EXPRESSED EMOTION AND ASSOCIATED FACTORS AMONG CAREGIVERS OF PERSONS WITH SCHIZOPHRENIA ATTENDING PSYCHIATRY CLINIC OUT PATIENT DEPARTEMENT AT JIMMA UNIVERSITY MEDICAL CENTER, SOUTH WEST ETHIOPIA

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A THESIS REPORT SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF MEDICAL SCIENCE, DEPARTMENT OF PSYCHIATRY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN INTEGRATED CLINICAL AND COMMUNITY MENTAL HEALTH

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JIMMA, ETHIOPIA

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Abstract

***Background**: Expressed emotion (EE) measures the emotion of the caregivers of persons with schizophrinia and is predictive of symptom levels in a range of medical and psychiatric conditions. As to the knowledge of the researcher, there is limited data on expressed emotion among caregivers of patient with schizophrenia in Africa and no available data in Ethiopia. Therefore, it is worth to assess expressed emotion and associated factors among caregivers of patient with schizophrenia in Ethiopia.*

***Objective**: To assess the status of expressed emotions and associated factors among caregivers of patient with schizophrenia attending psychiatry clinic at outpatient department of Jimma university medical center, South west, Ethiopia, in 2019.*

***Method:** A cross-sectional study was conducted using consecutive sampling technique among 422 respondents. Data was collecte Caregivers of people with schizophrinia using structured interviewer administrated questionnaires (Family Questioners) which assess the level of expressed emotion. Data were entered into Epidata 4.4 and exported to Statistical package for social science (SPSS) version 25 for the analysis. Descripitive statistics was used to summerize data, bivariable logistic regression was done to identify candidate variables for multivariable logistic regressions and the association between expressed emotion and predictor variables was identified by using multiple logistic regression analysis.*

***Results:** A total of 422 caregivers of people with schizophrenia were included in the study giving a reponse rate of 100% and the prevalence of high expressed emotion was 43.6 %(n=184). Caregiving duration of 6-8 years [AOR=2.44, (1.308, 4.549), perceived moderate symptom severity [AOR= 1.96,(1.062, 3.632),no report of physical/medical illness in caregivers [AOR=2.27 (1.174,4.406), participants from a household with monthly income >2000 ETB [AOR=2.1 (1.142,3.873)] and perceived sever subjective burden[AOR=3.5,(1.765,7.095)] were significantly associated with high expressed emotion.*

***Conclusions and recommendations:** the current study showed that there is high HEE prevalence as compared with other studies. Psychotherapy intervention need be given to minimize high expressed emotion among caregivers of patient with schizopherinia*

***Key words**: Expressed Emotion, Care Givers, Schizophrenia, Ethiopia.*

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I am grateful to the all the caregivers of patients with schizophrenia who gave me the information which would help in this study and data collectors.

I love you mom and dad, Samson you were my strength thank you.

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ABBREVIATIONS AND ACRONYMS

CC: Critical Comments

CFI: Camberwell Family Interview

CaGI: Caregiver Global Impression

DALYs: Disability-adjusted Life Years

EE: Expressed Emotion

EOI: Emotional Over Involvement

FBIS: Family Burden Interview Schedule

FQ: Family Questioner

H: Hostility

HEE: High Expressed Emotion

LEE: Low Expressed Emotion

MMAS: Morisky Medication Adherence Scale

OSSS: Oslo social support scale

PDD: Perceived Devaluation and Discrimination

YLD: Years lived with disability

CHAPTER 1.INTRODUCTION

1.1 Backgrounds

Expressed emotion (EE) developed in the 1960s and 1970s in England by George Brown, Birley, and Wing (1,2). Expressed emotion measures the emotion of the care givers and is predictive of symptom levels in a range of medical and psychiatric conditions(3). Expressed emotion (EE) is an attitude, feeling, or behavior of the family caregiver in response to and reaction towards the person with schizophrenia(4).

There are five components of EE. The two main components include, critical comments, which are related to negative judgment of patient conduct and emotional over involvement, which refers to feelings or attitudes, to despair, to self-sacrifice and to overprotection of the patient on the part of the family members. The remaining three are hostility, warmth and positive regards (5–10). Expressed emotion is measured as either being high or low, with high EE and its adverse impact demonstrated in many psychiatric and medical disorders including myocardial infarction, epilepsy and inflammatory bowel disease(4,11). Expressed emotion classification of caregivers is based mainly on the two variables 'criticism' (critical comments), and emotional over involvement, a third variable, 'hostility', is normally associated with high levels of critical comments. Those caregivers who showed high criticism or over involvement are rated as 'high EE' (9,12,13). Schizophrenia is one of the most common serious mental disorders that result in changes in perception, emotion, cognition, thinking, and behavior. Both patients and their families often suffer from poor care and social isolation because of widespread ignorance about the disorder. In families with high levels of expressed emotion, the relapse rate for schizophrenia is high(14).

1.2 Statement of the problem

Caring for people with schizophrenia has been associated with subjective burden and loss, depression, distress, reduced quality of life, lower social support and stigma(15). Relatives of patients experience a range of emotions from loss and grief to guilt and anger. Like the patient, they also feel isolated and stigmatized. Their lives are disrupted by providing more care than would normally be appropriate for someone of the patients' age because the disorder usually begins before age 25 years, persists throughout life, and affects persons of all social classes(14).

Caregivers of patients with schizophrenia are worried about the social consequences of illness on the affected person that is marriage-related issues, social devaluation, avoidance by others and concerns about disclosure, also expressed the feelings of shame and embarrassment about their relatives' condition(16). The addition of the care giving role to already existing family roles becomes stressful psychologically as well as economically(17). These experiences lead family caregivers to have high expressed emotion (HEE), which in turn increases the risk of relapse of the person they are caring for(4). Relapse rates of people in differing living arrangements after an episode of mental disorder, and found that relapse rates were 17% for patients living alone or with siblings, 32% for those living with parents and 50% for those living with spouse(18).

Patients with schizophrenia living with relatives who have a high expressed emotion (EE) level at admission to hospital are more likely to relapse within nine months after discharge than those patients whose relatives have a low EE level(15). The proportion of people with schizophrenia living with their relatives ranges between 40 percent in the United States to more than 90 percent in China. In India, over 90% of those who are mentally ill live with their families and are dependent on them. This has led to research into family burden, family interventions, expressed emotions, and more recently into support groups(19). Approximately 50% of patients living with a spouse or their parents had at least one instance of readmission following discharge, compared with only 30% of those living alone(17).

At the initial onset of schizophrenia, family members often experience reactions of shock, distress, denial, anger, guilt or fear. The initial diagnosis or hospitalization can have a huge impact on family members as they are all too aware of the stigma and negative stereotypes that are attached to the group to which their relative may now belong. The family may also be aware of the possibility that schizophrenia can be a life-changing illness for many of those who suffer

from it(19). Unemployment of both patients and families is a major indirect cost, resulting in more than half (61%) of the total economic burden of schizophrenia. As a result, overwhelming tasks and struggles to balance their daily life and responsibilities often cause them to perceive more stress and difficulties in several areas in their life, reflecting a high level of burden(4).

Even though the EE among caregivers of patient with schizophrenia is sensitive issue, as to the knowledge of the researcher, there is limited data on expressed emotion among caregivers of patient with schizophrenia in Africa and no available data in Ethiopia. Therefore, it is worth to assess expressed emotion and associated factors among caregivers of patient with schizophrenia in Ethiopia, JUMC.

1.3 Significant of study

This study highlights the presence of high expressed motion among caregivers of patient with schizophrenia in our setup. Such findings can be used as a guideline for screening vulnerable family caregivers who have more influential factors of expressed emotion, especially care giving burden, duration of giving care, caregivers perceived severity of patient illness as well as household income.

Findings from this research can be utilized by universities, can also be used as an awakening reference for further and deeper investigation, Serve as baseline for further research involving educators, psychologists and psychiatrists for in-depth understanding of the problem.

For decision makers and any organization interested to work in the area, the result of this study will be an input for the facilitation and guide implementation of the newly introduced national mental health policy of Ethiopia in higher institutions.

In Ethiopia, families have traditionally played the role of caregivers for their mentally ill relatives. They are recognized as having a prominent role to play in decisions regarding engagement or disengagement from the treatment process, supervision of medication, providing day to day care and emotional support.

Therefore, these study will help indirectly the caregivers as well as schizophrenic patients by improving the outcome disease progress and decreasing care burden.

CHAPTER.2. LITRATURE REVEIW

2.1. Over view of Expressed Emotion

Expressed emotion, is a qualitative measure of the 'amount' of emotion displayed, typically in the family setting, usually by a family or caretakers. Theoretically a high level of EE at home can worsen the prognosis in patients with mental illness or act as a potential risk factor for the development of psychiatric diseases(7,23). Studies show that EE is a strong predictor of psychiatric relapses in schizophrenic patients, in different social and cultural contexts(9).

2.2. Prevalence of expressed emotion among caregivers of patient with schizophrenia

A study conducted in Nigeria showed the prevalence of ‘high’ expressed emotion was 46.0% and 50.0% for the patient and relative versions of the Level of Expressed Emotion Scale respectively. Criticism and emotional over- involvement appeared to be stronger determinants and predictors of high expressed emotion(18).

A prospective study done in Brazil showed that 31% of patients presented relapses and, among the relatives, 68% presented elevated levels of expressed emotion. The proportions of family members with high levels of critical comments and emotional over involvement were 49% and 52%, respectively(9).

A cross sectional study conducted in Delhi, India with 200 rehospitalized bipolar affective disorder and schizophrenia patients were selected purposively. Caregivers showed that expressed emotion is now a well validated predictor of poor clinical outcome and re-hospitalization for psychiatric disorder study reveals that level of expressed emotion is high in schizophrenia participant in comparison to bipolar affective disorder patients(21).

Another cross-sectional study conducted which consisted of 385 caregivers of adults with schizophrenia who had been on follow up at outpatient units of two major psychiatric hospitals in central Thailand. The majority of the participants experienced an infrequent HEE. On this study, stigma had an indirect effect on EE and was mediated through care giving burden. In addition, severity of illness had a direct effect on EE and care giving burden had the strongest significant positive direct effect on EE (4).

