PREVALENCE AND ASSOCIATED FACTORS OF DEPRESSTION AMONG CAREGIVERS LIVING WITH SEVERE MENTAL ILLNESS AT OUTPATIENT IN PSYCHIATRIC CLINIC AT JIMMA UNIVERSITY SPECIALIZED HOSPITAL, SOUTH WEST, ETHIOPIA.

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Abstract

Background: *The prevalence of depression among caregivers of mental illness greater than in the general population which results in decrease the caregiver's own resources and they may also face problem in contributing as treatment supporter for the patients. Although depression is a serious illness as well as highly treatable, most of people with depression do not seek help because of unrecognized, misdiagnosed, or by the stigma related with a diagnosis of mental illness.*

Objective: *To assess prevalence and associated factors of depression among caregivers living with severe mental illness in psychiatry clinic at Jimma University specialized hospital (JUSH).*

Methods: *This study was conducted using a facility-based, cross-sectional study design among caregivers of severe mental illness in Jimma University specialized hospital. Depression was assessed by patient health questioner (PHQ-9) which is validated in Ethiopia among adult population. Data were entered and analyzed using the Statistical Package for Social Science (SPSS version 20). Associations between depression and other variables were explored first by using binary logistic regression analysis. Those variables ≤ 0.25 in binary logistic regression were entered to multivariate logistic regression to identify factors independently associated with depression after controlling for confounding variables.*

Result: *A total of 284 adult caregivers of severe mental illness patients were included in the study with 100% of response rate. The prevalence of depression among caregivers was 33.8% from our representative sample by using PHQ-9 at cut of point ≥10 based on severity. Widowed, Perceived stigma and social support were independently associated with depression in this study.*

Conclusion and recommendation: *In this study depression was found to be highly prevalent among caregivers. Even though the prevalence of depression was high among caregivers, none of them were screened. We recommend that timely recognition and treatment of depression should be the critically important in reducing consequence of depression among caregivers and to get better outcome and good adherence of mental ill patients.*

Key words: *Depression, caregivers, severe mental illness.*

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List of Acronyms

AOR –Adjusted Odd Ratio

COR- Crude Odd Ratio

JUSH-Jimma University Specialized Hospital.

LMICs - Low and Middle Income Countries

PHQ-9 -Patient Health Questionnaire

MPSS- Multi dimension Perceived Social Support

PI - Principal Investigator.

SMI-Severe Mental Illness

SPSS -Statistical Package for Social Sciences.

USA- United State of America.

WHO-World Health Organization.

YLD –Years Lived With Disability

Chapter one: Introduction

1:1 Background

Across the world, around 450 million people suffer from a mental or behavioral disorder. One in four families has at least one member will have a mental disorder (1).Depression is one of the four neuropsychiatric disorders years lived with disability (YLD) throughout life and more than 150 million persons suffer from depression at any point in time (2).

Mental illnesses affect people of all age, educational, income levels and culture and have a substantial effect on the family (3).

Community based epidemiological survey in Canada among caregivers (n=1219) showed that increase prevalence of depression on caregivers than non-caregivers (6.3% vs. 4.2%) and used health service for mental health problem twice greater than non-caregivers (4).

The causes of depression are multi-factorial in nature including neurological, psychological, biological and social elements and influences on individuals suffering from depression, on their families and care givers (5) .

One study conducted in Australia found family caregivers of depressed patients are vulnerable for physical and psychological illness due to this, treatment of depression should include the whole family and not merely the depressed patient (6).

A major depressive episode is defined as at least one of the symptoms, either depressed mood or Loss of interest or pleasure for at least 2 weeks, include at least other four symptoms from a Criteria item and that is severe enough to cause severe distress or impairment in important role of functioning (7).The study conducted in Ethiopia showed the impact of schizophrenia illness on family members is high even in traditional societies such as Ethiopia where family network is said to be strong and important (8).

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) (9). In Ethiopia, mental illness is the leading non-communicable disorder in terms of total burden and depression one of the top ten most burdensome conditions (9).

1.2. Statement of the problem

Although depression is a serious illness as well as highly treatable, most of people with depression do not seek help because of unrecognized, misdiagnosed and the stigma related with a diagnosis of mental illness (10).

Review article in USA on caregivers of bipolar disorder reporting experiencing depression up to (46%) and up to 32.4% reporting mental health service use and concluded one of the most important findings of the review was the need for treatments targeted towards psychiatric symptoms in caregivers (11).

Another Cross-sectional study design in Pakistan among primary caregivers of mental ill patients showed that they had high rate of mental health difficulty such as, anxiety and depression (86% and 85% respectively) ,as the result, health care personnel in contact with Caregivers should consider screening them for psychiatric symptoms (12).

According to 2010 review article in East London concluded that caregivers of mental illness were high risk and experiencing higher rate of mental ill health than general population in the form of emotional stress, depressive symptoms and clinical depression ,this lead to negative effect on the quality of life and giving care the patient(13). One research conducted in Egypt among caregivers of schizophrenia patient found that depressive disorders were higher among caregivers (23.33%) greater than control group (3.33%) and depressive symptoms were directly associated with increased number of hours per week for providing care, older age of the caregiver and long duration of care giving (14).

Help seeking for depression is most often limited to the family or local community and depression usually remains undetected in general health settings which leads to inappropriate prescribing of ineffective treatments and missed opportunity for suicide prevention (9).

In Ethiopia, there is no a study done prevalence of depression among caregivers of severe mental illness. The lack of mental health services and shortage of mental health professions for families with a mentally ill member are the biggest factors causing caregiver burden in Ethiopia. The aim of the study is to assess depression and associated factors on caregivers of severe mental illness patients.

Charter two: Literature review

2.1. Prevalence of depression among caregivers.

One research conducted in USA on caregivers of chronic mood disorder those recently admitted, 75% of them had depressive symptoms and poor function (15). According to 2007 study in California among Latino family caregivers of adults with schizophrenia found 40% of caregivers had depression which was two times higher than the general population (16). The prospective study in Sri Lanka (Asia) showed prevalence of depression is 37.5% among caregiver of schizophrenia and bipolar disorder (17).

Another cross sectional study conducted in America (Cleveland) on Caregivers of care recipients with mental illness showed that 39% caregivers had higher levels of depression and this is almost 2 times greater than general population (18). Research conducted in 2008 in China found that around 20% have reported depression among caregivers of family members with mental illness (19).

The cross sectional study conducted in 2011 in India among the total of (n=40) caregivers of patients with schizophrenia found that 65% had depression (20). Another cross-sectional study done in Egypt among female caregivers of mental illness showed that 34% of them had major depression and prevalence of psychiatric disorders are higher in wives compared with mothers (21).

2.2. Factors associated with depression of caregivers

The cross-sectional study done in Mexico American among caregiver of schizophrenia showed that younger age and lower levels of education result in higher levels of caregiver depression and Caregivers' perceived stigma was significantly related to caregivers' depression (16).

Another research conducted in America (Maryland) showed that the more religious caregivers had the less symptoms of depression compare to non-religious caregivers and finally recommended collaborative partnerships between mental health professionals and religious and spiritual communities very valuable for meeting the needs of family caregivers of persons with serious mental illness (22).

One research conducted in United States and China caregivers with stronger support systems which provide emotional or informational support has fewer depressive symptoms than non-support caregivers (18, 19, 23).

The study conducted in England among caregivers of patients with bipolar disorder showed that perceived stigma was directly associated with depressive symptoms (14,16,24). The study conducted in Asia on caregivers of patients with schizophrenia10% of caregivers suffered from psychologically distress and approximately half of them reached clinical depression and they were mostly undiagnosed and untreated (25).

The study conducted on Caregivers of patients who had more suicidal ideation and depressive symptoms reported more depressed than caregivers of patients with less suicidal ideation or depression (26). One research conducted in India among caregivers of patients with schizophrenia showed the duration of illness, number of hospitalizations and religion are predictors of the caregiver depression and younger caregivers had higher depression scores than older caregivers (20).

The 2005 review study in Brazil on depression and hypertension showed that increased prevalence of hypertension in depressed patients, increased prevalence of depression in hypertensive patient the relation may be due to hyperactivity of the sympathetic nervous system and genetic influences (27).

One research done in 2010 in Nigerian teaching hospital showed (30%) diabetes patients met a scan diagnosis for clinical depression ,compared with (9.5%) in the control and having a smaller income and more children were significantly correlated with higher depression symptoms on the BDI (28). Individuals with major depressive disorders are at an increased risk of having alcohol abuse or dependence or the reverse also is true (7). The national health survey study 2012 in Ethiopia showed that older age, divorced or widowed diagnosed chronic non communicable diseases and alcohol consumption found to be the most important risk factors for depressive episodes (29).

The cross-sectional study conducted in 2012 at Jimma town showed that being widowed, illiterate, khat chewing, cigarette smoking and shish usage could be the potential risk factors for depression (30).

