (8.6%) had strong social support. All of the respondents were not used drugs by injection for non-medical use.

The prevalence of depression among elderly people was found to be 45% [95% CI: 41.7% - 48.5%]. From depressed elderly people 268(63%) were mildly depressed 93(22%) were moderate depression, while 63(15%) of them elderly people had severe depression.

Table 3: Clinical, perceived social support and psychoactive substance use of elderly people at Womberma District, North West, Ethiopia, 2020 (n = 941)

Variable	Categories	Frequency	%
Family history Mental illness	No	910	96.7
	Yes	31	3.3
Known chronic disease	No	738	78.4
	Yes	203	21.6
Sleep medication	No	926	98.4
	Yes	15	1.6
Physical disability	No	918	97.6
	Yes	23	2.4
Good relationship with neighbors	No	103	11
	Yes	838	89

Feeling of loneliness	No	807	86
	Yes	134	14
Perceived social support	poor social support	472	50
	Moderate social support	390	41.4
	Strong social support	79	8.6
Depression classification	Mild depression	268	63
	Moderate depression	93	22
	Severe depression	63	15
Ever used tobacco	No	922	98
	Yes	19	2
Level of tobacco risk	Low	7	37
	Moderate	8	42
	High	4	21
Ever used alcohol	No	106	11.3
	Yes	835	88.7
Level of alcohol risk	Low	483	57.8
	Moderate	334	40
	High	18	2.2
Ever used khat	No	891	94.6
	Yes	50	5.3
Level of khat risk	Low	11	22
	Moderate	35	70
	High	4	8

This figure shows that frequency and percentage of known chronic disease of elderly people.

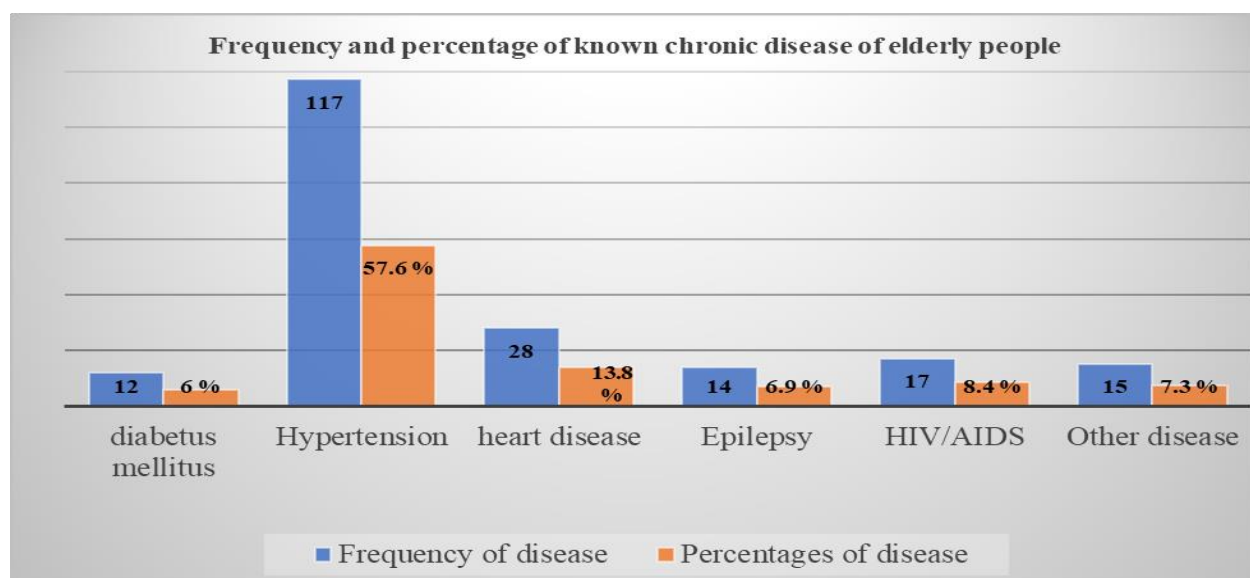


Figure 3: Frequency and percentage of known chronic disease by type of the illness among those elderly people with previous history of chronic disease in Womberma District, North West, Ethiopia, 2020.

This figure shows that percentage of depressed and not depressed among elderly people.