In psychiatric inpatient department of government medical College and hospital Nagpur, the mean perceived criticism (PC) score of the caregivers on FEICS was 29 out of 35 and mean emotional involvement (EI) score was 28.98 out of 35.The total mean score of the caregivers of patients with mental illness was 58.12 which shows high expressed emotions (EE) among caregivers. There is complex circular relationship between expressed emotions (EE) and relapse, with the patient's behavior leading to changes in the relative's expressed emotions (EE) and the relatives' EE in turn affecting the course of the patient's illness like many other environmental stressors(19).

2.3 Factors associated with Expressed Emotion among caregivers of patient with schizophrenia

2.3.1 Care givers Socio-demographic factor

On the study conducted at out-patient clinics in Abbasia and Banha Hospitals for Mental Health it was found that statistically significant relationships existed between patients' genders and parent EE; it was reported that parents of females made more critical comments (high expressed emotion) than parents of males. Patients with adolescent onset more than half had parents rated high in criticism(high expressed emotion(22**).** The educational status of the demographic characteristic of patients and relatives was also significantly associated with high EE(23).

Hospital based cross sectional study conducted in India among 125 patients in 2009 revealed that younger patient experienced more EE and Patients, who were single, experienced significantly more EE than married persons, which was similar with study done in Pakistan (20).

A study done in Nigeria showed Female care givers were associated with high expressed emotion. It has been found that younger age, female sex, higher educational level, and part-time occupation result into higher levels of psychological distressand distressed caregivers have high expressed emotion(18,26).

The employment status of socio demographic characteristic of relatives and patients and those who were not working associated with EE levels, those who were working being less likely to be high EE(15).

Quantitative approach with descriptive survey research design conducted in2016 and recruited 100 caregivers of patients with mental illness admitted in psychiatric inpatient department of Government Medical College and Hospital Nagpur; various demographic factors and their association to EE in caregivers were calculated. For all the demographic factor results thecalculated value is less than tabulated value, so there is no association found between selected demographic variables and EE of the caregivers(19).

Another cross sectional study showed that Family functioning affect the course of illness. Families with high level of critical comments had a threefold grater rate of increase relapse within 9 months after recovery patients with high criticism have a larger chance of early relapse(21).

2.3.2 Clinical factors associated with expressed emotionof caregivers among patient with schizophrenia

Expressed emotion is associated with many factors such as caregiver's burden, perceived stigma, social support, duration of care giving, length of stay with the patient per day.

A study demonstrated in a realistically large Southern European sample that was measured with the Social Behavior Assessment Schedule (SBAS), there is an association between relatives' high EE and their subjective burden of care (23).

A study conducted at the Psychiatric Hospital of Athens, the largest state psychiatric institution in Greece, examined to what extent EE levels in relatives are related to relatives' burden of care and their perceptions of patient's deficits in social role performance. Statistical analysis revealed that high EE relatives had considerably higher mean scores for burden of care than low EE relatives, and perceived more deficits in patients' social functioning than low EE relatives(15).

Cross-sectional study showed care giving burden had the strongest significant positive direct effect on EE and a significant indirect effect through mental health status and family functioning(20).

The study conducted in a realistically large Southern European sample revealed high-EE relatives reported more subjective burden of care in disturbed behaviors and adverse effects area but did not perceive more deficits in social role performances. Subjective burden scores were

positively associated with high EE on disturbed behaviors and adverse effects dimensions though on social role performance section scores did not reach the significance level and sample that there is an association between relatives' high EE and their subjective burden of care(23).

In central Thailand, cross-sectional study on expressed emotion among caregivers of persons with schizophrenia was conducted. It consisted of 385 primary family caregivers of adults with schizophrenia who had been on follow up at outpatient units of two major psychiatric hospitals and showed perceived stigma was evaluated as a difficult and painful experience for caregivers as it eventually induced negative responses such as distress, depression, and anxiety. This is reflected in a mental health status leading to the development of more pronounced EE attitudes and adverse effect of negative emotions can lead to care giving burden, which, in turn, increases HEE (4).

Another cross sectional study was carried out at the Lagos University Teaching Hospital, Nigeria, Hundred patients and their 100 relatives were recruited randomly; 50 from the adult outpatient psychiatric clinic showed as there was no significant difference found between those with high and low perceived stigma in terms of emotional over-involvement and critical comments.

At the study conducted at outpatient clinics in Abbasia and Banha Hospitals for Mental Health, it showed less than one fifth do not practice any activities and hobbies. This may be due to those care givers are spending a lot of time with the patient to provide care. The result revealed that the majority of caregivers were spending more than 12 care hours per day and this leads them to have HEE(22).

The British studies indicated that, among patients living in "high-EE" homes, the risk of relapse more than doubled for patients who were in face-to-face contact with high- EErelatives 35 hours per week or more (69% relapse rate) compared with those (28%) fewer than 35 weekly contact hours (25).

2.3.3 Schizophrenic Patients' factors associated with expressed emotion

A study done in Nigeria showed highernumbers of previous episodes were found to be associated with high expressed emotion(18).

Expressed emotion plays a significant role in re hospitalization of the patients with schizophrenia. Living in a high expressed emotion home environment more than doubled the baseline relapserate for schizophrenia patients after 9 to 12 months of hospitalization(21).

More recent studies have also repeatedly demonstrated that patients with schizophrenia who returned to live with their families that demonstrated high-EE level tended to relapse and their symptom severity increases twice as likely within 6 to 9 months post-hospital discharge compared to their counterparts who returned to low- EE households (26).

Illness severity characteristics, neither the number of previous hospital admissions nor the duration of illness remained associated with high EE (23).

Study revealed that nearly one third of the patients were forced to take medication. They took the medications only with pressure from the caregivers EE. This has led to risky attitude, and symptoms of depression that put the patient at increased risk for suicide, depressed, substance abuse, denial of illness, and poor insight into the value of the medication(22).

A study conducted in Nairobi Kenya in 10 rehabilitation centers showed, a significant positive relationship ($p=<0.01$) between frequency of relapse and family EE among patients who had received treatment for drug abuse. The findings of this study particularly demonstrated that criticism and EOI were strong predictors of relapse in alcoholism. Perceived criticism is interpreted as a threat to being rejected and is a powerful predictor of relapse (27).

2.4 Conceptual framework

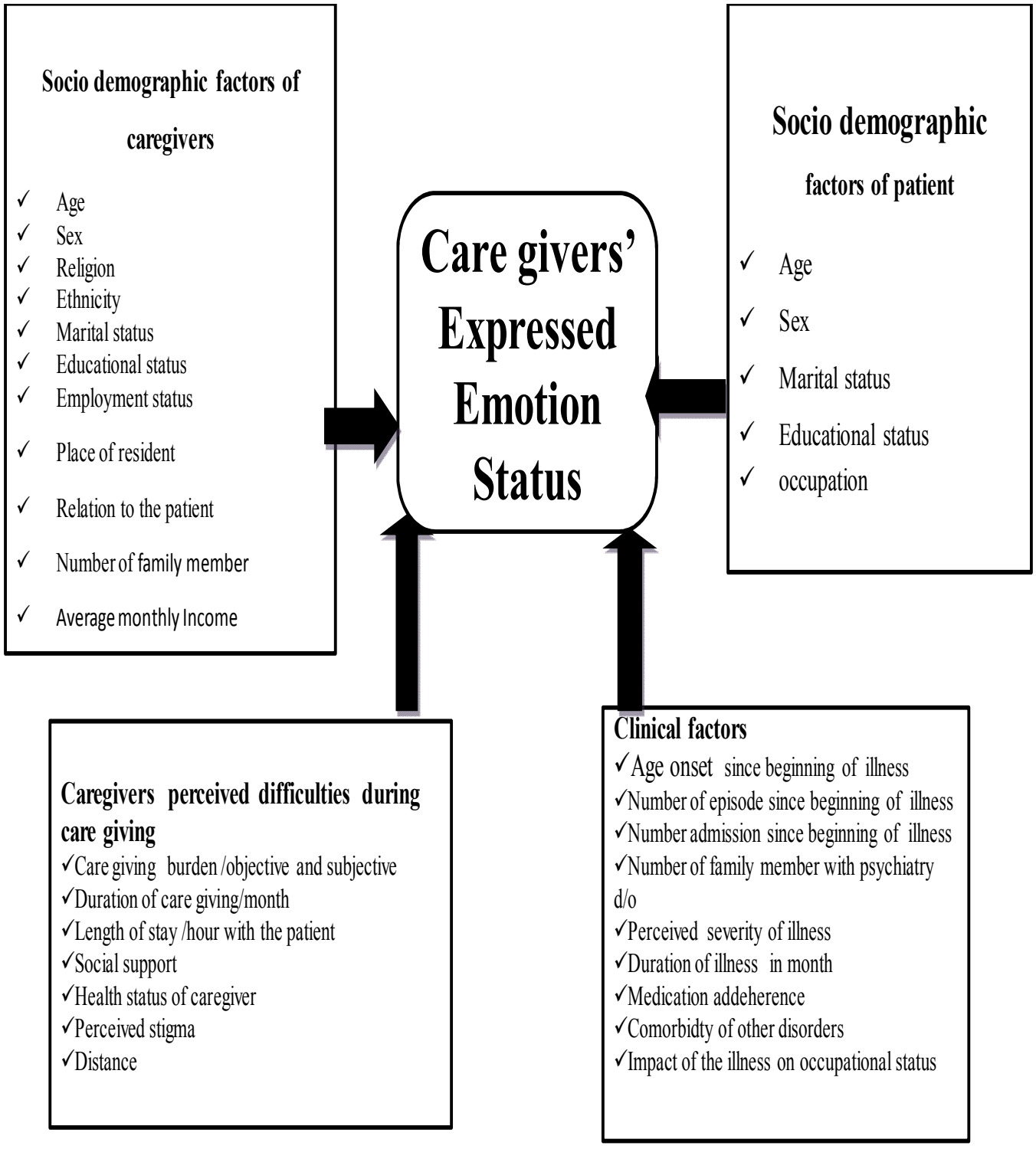

Figure 1. Conceptual framework of EE of caregivers among patients with schizophrenia

CHAPTER 3. OBJECTIVES

3.1. General objective

To assess magnitude of expressed emotion and associated factors among caregivers of patients with schizophrenia visiting psychiatry outpatient unit, at Jimma university medical center, South west, Ethiopia 2019.