2.3: Conceptual frame work

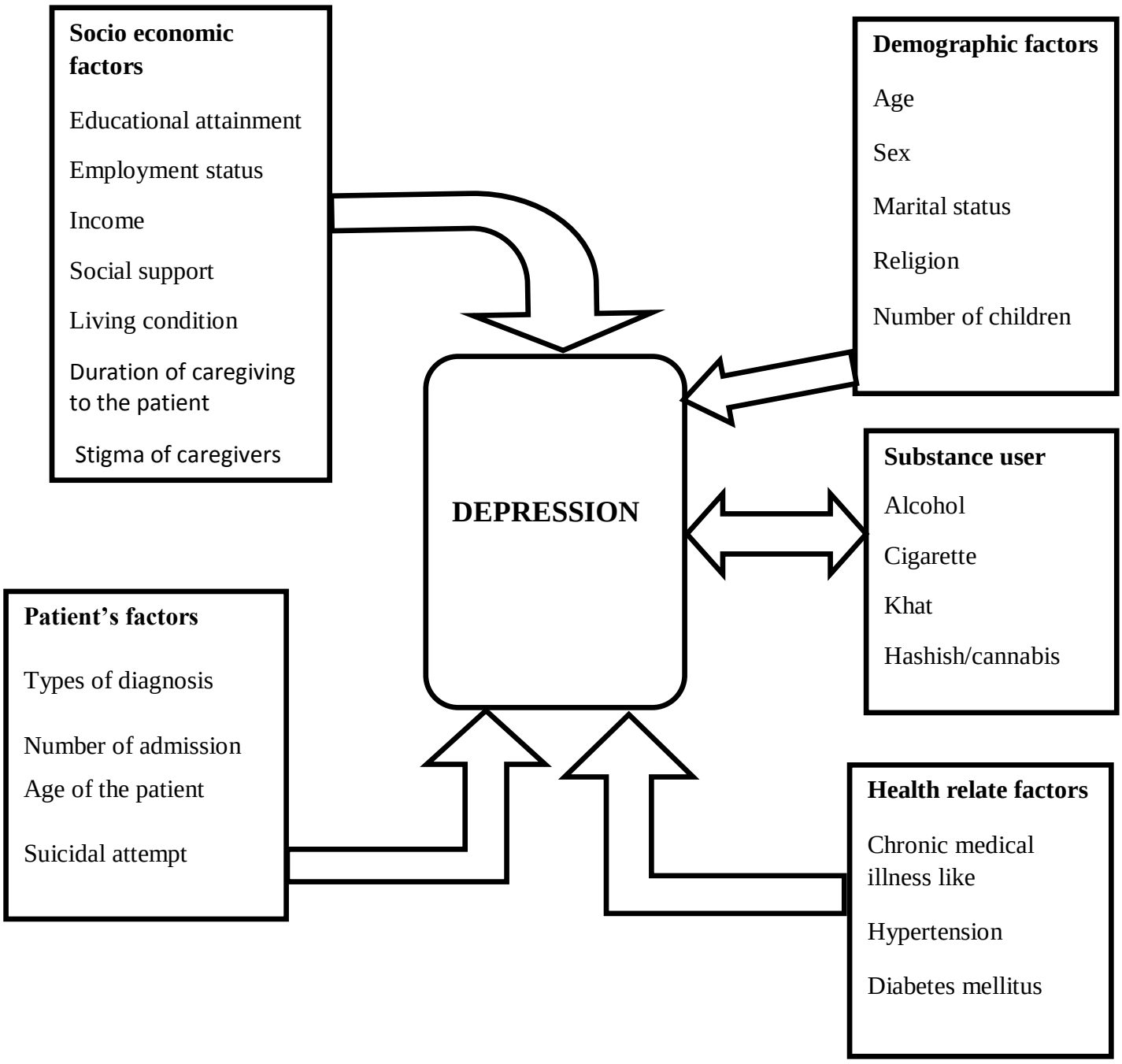

Figure 1: conceptual frame work (Source: developed by the principal investigator by reviewing literatures and scientific background, 2013)

Chapter three: Significant of the study

The influence of care for someone with mental illness brings the risk of mental ill health to the caregivers in the form of emotional stress and depressive symptom. Most individual with mental disorder are lived in their home and are giving care by family members. Most researchers found than majority of care givers are female. According to many study findings across the world, depression remains unrecognized and untreated among caregivers of mental illness and usually has not given attention to caregivers rather treating only the patients.

Knowing the prevalence of depression and factors associated among caregivers of mentally ill patients is important for prevent caregivers from suicide and other consequence of depression. Since there is no a study done in Ethiopia, It could be a spring board in addressing the service gap in treating caregivers of depression in the country.

The study finding would help to know depression among caregivers of mental illness patients and associated factors. The finding also important to identify caregivers who need interventions in the study area.

Up to researchers' knowledge, there is no a research done to address this crucial issue in Ethiopia. So the study will serve as input for further studies in the area.

Therefore, this study is expected to assess the prevalence of depression and factors associated among caregivers of mental ill patients, at JUSH.

Chapter four: Objective

4.1: General objective

To assess prevalence of depression and associated factors among caregivers of SMI at JUSH in psychiatric clinic,2013.

4.2: Specific Objective

- To determine prevalence of depression among caregivers of SMI at JUSH in psychiatric clinic.
- To identify socio-demographic factors associated to depression among caregiver of (SMI) at JUSH in psychiatric clinic.
- To identify perceived stigma associated with depression among caregivers of SMI at JUSH in psychiatric clinic.
- To assess perceived social support associated with depression among caregivers of SMI at JUSH in psychiatric clinic.
- To identify substance use associated with depression among caregivers of SMI at JUSH psychiatric clinic.

Chapter five: Methods and materials

5.1: Study area and period

The study was conducted in Psychiatry clinic at JUSH which is located in Jimma town the south-western part of Ethiopia which is 352 km far from Addis Ababa and found at an altitude of 1500-2700 meter above sea level. Jimma town population is mainly composed of Oromo,Amhara, Dawro and Kaffa ethnicity and Muslim and Christians like Orthodox Church followers and Protestant.

JUSH is one of the oldest public hospitals in the country. It was established in 1937 during Italian occupation for the service of their soldiers. The hospital provides specialized health services by its 9 medical and other clinical and diagnostic departments for inpatient and outpatient services. Psychiatry clinic at JUSH was established in 1988. Currently there are 60 patients in outpatient on daily, within one month around 1200 caregivers were visited the clinic. In Ethiopia JUSH is one of the hospitals that have psychiatric inpatient service next to Amanuel mental specialized Hospital. The data were collected from adult caregivers living with severe mental illness coming for follow up in October 1-30, 2013.

5.2 Study design:

A Cross-sectional study design was used.

5.3: Population

5.3.1 Source of population

All adult caregivers of outpatient severe mental illness at JUSH in psychiatric clinic.

5.3.2: Study population

All sample adult caregivers of psychiatric patients who fulfilled the inclusion criteria and were attending at JUSH during the data collection period, 2013 were enrolled as study subjects.

5.4: Inclusion and exclusion criteria

5.4.1: Inclusion criteria

- Age 18 years or older.

- Primary caregivers of follow up mentally ill patients.

5.4.2: Exclusion criteria

- Caregivers who were away from home for a period of one month or more for any reason during the last 3month.

- Care givers who had acute medical or serious medical illness.

:

5.5: Sample size determination

The sample size was determined by assuming depressive prevalence rate among caregivers was 23.3% from study done in Egypt (14) with 5% marginal error and 95% confidence interval of certainty (alpha = 0.05). Based on this assumption, the actual sample size for the study was computed using a single population proportion formula as indicated below.

$$n = \left(Z_{\frac{\alpha}{2}}\right)^2 pq \Big/ d^2$$

Where: n = Sample

z = critical value 1.96

p =assume depressive prevalence rate among caregiver 23.3%

d = precision (marginal error) = 0.05

q=1-p

Thus the sample size is

$= (1.96)^2 \times \frac{(0.233)(1-0.233)}{(0.05)^2} = 275$

The total population is less than ten thousands it is necessary to use a correction formula to get the desired sample size

Nf =n/ (1+n/N) = 275/ (1+275/ 3934) =258

(Where 3934 the total caregivers of mental ill patients utilize the service at this time.)

Added the Contingency rate 10% = 25.8 +25 Total =284

5.6: Sampling technique:

Consecutive sampling technique was employed to select study subjects among caregivers of SMI in psychiatric clinic of JUSH. Clients who fulfilled the inclusion criteria were included till the required amount of study participants is obtained.

5.7: Variables

5.7.1: Dependent variables

Depression disorder

5.7.2: Independent variables

Socio demographic variables

- Age
- Sex
- Marital status
- Number of school children
- Educational status
- Employment status
- Monthly income
- Religion
- Ethnicity
- Duration of care giving to the patient
- Relation to the patient

Psychosocial related factors**.**

- Perceived Social support a
- perceived stigma of caregivers

Chronic medical Illness of caregivers

Substance use (alcohol, khat, cigarette. hashish and others)

Patient's factors (the type of diagnosis, presence of suicidal attempt, duration of illness and history of hospital admission).

5.8. Data collection procedures

5.8.1. Instrument

Data was collected using structured questionnaire adapted from different literatures. The questioner consists of seven parts to assess: Socio-demography, depression, perceived social support, perceived stigma, substance use, patient related factors and chronic medical conditions of care givers.

Depression was assessed by PHQ-9 which is the new instruments design to diagnosis depression and severity of depression based on the criteria of DSM-IV. As a severity measure, the PHQ-9 score ranges from 0 to 27. Each of the 9 items can be scored from 0 ("not at all") to 3 ("nearly every day"). If a single screening cut of point were to be chosen, currently recommend a PHQ-9 score of 10 or greater which has sensitivity for major depression of 88%,a specificity of 88% with excellent (cronbachs $\alpha = 0.86- 0.89$) across the world (31,32).

The PHQ-9 appears to be a reliable and valid instrument that may be used to diagnose major depressive disorders among Ethiopian adults with threshold score of 10 offered optimal discriminatory power with respect to diagnosis of major depressive disorder (sensitivity=86% and specificity=67%) and showed good internal (Cronbach's alpha=0.81) (33).

Perceived social support was assessed by multidimensional scale of perceived social support (MSPSS) which had 12 items which represent four family related questions, four friend related question, the rest four were related to significant others (people whom the individual values most). Each statement was rated by using a 5-point scale. It has high internal consistency with

Cronbach's alpha of (0.93) for significant others (0.88) for family and (0.96) for friends (34). The MSPSS is a valid instrument and reliably be used in a Ugandan setting (35).

Perceptions of stigma were assessed using the devaluation of consumer families' scale which had seven items which evaluate beliefs about the degree of devaluation and discrimination directed toward to the families. Each statement was rated by using a 4-point scale, from 1(strongly disagree) to 4(strongly agree) with a total stigma score (Cronbach's a 0.80), higher scores indicating greater stigma (36). Alcohol dependence screening by using CAGE which is 4 items questions 2or greater than 2 indicative positive for dependence.

The questionnaire was first forward translated from English to Afan-Oromo and Amharic languages by native speakers of the languages and proficient in English. Finally, discussion between the translators and principal investigator was made to find out inconsistencies and to reach consensus for final interview tool.