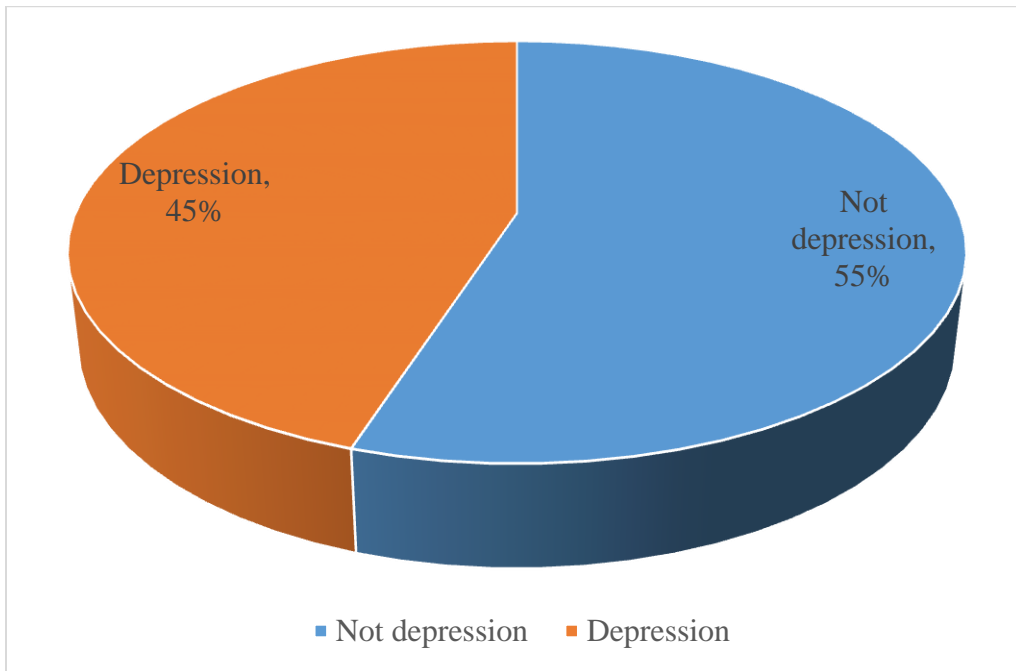


Figure 4:: Percentages of depression among elderly people in Womberma District, North West Ethiopia, 2020.

### 5.3. Factors associated with depression

In this study factors such as: - sex, age, marital status, occupation, family size, living arrangement, physical disability, sleep medication, good relationship with neighbors, loneliness, ever tobacco used, having known chronic disease, and social support were scored P value less than 0.20 in bivariable analysis. Being female, age, divorced, widowed, having known chronic disease and poor social support were significantly associated with depression in multivariable analysis.

Female elderly people were 1.6 times to develop depression compared to males [AOR = 1.60, 95% CI [(1.15-2.23)]. Age greater than or equal to 75 years were eight times more likely [AOR=7.95, 95% CI (4.98-12.68)], 70-74 years were 5.52 times more likely [AOR=5.52, 95%

CI (3.52-8.66)] and 65-69 years 2.4 times more likely [AOR=2.39,95% CI (1.54-3.70)] to develop depression compared to 60-64 years old age.

Being divorced elders were 2.53 times more likely to develop depression compared to marrieds [AOR=2.53, 95% CI (1.59-4.03)] and widowed elders were 2.65 times more likely to develop depression compared to marrieds [AOR=2.65, 95% CI (1.61-4.34)].

Elderly people who had known chronic disease were two times more likely to develop depression with its counter parts [AOR=1.91, 95% CI (1.30-2.81)]. Elderly people who had perceived poor social support were three times to develop depression compared to strong social support [AOR=3.32, 95% CI (1.77-6.23)].

Table 4: Simple and multiple logistic regression analysis of depressive disorder among elderly people in Womberma District, North West, Ethiopia, 2020 (n = 941).

Variables	Categories	Depression		COR(95%CI)	AOR(95%CI)	P value
		Yes	No			
Sex	Female	257	221	2.06(1.58-2.67)	1.60(1.15-2.23)	<b>0.005*</b>
	Male	167	296	1	1	
Age	>= 75 years	142	69	7.88(5.19-11.96)	7.95(4.98-12.68)	<b>&lt;0.001**</b>
	70-74 years	138	87	6.07(4.05-9.10)	5.52(3.52-8.66)	
	65-69 years	91	158	2.20(1.48-3.28)	2.39(1.54-3.70)	
	60-64 years	53	203	1	1	
Occupational status	Retired	41	33	1.67(1.03-2.70)	0.70(0.38-1.28)	0.247
	Merchant	6	13	0.62(0.23-1.65)	0.41(0.13-1.30)	0.131
	other(/gov/t,NGO /daily labor/	82	74	1.49(1.05-2.11)	0.62(0.37-1.02)	0.064
	Farmer	295	397	1	1	
marital status	Single	4	8	1.06(0.31-3.59)	0.82(0.16-4.19)	0.820
	Divorced	112	69	3.46(2.43-4.91)	2.53(1.59-4.03)	<b>&lt;0.001**</b>
	Widowed	141	84	3.57(2.58-4.96)	2.65(1.61-4.34)	
	Married	167	356	1	1	
Family size	Five and above	99	130	0.50(0.29-0.84)	2.11(0.47-9.38)	0.322
	Four	96	131	0.48(0.28-0.81)	1.57(0.35-6.91)	0.551
	Three	83	129	0.42(0.25-0.72)	1.20(0.27-5.38)	0.806
	Two	99	96	0.68(0.39-1.15)	1.68(0.37-7.52)	0.493
	One	47	31	1	1	
Living arrangement	Children	173	155	1.89(1.42-2.50)	0.85(0.56-1.30)	0.469
	Alone	58	35	2.80(1.78-4.42)	1.30(0.32-5.29)	0.712
	Spouse	193	327	1	1	
Known chronic	Yes	126	77	2.41(1.75-3.32)	1.91(1.30-2.81)	<b>0.001*</b>
	No	298	440	1	1	

disease							
Physical disability	Yes	14	9	1.92(0.82-4.49)	1.86(0.62-5.53)	0.263	
	No	410	508	1	1		
Sleep medication	Yes	4	11	0.43(0.13-1.38)	0.28(0.06-1.17)	0.083	
	No	420	506	1	1		
Good relationship with neighbors	No	56	47	1.52(1.00-2.29)	1.17(0.70-1.95)	0.540	
	Yes	368	470	1	1		
Feeling of loneliness	Yes	72	62	1.50(1.04-2.16)	1.00(0.62-1.61)	0.972	
	No	352	455	1	1		
Perceived social support	poor social support	276	196	4.15(2.42-7.12)	3.32(1.77-6.23)	<b>&lt;0.001**</b>	
	Moderate social support	128	262	1.44(0.83-2.49)	1.24(0.66-2.34)	0.498	
	Strong social support	20	59	1	1		
Ever used tobacco	Yes	6	13	0.55(0.21- 1.47)	0.39(0.12-1.27)	0.120	
	No	418	504	1	1		

\* p value <0.05, \*\* p value <0.001, Hosmer and Lemeshow goodness of test (p-value is 0.394).