3.2. Specific objectives

1. To determine magnitude of expressed emotion among caregivers of patient with schizophrenia attending at outpatient department at JUMC Psychiatry clinic, 2019.

2. To identify factors associated with expressed emotion among caregivers of person with schizophreniaattending at outpatient department at JUMC Psychiatry clinic, 2019.

CHAPTER4. METHODS AND MATERIALS

4.1. Study area and period

The study was conducted from April to June 2019 at Jimma University Medical Center (JUMC), which is found in Jimma. Jimma town is found 352 kms from South west to Addis Ababa, the capital city of Ethiopia, providing specialized clinical services to about 15 million people in the catchment. Currently, on average 518 schizophrenic patients who are attending follow up treatments at Psychiatry out patient department (OPD) monthly. In Jimma University Medical center, Psychiatric clinic was established in 1988 and was serving more than 10,000 psychiatry patients annually. Currently the clinic has 26 beds for in patient service and 04 outpatients department with 2 psychiatrists, 10 psychiatric nurses, 2 clinical psychologists and 9 MSc, 1 PhD and 1PhD fellow mental health professionals for about 15 million population of south west Ethiopia.

4.2 Study Design

Institutional based cross sectional study design was employed.

4.3 population

4.3.1 Source Population

All caregivers of patients with schizophrenia, visiting psychiatry out patient unit at Jimma university medical center.

4.3.2 Study Population

All caregivers of patient with schizophrenia visiting psychiatry outpatient unit during data collection period at Jimma University medical center.

4.4 Inclusion and Exclusion Criteria

4.4.1 Inclusion Criteria

Caregivers who were $\geq$ 18 years of age and were taking care of patients with schizophrenia were included**.**

4.4.2 Exclusion criteria

Caregivers who come for patients whose diagnosis is not settled

4.5 Sample size determination and sampling technique

4.5.1 Sample size determination

The Sample size was determined using single population proportion formula by taking the result done in Nigeria; the result of high expressed emotions of caregiver was 50.0%. To get the possible sample at 95% CI that is Z –value of 1.96 and marginal error of 5% is calculated as follow

$n= (Z \alpha/2)^2 p (1-p)/d^2$

Where: n= number of sample size.

Z= desired 95% confidence, Z=1.96.

p = population proportion

q =1-p = 1-0.5=0.5

d = is the margin of sampling error tolerated (5%)

$n = \frac{(1.96)2 (0.5) (1-0.5)}{(0.05)2}$

n initial =384

By considering 10% (10/100*384=38) non-response rate and final sample size was 422.

4.5.2 Sampling technique

Consecutive sampling techniques were used to select study participants. In the case if the selected patient is ineligible according to inclusion and exclusion criteria, the next patient was considered. To avoid the repeated patient, coding of the participants was used.

4.6. Data Collection Procedures and instrument

A structured questionnaire which developed after reviewing related literatures was used to collect data about caregivers and patient socio-demographic variable .The psychiatric disorder and other clinical factors was identified based on care givers of all patients having follow-up for the diagnosis of schizophrenia (medical recorded and taking the last diagnosis).

The caregivers Expressed Emotion status was measured by Family Questioners (FQ) developed by Wiedemann, Rayki, Feinstein, and Hahlweg in 2002, with a 20 –items which include two

domains– Critical Comments CC (10 items– 2, 4, 6, 8, 10, 12, 14, 16, 18, 20), with each maximum value 40 and the cut-off point for the FQ CC scale yielding maximum accuracy was a score of 23 (low<=23< high). Emotional Over Involvement EOI (10 items – 1, 3, 5, 7, 9, 11, 13, 15, 17, 19) , with the maximum value 40 and the cut-off point yielding maximum accuracy was low <=27< high) of the relatives classified as high EOI. Possible responses are never or very rarely, rarely, frequently and very frequently, ranging from one to four, for each item. The FQ had better agreement with which is the gold standard questioners CFI on CC and EOI than did other short EE questionnaires, both have Sensitivity 80%, specificity 70%.Criticism (α=0.86, N=257) and emotional over involvement (α=0.80, N=256) subscales showed strong internal consistency(22,9, (29) 33,19,34).

The Perceived Devaluation and Discrimination Scale (PDD) was used to measure perceived stigma among the caregivers a 12-item, statements that mentioned actions that measured discrimination have (seven items), Statements about beliefs that measured devaluation have (five items). This scale has been widely used and has excellent psychometric properties. It has been used in developing countries such as Ethiopia and Nicaragua.PDD measured on a 4-point Likert scale with possible scores ranging from 1 to 4 agreement scale (1 = strongly disagree, 2= disagree, 3 = agree, and 4 = strongly agree), so that a higher score indicates a higher level of perceived stigma.

The prevalence of high perceived stigma was defined as an item mean score of 2.5 or higher on mean aggregated scale score (this criterion represented the "midpoint" on the 1–4- item scale) on PDD scales. Then perceived stigma a score were dichotomized as those participants scoring greater than or equal to the mean score of 2.5 on PDD scales as having "high perceived stigma" and those scoring below the mean score as having "low perceived stigma." PDD had an internal consistence of Cronbach's alpha for the total score was 0.79 (19,28, (32) 33).

Family Burden Interview Schedule (FBIS) : a 24 item instrument developed by Pai and Kapur, (1981) for measuring is measuring both subjective and objective burden .Subjective burden is assessing by asking one standard question "How much would you say you have suffered owing to the patients illness ?" and scoring the answer 0 = no burden, 1= moderate burden and 2= severe burden. Objective burden in 6 domains which include, effects on family finances, effects

on family leisure, effects on family interaction, effects on the physical health of family members, and effects on mental health of other family members. Scoring is always on a 3-point scale, no burden, moderate burden and severe burden. The total scores range from 0-48 for burden, with higher score indicating a higher burden of care and (33).

Oslo Social support Scale (OSSS): a 3-item scale was used to assess social support among caregivers. Total score of OSS-3 which ranges from 3 – 8 is considered as low social support, 9–11 intermediate support, and 12 – 14 is considered as high social support .The Cronbach's alpha level of OSS-3 is relatively low (.60). In this case, however, the low Cronbach's alpha does not necessarily reflect a low reliability, but rather the multidimensional structure of the index (34).

Modified Morskey adherence scale (MMAS-4): was assessed by enquiring the care giver response for the Medication adherence of the patient **.**The sensitivity and specificity were 81% and 44%, respectively. Cronbach's alpha reliability is 0.61.One or more response indicates, as the patient is non-adherent. It has four items and each of the item has dichotomous types of response (yes, no); the cutoff point of the scale is ; less than or equal to one indicate that adherent and more than or equal two indicates non adherent (35,36).

Caregiver Global Impression (CaGI): a standard questioners used to assess Perceived severity of the illness has three sections ; symptom severityfor the last four weeks ,degree of change in symptom since starting treatment ,degree of change in experincig care (37).

Ten BSc psychiatry nurses who were fluent in Afan Oromo and Amharic languages collected data.

4.7 Study variable

4.7.1. Dependent variables

Expressed Emotion (EE) of caregivers

4.7.2 Independent variables

Care givers Socio-demographic factor: age, gender, ethnicity, occupation, marital Status, education, relationship with patient and average household monthly income.

Socio-demographic factors of patients : Age, gender, marital status, , educational status, Employment status,imact of illness on occupation

Clinical variables: duration of illness , number of episode, number of previous hospitalizations, number of family member with psychiatric d/o,percived severity of illness, medication adherence ,co morbidity of d/o

Factors related with caregivers' perceived difficulties during care giving: duration of care giving, length of stay with the patient per day, care giving burden, perceived stigma , social support and health status of care givers .

4.8. Operational definition

Caregivers: attendants who are taking caregiving support and assistance to a person with schizophrenia.

Caregivers Expressed Emotion: is a critical comment or emotional over involvement of the caregiver in response to and reaction towards the person with schizophrenia and measured as high or low(4,12).

High Expressed Emotion: high EE relatives are with cutoff point >23 critical comment and with cutoff point >27 emotional over involvement (22,9,33,19,34).

Low Expressed Emotion: low EE relatives are with cutoff point $\leq$23 critical comment and with cutoff point $\leq$27 emotional over involvement (22,9,33,19,34).

Patient with Schizophrenia: is patient who visited psychiatry clinic of JUMC and diagnosed as schizophrenia and getting treatment up on review medical records .

Caregiver's health status: reported by caregivers a known chronic medical/physical and mental illness which is diagnosed by health profession .

Perceived Stigma: Scale is scored by summing all the items and dividing by 12. The prevalence of high-perceived stigma was defined as an item mean score of 2.5 or higher on mean aggregated scale score. Then perceived stigma scores were dichotomized as those participants scoring greater than or equal to the mean score of 2.5 on PDD scales as having "high perceived stigma "and those scoring below the mean score low perceived stigma.

Caregivining burden:

Subjective burden is assessing by asking one standard question "How much would you say you have suffered owing to the patients illness ?" and scoring the answer 0 = no burden, 1= moderate burden and 2= severe burden

Objective burden has 6 domains and scoring is always on a 3-point scale, no burden, moderate burden and severe burden. The total scores range from 0-48 for burden, with higher score indicating a higher burden of care.

Social support was measured using 3 item Oslo social support scale (OSSS) was used to assess social support among caregivers.

Perceived severity of illness: assessed with standard questioners Caregiver Global Impression (CaGI) has three sections 1.Symptom severity for the last four weeks scored as, no symptom, moderate symptom, very sever symptom, 2.Degree of change in symptom since starting treatment and 3. Degree of change in experiencing care scored as very much improved, much improved, much worsens (37)(38).

4.9 Data processing and analysis procedures

The data was checked for consistency and completeness throughout data collection. Data coded and entered in to double EPI-DATA version 4.4 to minimize data entry error and then exported to SPSS version 25.00 for analysis. The data was checked for missed value and outliers and cleaned. Descriptive statistics such as frequencies and percentages for categorical data and mean and standard deviation for continuous data were calculated. Before performing binary regression the scores were checked for assumption and weather the model fit or not via Hosmerlemshow. Bivariate regression was computed for each independent variable with dependent variable. Finally those variables having p-value <0.25 taken for stepwise multiple logistic regressions model once and those variables with p-value of < 0.05on multiple logistic regression determined as having statistically significant association with the dependent variable using odds ratio ,and 95%CI.