5.8.2: Data collectors' selection and data quality control

The data was collected by interviewing caregivers of SMI attending in psychiatric clinic at JUSH. Two psychiatric nurses and two postgraduate students in mental health were the data collectors. One supervisor who has bachelor degree in public health and the principal investigator were also participating in the supervision. Before the data collection, one day training was given for the data collectors and one day training for the supervisors.

The objectives of the study were discussed. Supervisor was assigned and checked the process of data collection by random spot-checking of 10% of the questionnaires to ensure reliability of the data. At the end of data collection day, the supervisor were checked all the filled questionnaires for proper completion.

5.8.3: Data quality management

A one day training of data collectors was given on how to collect data. The data collection methods, tools and how to handle ethical issues will be discussed with the data collectors. Pre-test was conducted (10% of the sample size) before the main study to identify potential problems in data collection tools and checked the performance of the data collectors and questionnaires used in the pre-test were not be included in the analysis as part of the main study.

Regular supervision by the supervisor and principal investigator were made to ensure that all necessary data are properly collected. Each day during data collection, filled questioners cheeked for completeness and consistency. The collected data was edited and processed timely and entered from a paper into computer.

5.8.4: Data processing and analysis.

Once all necessary data was obtained, Data were edited, cleaned, coded and double entered in to EpiData version 3.1 to check the discordances against the original paper copy and correct the errors, then exported and analyzed by SPSS version 20.

Data was summarized by; mean median and standard deviation for numeric variables and frequency tables, bar graphs and pie chart for categorical variables to describing depression in caregivers of psychiatric patients. Bivariate and multiple logistic regressions were used to explore associations and identify independently associated variables with depression. This was done by bivariate logistic regression by default (enter method) each independent variable separately into bivariate analysis. P-value of $\leq$ 0.25 on bivariate analysis entered into multivariate logistic regression once. Then, variables having p-value of less than 0.05 on multiple logistic regression finally considered as significantly associated with depression.

5.9.: Ethical Consideration:

Ethical clearance was obtained from the Ethical Review Committee of Jimma University College of Public Health and Medical Sciences. Official letter was written to the hospital administration. Additionally, an informed consent was obtained from each respondents and any one not willing to take part in the study will have full right.

To ensure confidentiality of respondents, their names were replaced by codes on the questionnaire. All interviews were made individually to keep privacy. Caregivers had been given psycho-education those having 5-9 score and $\geq$10 score who had depression by using PHQ-9 and suicide thought were informed to be seen by psychiatrist and mental health clinician in psychiatric clinic by giving small paper.

5.10: Dissemination

The findings of the study will be submitted to Jimma University, College of Public Health and Medical Sciences and the copies of papers also submitted to hospital administration of JUSH department of psychiatry and staff of psychiatry clinic and to other concerned bodies to whom recommendation will be made, The research paper will be presented in health professional organizations' annual meetings, professional conference and training. Finally, attempt will also be made to get the findings published in peer reviewed journal.

5.11: Operational definition

Severe mental illness (SMI): in this study SMI as any mental disorders related to schizophrenia spectrum, psychotic, unipolar depression, or bipolar disorders.

Patient health questioner (PHQ-9 tool): PHQ-9 is the new instruments design to diagnosis depression and severity of depression based on the criteria of DSM-IV. Based on severity the range scored was 0-27 from 9 items. PHQ-9 score, severity and Proposed Treatment Actions.

PHQ-9 Score	Depression Severity	Proposed Treatment Actions
1 to 4	None	None
5 to 9	Mild	Watchful waiting; repeat PHQ-9 at follow-up
10 to 14	Moderate	considering counseling, follow-up and/or pharmacotherapy
15 to 19	Moderately Severe	Immediate initiation of pharmacotherapy and/or psychotherapy
20 to 27	Severe	Immediate initiation of pharmacotherapy (32,33)

Current users: when caregivers use specified substance (for non-medical purposes) in the last one year.

Primary caregiver: primary caregivers were a spouse, parent, spouse equivalent (relative, friend) that most frequent contact with the patient and help either financially or emotionally support and most frequently been collateral in the patient's treatment and emergency contact.

Perceived social support: In this study social support means giving supports either emotional or informational advice to the care receivers from family, friend, relative as well as non-relative. Under this study low perceived social support was taken below the mean and high perceived social support was above mean.

Perceived stigma: Beliefs about the degree of devaluation and discrimination directed toward to the caregivers of mental ill patients. In this study low perceived stigma was taken below the mean and high perceived stigma above mean.

Chronic medical illness: medical illness those neither acute nor serious medical illness.

Chapter: Result

6.1: General characteristics of the study participants

6.1.1: Socio-demographic and economic characteristics of the study participants.

A total of 284 caregivers of psychiatric patients were invited to participate in the study. All of participant agreed to be interviewed due to this the response rate was 100%. Out of 284 caregivers, 160 (56.3 %) were females which means that majority of caregivers were females. The mean and standard deviation of participants age was 37.73±11.207 respectively.

Around 30% of caregivers were between age group of 35-44 years. More than one third of caregivers could read and write 108(38). Oromo ethnicity was the dominant one which account 161(56.7%). From among the total of the study participants, 155 (54.6%) were the Muslim followers. One hundred and seventy nine (63.02%) of participants were married.

One hundred twelve (39.4%) of care givers were attended the place of worship frequently. Most of caregivers, 251 (88.38%) were living together with the patients. (See table1) .

Table 1: Socio-demographic distribution of the respondents in Jimma University Specialized Hospital psychiatric clinic, 2013 (n=284)

Characteristics	Frequency (%)
Sex	
Male	124(43.7)
Female	160(56.3)
Age of caregivers	
18-24	39(13.7
25-34	67(23.6)
35-44	83(29.2)
45-54	69(24.3)
55-64	26(9.2)
Ethnicity	
Oromo	161(56.7)
Amara	74(26.1)
Gurage	13(4.6)
keffa	17(6.0)
Dawro	12(4.2)
Others*	7(2.5)

Religion	
Orthodox	91(54.6)
Muslim	155(32)
Protestant	32(11.3)
Others**	6(2.1)
Marital status	
single	64(22.5)
married	179(63.0)
divorced /separated	23(8.1)
widowed	18(6.3)
Level of education of caregivers	
Illiterate	65(22.9)
read and write	108(38.0)
primary (1-8)	58(20.4)
secondary (9-12)	42(14.8)
tertiary>12	11(3.9)
Occupation of caregivers	
unemployed	27(9.5)
labor	20(7.0)
government-employ	50(17.6)
farmer	74(26.1)
merchant	44(15.5)
housewife	42(14.8)
student	21(7.4)
others ***	6(2.1)
Relationship to patients	
spouse	50(17.6)
child	58(20.4)
parent	101(35.6)
relative	24(8.5)
sibling	44(15.5)
others ****	7(2.5)
Frequency of attending worship	
frequent	143(50.4)
sometimes	115(40.5)
never	26(9.2)
Living together to the patients	
Yes	251(88.4)
No	33(11.6)

*Tigre,Slite,,Somali,**Catholic,no religious,*** retired,****friend ,paid care giver

6.1.2: Distribution of Chronic medical illness and Substance use history among caregivers.

Almost 95% (269) of caregivers were free from chronic medical illness and 5.3% (15) were diagnosed as chronic medical illness by health professionals. Almost all caregivers 97% did not smoke cigarette. From total of participant 186 (65.5%) did not chew Khat, 98 (34.5%) did chew

Two hundred thirty (81%) didn't drink alcohol since the last one year. Only 5(1.76%) was positive for CAGE screening alcohol dependence from current user of alcohol. Other substance like hashish, cannabis had not been used among care givers (see table2).

Table 2: Distribution of Substance use among caregivers of SMI

Characters tics	Last 12 Months Frequency (%)
Cigarette smoking	
User No user	10 (3.5) 274(94.5)
Khat chewing	
User No user	98(34.5) 186(65.5)
Alcohol current user	
User No user	54(19) 230(81)
chronic medical illness	
Yes No	5.3 (15) 94.7(269)

6.1.3: Prevalence of depression among caregivers of psychiatric patients

Suicidal thought or hurting oneself is one of the nine items from PHQ-9, 19(6.7%) of the study participants had suicidal thought. Out of 284 of study participate, 96 (33.8%) were depressed, 188(66.2%) were no depressed based on severity at cut of point ≥10 by using PHQ_9 tool. The Cronbach's Alpha of PHQ-9 under this study was 0.893.

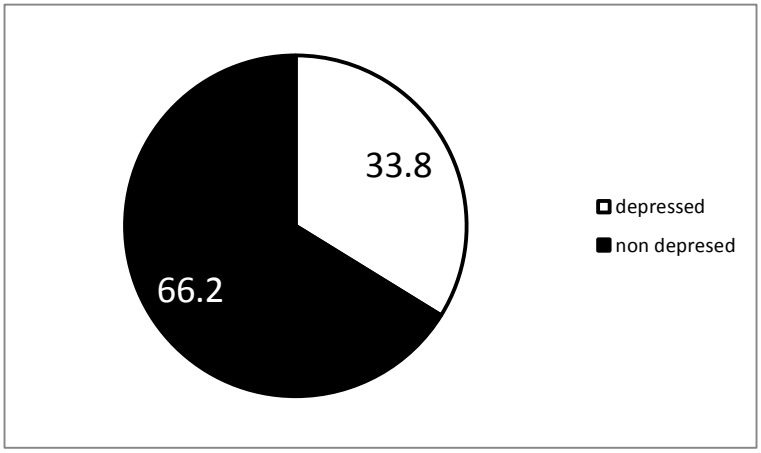

Figure 2: Prevalence of depression among caregivers of psychiatric patients in psychiatric clinic JUSH, 2013 (N=284).

Out of the depressed caregivers, 53 (53.13%) were moderate depression, 34 (35.41%) were Moderately severe depression, and 11(11.46% were severe depression (see in figure 3).