## 6. DISCUSSION

The prevalence of depression in this study was higher than a community based cross-sectional studies done in Ambo (41.8%), Harar (28.5%) and China (10.5%) [(23, 24, 30)] respectively. This variation might be due to different reasons; like in China tool variation as the study used GDS 30 to screen depression and most of the participants were married and live with their spouses because in both studies being married was less prone to depression compared to other type of marital status. In Ambo, there might be difference in most of the participants were males because of being male was less prone to depression compared to female sex in both findings.

In this study, the prevalence of depression among elderly people was found to be 45% [95% CI: 41.7% - 48.5%]. The finding was in line with that of a community based cross-sectional study done in rural Nigeria (44.7%) and Egypt (44.4%), [(41, 42)] respectively.

This finding was also greater than studies done in urban Sri Lanka among 60–74 years (13.9%)[(35)] and china hospitalized patients (32.8%) [(28)]. This difference might be due to in Sri Lanka the study populations were 60-74. But above 74 years of individuals were more likely to develop depression compared to having less age not only in our finding but also in different literatures (41, 58). In china hospitalized patients might be difference in study setting, variation on classification to have depression that is they used 6 and above score to have depression using GDS 15. This may cause under estimation of depression.

This finding was lower than studies conducted in India (52.5%) (59), Nepal (57.8%) (36), Urban India (75.5%) (31), Vietnam (66.9%) (34), Portuguese (61.4%) and Brazil (49.76%) (27). This variation might have different reasons like most of the participants in our finding were married but low in Nepal and India. Being married was less prone to depression compared to divorced and widowed in both studies. In urban India it might be due to variations in the tools used to screen depression and study population. In Portugal and Brazil, it might be due to

difference in study population i.e. participants who had long stay in institutions and most of the participants were female sex and have not partner. Because being female sex and being divorced or widowed were more likely to develop depression in both studies. In Vietnam, the difference might be due to tool variation as they used Zung self-rating depression scale to screen depression.

Elderly female were 1.6 times more likely to have depression than males. This was in line with the finding in Brazil, Sri Lanka and India [(29, 35, 59)] respectively. The possible reasons for females were more affected with depression might be hormonal differences, the effects of childbirth, differing psychosocial stressors for women, and behavioral models of learned helplessness. And also this might be women bear the burden of household responsibilities in addition to their economic dependency on men, especially in low income countries.

In this study age was a significant predictor of depression. This was in line with Brazil, Vietnam, Sri Lanka and India [(29, 34, 35, 59)]. Both divorced and widowed elders were significant predictors of depression compared to marrieds. This study was in line with Sri Lanka and south Africa (35, 40). This might be attributed to the perceived loneliness sensation and loss of social support.

In this study, elders who had known chronic disease were two times to develop depression with its counter parts. This study was in line with Fuzhou China and Sri Lanka [(30, 35)]. According to WHO, presence of chronic illness has been found to be one of the risk factors for developing depression. This could be attributed to the fact that physical illness may increase the development of emotional problems or depression. So, the clinicians should pay more attention to elderly people with depression.

Furthermore, we have found that poor social support was a general problem among elder populations. Elderly people who had poor social support were three times to develop depression compared to strong social support. This study was in line with Sri Lanka and India (35, 59). The possible reason might be similarities of tools used to measure depression.

## 7. STRENGTHS AND LIMITATIONS OF THE STUDY

### 7.1. Strengths of the study

This study was community based and used large sample size which is important for generalization. There is limited study conducted in Ethiopia particularly in the study area.

### 7. 2. Limitations of the study

Some of the questions were past history which is prone to recall bias. Variables like wealth index, alcohol drink, Khat chewing and cigarette smoking are a sensitive issue and might cause social desirability bias. We cannot establish causal relationships because of cross-sectional study design nature.

## 8. CONCLUSION AND RECOMMENDATION

### 8.1. Conclusion

In this study the prevalence of depression among elderly people was high according to studies done in Ethiopia. Greater emphasis has to be given in identifying and treating depression, especially elderly age, females, divorced, widowed, known chronic disease and poor social support. Further studies with other than this study design and other important variables need to be considered.

### 8.2. Recommendation

For Amhara regional health bureau: - Better to emphasized the management of co-morbid depression; because it is very common in people with chronic physical illness like hypertension, diabetes mellitus and heart diseases especially for elderly people.

For Woreda health office: - mobilize the community and give awareness on risk factors, treatment and prevention practices of depression and give for mental health service as one OPD.

For clinicians: - Better to screen chronic medical illness especially hypertension in elderly people and give mental health service as one OPD.

I recommend that for moderate and high risk substance abuse elderly people who had the health risk gave them intensive treatment by appropriate health institutions.

For researchers: - Further investigated and studied with a control group to see the difference and the direction of relation.

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## 10. ANNEXES

### 10.1. English version consent form

Questionnaires on prevalence and associated factors of depression among elderly people in Womberma District, North West, Ethiopia, 2020.

Dear Participants,

Good morning/afternoon; My name is-----; I am here by in the behalf of Nebiyu Mulat who is a student undertaking a Master's degree in General public health given by Bahidar University. One of the requirements for the degree is to conduct a research project. This letter serves to ask consent from you to take part in this research. The purpose of the research is to assess prevalence and associated factors of depression among elderly people in Womberma district. Your participation in this research is voluntary. If you decide not to participate there was no negative consequences for you. If you do decide to participate there was no benefits for you.