4.10 Data quality control

Data collection will be conducted by using structured Amharic/AfanOromo version questionnaire (English version of the questionnaires was translated into local languages Amharic /AfanOromo and then back to English by another person who was fully blinded for the original version of the questionnaires to ensure consistency). Three day training was given for data collectors and supervisor.Questionnaire was pretested on care givers of patients with schizophrenia which was 5% of the sample size at Shenan Gibe General Hospital and the tool was refined based on the result of pretest. The internal consistency of the instrument, for this specific population was with a Cronbach alpha = 0.85.9. (CC=0.75and for EOI=0.83). Moreover, during the data collection, data collectors are strictly supervised. At the end of each data collection day the principal investigator Training was given for data collectors and supervisor before pretest. Finally, the questionnaire was translated from English to Amharic/Afan Oromo by native speakers of the languages who are proficient in the languages. It was then back-translated into English by other translators to check its consistency in translation and check out the completeness of filled questionnaires. Any error, ambiguity, incompleteness, and other encountered problems are address on the following day activities. Any missing values are checked before data analysis.

4.11 Ethical consideration

Ethical clearance was obtained from the Institutional Review Board of JU after approval of the proposal. Official permission was collected from Jimma university medical center psychiatry clinic. The aims of the study were explained clearly to the study participants by data collectors and information was collected after written consent is obtained. The right of the participant was considered in a case any participant refuse to participate or wants to discontinue interview and the participant has a right to ask any thing not clear about the study.Information sheet was prepared and read to all eligible participants of the study. All participants were informed the purpose of the study and their participation was on voluntary basis. Name of the participant were omitted from the questionnaire; instead medical record number were used to ensure confidentiality. Caregivers with HEE linked to psychologist for psychotherapy and psychiatry profesonals.

4.12 Plan for Dissemination of the results

After research completion the results of this study will be submitted to Jimma University Faculty of Medicine, Institute of Health and the copies of papers also will be submitted to hospital administration of JUMC department of psychiatry and to JUMC administrative office, psychiatry clinic and other relevant stakeholders through Presentation and Publication. Finally effort will be made to publish the data in respected journal so, the ministry of health and stake holders use the findings for policy making and other concerned institutions and applications.

Chapter 5: Results

5.1 Socio-demographic characteristics of study participants

A total of 422 caregivers of patients with schizophrenia participated in this study making a response rate of 100%. From all study participants, 281 (66.6%) were males, 263 (62.3%) were married, majority, 313 (74.2%) of respondents were Oromo by ethnicity and 313 (74.2%) were Muslims by religion. Mean age of participants was 40.24 years (SD ± 15.3) and 166 (39.3%) were parents. Nearly one-third (30.6%) of respondents attended primary education. Regarding occupation of the respondents, 146(34.6%) was farmer. More than half of the respondents, 228 (54%) live in urban areas, 110 (26.1%) live in distance of 9 - 23km from the Hospital and the median income was 1000 ETB (See table 1).

Table 1: Socio-demographic characteristics of caregiver of patient with schizophrenia at JimmaUniversity medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Variable	Category	Frequency(n)	Percent (%)
Age	18-27	117	27.7
	28-38	97	23.0
	39-52	105	24.9
	52-79	103	24.4
Sex	Male	281	66.6
	Female	141	33.4
Marital status	Single	111	26.3
	Divorced	19	4.5
	Married	263	62.3
	Widowed	29	6.9
Religion	Muslim	313	74.2
	Orthodox	76	18.00
	Protestant	33	7.8
Ethnicity	Amhara	48	11.4
	Oromo	313	74.2
	Tigre yem,gurage,kefa	30	7.1

	Siltea and Dawuro	31	7.3
Educational status	Not able to write and read	87	20.6
	Only able to write and read	28	6.6
	Primary education	129	30.6
	Secondary education	91	21.6
	Higher education and above	87	20.6
Occupation	Farmer	146	34.6
	House wife	43	10.2
	Merchant	56	13.7
	Gov't employee	57	13.5
	Private employee	42	10.00
	Student	33	7.8
	Retired and unemployed	30	7.1
	Others*	13	3.1
Average household monthly income in ETB	≤200	114	27.0
	201-1000	162	38.4
	1001-2000	58	13.7
	>2000	88	20.9
Place of residence	Rural	194	46
	Urban	228	54
Relation to the patient	Parents	166	39.3
	Child	44	10.4
	Siblings	151	35.8
	Aunt/Uncle	22	5.2
	Spouse	24	5.7
	Others**	15	3.6

***Others (Occupation)-**daily laborer, ****others (Relation)** – half brothers/sisters, nighbourehood, grandchild giving care for the patient

5.2. Caregivers perceived difficulties during care giving

From total respondants, 164(38.9) had above seven family size and 371(87.9) had only one family size with mental illness. The mean duration of care giving was 5.7 (SD±4.18) years and the mean length of stay with the patient per twenty four hours was 7.49 (SD±6.24) hours. More than half of respondents, 260 (61.8%) had reported no objective burden and 173(41%) had reported sever subjective burden. Nearly all respondents had reported low perceived stigma 410(97.2%). Out of total respondents, 185(43.8%) had low social support. Nearly all of the participants 97.9% (n=413) reported as not having mental illness and 86.7% (n=366) not having chronic medical /physical illness which is reported by participants as diagnosed by health professional (See table2).

Table 2 Perceived difficulties during care giving and health status among caregiver of patient with schizophrenia at Jimma University medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Variable		Frequency(n)	Percent (%)
Family size	<=4family	130	30.8
	5-6 family	128	30.3
	>7 family	164	38.9
Family size with MI	1 family with MI	371	87.9
	>2 family with MI	51	12.1
Duration of take care of patient	≤2Years	121	28.7
	3-5 Years	118	28.0
	6-8 Years	82	19.4
	>8 Years	101	23.9
Relative's hours per day spent in contact with the patient	≤3hours	129	30.6
	4-6 hours	126	29.9
	7-12 hours	117	27.7
	>12 hours	50	11..8
Distance from Hospital in km	≤ 8 km	106	25.1
	9-23km	110	26.1
	24-50km	107	25.4
	>50km	99	23.5

Social support		low	185	43.8
		Moderate	149	35.3
		Strong	88	20.9
Perceived stigma		low	410	97.2
		high	12	2.8
Care giving burden	Objective burden	No	260	61.8
		Sever	161	38.2
	Subjective burden	No	59	14
		Moderate	190	45
		Sever	173	41
Report of medical /physical illness		Yes	55	13.0
		No	367	87.0
Multiple response		Gastritis	17	4.0
		Hypertension	8	1.9
		Diabetics Melitus	6	1.4
		Kidney disease	5	1.2
		Others*	19	4.4
Report of mental disorder		Yes	8	1.9
		No	414	98.1
Multiple response		Depression	3	.7
		Substance use disorder	3	.7
		Others**	2	.4

*Others:- Kidney disease, Sight problem, Anemia, Tumor, Asthma, Goiter, Hypertension, Anemia, Diabetics Melitus, Hypertension, Tuberculosis ,Diabetics Melitus, Hypertension, Kidney ,Gastritis

Others**; Bipolar I disorder, Schizophrenia

5.3 Socio-demographic characteristics of the patients

The median age of the patient was 30 years and nearly one-third, 131 (31%) of the patients age was 25 and below. More than half, 310(73.5%) were males. Most of patients 271 (64.2%) were single and almost one fourth, 109 (25.8%) were married. One hundred eighty (42.7%) of patients attended primary education and 157 (37.2%) were unemployed. About 176(41.7%) patients had stopped their jobs due to the illness (See table3).

Table 3: Socio-demographic characteristics of patient with schizophrenia at Jimma University medical center psychiatry clinic South-west Ethiopia 2019 (n=422)

Variable		Frequency(n)	Percent (%)
Age	13-25years	131	31.0
	26-30years	102	24.2
	31-40years	96	22.7
	40-96years	93	22.0
Sex	Male	310	73.5
	Female	112	26.5
Marital status	Single	271	64.2
	Divorced	30	7.1
	Married	109	25.8
	Widowed	12	2.8
Educational status	Unable to read and Wright , only read and Wright	89	21.1
	Primary education	180	42.7
	Secondary education	108	25.6
	Higher education and above	45	10.7
Occupation	Farmer	101	23.9
	Housewife	47	11.1
	Merchant	18	4.3
	Gov't and Private Employee	44	10.4
	Student	38	9.0
	Unemployed	157	37.2
	Others*	17	4
Impact of the illness on occupational status	Unemployed due to illness	50	11.8
	Working full time	77	18.2
	Working part time	114	27.0
	Retired and Stop working	181	42.9

***Others,** daily laborers

5.3.1 Clinical characteristics of patient

Out of the total patients, 70 (16.6%) had co-morbid neuropsychiatric and medical disorder in summtion. Of this, 33 (7.8%) had substance use disorder as reviewed from their medical record. The mean duration of illness was 6.13 (SD±5.18) years and the mean age of first onset of illness was 26.28(SD±13.2) years. On the other hand, 295(69.9%) had 1-2 episodes and 259(61.4) of patients has no history of admission. 331(78.4%) of patients were non-addeherant. The perceived severity of illness ; on symptom severity for the last 4 weeks, 262(62.1%) were moderate symptoms, on change in symptom since starting treatment 275 (65.2%) responded much improved and on change in caring experience 255(60.4%) responded much improved(See table 4).