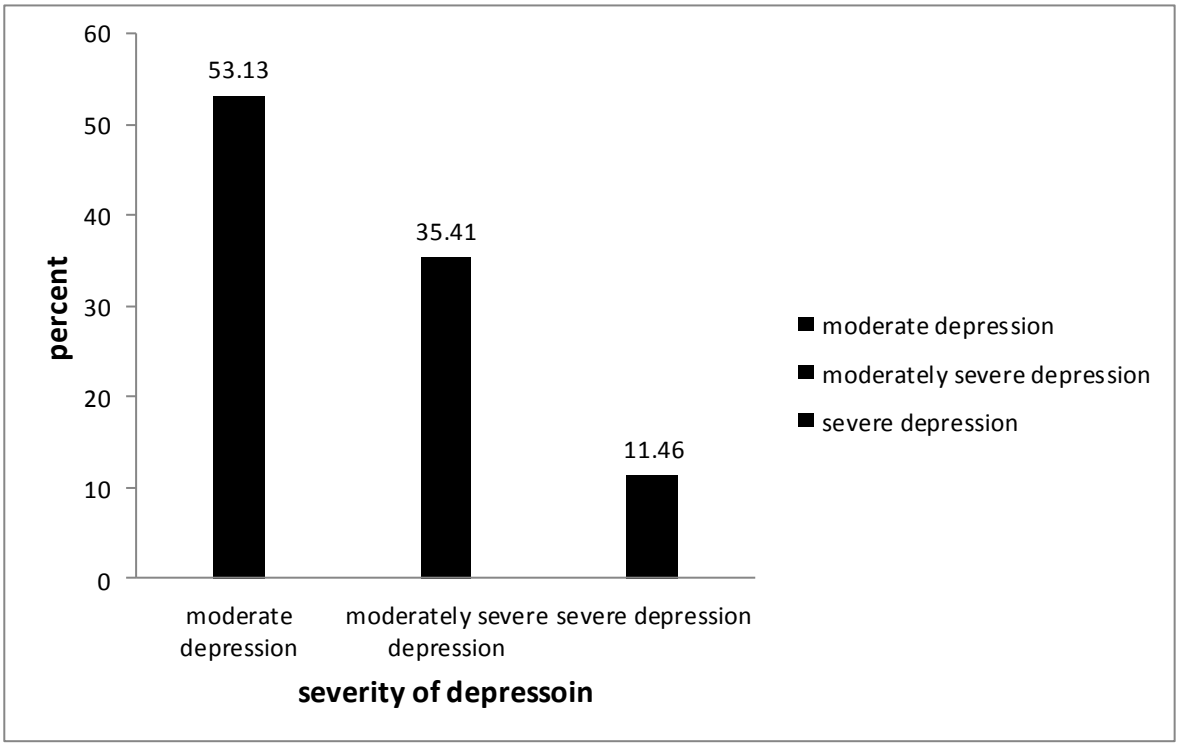

Figure 3: PHQ_9 classification of depression at cut of point ≥10.

6.1.4: Distribution of respondent of Psychosocial related factors

The mean and standard deviation of perceived stigma score of the responses to stigma items were 17.01±5.48 and the minimum and maximum score were 7and 28 respectively . For analysis purpose the stigma score was dichotomized into high stigma, above the mean and low stigma, below the mean. Based on this category, 133(46.8%) respondents had high stigma score above the mean.

. The mean and standard deviation of perceived social support score of the responses to social support items were 38.14±11.09 and the minimum and maximum score were 11 and 55 respectively . For analysis purpose the social support score was dichotomized into high social support , above the mean and low social support , below the mean. Based on this category 181(63.7% respondents had high social support score, above the mean

6.1.5: Distribution of the characteristics of patients for respondents provides care.

The age of patients was within the range of (11-62years). The mean and SD age of the patients by years were 30.53±10.03 respectively. The predominant diagnosis of the patients were schizophrenia 102(35.9%) followed by bipolar disorder78 (27.5%) and the third one was depression 62(21.8%). Around 49% patients of illness were below one year duration since initial diagnosis. From the total patients, two hundred seven had not history of suicide attempt (72.9%) and 231(81.3%) had no admission history.

6.2: Factors associated with depression of caregivers.

6.2.1: Socio-demographics and economic associated factors with depression.

Of the socio-demographic and economic factors, male sex, widowed, education (grade 1-12) ,house wife, frequency attending of worship ,living together to the patient and year of giving care were associated with the depression in binary logistic regression. I take median of years of caregivers due to not uniformly distributed the rest I take mean.(see table 4).

Table 3 Binary logistic regression association of socio-demographic factors with depression among Caregivers of mental ill patients in Jimma University Specialized Hospital 2013 (n=284)

Characteristic	No depression N (%)	Depression N (%)	COR (95%CI)	P value
Sex				
Male	94(75.8)	30(24.2)	0.455(0.271-0.763)	**0.003***
Female	94 (58.75)	66(41.25)	1	
Marital status				
Single	45(70.3)	19(29.7)	0.952(0.510-1.775)	0.877
Married	124(69.3)	55(30.7)	1	
Divorced/separate	14 (60.9)	9(39.1)	1.449(0.592-3.549)	0.417
Widowed	5 (27.8)	13(72.2)	5.862(1.992-17.247)	**0.001***
Age of caregivers				
18-24	31 (79.5)	8(20.3)	0.433(0.177-1.060)	0.067
25-34	49(73.1)	18(26.9)	0.616(0.306-1.241)	0.175
35-44	52(62.7)	31(37.3)	1	
55-54	43(62.3)	26(37.7)	1.014(0.525-1.961)	0.966
55-64	13(50)	13(50)	1.677(0.690-4.077)	0.254
Religions				

Orthodox	58(63.7)	33(36.3)	1.307(0.756-2.261)	0.337
Muslim	108(69.7)	47(30.3)	1	
Protestant	18(56.2)	14(43.8)	1.787(0.821-3.891)	0.143
Others	4(66.7)	2(33.3)	1.149 (0.203-6.491)	0.875
Ethnicity				
Oromo	107(65.5)	54(33.5)	1	
Amara	47(63.5)	27(36.5)	1.138(0.640-2.024)	0.659
Gurage	9(69.2)	4(30.8)	0.881(0.259-2.990)	0.839
Keffa	14(82.4)	3(17.6)	0.425(0.117-1.541)	0.193
Dawro	6(50)	6(50)	1.981(0.610-6.435)	0.255
Others	5(71.4)	2(28.6)	0.793(0.149-4.219)	0.785
Educational levels				
No formal education	146 (63.2)	85(36.7)	1	
Grade1-12	34(81)	8(19)	0.404(0.179-0.913)	**0.029***
Above grade 12	8 (72.7)	3(27.3)	0.644(0.166-2.494)	0.524
Occupation of caregivers				
Unemployed	20(74.1)	7(25.90)	0.776(0.288-2.092)	0.616
Labor	12(60)	8(40)	1.478(0.532-4.104)	0.453
Government	36(72)	14(28)	0.862(0.392-1.899)	0.713
Farmer	51(68.9)	23(31.1)	1	
Merchant	32(72.7)	12(27.3)	0.832(0.364-1.900)	0.662
House wife	18(42.9)	24(57.1)	2.957(1.349-6.480)	**0.007***
Student	16(76.2)	5(23.8)	0.693(0.226-2.120)	0.520
others	3(50)	3(50)	2.217(0.416-11.830)	0.351
Relationship to Patients				
Spouse	33(66)	17(34)	0.505(0.250-1.020)	0.057
Child	39(67.2)	19(32.8)	0.478(0.244-0.936)	0.031*
Parents	50(49.5)	51(50.5)	1	
Relative	21(87.5)	3(12.5)	0.140(0.039-0.499)	**0.002***
Siblings	38(86.4)	6(13.6)	0.155(0.060-0.398)	**0.000***
Others	7(100)	(0.000)	0.00(0.00-0.00)	0.999
Frequency of attending worship				
Frequently	103(69.1)	46(30.9)32	1	
Sometimes	75(70.1)	(29.9)	0.955(0.556-1.640)	0.868
Never	10(35.7)	18(64.3)	4.030(1.727-9.407)	**0.001***
Living together with patient				
Yes	159(63.3)	92(36.7)	1	
No	29(87.9)	4(12.1)	0.238(0.081-0.699)	**0.009***
Year of giving care to patients				
Less than median	142(72.1)	55(27.9)	1	
Above median	46(52.9)	41(47.1)	2.301(1.363-3.884)	**0.002***
No of school children				

Less than mean Above mean	147(69) 41(57.7)	66(31) 30(42.3)	1 1.630(0.937-2.834)	 0.084
Income(mean)				
Less than mean Above mean	111(63.1) 77(71.3)	65(36.9) 96(33.8)	1 0.688(0.410-1.153)	 0.156
Number hours per day				
Less than mean Above mean	78(75) 110(61.1)	26(25) 70(38.9)	0.455(0.271-0.763) 1	**0.018***

*Variables which are statistically significant

6.2 Substance and chronic medical illness associated with depression.

From substance users and chronic medical illness, there were not associated with depression among caregivers in binary logistic regression in this study. Hashish or cannabis removed from this analysis as the result of all caregivers did not use as they responded (see table 4)

Table 4 :Binary logistic regression association of substance use factors with depression among Caregivers of mental ill patients in Jimma University Specialized Hospital 2013 (n=284).

Characters tics	No depression N (%)	Depression N (%)	COR(95% CI)	P value
Smoking				
User No user	7(70) 181(66.1)	3(30) 93(33.9)	1 1.199(0.303-4.744)	 0.796
Kath chewing				
User No user	67(68.4) 121(65.1)	31(31.6) 65(34.9)	1 1.161(0.689-1.956)	0.575
Alcohol drinks				
User No user	34(63) 154(67)	20(37) 76(33)	1.192(0.643-2.209 1	0.577
Chronic medical illness				
Yes No	9 (60.0) 179 (66.5)	6(40.0) 90(33.5)	1.326(0.458-3.841) 1	0.603

6.2.3 Patient related associated factors with depression

Of patient related factors .Suicidal attempts of patients and number of admission were associated with depression the remaining were not associated in binary logistic regression.