There is no any risk will be occurred to you because of your participation in this study. All the responses given by you and results obtained will be kept confidential using coding system whereby no one was had access to your response. Without permission from you and legal body any part of this study would not disclosed to the third person. You have full right to refuse and with draw all to participate in this study if you don't wish. The interview period will be taken about 30 minutes. The participants will be selected by using computer generation system. If you are willing to participate in this study, you need to understand and sign the agreement form, and then you are asked to give your responses to data collectors.

Name of investigator: Nebiyu Mulat(BSc); phone no. 0913954609/0918486418;

Email address: [nebiyumulat18@gmail.com](mailto:nebiyumulat18@gmail.com)

Advisors name: 1) Mr. Hordofa Gutema (Assistant professor in health promotion and behavioral science); phone no. 0911791775; Email address: [pthordeg@gmail.com](mailto:pthordeg@gmail.com)

2) Mr. Gizachew Tadesse (mph in epidemiology) Phone no. 0918134416;

Email address: [leulgzat@gmail.com](mailto:leulgzat@gmail.com)

Are you voluntary to participate in the interview? 1. Yes 2. No

Informed consent form

I hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participate voluntarily in the research project. I understand that I am at autonomy to with draw from the project at any time.

Signature of Participant-----Date-----

Name and signature of supervisor-----Date-----

Name and signature of data collector-----Date-----

10.2. English version questionnaire

Part I: Socio-demographic characteristics

No.	Questionnaire and filters	Coding categories	skip
101	How old are you?	Age in years (____)	
102	Sex of the respondent	1. Male 2. Female	
103	What is your place of residence?	1. Urban 2. Rural	
104	What is your religion?	1.Orthodox	
		2. Muslim	
		3. Protestant	
		4. Catholic	
105	What is your marital status now?	1. Single	
		2. Married	
		3. Divorced	
		4. Widowed	
106	What is your current occupation?	1. Employed (Government & private organizations)	
		2. Retired	
		3. merchant (self-employed)	
		4. farmer	
		5. Daily laborer	

		6. Jobless	
107	What is your educational status?	1. Unable to read and write	
		2. Able to read and write	
		3. primary (1- 8)	
		4. secondary (9-12)	
		5. College and above	
108	How many families live in your house?	1. One	
		2. Two	
		3. Three	
		4. Four	
		5. Five and above	
109	Living arrangement	1. Spouse	
		2. Children	
		3. Alone	
		4. Others	

Wealth index Question (since, it is sensitive, it will be asked at the end of the interview)

111	Does the household own any Domestic animals, or poultry?		0.No 1.Yes	If '0' skip to Q 113
112	If yes for question 111, answer the following questions	Is there any cow?	0.No 1.Yes	If yes, number of cows----
		Is there any Ox?	0.No 1.Yes	If yes, number of ox -----
		Is there any calf?	0.No 1.Yes	If yes, number of calf -----
		Is there any Horse?	0.No 1.Yes	If yes, number of horse----
		Is there any Mule?	0.No 1.Yes	If yes, number of mule----
		Is there any Donkey?	0.No 1.Yes	If yes, number of donkey--
		Is there any Sheep?	0.No 1.Yes	If yes, number of sheep----
		Is there any Goat?	0.No 1.Yes	If yes, number of goats----
		Is there any Hen?	0.No 1.Yes	If yes, number of hens-----
		Is there any Beehives?	0.No 1.Yes	If yes, number of beehives--
113	Does any member of this household own any agricultural land?		0.No 1.Yes	If yes number of hectares---- ----
114	Motor for irrigation/individual hand pipe		0.No 1.Yes	
115	Does your household have the	Electricity	0.No 1.Yes	
		Solar	0.No 1.Yes	
		Wall Watch	0.No 1.Yes	

	following materials	Radio	0.No 1.Yes	
		TV	0.No 1.Yes	
		Refrigerator	0.No 1.Yes	
		Bed with cotton/sponge	0.No 1.Yes	
		Table	0.No 1.Yes	
		Chair	0.No 1.Yes	
116	Does any member of the household had the following materials	Mobile	0.No 1.Yes	
		Bajaj	0.No 1.Yes	
		Cart	0.No 1.Yes	
		Car	0.No 1.Yes	
		Bicycle	0.No 1.Yes	
		Motorcycle	0.No 1.Yes	
		Generator	0.No 1.Yes	

### Part II: Clinical characteristics

201	Did you have history of mental illness before?	0. No	1. yes	Skip
202	Did you have a known chronic disease you following in health facility?	0. No	1. yes	
203	If you say yes in the above question no. 202-what type of chronic physical illness did you have? Specified? You can encircle more than one answer?	1.Diabetes mellitus 2.Hypertention 3.cardiac disease 4.Epilepsy 5.HIV 6.Others		
204	Do you have you any physical disability?	0. No	1. yes	
305	Are you taking sleep medication?	0. No	1. yes	

### Part III: perceived social support

The following questions ask about how you experience social Relationship.

s/no.	Oslo social support questions	Response	skip
301	How many people are so close to you that you Can count on them if you have serious personal Problems? (choose one option)	4. More than 5	
		3. 3-5	
		2. 1 or 2	
		1. None	
302	How much concern do people show in what you are Doing? (choose one option)	5. A lot of concern and Interest	
		4. Some concern and interest	
		3. Uncertain	
		2. Little concern and interest	