Table 4: Clinical characteristics of patient with schizophrenia at Jimma University medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Variable		Frequency(n)	Percent (%)
First onset of illness	<=18years	110	26.1
	19-23years	115	27.3
	24-30years	97	23.0
	>30	100	23.7
Number of episode	1 -2episode	295	69.9
	3-4 episode	58	13.7
	≥ 4episode	69	16.4
Hospital admission	Yes	163	38.6
	No	259	61.4
Number of admission	None	259	61.4
	1admission	102	24.2
	2 admission	25	5.9
	3 admission	19	4.5
	4 admission	17	4
Duration of illness	≤2years	145	34.4
	3-5years	79	18.7
	6-10years	133	31.5
	≥10years	65	15.4
Medication addeherence	Addeherant	91	21.6

	Non addeherant		331	78.4
Severity of illness perceived by caregivers	symptom severity	no symptom	122	28.9
		moderate symptom	262	62.1
		very sever symptom	38	9.0
	Change in symptom	Very much improved	137	32.5
		much improved	275	65.2
		much worsen	10	2.4
	Change in caring experience	very much improved	154	36.5
		much improved	255	60.4
		much worse	13	3.1
Co morbid diagnosis		Yes	70	16.6
		No	352	83.4
Multiple response	Chronic medical/ physical illness	Asthma	5	1.2
		Others*	12	2.2
	Neuropsychiatric disorder	Substance use	33	7.8
		Depression	3	.7
		Others**	20	4.6

Others*: Hypertension, Duff and Mute, Sight problem, Diabetics melitus

Others**: Medication side effect, Major depressive disorder , Epilepsy, Panic disorder, Dementia ,Tardive dyskenisia , HIV , Stroke, Substances/d , Hypertension,Diabetics melitus

5.4 Prevalence of expressed emotions among caregivers of patient with schizophrenia

.Of the total study participants, 101(23.9%) reported high critical comments (CC) and 148(35.1%) reported high emotional over involvement (EOI). Over all, the status of expressed emotion among caregivers as measured by considering either high CC or high EOI, 184[43.6% (38.5-48.6)] had higher expressed emotion (see Table 5).

Table 5: The family questioniers (FQ) sub scale among caregiver of patient with schizophrenia at Jimma University medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Family Questioners(FQ) components for assessment of expressed emotion		Frequency(n)	Percent (%)
Critical comments	Low Critical Comment	321	76.1
	High Critical Comment	101	23.9
		422	100.0
Emotional over involvement	Low Emotional over involvement	274	64.9
	High Emotional over involvement	148	35.1
		422	100.0
Expressed emotion status	Low Expressed Emotion	238	56.4
	High Expressed Emotion	184	43.6
Total		422	100.0

5.5. Factors associated with expressed emotions among caregivers of patient with schizophrenia

5.5.1. Bivariate analysis of factors associated with expressed emotion

Those who gavecare 6-8 years were found to be 2.4[COR=2.373, 95% CI((1.335,4.218)], perceived sever subjective burden were 3.5 times [COR= 3.512, 95% CI(1.837,6.713)], participants who were from a household with monthly income >2000 ETB were nearly 2 [COR=1.711, 95% CI((.976,2.999)] .

Caregivers who perceived moderate symptom severity of patients were 2 times [COR=1.635, 95% CI 1.635(1.047, 2.552), caregivers perceived much worsen change in symptom severity were 5.7times [COR=5.786, 95% CI (1.184, 28.27)], patients who had 3-4 episode were 2.3times [COR=2.382, 95% CI (1.339, 4.236)], (see in table 6).

Table 6: Bivariate analysis of factor associated and Status of expressed emotion among caregiver of patient with schizophrenia at JimmaUniversity medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Variable	Category	Frequency (%)	Expressed emotion status		P value	COR (95%CI)
			High EE (n=184)	Low EE (n=238)		
Care giver age	18- 27	117(27.7)	52(28.3%)	65(27.3%)	0.323	1.313(0.765,2.253)
	28-38	97(23.0)	44(23.9%)	53(22.3%)	0.283	1.362(0.775,2.395)
	39-52	105(24.9)	49(26.6%)	56(23.5%)	0.200*	1.436(0.826,2.496)
	52-79	103(24.4)	39(21.2%)	64(26.9%)	1	
Caregiver occupation	Farmer	146(34.6)	54(29.3%)	92(38.7%)	1	
	House wife	43(10.2)	21(11.4%)	22(9.2%)	0.165*	1.626(0.819,3.229)
	Merchant	56(13.7)	27(14.7%)	31(13.0%)	0.209*	1.484(0.802,2.747)
	Gov't employe	57(13.5)	28(15.2%)	29(12.2%)	0.115*	1.645(0.886,3.053)
	Private employe	42(10.00)	20(10.9%)	22(9.2%)	0.216*	1.549(0.775,3.096)
	Student	33(7.8)	13(7.1%)	20(8.4%)	0.796	1.107(0.510,2.403)
	Retired and unemployed	30(7.1)	16(8.7%)	14(5.9%)	0.099*	1.947(0.882,4.299)
	Others	13(3.1)	5(2.7%)	8(3.4%)	0.916	1.065(0.332,3.420)
Average monthly income in ETB	≤200	114(27.0)	47(25.5%)	67(28.2%)	1	
	201-1000	162(38.4)	69(37.5%)	93(39.1%)	0.821	1.058(0.651,1.719)
	1001-2000	58(13.7)	20(10.9%)	38(16.0%)	0.392	.750(0.389,1.448)
	>2000	88(20.9)	48(26.1%)	40(16.8%)	0.061*	1.711(0.976,2.999)
Place of residence	Rural	194(46)	78(42.4%)	116(48.7%)		
	Urban	228(54)	106(57.6%)	122(51.3%)	0.195*	1.292(0.877,1.904)
Relation to the patient	Parents	166(39.3)	68(37.0%)	98(41.2%)	1	
	Child	44(10.4)	15(8.2%)	29(12.2%)	0.408	0.745(0.372,1.495)
	Siblings	151(35.8)	76(41.3%)	75(31.5%)	0.095*	1.460(0.936,2.277)

	Aunt/Uncle	22(5.2)	8(4.3%)	14(5.9%)	0.680	0.824(0.328,2.071)
	Spouse	24(5.7)	9(4.9%)	15(6.3%)	0.747	0.865(0.358,2.090)
	Others	15(3.6)	8(4.3%)	7(2.9%)	0.356	1.647(0.570,4.756)
Family size	≤ 4	130(30.8)	62(33.7%)	68(28.6%)	0.442	
	5-6	128(30.3)	56(30.4%)	72(30.3%)	0.525	0.853(0.522,1.393.)
	≥7	164(38.9)	66(35.9%)	98(41.2%)	0.201*	0.739(0.464,1.175)
Family size with mental illness	1	371(87.9)	168(91.3%)	203(85.3%)	1	
	≥2	51(12.1)	16(8.7%)	35(14.7%)	0.063*	0.552(0.295,1.033)
Duration of take care of pt	≤2Years	121(28.7)	41(22.3%)	80(33.6%)	1	
	3-5 Years	118(28.0)	51(27.7%)	51(28.2%)	0.139*	1.485(.880,2.508)
	6-8 Years	82(19.4)	45(24.5%)	45(15.5%)	0.003*	2.373(1.335,4.218)
	>8 Years	101(23.9)	47(25.5%)	47(22.7%)	0.056*	1.698(.987,2.922)
Subjective care giving burden	No	59(14)	16(8.7%)	43(18.1%)	1	
	Moderate	190(45)	70(38.0%)	120(50.4%)	0.172*	1.568(.822,2.989)
	Sever	173(41)	98(53.3%)	75(31.5%)	0.000*	3.512(1.837,6.713)
Caregiver chronic physical /medical illness	Yes	55(13.0)	19(10.3%)	36(15.1%)	1	
	No	367(87.0)	165(89.7%)	202(84.9%)	0 .149*	1.548(.856,2.799)
Patients age	13-25years	131(31.0)	54(29.3%)	77(32.4%)	0.706	1.110(.645,1.912)
	26-30years	102(24.2)	47(25.5%)	55(23.1%)	0.299	1.353(.765,2.394)
	31-40years	96(22.7)	47925.5%)	49(20.6%)	0.157*	1.519(.852,2.707)
	40-96years	93(22.0)	36(19.6%)	57(23.9%)	1	
Patients occupation	Farmer	101(23.9)	36(19.6%)	65(27.3%)	1	
	Housewife	47(11.1)	21(11.4%)	26(10.9%)	0.294	1.458(.721,2.950)
	Merchant	18(4.3)	8(4.3%)	10(4.2%)	0.478	1.444(.523,3.986)
	Gov't and private Employee	44(10.4)	27(14.7%)	17(7.1%)	0.005*	2.868(1.381,5.955)
	Student	38(9.0)	16(8.7%)	22(9.2%)	0.483	1.313(0.613,2.813)
	Unemploye	157(37.2)	70(38.0%)	87(36.6%)	0.155*	1.453(0.868,2.430)

		d				
		Others	17(4)	6(3.3%)	11(4.6%)	0.978	0.985(0.336,2.885)
Co morbid diagnosis of patients		Yes	70(16.6)	36(19.6%)	34(14.3%)	1	
		No	352(83.4)	148(80.4%)	204(85.7%)	0.150*	0.685(0.410,1.146)
Number of episode		1-2	295(69.9)	115(62.5%)	180(75.6%)	1	
		3-4	58(13.7)	35(19.0%)	23(9.7%)	0.003*	2.382(1.339,4.236)
		>4	69(16.4)	34(18.5%)	35(14.7%)	0.119*	1.520(0.898,2.575)
Number of admission		None	259(61.4)	117(63.6%)	142(59.7%)	1	
		1admission	102(24.2)	34(18.5%)	68(28.6%)	0.041*	0.607(0.376,.980)
		2 admission	25(5.9)	13(7.1%)	12(5.0%)	0.514	1.315(0.578,2.991)
		3 admission	19(4.5)	12(6.5%)	7(2.9%)	0.136*	2.081(0.794,5.45)
		4 admission	17(4)	8(4.3%)	9(3.8%)	0.880	1.079(0.404,2.884)
Duration of illness		<=2years	145(34.4)	52(28.3%)	93(39.1%)	1	
		3-5years	79(18.7)	34(18.5%)	45(18.9%)	0.292	1.351(0.772,2.366)
		6-10years	133(31.5)	66(35.9%)	67(28.2%)	0.021*	1.762(1.090,2.848)
		>10years	65(15.4)	32(17.4%)	33(13.9%)	0.069*	1.734(0.958,3.138)
Severity of illness	symptom severity	no	122(28.9)	42(22.8%)	80(33.6%)	1	
		moderate	262(62.1)	121(65.8%)	141(59.2%)	0.031*	1.635(1.047,2.552)
		very sever	38(9.0)	21(11.4%)	17(7.1%)	0.024*	2.353(1.122,4.934)
	change in symptom	very much improved	137(32.5)	56(30.4%)	81(34.0%)	1	
		much improved	275(65.2)	120(65.2%)	155(65.1%)	0.594	1.120(0.739,1.697)
		much worsen	10(2.4)	8(4.3%)	2(0.8%)	0.030*	5.786(1.184,28.272)

NB: * indicates P-value <0.25

5.5.2 Independent predictors of expressed emotions among caregivers of patient with schizophrenia at JUMC

Duration of giving care for 6-8 years were [AOR=2.439, 95% CI (1.308, 4.549)] caregivers report of no diagnosis of chronic medical/physical illness were [AOR=2.274, 95% CI (1.174, 4.406)], caregivers perceived moderate severity of illness were [AOR= 1.964, 95% CI (1.062, 3.632)].