Table 5: Binary logistic regression association of patients factors with depression among Caregivers of mental ill patients in Jimma University Specialized Hospital 2013 (n=284)

Characters tics	No depression N (%)	Depression N (%)	COR(95% CI)	P value
Age of the patients				
Less than mean	115(63.2)	67(36.8)	1	
Above mean	73(71.6)	29(28.4)	0.682(0.403-1.153)	0.153
Diagnosis of patients				
Schizophrenia	65(64.7)	36(35.3)	1	
Depression	42(67.7)	20(32.3)	0.873(0.4471.706)	0.691
Bipolar	50(64.1)	28(35.9)	1.027(0.555-1.900)	0.933
Schizofreniform	14(66.7)	7(33.3)	0.917(0.3392.477)	0.864
Brief psychotic	11(78.6)	3(21.4)	0.500(0.131-1.90	0.311
Others	5(71.4)	2(28.6)	0.733(0.135-3.972)	0.719
Duration of the illness				
<1year	94(72.3)	36(27.7)	1	
1-5 year	70(62.5)	42(37.5)	1.567(0.911-2.694)	0.105
>5 year	24(57.1)	18(42.9)	1.958(0.951-4.031)	0.068
Suicidal attempts of patients				
Yes	35(45.5)	42(54.5)	3.4(1.971-5.866)	0.001*
No	153(73.9)	54(26.1)	1	
Number of admission				
Less than mean	95(74.2)	33(25.8)	0.513(0.308-.853)	0.010*
Above mean	93(59.6)	63(40.4)	1	

*Variables which are statistically significant at 0.001 and 0.010

6.2.4 Psychosocial associated factors with depression of caregivers.

Perceived stigma and perceived social support were associated with depression at p value 0.001 (see table 6)

Table 6 : Psychosocial factors associated with depression in bivariate logistic regression among Caregivers of mental ill patients in Jimma University Specialized Hospital 2013(n=284)

Characters tics	No depression N (%)	Depression N (%)	COR(95% CI)	P value
Perceived stigma				
Low stigma	126(83.44)	25(16.56)	Reference	
High stigma	62(46.62)	71(53.38)	5.772(3.337-9.983)	**0.001***
Social support				
Low social support	34(33)	69(67)	10.1(5.713-17.855)	**0.001***
High social support	154(85.1)	27(14.9)	Reference	

*Variables which are statistically significant at p value 0.001

6.2.5: Factors that associated with depression in multiple Logistic regressions among patients with caregivers:

In order to control confounding factors and to identify final significant variables, a multivariable analysis was used. Variables that were associated with depression at P value ≤ 0.25 in bivariate analysis were entered in to the multiple logistic regressions. Then <0.05 were considered as significant variables. In multi variant logistic regression only three variables significantly associated with depression of caregivers.

From marital status, widowed caregivers were around five times greater than odd of depression when compared to those of married caregivers, AOR, 4.97 (1.093-22.62) .The large confidences. Interval of widowed indicated small numbers of widowed when compare to others.

Caregivers who had high perceived stigma were about four times odds of depression than those who had low perceived stigma, AOR 3.62 (1.517-8.638). Caregivers that were scored low

perceived social support had eleven times odds of depression than when compare to those who scored high perceived social support, AOR, 11.37 (4.64-27.83) were significantly associated with depression .(see table7)

Table 7: Multivariate logistic regression of factors independently associated with depression among Caregivers of mental ill patients in Jimma University Specialized Hospital, 2013 (n=284).

Characteristic	No depression N (%)	Depression N (%)	AOR (95% CI)	P value
Sex				
Male	94(75.8)	30(24.2)	0.62(0.230-1.65)	0.334
Female	94 (58.75)	66(41.25)	1	
Age of caregivers				
18-24	31 (79.5)	8(20.3)	0.68(0.129-3.58)	0.647
25-34	49(73.1)	18(26.9)	1.14(0.325-4.00)	0.838
35-44	52(62.7)	31(37.3)	1	
55-54	43(62.3)	26(37.7)	0.78(0.273-2.23)	0.643
55-64	13(50)	13(50)	1.85(0.441-7.78)	0.400
Marital status				
Single	45 (70.3)	19(29.7)	2.85(0.772-10.51)	0.116
Married	124 (69.3)	55(30.7)	1	
Divorced	14 (60.9)	9(39.1)	1.56(0.2788.72)	0.614
Widowed	5 (27.8)	13(72.2)	4.97(1.093-22.62)	**0.038***
Educational levels				
No formal education	146 (63.2)	85(36.7)	1	
Grade 1-12	34(81)	8(19)	0.63(0.135-2.94)	0.555
Above grade 12	8 (72.7)	3(27.3)	0.50(0.041-6.05)	0.585
Perceived stigma				
Low stigma	126 (83.44)	25 (16.56)	1	
High stigma	62(46.62)	71(53.38)	3.62(1.517-8.638)	**0.004***
Perceived social support				
Low	34(33)	69(67)	1	
High	154(85.1)	27(14.9)	11.37 (4.64-27.83)	**0.001***

***Significant association in multi variat logistic regression**

Chapter VI: Discussion

In this study an attempt has been made to assess the prevalence and associated factors of depression among caregivers of severe mental illness. This is also the first study of its kind in Ethiopia attempting to identify the prevalence of depression and its associated factors among caregivers of SMI in Jimma University Specialized Hospital, south west, Ethiopia. The study result will be the base line to another study.

The findings of this study indicate that depression among female caregivers were (41.25%) significantly high in prevalence as compared to male respondents (24. 19%).

High prevalence of depression was observed at age group 55-64 years, among widowed caregivers, caregivers having no formal education, housewives, parents, never attending worship and giving care for long period of time ,living with the patient and low income compare to other groups ,even though majority of variables were fail to be significant in multivariate logistic regression.

The overall prevalence of depression among caregivers in this study was 33.8% from our representative sample greater than that was done in Egypt 23.3% (n=60) Egypt (14). The discrepancy could be the tool variation used Center for Epidemiological Studies of Depression Scale (CES-D) for depression because of different cut of point and sensitivity.

The study done 2007 in United States (Rhode Island) among caregivers of chronic mood disorder 75% of caregivers had depression and another study done in India 65% of caregivers showed depression disorder which is inconsistence to our study (15,20) This was almost more than two times (15) and approximately two times greater than to our study. This much discrepancy may be due to difference in caregivers they selected only caregivers living to the patient and chronic mood disorder had had two or more years and admitted patient (15). The tool difference also could be used in India was Montgomery Asberg Depression Rating Scale.

According to 2007 in California among caregivers of schizophrenia found (n=85) 40% were depressed (16) and in Sri Lanka (Asia) also among caregiver of schizophrenia and bipolar disorder, n=80 (37.5 % of them were depressed (17).this is little bit greater than our study. The result discrepancy may be in socio-cultural they may explain well what caregivers' feeling unlike our society not to be stigmatized due to diagnosis of mental illness and tool difference also (tool

CES-D for depression) as well both study focus on schizophrenia and bipolar patients only unlike this study.

In our study caregivers perceived stigma directly associated with depression which is similar to study done in Egypt, California and England, showed Perceived stigma was associated with caregiver depressive symptoms (14, 16, 24)

The study done in united States (Cleveland) showed that People with stronger support systems which provided instrumental and/or emotional support had fewer depressive symptoms and Caregiver gender was not a significant predictor for Caregiver depressive symptomatology (18, 19, 23) which is in line with our study gender was not significant to depression as well as those caregivers who had high perceived social support were less depression than low support.

The research finding in Mexico American among caregivers revealed that young caregiver and low education result in higher depression but in this study even though both independent variables were significant in binary logistic regression while entered to multi logistic regression they were not significant due to due to small sample size and used mean which is different from our study large sample and categorical (16).

From this study caregivers of widowed were more affected than that of married which is in line with community cross-sectional study and national health survey in Ethiopian (29, 30).Substance use like khat, cigarrate and alcohol significant associated with depression study in Ethiopia inconsistence to this study it could be community and national health survey and large sample size when our study is hospital based and small sample on caregivers.(29,30).

Study in Nigeria found that higher depression on diabetes mellitus patients than control group (28) which was in consistence to our study may be small number of medical comorbid and lack of control group as well as individual difference caregivers in in my study Other variables which are found to have association by other study like age, duration of illness, Income, number of hospitalizations, suicidal attempt(20,26) fails to have association in this study. The Sample size and use control group unlike our study may have its own impact.

Limitations

The depression symptoms may prodromal symptom of anxiety.

Since this study used a cross sectional study design, it is difficult to conclude causal association.

Genetic may influence the result which is not addressed in my study.

Tools to evaluate stigma and social support were not validated in Ethiopia.

Chapter VII: Conclusion and Recommendation

7.1. Conclusion

Our study finding showed that the prevalence of depression among adult caregivers. Even thought, the prevalence was high,none of them were screened or treated for depression. This high prevalence of depression may affect not only caregivers associated with sudden suicide attempts but also poor outcome of care receiver due to lack of proper giving service.

Intervention was given at the time of data collection by psycho education for PHQ-9 score 5-9 and those ≥10 and having suicidal thought to be seen by mental health professions.

This finding also is indication to take intervention of caregivers because caregiver shoulder had huge responsibilities when taking care of family members with severe mental illness on a daily basis. Perceived Stigma, perceived social support and widowed were significantly associated variable with depression so that it is mandatory to take intervention in order to reduced depression among caregivers.

7.2. Recommendation

Based on the findings outlined above, we would like to forward the following recommendations for the relevant stake holders.

- Timely recognition and treatment of depression should be the critically important for reducing depression in caregivers in psychiatric clinic.
- Routine psycho education programs (counseling services) regarding warning sign of depression and about stigma, social support which were associated to depression.
- Ministry of health should prepare screening manual and distribute to mental health professionals to identify depression among caregivers of severe mental illness.
- Involvement of different stakeholders including, JUSH, religious leaders, mental ill family association and others in the behavioral change communication and good cultural approach about perceived stigma which were the problem of caregivers and strength perceived social support.
- To researchers **:** Need for a nation-wide study to assess the real magnitude of depression among caregivers in which age group more affected ,considering perceived stigma, perceived social support and widowed independently associated with depression in this study.

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Annex I: Questioners (English)

Jimma University College of public health and medical Sciences, School of Graduate Studies Department of psychiatry.