		1. No concern and interest	
303	How easy is it to get practical help from family or? Relatives if you should need it? (choose one option)	5. Very easy	
		4. Easy	
		3. Possible	
		2. Difficult	
		1. Very difficult	
305	Have you good relationship with neighbors?	0. No 1. Yes	
306	Have you feeling of loneliness?	0. No 1. Yes	

Part IV: Geriatric depression scale item -15

S.no	Please encircle '1' if you say yes and '0' if you say no in your life time or in the last 1 month as directed.			
401	Are you basically satisfied with your life?	0. No	1. Yes	skip
402	Have you dropped many of your activities and interests?	0. No	1. Yes	
403	Do you feel that your life is empty?	0. No	1. Yes	
404	Do you often get bored?	0. No	1. Yes	
405	Are you in good spirits most of the time?	0. No	1. Yes	
406	Are you afraid that something bad is going to happen to you?	0. No	1. Yes	
407	Do you feel happy most of the time?	0. No	1. Yes	
408	Do you often feel helpless?	0. No	1. Yes	
409	Do you prefer to stay at home, rather than going out and doing new things?	0. No	1. Yes	
410	Do you feel you have more problems with memory than most people?	0. No	1. Yes	
411	Do you think it is wonderful to be alive?	0. No	1. Yes	
412	Do you feel pretty worthless the way you are now?	0. No	1. Yes	
413	Do you feel full of energy?	0. No	1. Yes	
414	Do you feel that your situation is hopeless?	0. No	1. Yes	
415	Do you think that most people are better off than you are?	0. No	1. yes	

Part V: Psychoactive substance use (Alcohol, Smoking and Substance Involvement Screening Test (ASSIST WHO V3.1).

The following question focuses on Alcohol drinking, tobacco smoking and khat uses. Thank you for agreeing to take part in this brief interview about alcohol, tobacco products and khat. I am going to ask you some questions about your experience of using these substances across your lifetime and in the past three months.

No.	questionnaire	Score Legend	A	B	C	Skip to
			Tobacco smoking	Alcohol drinking	Khat	
501	In your life which of the following substances have you ever used-----?	Circle Yes or No for each substance. For substances answered Yes complete Q2-Q8 If no to all stop interview	0. No 1. Yes	0. No 1. Yes	0. No 1. Yes	
502	In the past 3 months, how often have you used----- (the substances Answered YES in Q1)?	0 – never 2 – once or twice 3 – monthly 4 – weekly 6 – daily/almost daily				
503	During the past 3months, how often have you had a strong desire or urge to use -----?	0 – never 3 – once or twice 4 – monthly 5 – weekly 6 – daily/almost daily				
504	During the past 3months how often has your use of----- --led to health, social, legal or financial problems?	0 – never 4 – once or twice 5 – monthly 6 – weekly 7 – daily almost daily				
505	During the past 3months how often have you failed to do what was normally expected of you because of your use of-----?	0 – never 5 – once or twice 6 – monthly 7 – weekly 8 – daily/almost daily				
506	Has a friend or	0 – never				

	relative or anyone else ever expressed concern about your use of-----?	6 – yes in past 3months 3 – yes not in past 3months				
507	Have you ever tried and failed to control, cut down or stop using-----?	0 – never 6 – yes in past 3months 3 – yes not in past 3months				
508	Have you ever used any drug by injection? (Non-medical use)?	0. No 1. Yes If YES, ask about use in past 3 months	1. injecting less than 4 times a month  2. injecting more than 4 times a month			
	Total					

Notice: - For Q1 Probe if all answers are negative.

- If "No" to all items, stop interview. If "Yes" to any of these items, ask Question 2 for each substance ever used.

- For Question 2, if “never” for a substance in the last 3 months’ skip to question 6 for that substance.

- For Question 8, if yes, ask about use in past 3 months and pattern of injecting.

Thank you!!

10.3. የአማርኛ ቅጽ ስምምነት ቅፅ

በወምበርማ ወረዳ ውስጥ በሚኖሩ አዛውንቶች ላይ የድብርት መኖርንና ተዛማጅ ጉዳዮችን ለማጥናት የተዘጋጀ መጠይቅ፤

የተሳታፊው መረጃ ቅጽ እና የተሳትፎ ማረጋገጫ

ውድ ተሳታፊዎች

ደህና አደሩ/ዋሉ፤ እኔ አቶ/ወ/ሮ----- እባለሁ።አቶ ነብዩ ሙላት በባህር ዳር ዩኒቨርሲቲ በሚሰጠው የሁለተኛ ዲግሪ ፕሮግራም የጠቅላላ ህብረተሰብ ጤና አጠባበቅ ትምህርታቸውን በመከታተል ላይ ይገኛሉ።ይህ ደብዳቤ በዚህ ምርምር ላይ ተሳታፊ እንዲሆኑ ለመጋበዝ ሲሆን የምርምሩ ዓላማ በወምበርማ ወረዳ ውስጥ በሚኖሩ አዛውንቶች ላይ የድብርት መኖርንና ተዛማጅ ጉዳዮችን መመዘን ነው። በዚህ ጥናት ላይ የመሳተፍ ውሳኔው የእርስዎ ነው።አለመሳተፍ ቢፈልጉ የሚያመጣብዎት ምንም አይነት ችግር አይኖርም።ለመሳተፍም ከወሰኑ ምንም አይነት ጥቅም አይኖርዎትም።