Caregivers average household monthly income >2000ETB were [AOR=2.103 (1.142, 3.873)] and percived sever subjective burden were [AOR=3.539, 95% CI (1.765, 7.095)] of study participants were demonstrated to have statistically significant association with caregivers expressed emotion.

The odds of having high expressed emotion among those who gave care for the patient for 6-8 years were 2.4 times higher than those who gave care < 2years.
The odds of having high expressed emotion in those who perceived sever subjective burden was 3.5 times higher than those who perceived no subjective burden.The odds of having high expressed emotion 2.2 times higher in those who had no chronic medical/physical illness than who had chronic medical/physical illness.

The odds of having HEE in participants from a household with monthly income >2000 ETB was twice high as those from household with monthly income < 200ETB.

Finally, this study also found that the odds of having high expressed emotion in those with perceived moderate severity of illness was also two times higher than those have perceived no symptom (See table 7).

Table 7: Multivariable logistic regression analysis of factors associated with high Expressed emotions among caregivers of patient with schizophrenia at Jimma University medical center psychiatry clinic, South-west Ethiopia 2019 (n=422)

Variables	Category	Frequency (%)	Expressed emotion status		Multivariable result AOR(95%C.I)	P-value
			High expressed emotion (n=184)	Low expressed emotion (n=238)		
Duration of taking care of the pt	≤2yrs	121(28.7)	41(22.3%)	80(33.6%)		1
	3-5yrs	118(28.0)	51(27.7%)	51(28.2%)	1.508(0.85,2.66)	0.156
	6-10yrs	82(19.4)	45(24.5%)	45(15.5%)	2.439(1.308,4.549)	0.01*
	≥10yrs	101(23.9)	47(25.5%)	47(22.7%)	1.420(0.79,0.06)	0.242
Perceived subjective Care giving burden	No	59(14)	16(8.7%)	43(18.1%)		1
	Moderate	190(45)	70(38.0%)	120(50.4%)	1.595(0.803,3.167)	0.182
	Sever	173(41)	98(53.3%)	75(31.5%)	3.539(1.765,7.095)	<0.001*
Caregivers report of chronic medical /physical illness	Yes	55(13.0)	19(10.3%)	36(15.1%)		1
	No	367(87.0)	165(89.7%)	202(84.9%)	2.274(1.174,4.406)	0.015*
Caregivers average monthly income in ETB	≤200	114(27.0)	47(25.5%)	67(28.2%)		1
	201-1000	162(38.4)	69(37.5%)	93(39.1%)	1.288(0.756,2.195)	0.351
	1001-2000	58(13.7)	20(10.9%)	38(16.0%)	.837(0.395,1.774)	0.643
	>2000	88(20.9)	48(26.1%)	40(16.8%)	2.103(1.142,3.873)	0.017*
Perceived symptom severity	no	122(28.9)	42(22.8%)	80(33.6%)		1
	moderate	262(62.1)	121(65.8%)	141(59.2%)	1.964(1.062,3.632)	0.031*
	very sever	38(9.0)	21(11.4%)	17(7.1%)	2.045(0.807,5.1820	0.132

NB: *=p-value <0.05 statistically significant

1=Reference value

CHAPTER SIX: Discussion

A total of 422 caregivers of patients with schizophrenia were included in this study. The proportion of high expressed emotion(EE) was 43.6 percent which is consistent with a similar studies conducted in Nigeria (41.4%) (11) and USA (43%). In our study high CC was 23.9% and 35.1% high EOI but the domains high CC and high EOI in USA were reported to be 19% and 50% respectively (9,13). The discrepancy may be due to used different assessment tool and sample size.

However, the prevalenc of EE found on our study was less than a study finding done Nigeria Lagos University (50%). The difference might be due to the size of sample involved in the study done in Nigeria was only 50 caregivers (18).

On the study done in Pakistan, 75% caregivers had high expressed emotion, which is almost two fold higher than the current study. The difference could be using different assessment tool, very much small sample size on the Pakistan study and the cultural difference between the two populations (39).

Study done in India reported that only 21% of caregivers of patients with schizophrenia had high expressed emotion (40) as compared to high (43.6%) expressed emotions in this study. The difference could be due to variation in sample size since only 100 caregivers were involved in India's study but similarly gender, educational level, occupation, relationship with patient, contact per day with patient did not have significant association with level of EE as our study showed. Regarding the duration of taking care of the patient, those who give care for 6-8 years 82(19.4%) were 2.4 times more likely to have high expressed emotion than those who give care $\leq$ 2 years. Study done in Cairo showed caregivers do not practice any activities and hobbies; this may be because the caregivers spend a lot of time with the patient to provide care and the majority of caregivers were spending more than 12 care hours per day and this leads them to have HEE (22). The possible explanation for this might be because patients with schizophrenia may not be able to carry out daily activities by themselves and turn back to depend more on their caregivers. Consequently, family caregivers are likely to evaluate their life as being filled with interruptions.

This belief of the caregivers about their own inability to manage severe symptoms might make them encounter repetitious long-term stress, causing them to have the reactions or behaviors found in the HEE. Similarly study showed in northern India the caregivers who showed sustained distress were likely to show high EE and have a longer caring history(15).
In contrary, on one study done in India's Assam hospital, the duration of care giving for patients didn't have statistically significant association with high expressed emotion(40).

Caregivers who perceived sever subjective burden were also found to be 3.5 times more likely to have high expressed emotion than those who perceive no subjective burden, but no significant association was reported on objective burden. On another study done in Pakistan, the results showed that the mean scores for subjective burden of care in the high-EE group were significantly higher with 20.08 ,95%CI [18.83, 21.33],their similarity could be both used similar analysis methods(41).
Inconterary, study conducted in India could not find any relationship between EE and subjective burden of care. The difference could be because they used smaller sample size and different assessment tool (42).
Study conducted in Italy, caregivers with HEE report more subjective burden more than twice t(88.67)=5.35, the similarity is using similar analysis methods(43) .

A participant who has no report of medical/physical illness diagnosis by health profesional was 2.2 times more likely to have high expressed emotion than who have no report of medical/physical illness of diagnosis by physician. This might be due to caregivers who has medical /physical illness diagnosed by health professional were responsible for having follow up program for the patients, helping through day to day activities since schizophrenic patient has difficulties in self helping behavior related to this caregivers might exhausted and have HEE than caregivers who have report of diagnosis of medical /physical illness.

Other might be because those caregivers who have medical/physical illness could not take the responsibility to taking care of the patient and spent more time with them since they have their own illness. This leads them to have short time contacting the patient, therfore they become less likely to have HEE.

The current study showed that participants were from a household with monthly income > 2000 ETB were two times more likely to have HEE than those their household with monthly income ≤ 200 ETB. This might be due to those caregivers with higher income took over the responsibility to cover patients basic needs, financial issues like covering for medication, to control the patients behavior and this caregivers might perceive burden. This experience leads them to have HEE than those who have low income.

In contrast study done in India reported monthly income has no association with status of expressed emotion(40).

Caregivers who perceived moderate severity of illness in the last 4 weeks were two times more likely to have high expressed emotion than those perceiving no symptom in the last 4 weeks. Consistently on a study done in Thailand, cargivers perceived severity of illness had a direct influence on EE, in that caregivers who perceived more severity of illness had a higher level of EE(4) .

In studies done in Saudi Arabia and Egypt, Family attitude scale and positive and negative tool were positively correlated with EE, which means whenever the patient's symptoms increase in the intensity, the family caregivers EE will increase(26). Consistently, the current study showed that those who perceived moderate severity of illness were two times more likely to have higher expressed emotion.

Incontrast to the study done in African-American's, symptom severity was not significantly associated with HEE. Instead having a low-EE caregiver was associated with significantly higher severity of illness $t(28) = 2.396$, $p = 0.023$ (low-EE: $M = 58.27$, $SD = 9.61$, high-EE: $M = 45.25$, $SD = 13.60$); $d = 1.12$. The observed difference could be due to cultural difference between the two study populations(44).

Even if a meta-analysis identified 27 articles reporting EE and psychiatric relapses in schizophrenia patients and confirmed that EE is a good predictor of schizophrenia relapses, especially in patients in the most chronic phase of the disease, current study result found no significant association between relapse and HEE(45). Consistently with the current study, a prospective exploratory study done in Brazil showed relationship between psychiatric relapses and EEwas not demonstrated in a 24-month period. Expressed emotion was insufficient to

predict relapses(9). However, most importantly, it needs standardized relapse instrument as well as further and deeper investigation to conclude about the link between expressed emotion and relapse rate.

6.1 Strength of the study

This study got full response rate and pre test wasgiven prior to the actual data collection, which might be the strength of the current study.

6.2 Limitation of the study

The first limitation of the study could be selection bias, as it was limited to the caregivers of schizophrenia who has follow up visit at JUMC. The other might be information bias (Interviewer bias) as the interviewer's perception may be influenced by the respondent's condition. This study might also be affected by unacceptability bias, which may make the caregivers to fear of judgment by interviewer. Social desirability and Recall bias; may make the caregivers reluctant to answer fully and risk over or under report.

Finally, the study might be highly influenced culturally and did not use standardized tool for collection of household income of participant's and revewing medical record for assessing coomorbid diagnosis of the patients.

CHAPTER SEVEN: Conclusion and recommendations

7.1. Conclusions

In our study nearly half of caregivers (43.6 %) had high expressed emotion.Duration of giving care, caregiver's report of no diagnosis of medical illness, Caregivers average household monthly income caregivers perceived patient severity of illness and perceived subjective burden of study participants were demonstrated statistically significant association with caregivers expressed emotion.

This study highlights the presence of high expressed motion among caregivers of patient with schizophrenia in our setup. Such findings can be used as a guideline for screening vulnerable family caregivers who have more influential factors of expressed emotion, especially care giving burden, duration of giving care, caregivers perceived severity of patient illness as well as household income.