The questionnaire was prepared to assess prevalence of depression and associated factors among caregivers of mental ill out patients in psychiatric clinic in Jimma University specialized hospital, south west ,Ethiopia

Consent form

_____, I am here on behalf of Jimma University, College of Public Health and Medical Sciences, Department of psychiatry. I would like to interview you questions about sign and symptoms of depression you are experienced and associated factor while you give care for your mental illness patient. Your honestly participation in filling questionnaires will provide us valid result and show us our real status and help to make intervention; hence we request to participate honestly. Your participation in filling the prepared questionnaires and every aspect of the study are completely voluntary. You may skip any question that you prefer not to answer, but we would appreciate your cooperation. You may also ask me to clarify questions if you don't understand them or can stop the interview at any time. Finally, all the information that you provide for the study is kept completely confidential. Your responses to our questions are id

entified only by number, never by name.

Do you agree to participate in this study?

1.Yes 2 .No

Thank you for your participation

Name of data collector _____signature _____date _____

Time of start _____

Name of supervisor _____signature _____date _____

Recorded card number of the patient make tick on card --- to prevent

Part I Demographic and Socioeconomic Information of caregivers.

Serial No.	Questions	Response and categories
1	Age of caregivers in (years)	_____
2	Sex	Male Female
3.	Marital status	Single Married Divorced Widowed
4.	Ethnicity	1.Oromo 2.Amara 3.Gurage 4.Keffa 5.Dawro 6.Others
5.	Religion	1.Orthodox 2.Muslim 3.Protestant 4.others
6.	Frequency of attending worship	Frequently Sometimes Never
7.	Level e of education of caregivers	Illiterate Read and write only Literate, specify grade completed_____
8.	Occupation of caregivers	Unemployed Labor Government employ

		Farmer Merchant House wife Student others
9.	What is your Relationship to the Patient?	Spouse Child Parents Relative Siblings Others
10.	How many school children(<18years) stay together at home	_____
11.	The approximate amount of hours you spend per day as a caregiver for the individual with mental ill patients	_____day
12.	Do you live together to the patients at this time?	Yes No
13.	For how many months /years did you give care to the patient?	_____
14.	Estimated monthly income in birr	_____birr

Part V: To assess depression on caregivers by using PHQ-9 tool.

(Not at all =0 , several days =1, More than half the days =2, nearly every day =3)

Not at all "refers to 0–1 days in the past 2 weeks, "several days "refers to 2–6 days ,"more than half the days" refers to 7–11 days, and "nearly every day" refers to 12–14 days.

Question number 17, 18, 19 and 22 should be asked in bidirectional since they confused the caregivers.

	Over the last 2 weeks, how often have you been bothered by any of the following problems including today.	0	1	2	3
15.	Little interest or pleasure in doing things				
16.	Feeling down, depressed or hopeless				

17.	Trouble falling or staying asleep, or sleeping too much				
18	Feeling tired or having little energy				
19	Poor appetite or overeating				
20	Feeling bad about yourself—or that you are a failure or have let yourself or your family down				
21	Trouble concentrating on things, such as reading the newspaper or watching television				
22	Moving or speaking so slowly that other people could have noticed or restless that you have been moving around a lot more than usual				
23	Thoughts that you would be better off dead or of hurting yourself in some way				
24	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 □ Somewhatdifficult □ Verydifficult □ Extremelydifficult				
Note: Caregivers who score 5-9 tell to repeat next appointment and ≥10 and any suicide inform to contact mental health professionals or to take intervention.					

Part III: Perceived Stigma related questions.

(1= strongly disagree ,2 =disagree, 3 = agree; 4=strongly agree;)

Note: Reversed item (actual item is phrased ". . . are not as responsible"), Reversed item (actual item is phrased ". . . would not treat families") and Reversed item (actual item is phrased ". . . do blame parents"

	Select the most appropriate for your feeling.	**1**	**2**	**3**	**4**
25	Most people in my community would rather not be friends with families that have a relative who is mentally ill living with them.				
26	Most people believe that parents of children with a mental illness are just as responsible and caring as other parents.				
27	Most people look down on families that have a member who is mentally ill living with them.				

28	Most people believe their friends would not visit them as often if a member of their family were hospitalized for a serious mental illness .				
29	Most people treat families with a member who is mentally ill in the same way they treat other families.				
30	Most people do not blame parents for the mental illness of their children.				
31	Most people would rather not visit families that have a member who is mentally ill.				

Part II: To assess perceived social support (MPSS).

(1 = strongly disagree 2 =Disagree 3 = Neutral 4 = Agree 5 = strongly agree)

	Select the most close scale value in accord with what you feel	1	2	3	4	5
32	There is a special person who is around when I am in need.					
33	There is a special person with whom I can share joys and sorrows.					
34	My family really tries to help me.					
35	I get the emotional help and support I need from my family.					
36	I have a special person who is real source of comfort to me.					
37	My friends really try to help me.					
38	I can count on my friends when things go wrong					
39	I can talk about my problems with my family.					
40	I have friends with whom I can share my joys and sorrows.					
41	There is a special person in my life who cares about my feelings.					
42	My family is willing to help me make decisions.					
43	I can talk about my problems with my friends.					

Part III: Health related factors.

44. Do you have any diagnosed chronic medical illness(hypertension or DM ?

1 .Yes 2 .No

Part IV .Question to assess substance use

45	Do you smoke cigarette?	1.yes 2.no
46	Do you chew Kath?	1.yes 2.no
47	Do you use substance like cannabis/marijuana?	1.yes 2.no
48	Have you used any kind of alcohol the last 12 months?	1.yes 2.no
49	if you drink alcohol in the last 12 months.	1.yes 2.no
	1. Have you felt the need to cut down on your drinking?	1.yes 2.no
	2. Have you felt the need to cut down on your drinking?	1.yes 2.no
	3. Have you felt guilty about your drinking?	1.yes 2.no
	4. Have you felt the need for an eye-opener in the morning?	1.yes 2.no

Part VI: Question related to the patient.

50. What is the age of the patient in years? _____

51. What is diagnosis of the patients? ----------

52. Did he /she ever attempted or made threat about attempting suicide?

_____ Yes _____ No

53. How many times the patient has been admitted to the psychiatric hospital? _____ .

54. How long has the individual been suffering from mental illness since initial diagnosis of psychiatric disorder?_____ years .

Annex III: Amharic vertion questioners

ጅማ ዩንቨርስቲ ህብረተሰብ ጤናና ሕክምና ሳይንስ ኮሌጅ የአእምሮህክምና ክፍል

የጥናቱን አላማ በመረዳት እና በፍቃደኝነት ላይ የተመሰረተ የስምምነት ዉል

ከሰላምታ ጋር

ስሜ_____ይባላል::የተገኘሁት ጂማ የኒቨርሲቲ ጤና ሳይንስ ህክምና ኮሌጅ የአእምሮ ህክምናት/ትክፍልን ወክየ ነዉ።የጥናቱአላማ ታካሚዉን ዘመድዎን ሲንክባከቡ እርስዎ ላይ የድብርትህመም ምልክቶች እና ሌሎች ከችግሩ ተያያዥነተ ያላቸውን ነገሮች ለማወቅ የተወሰነ ጥያቄዎችን መጠየቅ እፈልጋለዉ።።።የእርስዎ በታማኝነት ጥያቄዉን መመለስ ትክክለኛ ዉጤት እንዲገኝ እና ትክክለኛ እርምጃ እንዲወሰድ ይረዳል፤

ስለዚህም በታማኝነት እንዲሳተፉ እጠይቅዎታለን።ተሳትፎዎ በፈቃደኝነት ላየየተመሰረተ ነዉ።

መመለስ ያልፈለጉትን ጥያቄመዝለል ይችላሉ፣ነገርግን የእርስዎን ተብብር እንፈልጋለን ያልገባዎትታቄካለ እንዳብራራልዎት ሊጠይቁኝይችላሉወይምመጠይቁንበማንኛዉምጊዜሊያቆሙይችላሉ።ማቆምዎከሆስፒታሉበሚያገኙትህክምናላይምንምችግርአያሳደርም። በመጨረሻምእርስዎለዚህጥናትየሚሰጡንመረጃምስጢራዊነታቸዉሙሉበሙሉየተጠበቀነዉ።ለሚሰጡንመረጃስምዎትእናማንነትዎአይገለፅም::

ለመሳተፍ ፍቃደኛነዎት?

1. አዎ _____ ቃለ መጠይቅ ይቀጥላል.

2. አይደለም_____ጥያቄዉን በማቆም አመስግነዉ ያሰናብቱ::

ክፍል አንድ፡- የታካሚው ሙያ ና ማህበራዊ ሁኔታዎች.

በመመሪያው የሚገኙትን መልስ በትክክል ይመልሱ .