የተመራማሪው ስም ነብዩ ሙላት ስልክ ቁጥር: 0913954909/0918486418

ኢሜል አድራሻ: [nebiyumulat18@gmail.com](mailto:nebiyumulat18@gmail.com)

አካሪዎች: 1) አቶ ሆርዶፋ ጉተማ (ረዳት ፕሮፌሰር) ስልክ ቁጥር: 0911791775;

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በጥናቱ ላይ በሚሳተፉበት ወቅት በእርስዎ ላይ የሚደርስ ምንም ዓይነት ጉዳት የለም። በዚህ ጥናት የሚሰጡት ማንኛውም አስተያየት እና መልስ በኮድ ስርዓት በሚስጥራዊነት የሚቀመጥ ሲሆን ለማንም ሰው አሳልፎ አይሰጥም። ካለ እርስዎ ፈቃድና ህጋዊ መብት ለ3ኛ ወገን መረጃው አይተላለፍም። ለእርስዎ ካልመሰልዎት ከዚህ ጥናት ተሳታፊነት ራስዎን የማግለል መብት በዚህ ጥናት ላይ ለመሳተፍ ከፈለጉ የስምምነት ፊርማዎን በቅፁ ላይ መፈረም ይኖርብዎታል።ከዚያም ለመረጃ ሰብሳቢዎቹ ምላሽዎን እንዲሰጡ እጠይቃለሁ። ቃለ መጠይቁ 30 ደቂቃ ያህል ይፈጃል።

በቃለ-መጠይቁ ላይ ለመሳተፍ ፈቃድኛ ነዎት? 1. አዎ 2. አይደለሁም

የተሳትፎ ማረጋገጫ

የሰነዱን ይዘት የተረዳሁ ስሆን የምርምር ፕሮጀክቱንም አላማ ተረድቻለሁ።በዚህ ምርምር ፕሮጀክት ላይ ለመሳተፍ ፈቃደኛ ሆኛለሁ።በማንኛውም ሰዓትም ከጥናቱ ራሴን የማግለል መብት እንዳለኝ አውቃለሁ።

የተሳታፊ ፊርማ----- ቀን-----

የሱፐርቫይዘር ስም----- ፊርማ-----ቀን-----

የመረጃ ሰብሳቢው ስም----- ፊርማ-----ቀን-----

10.4. የአማርኛ ቅጅ መጠይቅ፤

ክፍል አንድ: የስነ-ህዝብና ኢኮኖሚክስ ተያያዥ መጠይቆች የአማርኛ ቅጅ መጠይቅ

ተ/ቁ	መጠይቅ	ምላሽ	መዝለያ
101	እድሜዎ ስንት ነው?	.....	
102	ፆታ	1. ወንድ 2. ሴት	
103	የት ነው የሚኖሩት?	1. ከተማ 2. ገጠር	
104	የምን ሀይማኖት ተከታይ ነዎት?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ	
105	በአሁኑ ሰዓት የጋብቻ ሁኔታ ምን ይመስላል?	1. ያላገባ 2. ያገባ 3. የፈታ 4. የሞተበት	
106	በምን ዓይነት የስራ ድርሻ ነው የተሰማሩት?	1. ተቀጣሪ(የመንግስት/የግል) 2. ጡረተኛ 3. ነጋዴ 4. አርሶአደር 5. የቀን ሰራተኛ 6. ስራ የለኝም	
107	የትምህርት ደረጃዎ ስንት ነው?	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የሚችል 3. የመጀመሪያ (1-8) 4. ሁለተኛ (9-12) 5. ኮሌጅና ከዚያ በላይ	
108	በቤትዎ ውስጥ ስንት ቤተሰብ ይኖራል?	1. አንድ 2. ሁለት 3. ሶስት 4. አራት 5. አምስትና ከዚያ በላይ	
109	የአኗኗር ሁኔታ ምን ይመስላል?	1. ከባለቤቱ ጋር 2. ከልጆቹ ጋር 3. ለብቻዬ 4. ሌላ ካለ ይጠቀስ-----	
የሐብት መጠን መለኪያ (ሌሎች መጠይቆችን ከጨረሱ በኋላ ይጠይቁ)			
111	በቤት ውስጥ ማንኛውም አይነት የቤት እንስሳ አለ?	0.የለም 1.አለ	
112	ጥያቄ ቁጥር 111 አዎ ከሆነ የሚከተሉትን ጥያቄዎች መልስ ስጡ	በቤት ውስጥ ላም አለ?	0.የለም 1.አለ ካለ ስንት ላሞች አሉ--
		በቤት ውስጥ በሬ አለ?	0.የለም 1.አለ ካለ ስንት በሬዎች አሉ---
		በቤት ውስጥ ጥጃ አለ?	0.የለም 1.አለ ካለ ስንት ጥጃዎች አሉ---