7.2 Recommendations

For policy makers

Policy makers and national mental health policy of Ethiopia ought to strengthen their emphasis on the role of high expressed emotion among cargivers of patients with schizophrenia. Therefore, the policy direction can address not only the patient mental health but also the caregiver-expressed emotion.

For mental health professional

Mental health professionals are supposed to assess expressed emotion among caregivers of schizopherenic patient. Therefore, they can conduct psychotherapy to promote the capability of family caregivers to reappraise their situations and experiences, so that they can more effectively manage the stress of care giving situations of their family members with schizophrenia.

It also helps the caregivers in lowering their expressed emotions, perceived burden of disease and enhancement in their coping strategy.

The findings of the present study can be eventually utilized to bring about a reduction in a negative atmosphere in caregivers where there is patient with schizophrenia, like expressed emotion.

JUMC

JUMC to work on rehabilitation center this might decrease the caregiver burden of care giving and expressed emotions of them toward the patients.

For Researchers

As the research design was cross-sectional, the interpretation of causal relationships must be done with caution and preferably, alongtiudinal study should be undertaken to verify the credibility of the study findings. As mentioned from the limitation for assessement of household monthly incomes of participants using standard tool, qualitiative study since expressed emotion culturally influnced, Patient perception of expressed emotion and components of expressed emotion, is going to be considered for next study.

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Appendices

Annex I: Information sheet

Title of the research project: - Assessment of expressed emotion and associated factors among caregivers of patients with schizophrenia attendingoutpatient department at Jimma University Medical Center (JUMC) psychiatric clinic, Jimma, south west Ethiopia, 2019.

Name of the principal investigator: - Bethlehem Yimam

Name of the organization: - Jimma University

Name of the sponsor: - Jimma University

Introduction: Expressed emotion (EE) measures the emotional climate of the family and is predictive of symptom levels in a range of medical and psychiatric conditions. It is measured as either high or low. In families with high levels of expressed emotion, the relapse rate for schizophrenia is high. Since from Ethiopia background families have traditionally played the role of caregivers of their mentally ill relatives and even though the expressed emotion among caregivers of patient with schizophrenia is sensitive issue, there are limited studies on expressed emotion among caregivers of patient with schizophrenia in Africa. As to the knowledge of the researcher, there is no data on expressed emotion among caregivers of patient with schizophrenia in Ethiopia. Therefore, it's worth to assess expressed emotion and associated factors among caregivers of patient with schizophrenia in Ethiopia, JUMC.

Purpose of the research project: The purpose of this research is to assess level of expressed emotion and associated factors among caregivers of patients with schizophrenia attending outpatient department at JUMC psychiatric clinic, Jimma, south west Ethiopia. The study will help to determine the level of expressed emotion and associated factorsamong caregivers of patients with schizophrenia and to improve level of caregivers expressed emotion and it also will guide researchers to study further in this area. EE is of interest to researchers and clinicians because it predicts symptom relapse in patients and because family based interventions that seek to reduce EE have had success in decreasing patients' relapse rates.There is a need for frequent psycho educational programs and counseling services for caregivers in order to help family caregivers to cope with the burden of caring and reducing their expressed emotion.

Procedure: You are warmly invited to participate in this project. If you are willing to participate in this project, you need to understand the purpose and sign the agreement form to continue. You will be interviewed bythe data collectors if you agree. You are not expected to mention your name or to give your phone number tothe data collector and all information obtained from you will be kept confidentially by using coding system whereby no one will have access to your information.

Risk/Discomfort: -Participating in this research project has no health or other risk but you may feel discomfort especially on wasting your valuable time (about 40 minutes). Understanding these all, we hope you will participate in the study for the sake of the benefit of the research result.

Benefits: - Participating in this research project may not have direct benefit to you; but your participation is likely will help us to meet the research objective. Eventually, this will help us to improve quality of services provided to patients with schizophrenia in this country. **Incentives:** You will not be provided any incentives or payment to participate in this project. **Confidentiality: -** All information collected for this research project will be kept confidential and information that you prove us also will be stored in a file, without your name, with a coded number that will not be revealed to anyone except the principal investigator and it will be kept locked.

Right to refuse or withdraw: -Your full right to refuse participating in this study and withdraw whenever you like is kept. You have also the right to respond to some questions and refuse to some if you did not want.

Contact person: - This research project will be reviewed and approved by the ethical committee of JimmaUniversity. If you have any question you can contact the following individual and you can ask any thing doubt about this study.

Phone number: +251910999399, **E-mail:**BerrYam22@gmail.com or Betiyimam2002@gmail.com

Annex II: Informed consent form

Data collection tools, structured English questions

Jimma university institute of health

Hello dear, my name is---------- I come here as data collector to assess expressed emotion and associated factors among caregivers of person with schizophrenia in JUMC Psychiatry clinic. On this questionnaire your name will not be written and I am going to ask some questions related to socio demographic, like care giving burden, perceived stigma ,social support and mental health status related issues . You may end this interview any time you want. However, it is hoped that your honest answer to these questions will help physicians and policy-makers understand what is important for managing the changes occurring in life that can be related to expressed emotion. We would greatly appreciate your truthful and active participation in responding to this questionnaire.

Do you agree to participate in the study?

A. Yes B. No

(For data collectors: encircle the choice to show their willingness or unwillingness)

If yes continue the data collection process

Date of interview----------

Interviewer name----------

Signature ----------

Signature of participant _____ Date _____

Name and signature of data collector: _____Date_____

Name and signature of supervisor: _____Date_____

Annex III: English Version Questionnaires

Questionnaires for the assessment of expressed emotion and associated factors among caregivers of patients with schizophreniaattending outpatient department Jimma University Medical Center (JUMC) psychiatry clinic, South West Ethiopia, 2019.

INTRODUCTION: Thank you for your agreement to take part in this brief interview. The aim of the study is to assess the status of expressed emotion among caregivers of patients with schizophrenia in our country and above all intended to know the patterns of their level of expressed emotion and helping in giving them both psychopharmacological and psychotherapy approach . Telling your name or giving your phone number is not expected from you and all obtained information will be kept confidential. Without permission or legal body requirement, no information is disclosed.

INSTRUCTION: The questionnaire has five parts and it will take about 40 minutes to complete the interview. Please try to respond all questions. Thank you very much for your will and patience!

Part 1: Socio demographic and clinical characteristics of the care giver

No.	socio demographic characters of care givers	Response
Code no.		
SDC 101	Age	_____
SDC 102	Sex	1- Male 2 – Female
SDC 103	Marital status	1. Single 2-Divorced 3. Married 4- widowed
SDC.104	Religion	1. Muslim 2. Orthodox 3. Protestant 4. Catholic 5. Other, specify_____
SDC.105	Ethnicity	1- Amhara 2- Oromo 3- Tigre 4-Yem 5 –Guragea 6- Kefa 7 – Specify_____
SDC.106	Educational status	1. Not able to read and write 2. Only able to read and write 3. 1 - 8th grade 4. 9-12thgrade 5. College and above
SDC.107	Occupation	1. Farmer 2. Housewife 3. Merchant 4. Gov't employee 5. Private /NGO employee 6. Student 7.Retired 8. Unemployed 9. Other specify____
SDC.108	Average monthly income	----------ETB
SDC.109	Place of residence	1- Rural 2- Urban
SDC.110	Relation to the patient	1. Father 2. Mother 3. Child 4. Sister /Brother 5. Aunt/Uncle 6. Husband/wife

		7. Other
SDC .111	Number of family in the house	----------
SDC .112	Number of family with mental illness	----------
SDC.113	For how many year/ month did you take care of your relative /patient?	----------years.
SDC.114	For how long do you stay with the patient within 24 hours?	---------- hours.
SDC.115	Do you have any chronic physical /medical illness diagnosed by physician like DM, HTN, CA, HIV/ AIDS,etc?	1. Yes 2. No
SDC.116	If your answer is yes	Specifye----------
SDC.117	Do you have any previously known / diagnosed mental illness?	1. Yes 2. No
SDC118	If your answer is yes	Specifaye ----------
SDC.119	Distance of the hospital in km	---------- km

Part 2: socio demographic and clinical characters of the patient (the information taken from the care giver about the patient

No.	Questions	Response
SDCP.201	Co morbid diagnosis of the patient (Please review patient chart)	
SDCP.202	Age	----------
SDCP.203	Sex	1. Male 2. Female
SDCP.204	Marital status	1. Single 2-Divorced 3. Married 4- widowed
SDCP.205	Educational status	1. Can't read and write 2. Only able to read and write 3. 1-8th grade 4. 9-12th grade

		5. College and above
SDCP.206	Occupation	1. Farmer 2. House wife 3. Merchant 4. Gov't employee 5. Private /employee 6. Student 7. Daily laborer 8. Unemployed
SDCP.207	Impact of illness in employment status	1. Unemployed from the beginning due to illness. 2. Still working full time 3. Working part time due to illness 4. Retired due to illness 5. Stop working due to illness
SDCP.208	Age at first on set of illness	_____Years
SDCP.209	Number of previous episodes	_____episode (s)
SDCP.210	Duration of illness from the 1st hospital visit	_____Month (s)
SDCP.211	Did he/she have hospital admission?	1.Yes 2.No
SDCP.212	If the answer is yes ,number of hospital admissions	_____ times

Part 3: Severity of the patients' illness

Caregiver Global Impression (CaGI)

Please answer the following questions which ask about your experiences of caring for a patient with schizophrenia.

301. Severity of symptoms

Please rate the severity of his/her symptoms during the past 4 weeks.

No symptom s 1	Very mild symptoms 2	Mild symptoms 3	Moderate Symptoms 4	Severe symptoms 5	Very severe symptoms 6

302. Degree of change in symptoms

Overall, how have his/ her symptoms changed (if at all) since the beginning of treatment)?

Very much Improved Since Treatment Started 1	Much Improved 2	Minimally Improved 3	No change Since Treatment started 4	Minimally worse 5	Much worse 6	Very much worse Since Treatment Started 7

303. Degree of change in experiences of caring

Overall, how much have your experiences of caring for a patient with schizophrenia changed (if at all) since the beginning of the treatment?