ተ.ቁ	ጥያቄ	መልስ
1	ዕድሜዎ ሰንት ነዎ	------`በአመት
2	ፆታ	ወንድ ሴት
3.	ብሄር	1. ኦሮሞ 2. አማራ 3. ጉራጌ 4. ከፋ 5. የም

		6. ሌላ ካለ
4	ሐይማኖት	1. ኦርቶዶክስ 2. ሙስልም 3. ፕሮተስታንት 4. ሌላካለ ይጥቀሱ----
5	የአምልኮ ቦታ በየምን ያህል ጊዜ ይከታተላሉ?	1. በየቀኑ 2. በሳምንትከ2-3 ጊዜ 3. በሳምንትአንድጊዜ 4. ከአንድሳምንትበታች 5. በፍጹም
6	የትምህርት ደረጃ	1. መንበብ ና መጻፍ የማይችል 2. መንበብ ና መጻፍየሚችል 3. የተማረ/ች ከሆነ/ች ያጠናቀቁበትን ክፍል
7	የጋብቻ ሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. የፈታ/ችለየተለያየ ቦታየሚኖሩ 4. ባሏ የሞተባት/ ሚስቱ የሞተችበት
8	ሥራ	1. ስራ የለዉም/ላትም 2. የቀን ሰራተኛ 3. የመንግስት ሰራተኛ 4. ገበሬ 5. ነጋደ 6. ተማሪ 7. ጡረታ የወጣ 8. ሌላ ካለ ግለጽ ---------- ----------
9	አማካይ ወርሀዊ ገቢዎ ምን ያህል ነዉ (በብር)	በወር---------- በአመት_____
10	ከታካሚዎ ጋር ዝምድናህ .ምድን ነው	1.ባል 2.ልጅ 3 ወላጅ 4.ጉደኛ 5.ዘመድ 6 ሌላ
11	ስንት ልጅ ከ18 አመት በ ታትአለህ/ስ	-_____
12	ታካሚውን በቀን ምን ያህል ሰአት ግዜ ትከባከባለህ	
13	ለምን ያህል ወር ወይም አመት ታካሚውን	

	ተከባከቡ	
14	ታካሚው እና አንተ/ች አሁንአብረዉ ነዉ የሚኖሩት	1.አዎ 2.የለም

ክፍል ሁለት የድብርት ምሌከቶች መለያ መጠይቅ

PHQ-9 **ማስታወሻ፡ አልፎ አልፎ ብቻ /2-6 ቀናት/ ነ በዛ ላለ ጊዜ /7-ነነ ቀናት/፤ ከሞላ ጎደል በየቀኑ /ነ2-ነ4 ቀናት/ መሆኑን ይግለፁ**				Code
	ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸው ችግሮች ውስጥ /በየትኞቹ ተቸግረው/ እንደነበር እጠይቅዎታለሁ፡፡			
ነ5	ላለፉት ሁለት ሳምንታት የዕለት ተዕለት ተግባርዎን ለማከናወን /ለመስራት/ የለዎት ተነሳሽነት ወይም ፍላጎት በጣም ቀንሶ ነበር ?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተሰማዎት ?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
ነ6	ላለፉት ሁለት ሳምንታት የመከፋት የመደበር ወይም ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተሰማዎት?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
ነ7	ላለፉት ሁለት ሳምንታት እንቅልፍ አልወስድ ብሎዎት ወይም በደንብ መተኛት አቅትዎት ይቸገሩ ነበር?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተቸገሩ?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
ነ8	ላለፉት ሁለት ሳምንታት እንቅልፍ በዝቶብዎት ይቸገሩ ነበር?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተቸገሩ?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
ነ9	ላለፉት ሁለት ሳምንታት የድካም ወይም የአቅም ማነስ ስሜት ይሰማዎት ነበር?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተሰማማዎት?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
20	ላለፉት ሁለት ሳምንታት የምግብ ፍላጎትዎ ቀንሶ ነበር?	አዎ	ነ	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ቀንሶ ነበር?	አልፎ አልፎ ብቻ	ነ	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	

21	ላለፉት ሁለት ሳምንታት የምግብ ፍላጎትዎ ከተለመደው በላይ ጨምሮ ነበር?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ጨምሮ ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
22	ላለፉት ሁለት ሳምንታት ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ የሚል ስሜት ተሰምትዎት ነበር?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተሰማዎት ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
23	ላለፉት ሁለት ሳምንታት በሚሰሩት ስራ ላይ ሃሳብዎን ለመሰብሰብ/ትኩረት መስጠት አስቸግርዎት ነበር? /ለምሳሌ ከሰዎች ጋር ሲጨዋወቱ ትኩረት ስጥዶ ማዳመጥ/?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
24	ላለፉት ሁለት ሳምንታት ለሌሎች ሰዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ብለው ነበር?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
25	ለሌሎች ሰዎች እስከሚታወቅ ድረስ መረጋጋት አቅቶዎት አንድ ቦታ አርፎ መቀመጥ ወይመ መቆም እስከማይችሉ ሆነው ነበር ?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተቸግረው ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
26	ላለፉት ሁለት ሳምንታት ከምኖር ብሞት ይሻለኛል ብለው አስበው ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበው ነበር?	አዎ	1	
		የለም	0	
	መልስዎ አዎ ከሆነ በሁለቱ ሳምንታት ውስጥ ለምን ያህል ጊዜ ተሰምትዎት ነበር?	አልፎ አልፎ ብቻ	1	
		በዛ ላለ ጊዜ	2	
		ከሞላ ጎደል በየቀኑ	3	
27	ከተዘረዘሩት ችግሮች ለአንዳቸውም አዎ የሚል መልስ ከተሰጠ የሚከተለውን ይጠይቁ፡፡ በነዚህ ችግሮች ምክንያት ስራዎን ለመስራት የቤት ኃላፊነትዎትን ለመወጣት ወይም ከሰዎች ጋር ተስማምተው ለመኖር ምን ያህል አስቸጋሪ ሆኖብዎት ነበር?	በጭራሽ አልተቸገርኩም	1	
		በመጠኑ ተቸግሬ ነበር	2	
		በጣም ተቸግሬ ነበር	3	
		እጅግ በጣም ተቸግሬ ነበር	4	

ክፍል 3፡የአድሎ እና መገለል በተመለከተ መጠይቅ

(4=በጣም እስማማለሁ 3=እስማማለሁ 2=አልስማማም 1=በጣምአለስማማም)

28	አብዛኛው ማህበረሰብ የአዕምሮ ህመምተኛ ቤተሰብ ካለበት ሰው ጋር ጓደኛ መሆንን አይመርጥም				
29	የአብዛኛውማህበረሰብአመለካከትየአዕምሮህመምተኛልጆችንእንክብካቤእናእርዳታየማድረግሃላፊነት አለበት				
30	በዙሃኑማህበረሰብየአዕምሮህመምተኛአብሮየሚኖርካለዝቅአድርጎመመልከትየተለመደነው				
3ነ	በዙሃኑማህበረሰብየጓደኛውቤተሰብበከባድየአዕምሮህመምሆስፒታልቢተኛተመላልሶየመጠየቁዝንባ ሌእነደሌላታካሚአይሆንም				
32	ብዙሃኑ ማህበረሰብ አንደማንኛውም አይነትሂመምተኛ ቤተሰብ ክትትልናእርዳታይሰጣል				
33	ብዙሃኑ ማህበረሰብ የአዕምሮ ህመምተኛልጅ ያለውንቤተሰብበ ልጁ አይወቀስም				
34	ብዙሃኑ ማህበረሰብ የአዕምሮ ህመምተኛ ካለ ለመነበኘት ፈቃደኛ አይደለም				

ክፍል አራት ፡ማህበራዊድጋፍንለመለካትየሚጠቅምመጠይቅ

	እባቅዎከዚህበታችየተዘረዘሩትንአማራጮችይስማማልብለውያመኑትንይምረጡልን (1=በጣምአልስማማም 2=አልስማማም 3=ሃሳብየለኝም 4=እስማማለሁ 5=በጣምእስማማለሁ)				
35	ችግርበሚያጋጥመኝጊዜሊረዳኝየሚችልስውአለኝ				
36	ድስታየንወይንምጭነንቀቴንላካፍለውየምችልቅርብሰውአለኝ				
37	ቤተሰቦቸከእውነትሊረዱኝዝግጁናቸው				
38	የሃሳብወይንምማንኛውንምድጋፍከቤተሰብማግኘትእችላለሁ				
39	የደስታምንጭሊሆነኝየሚችልሰውአለኝ				
40	ጓደኞቸከልብሊረዱኝዝግጁናቸው				
41	ነግሮችከቁጥጥርውጭከመሆናቸውበፊትጓደኞቸንአስባለሁ				
42	ችግሬንከቤተሰብጋርእዎያያለሁ				
43	ድስታየንወይንምጭነንቀቴንላካፍለውየምችልቅርብጓደኞቸአለኝ				
44	ስለእኔሒዎትየውስጤንስሜትየሚረዳልኝስውአለኝ				
45	ቤተሰቦቸውሳኔበሚያስፈልገኝጊዜለመርዳተፈቃደኛናቸው				
46	ችገሬን ለጓደኞቸ ለማማከር ችግር የለብኝም				

ክፍል አምስት:ከአካላዊ ጤና ጋር የተገናኘ ጥያቄ

47.የታወቀ አካላዊ ህመም አለህ ሀ/ አዎ ለ/የለመ

ክፍል ስድስት፡ አደዛኝ እጥ በተመለከተ.

48.ሲጋራ ያጨሳሉ A. አዎ B. በፍፁም

49..አደንዛዥ ና አነቃቂ እጾችን ይጠቀማሉ ለምሳሌ እንደ ማሪዋና /ሀሽሽ /ጋንጃ/ ካናቢስ የመሳሰሉትን

ሀ. አዎ B. በፍፁም.

51.ጫት ይቅማሉ A. አዎ B. በፍፁም

ከ መጠጋር የተያያዙመጠይቆች

52	ላለፉት 12 ወር ውሥጥ ማንኛውም አይነት መጠጥ ጠጥተው የውቃሉ	አዎ	የለም
53	መጠት ከጠጡ፡		
	1.መጠጡንለማቆምወስነውያውቃሉ?		
	2.ስለመጠጣትዎአስተያየትሲሰጥዎየበሳጫሉወይ?		
	3.በመጠጣትዎየበታችነትስሜትተሰምትዎትያውቃል? 4.ጥዋት እድትነቃቃ መጠጥ ያስፈለግሀል		

ክፍል 7 ፡ታካሚዉ በተመለከተ የሚጠየቅ

54. የታከካሚው እድሜ ስንት ነው ----------በአመት

55.የታካሚዉ የበሽታ አይነት _____

56.ራሱን ለማትፋት ሙከራ አድርጎ ያውቃል

57.ለምን ያህል ግዜ ሆስፒታል ተኛ - - ----------

54. ስንት ግዜዉ ነዉ ክታመመ በ አመት _____

Annex I: Gaaffiiwwan Afaan Oromootiin (Afan Oromo Version)

Gaaffii Kun Kan qopa e wa e dhukana fi isa wajin qabata ta n warra dhukkub sachiftota irra gahu qo achufi.