		በቤት ውስጥ ፈረስ አለ?	0.የለም 1.አለ	ካለ ስንት ፈረሶች አሉ-----
		በቤት ውስጥ በቅሎ አለ?	0.የለም 1.አለ	ካለ ስንት በቅሎዎች አሉ---
		በቤት ውስጥ አህያ አለ?	0.የለም 1.አለ	ካለ ስንት አህያ አሉ-----
		በቤት ውስጥ በግ አለ?	0.የለም 1.አለ	ካለ ስንት በጎች አሉ-----
		በቤት ውስጥ ፍየል አለ?	0.የለም 1.አለ	ካለ ስንት ፍየሎች አሉ-----
		በቤት ውስጥ ዶሮ አለ?	0.የለም 1.አለ	ካለ ስንት ዶሮዎች አሉ-----
		በቤት ውስጥ የንብ ቀፎ አለ?	0.የለም 1.አለ	ካለ የንብ ቀፎዎች ብዛት---
113	ለቤተሰቡ የይዘታ መሬት አለ ወይ?		0.የለም 1.አለ	ካለ-----ሄክታር
114	ለመስኖ ልማት የሚውል ሞተር አለ ወይ		0.የለም 1.አለ	
115	በቤተሰብ ደረጃ የሚከተሉት ቁሳቁሶች መኖራቸውን መልስ ስጡ	የኤሌክትሪክ መብራት	0.የለም 1.አለ	
		የግድግዳ ስዓት	0.የለም 1.አለ	
		ራዲዮ	0.የለም 1.አለ	
		ቴሌቪዥን	0.የለም 1.አለ	
		ፍሪጅ/ማቀዝቀዣ	0.የለም 1.አለ	
		ዘመናዊ አልጋ እስከ ፍራሹ	0.የለም 1.አለ	
		ጠረጴዛ	0.የለም 1.አለ	
ወንበር	0.የለም 1.አለ			
116	በቤተሰቡ አባል ውስጥ የሚከተሉት ቁሳቁሶች አሉ ወይ	ሞባይል	0.የለም 1.አለ	
		በጃጅ	0.የለም 1.አለ	
		ጋሪ	0.የለም 1.አለ	
		መኪና	0.የለም 1.አለ	
		ባይስክል	0.የለም 1.አለ	
		ሞተር ሳይክል	0.የለም 1.አለ	
		ጄኔሬተር	0.የለም 1.አለ	

**ክፍል 2:- ህክምና ነክ መጠይቆች**

ተ/ቁ	መጠይቅ	ምላሽ	መዝገብ
201	ከዚህ በፊት የዓዕምሮ ህመም ነበረብዎት?	0. የለም 1. አዎ	
202	በህክምና የተረጋገጠ(የቆዩ) ህመም አብዎት?	0. የለም 1. አዎ	
203	በጥያቄ 202 ለተጠቀሰው ጥያቄ መልስዎ አዎ ከሆነ የትኛው ዓይነት ህመም ነው ያለብዎት? ከአንድ በላይ መልስ መምረጥ ይቻላል።	1 የስኳር ህመም 2 የደም ግፊት 3 የልብ በሽታ 4 የሚጥይል በሽታ 5 ኤችአይቪ 6 ሌላ ካለ-----	
204	የአካል ጉዳት አልብዎ ወይ?	0. የለም 1. አዎ	
205	የእንቅልፍ መድሃኒት ይወስዳሉ ወይ?	0. የለም 1. አዎ	

**ክፍል 3:- የአስሎ -3 ማህበራዊ ድጋፍ መለኪያ መጠይቅ፤**

ተ/ቁ	መጠይቅ	ምላሽ	መዝገብ

		ምንም	1-2	3-5	5+		
		1	2	3	4		
301	በጣም ከባድ ችግር ቢገጠምህ/ሽ ስንት ሰው በቁጥር በቅርብ ልታገኝ ትችላለህ/ሽ?						
		በጣም	የተወሰነ	አላውቅም	ጥቂት	ምንም	
		5	4	3	2	1	
302	ምን ያህል ሰዎች አንተ/ች ለምትሰራው/ሪው ነገር የሚያስቡት?						
		በጣም ቀላል	ቀላል	ይቻላል	ይከብዳል	በጣም ይከብዳል	
		5	4	3	2	1	
303	ምን ያህል ቀላል ነው ከጎረቤት እርዳታ ለማግኘት ቢያስፈልግ?						
306	ከጎረቤትዎ ጋር ጥሩ ግንኙነት አለዎት?	0. የለም		1. አዎ			
307	የብቸኝነት ስሜት ይሰማዎታል?	0. የለም		1. አዎ			

**ክፍል 4:-በአዛውንቶች ላይ ድብርትን የተመለከተ መጠይቅ፤**

ተ/ቁ	እባክዎ አዎ ካሉ አንድን የለም ካሉ ደግሞ ዜሮን ይምረጡ በባለፈው 1 ወር ውስጥ፤	መዝለያ
401	በኑሮዎ ላይ እርካታ ይሰማዎታል?	0. የለም 1. አዎ
402	ለማድረግ ያሰቧቸውን ብዙ ተግባራትና ፍላጎትዎን ችላ በማለት ይተዋሉ?	0. የለም 1. አዎ
403	ህይወትዎ ባዶ እንደሆነ ይሰማዎታል?	0. የለም 1. አዎ
404	ብዙ ጊዜ የመሰልቸት ስሜት ይሰማዎታል?	0. የለም 1. አዎ
405	አብዛኛውን ጊዜ በጥሩ መንፈስ ውስጥ ነዎት	0. የለም 1. አዎ
406	አንዳች መጥፎ ነገር በርስዎ ላይ ሊደርስብኝ ይችላል ብለው ይፈራሉ?	0. የለም 1. አዎ
407	አብዛኛውን ጊዜ የደስታ ስሜት ይሰማዎታል?	0. የለም 1. አዎ
408	ብዙ ጊዜ እረዳት የሌለዎት ዓይነት ስሜት ይሰማዎታል?	0. የለም 1. አዎ
409	ከቤትዎ ወጥተው አዳዲስ ነገሮችን ከማድረግ ይልቅ ለረዥም ጊዜ ቤት ውስጥ ማሳለፍን ይመርጣሉ?	0. የለም 1. አዎ
410	ከማስታወስ ጋር በተያያዘ ከብዙ ሰዎች የበለጠ ችግር ያለበዎት ይመስልዎታል?	0. የለም 1. አዎ
411	በህይወት መኖር አስደናቂ ነገር ነው ብለው ያስባሉ?	0. የለም 1. አዎ