Hospitaala speeshaalayizidii Jimma yuuniversiiti adda baasuuf qophaa'e

Maqaankoo _____ kanan jedhamu Yuunversiittii Jimmaatti Kolleejjii Saayinsii Fayyaa Hawaasaa fi Medikaalaatti dippaartimentii (kutaa) fayyaa sammuu b akka bu'uudhaan.Kaayyoon qorannaa kan hademsifamu dhukubchiftoni yoking matin dhukubsata sammu hamamtu dukanna fi walin qabata ta"an itti mul atu qorachuufiidha.Gaaffii kana keessatti hirmaachuun keessan bu'aa qabatamaa jiru kan

nu agarsiisuu fi rakkoo jiru sirreessuuf baayee nu gargaara.Kanaafuu, akka hirmaattaniif kabajaan isin gaafanna.Gaaffii kana keessatti hirmaachuun guutummaa guutuutti fedhii irratti kan hundaa'eedha.Gaaffii deebisuu hin barbaadne irra darbuu ni dandeessu garuu, hirmaannaa keessaniif isin jejna,Gaaffiin isiniif hin galle yoo jiraate walakkeessa gaaffiitti addaan dhaabuun na gaafachuu dandeessu.Qorannaa kana keessatti hirmaachuu dhiiisuunkeessan wal'aansa hospitaala kan irraa argattan irratti miidhaa hin fidu.Walumaagalatti, odeeffannoo isin nuuf kennitan dhoksaan isaa eegamaadha.Deebiinkeessan lakkoofsaan malee maqaa namaan addaan hin ba'u.

Amma akka hirmaattu kabajaadhaan si gaafadha.

Gaaffii na gaafattu qabdaa?

Amma itti fufuu nan danda'aa? Eeyyee_____ Lakki_____

Maqaa nama odeeffannoo funaanuu_____Mallattoo_____Guyyaa_____

Sa'aatii itti jalqabde barreessi_____

Maqaa Nama to'atuu_____mallattoo_____guyyaa

Kutaa I Gaaffiwaan afaan oromootiin qopha'aan

takk	Gaaffiwaan	Deebii
1.	Umurii	
2.	Saala dhukkubsataa	1. Dhiira 2. Dhalaa
3.	Qomoo	1. Oromoo 2. Amaraa 3. Guraagee

		4. Kefaa 5. Daawuroo 6. Yem 7. Kan biraa ___
4.	Amantii dhukkubsataa	1. Ortoodooksi 2 Musiliima 3. Prootestaantii/peenxee 4. Kaatoolikii 5. Kan biraa
5.	Yeroo meeqa bakka waaqeffannaaykn mana Amantii deemta?	1. Yeroo hundaa 2. Torbaanitti yeroo 2-3 3.torbanitti yeroo tokko 4.torban tokkoon alatti 5.Tasumaa
6	Sadarkaa barnoota dhukkubsataa	1. Kan dubbisuuf barreessuu hin dandeenye 2. Kan dubbisuu fi barreessuu danda'u 3. Kan barate/baratte yoo ta'eef, kutaa meeqa barate/baratte_____6.
7	Hojii dhukkubsataa	1. kan hojjii hin qabne 2. hojjataa guyyaa 3. hojjaataadha(hojjetaa mootummaaykn mitimootummaa) 4. qonnaan bulaadha 5. daldalaadha 6. barataadha 7. soorama kan ba'e 8. kan biraa yoo ta'e ibsi_____ _____
8	Haala ga'ela dhukkubsataa	1. kan hin fuune/ heerumne 2. kan fuudhe/ heerumte 3. kan hiike/te 4. kan gargar jiraatan 5. kan abbaan warraa/hati warraa irraa du'e/te
10	Missema maattii keerssa dhumbdbanitty nama meegaft gargara/ kuuma godeay	1.himjira 2.nama lama 3.nama teffte 4.nama oli

11	Missema maattii keerssa dhumbdbanitty nama meegaft gargara/ wixata jimmata	1.himjira 2.nama lama 2.3.nama tefft 4.nama oli
12	Yeroo hammaiitiy dhukkubsataaef gargrsa gootan	1, jia 2.wagga
13	walligala yeroo kan dabarsite sammuntan akka warra kununsun warra sammu dhukkubsatun	___
14	yeroo amma.	___ anni jaladha warra sammu dhukubsatan ___ hinjaladhu warra sammu dhukubsatan

kutta III. Gegarsa hawasaa :wa ee degarsa hawassa yeroo kununassa misensa matti.gatti itti dhihatu fillacha,wan fetan.(1=cimmatti hin gegaru 2= hin gegaru 3=gidugalessa 4=degarra 5=cimmatti degarra).

1. namni adda nanno kiya rra jira kan yeroo an barbadu.
2. namni adda nanno kiya rra jira kan gadda fi gadaddo walin qoddanu.
3. mattin kiyya nna gargaruf yalla jiru.
4. matti kiyya irra gargarssa emotional argachan jira.
5. nahirriyan tiyya na gargaruf yalla jiruma adda tahen qabba kan na boharsu.
6. hirriyan tiyya na gargaruf yalla jiru.
7. wantonni yeroo kara hintanen deman hiriyya tiy rra hin lakahu
8. wa ee rakko kiyya mati kiya wajin hin hashu.

9. hiriyya qaba kan wajin gadda fi gadado wajin dabarsu.

10. namni adda jiru kiyaa kessa jira kan wa ee fedhi kotti cinkamu.

11. mattin kiyya fedhi an akka murtesu na gargaran

12. wa ee rakko kiyya hiriyotta kiya wajin hin hashu.

Kuta III: Turban 2 darbe kessa,yeroo meqa rakko kanattianun saxilamatan

(sirumma=0 ,guyya hedu=1,guyya ½ caalaa =2,guyya hedu=3).

1.fedhi fi gamachu xiqqo wantota godhura

2.fedhi hirachu,gadda yokan abdi dhabu.

3. hiribba dhabu,hiribba guddisu.

4. adhabu yokka human dhabu.

5.fedhi nyata dhabu,hedu nyachu;

6. offiti amm anuma dhabu;

7. yad awalitti fudha chu dadhabu.

8.. sochi yokka dubi suttan kan namonni birra arragan?yokkan asif achi dademu

9. yadda of ajesu.

kutta IV:gaffilee waee stigma .

(4=cimmati degarra ,3=degarra ,2= hingegaru ,1=cimmatti yokka sirriti hindegaru)

1. namonni hedu nanno kiyya hiriyya hintan warra mati firri issa dhukkubba samu wajin jirratu,

2. namonni hedu kan ammananwarri ijolle dhukkubba samuttin jiran dirqammafi kununsa akka matti birra.

3. namonni baayye matti gadilalu kan misenssa war dhukubasamuttin wallin jiran.

4. namoni baaye kan ammanan hiriyonni issni hinlalan yoo misensi mati issanni dhukkuba sammuttin hospital cissan.

5. namonni baayye kunnunsu matti warra dhukuba sammuttin dhukubsatan akka walffakatun mattibirra.

6.nammonni baayye hin yakkan matti dhukkuba sammu ijjolle issanittif

7.namonni bayyee hin lalan matti misenssa warra dhukkuba sammuttin dhukkubssatan walli gall warra kununsun.

KutaaII: gaaffiwwan gooddii,gaffiwwanarmana gaddi eeyyee¸ykn,: 'leekki 'jihuuni deebisaa.

		eeyye	lekki
1.	sababad hukkbrataani dhibee sammuu meei kee keffa jiruut,namatonit walin walii hin gala jettee ni yaddaa		
2	sababad hukkbrataani dhibee sammuu meei kee keffa jiruut,namatoni ofrraa nafacciru nafaeessu jettle ni yadadaa		
3	sababad hukkbrataani dhibee sammuu meei kee keffa jiruut,namatoni ilaechi gadi anaa naff gabru gettee ni yaadaa		

Kutaa III: fayyaa wajin wal gasiisee

1. Jireemye kee keessity dhukkuboota qaamattin gabamte Ni beekta

a. Eeyye b.leeki

2. Jireemya, kee keasstti dhukkboot sammuu tiin gabama ni beektaa

A.eeyye b.leeki

Kutaa IV: gaaffilee dhukkbsataa ilaalchisa

1, umuri dhukkabsataa waggaa meqa

2. Dhukkbni chi maali ----------

3. Walii Galati wagaa meeqa dhukkubsae?

Kutaa V: Gaaffilee seenaaa maatii waa'ee dhugaaatii alkoolii, fayyadama wantoota sammuu

Adoochanii fi sababawwan naannoo

1. Sigaaraa ni xuuxxaa?		A.Eyyee B.miti
2.Deebiinkee lakk.1 eeyee yoo ta'eef Guyyaadhaan meeqa xuuxxa?		----------
3	Baala sammuuu nama adooochu kan akka maarihunaa, ashiishii, gaanjaa fi Kkf. ni gargaaramtaa	A.Eyyee B.miti
4	Deebiinkee lakk.3 eeyee yoo ta'eef yeroo meeqa	a.Guyya guyyaadhaan b. Torbanitti yeroo 2-3 c.torbanitti yeroo tokko d.torban tokkon ol
5	Caatii ni qamaataa?	A.Eyyee B.miti
6	Deebiinkee lakk.5 eeyee yoo ta'eef	a.Guyya guyyaadhaan b. Torbanitti yeroo 2-3

	yeroo meeqa	c.torbanitti yeroo tokko d.torban tokkon ol

gaffillen ittianan waee alcoli dhugatti taa**.**

1	dhugatti alkolli umri ketitti dhugade bektta kan akka xela ,xeji,birra fi kanbirro/?	ey ye	mit ti
2	Ji a 12 dar be kessa dhugatti alkolli dhugde bektta?		
	yoo alkolli dhugde 1.dhugatti dhisuf yade bektta?		
	2 .namoni yeroo si jajan arte bektta?		
	3. dhugatti kettin of ?		
	4. ganamma yeroo katu ijja banaf dhugde bektta?		

Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or other University and that all sources of materials used for this have been acknowledged.

Name Habtamu Derajew

Signature _____

Date of submission _____

This thesis has been submitted for examination with my approval as University advisor.

Name of first advisors

Fikire Addisu (BSC, Msc)

Signature_____

Name of second advisor

Garumma Tolu (B SC,MPH)

Signature _____