412	አሁን ባሉበት የኑሮ ሁኔታ(ህይወት) የከንቱነት ስሜት ይሰማዎታል?	0. የለም	1. አዎ	
413	በሃይል ወይም በጉልበት እንደተሞሉ ዓይነት ስሜት ይሰማዎታል?	0. የለም	1. አዎ	
414	ባሉበት ሁኔታ ተስፋ እንደሌለዎት ይሰማዎታል?	0. የለም	1. አዎ	
415	ብዙ ሰዎች ከእርስዎ የተሻሉ(የሚበልጡ) ይመስልዎታል?	0. የለም	1. አዎ	

**ክፍል 5:- አእምሮ የሚያነቃቁ እጾች አጠቃቀምን በተመለከተ**

የሚከተሉት ጥያቄዎች ትኩረት የሚያደርጉት የአልኮል መጠጥ፣ ትንባሆ ማጨስና ጫት አጠቃቀም ነው። ስለአልኮል ፣ ትንባሆ ምርቶችና ስለሌሎች እጾች በዚህ አጭር ቃለ-መጠይቅ ለመሳተፍ ስለተስማሙ እና መሰማዎትን፣ በባለፉት 3 ወራት ውስጥ እነዚህ እጾች የመጠቀም ልምድን በተመለከተ አንዳንድ ጥያቄዎችን እጠይቃለሁ።

ተ/ቁ	ጥያቄዎች	የውጤት መግለጫ	ትንባሆ/ ሲጋር ማጨስ	አልኮል መጠጥ	ጫት	መዘለያ
501	በህይወትዎ ከሚከተሉት እጾች ውስጥ የትኛውን ተጠቅመዋል?	ለእያንዳንዱ እጾች አዎ/አይደለም በማለት ክብብ። ለእያች መልሱ አዎ ከሆነ ከጥያቄ 2 እስከ 8 ሙሉ፤ አይደለም ከሆነ ሁሉንም ቃለ-መጠይቆች አቁም።	0. የለም 1. አዎ	0. የለም 1. አዎ	0. የለም 1. አዎ	
502	ባለፉት 3 ወራት ውስጥ ምን ያህል ጊዜ.....ይጠቀሙ ነበር?(በጥያቄ1 አዎ ካሉት ውስጥ)	0-በፍፁም 2-አንድ/ሁለት ጊዜ 3-በየወሩ 4-በየሳምንቱ 6-በየቀኑ				
503	ባለፉት 3 ወራት ውስጥ ምን ያህል ጊዜ..... ጠንካራ የመጠቀም ፍላጎት ነበረዎት?	0-በፍፁም 3-አንድ/ሁለት ጊዜ 4-በየወሩ 5-በየሳምንቱ 6-በየቀኑ				
504	ባለፉት 3 ወራት ውስጥ የ.....አጠቃቀም ለጤና ፣ ለማህበራዊ ፣ ህጋዊና የገንዘብ ችግር ያመጣ ነበር?	0-በፍፁም 4-አንድ/ሁለት ጊዜ 5-በየወሩ 6-በየሳምንቱ 7-በየቀኑ				
505	ባለፉት 3 ወራት ውስጥ.....ምክንያት ምን ያህል ጊዜ በመደበኛ ከሚጠብቁት ሳይሳካ ቀረ?	0-በፍፁም 5-አንድ/ሁለት ጊዜ 6-በየወሩ 7-በየሳምንቱ 8-በየቀኑ				
506	የ.....አጠቃቀምዎን	0-በፍፁም				

	አንድ ንደኛ/ዘመድ/ሌላ ማንኛውም ሰው መቼም ቢሆን አሳስቦዎት/ተናግሮዎት ያውቃል?	6-አዎ ባለፉት 3 ወራት 3-አዎ ባለፉት 3 ወራት አይደለም				
507	የ.....አጠቃቀምዎን ለመቆጣጠር፤ ለማቋረጥ፤ ለማቆም ሞክረው ያውቃሉ?	0-በፍፁም 6-አዎ ባለፉት 3 ወራት 3-አዎ ባለፉት 3 ወራት አይደለም				
508	በህክምና ያልታዘዘ ማንኛውንም እፅ በመርፌ ተጠቅመው ያውቃሉ?	0.የለም 1. አዎ አዎ ከሆነ በባለፈው 3 ወር መጠቀማቸውን ጠይቅ	1.በወር ከ4 ጊዜ በታች ተወግተዋል 2. .በወር ከ4 ጊዜ በላይ ተወግተዋል			
	ድምር					

ማስታወሻ:-

- ለጥያቄ 1 ሁሉም መልሶች አሉታዊ ከሆኑ ጥያቄውን እንደገና ያብራሩት፤
- ለሁም አይደለም ከሆነ ቃለ-መጠይቁን ያቋርጡት፤ ለማንኛውም ጥያቄ አዎ ከሆነ ግን ጥያቄ ሁለትን ለእያንዳንዱ ይጠይቁ፤
- ለጥያቄ 2 ባለፉት 3 ወራት በፍፁም አልተጠቀምኩም ከሆነ ወደ ጥያቄ 6 ይሂዱ
- ለጥያቄ 8 መልስዎ አዎ ከሆነ ባለፉት 3 ወራት አጠቃቀሙንና የአወጋጉን ሁኔታ ጠይቅ፤

አመሰግናለሁ!!