Very much Improved Since treatment started 1	Much Improved 2	Minimally Improved 3	No change Since Treatme nt started 4	Minimally worse 5	Much worse 6	Very much worse Since Treatment Started 7

PART 4: FAMILY QUESTIONIERS (FQ)

It is best to note the first response that comes to mind. Please respond to each question, and mark only one response per question.

1. Never/very rarely 2. Rarely 3. often 4. Very often

No.		1	2	3	4
FQ.401	I tend to neglect myself because of him/her				
FQ.402	I have to keep asking him/her to do things				
FQ.403	Often think about what is to become of him/her				
FQ.404	He/she irritates				
FQ.405	I keep thinking about the reasons for his/her illness				
FQ.406	I have to try not to criticize him/her				
FQ.407	I can't sleep because of him/her				
FQ.408	It's hard for us to agree on things				
FQ.409	When something about him/her bothers me, I keep it to myself				
FQ.410	He/she does not appreciate what I do for him/her				
FQ.411	I regard my own needs as less important				
FQ.412	He/she sometimes gets on my nerves				
FQ.413	I'm very worried about him/he				
FQ.414	He/she does some things out of spite				
FQ.415	I thought I would become ill myself				
FQ.416	When he/she constantly wants something from me,it annoys me				
FQ.417	He/she is an important part of my life				
FQ.418	I have to insist that he/she behaves differently				
FQ.419	I have given up important things in order to be able to help him/her				
FQ.420	I'm often angry with him/her				

Part 5: Perceived Devaluation-Discrimination Scale

1. Strongly agree 2 .Agree 3. disagree 4. Strongly disagree

No.		1	2	3	4
PDD501	Most people would willingly accept a former mental patient as a close friend				
PDD.502	Most people believe that a person who has been in a mental hospital is just as Intelligent as the average person				
PDD.503.	Most people believe that a former mental patient is just as trustworthy as the average citizen				
PDD.504	Most people would accept a fully recovered former mental patient as a teacher of young children in a public school				
PDD.505	Most people feel that entering a mental hospital is a sign of personal failure (R)				
PDD.506	Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time (R)				
PDD.507	Most people think less of a person who has been in a mental hospital (R)				
PDD.508	Most employers will hire a former mental patient if he or she is qualified for thejob				
PDD.509	Most employers will pass over the application of a former mental patient in favor of another applicant (R)				
PDD.510	Most people in my community would treat a former mental patient just as they would treat anyone				
PDD.511	Most young women would be reluctant to date a man who has been hospitalized for a serious mental disorder (R)				
PDD.512	Once they know a person was in a mental hospital, most people will take his opinions less seriously (R)				

Part 6 Family burden interview schedule (FBIS)

0.No burden **1. Moderate burden** **2. Sever burden**

S. No.		**0**	**1**	**2**
A. Financial burden over all				
FBI.601	. Loss of patient's income: (Has he lost his job? Stopped doing the work which he was doing before? To what extent does it affect the family income?)			
FBI.602.	Loss of income of any other member of the family due to patient's illness: (Has anybody stopped working in order to stay at home, lost pay, lost a job? To what extent are the family finances affected?)			
FBI.603.	Expenditure incurred due to patient's illness and treatment: (Has he spent or lost money irrationally due to his illness? How much has this affected the family finances? How much has been spent on treatment, medicines, transport, accommodation away from home and so on? How much has been spent on other treatments such as temples and native healers? How has this affected family finances?)			
FBI.604.	Expenditure incurred due to extra arrangements: (For instance, any other relative coming to stay with the patient; appointing a nurse or servant; boarding out children. How have these affected the family finances?)			
FBI.605.	Loans taken or savings spent: (How large a loan? How do they plan to pay it back? How much does it affect the family? Did they spend from savings? Were these used up? How much is the family affected?)			
FBI.606.	Any other planned activity put off because of the financial pressure of the patient's illness: (For instance, postponing a marriage, a journey or a religious rite. How far is the family affected?)			
B.	**Disruption of routine/family activities overall**			
FBI.607.	Patient not going to work, school, college, etc: How inconvenient is this for the family?			
FBI.608.	Patient not helping in the household work: How much does this affect the family?			
FBI.609.	Disruption of activities of other members of the family: (Has someone to spend time looking after the patient, thus abandoning another routine activity? How inconvenient is this?)			
FBI.610.	Patient's behavior disrupting activities: (Patient insisting on someone being with him, not allowing that person to go out, etc? Patient becoming violent,			

	breaking things, not sleeping and not allowing others to sleep? How much does it affect the family?)			
FBI.611.	Neglect of the rest of the family due to patient's illness: (Is any other member missing school, meals, etc? How serious is this?)			

S. No.		**0**	**1**	**2**
C. Disruption of family leisure overall				
FBI.612.	Stopping of normal recreational activities: (Completely, partially, not at all? How do the family members react?)			
FBI.613.	Patient's illness using up another person's holiday and leisure time: (How is this person affected by it?)			
FBI.614.	Patient's lack of attention to other members of the family, such as children, and its effect on them.			
FBI.615.	Has any other leisure activity had to be abandoned owing to the patient's illness or incapacity e.g. a pleasure trip or family gathering? How do the family members feel about it?			
	D. Disruption of family interaction overall			
FBI.616.	Any ill effect on the general atmosphere in the house: (Has it become dull, quiet? Are there a lot of misunderstandings, etc? How do the family members view this?)			
FBI.617	Do other members get into arguments over this (for instance over how the patient should be treated, who should do the work, who is to blame, etc)? How are they affected?			
FBI.618	Have relatives and neighbors stopped visiting the family or reduced the frequency of their visits because of the patient's behavior or the stigma attached to his illness? How does the family feel about this?			
FBI.619.	Has the family become secluded? Does it avoid mixing with others because of shame or fear of being misunderstood? How do the members feel about this?			
FBI.620.	as the patient's illness had any other effect on relationships within the family or between the family and neighbours or relatives e.g. separation of spouses, quarrels between two families, property feuds, police intervention, embarrassment for family members, etc? How does the family feel about it?			

E. Effect on physical health of others overall				
FBI.621.	Have any other members of the family suffered physical ill health, injuries, etc due to the patient's behavior? How has this affected them?			
FBI.622	Has there been any other adverse effect on health (e.g. someone losing weight or an existing illness being exacerbated)? How severe is it?			
F. Effect on mental health of others overall				
FBI.623	Has any other family member sought help for psychological illness brought on by the patient's behaviour (for instance by the patient's suicide bid, or his disobedience, or worry about his future)? How severe is this?			
FBI.624	Has any other member of the family lost sleep, become depressed or weepy, expressed suicidal wishes, become excessively irritable, etc? How severely?			
FBI.Sub	How much would you say you have suffered owing to the patient's illness?			

Part 7:Social Support Part (Oslo Social Support Scale)

S.no.	Item	1	2	3	4	5
OSSS.701	How many people are so close to you that you can count on them if you have serious problem?(select only one)	Non	One or two	3-5	Above 5	-
OSSS.702	How much concern do people show in what you are doing?(select only one)	Non	Little	Uncertain	Some	A lot
OSSS.703	How easy can you get help from neighbors if you should need it?(select only one)	Very difficult	Difficult	Possible	Essay	Very essay

Part 8:Modified Morisky Medication-Taking Adherence Scale-MMAS-4

No.	Questions	1. Yes	2. No
MMAS.801.	Did he ever forgets to take his medication?		
MMAS.802.	Did he ever has problems remembering to take his medication?		
MMAS.803.	When he feels better, did he sometimes stop taking his medicine?		
MMAS.804.	Sometimes if he feels worse when he take his medicine, did he stop taking it?		

Yuuniversiitii Jimmaatti Kolleggii Meedikaalaa Fi Saayinsii Fayyaa Hawaasaa

Muummee yaala sammuu

Guca odeeffannoo fi heeyyemamummaa mirkaneessu

Koodii _____

Ani_____ jedhama.

Kabajamoo hirmaattota qoranichaa,qorannoon kun Giddugala Meedikaala Jimmaa Yuuniversiitii Kutaa Yaala Dhibee Sammuutti dhukkubsachiistota dhukkubsataa/ttu hordoffii isaanii Deddeebiin godhan Irratti kan Taasifamudha. Kaayyoon qorannichaas mallattoo miira aarii fi wantoota isaan wal qabatan kan maatiin miseensa maatii isaanii kan dhibe sammuu hama qabu irratti agarsiisan qoratuudha. Qorannoo kana keessatti hirmaachuun keessan fayidaa dhuunfaa irra darbee dhaabbilee mootummaas ta'ee miti-mootuummaa akka bu'uuraatti gargaara. Qorannoo kana irratti hirmaachuun fedha keessan irratti hundaa'a. Yoo qoranno kana irratti hirmaachuu dhiiftan wanti miidhamtan tokkolleen hin jiru. Qorannoo kana irratti hirmaachuun keessaniis miidhaa homaatuu sin irraan hin ga'u. Waliin dubbii gochuu erga jalqabdaniis yeroo isin barbaachise kamittuu qorannicha addaan kuttanii ba'uuf mirga guutuu qabdu. Odeeffannoo isin harkaa funaannamu hundumtuu iccitiidhaan ka'ama. Fedha keessaniin yookiin ammo ajaja qaama seera qabeessumma argateen ala qaama sadaffaadhaaf gonkumaa hin darbu. waliin dubbichi daqiiqaa 30 fudhachuu dandaa'a

Qorannoo kana irratti hirmaachuuf heeyyemamoodhaa?

Eeyyee_____ lakkii _____

Maqaa ogeessa odeefannoo sassaabee_____mallattoo_____guyyaa_____

Maqaa to'ataa qorannichaa_____ mallattoo_____guyyaa_____

Maqaa qorattu: Bethelem Yimam mallattoo_____ guyyaa_____

Lakk. Bilbilaa: 0910999399

Kutaa 1ffaa : gaafile odeeffannoo dhuunfaafi dhubee namoota dhukkubsataa kunuunsan qorachuuf qophaa'e

No.	Gaaffile odeefannoo dhuunfaa	Deebii
Code no.		
SDC.101	Umrii	_____
SDC.102	saala	1- dhiira 2 – dhalaa
SDC.103	Akkaataa gaa'elaa	1–kan hin fuune/kan hin eerumne 2-kan hike/kan hiikta 3- kan fuudhe/kan heerumte 4- kan jelaa duute/kan irraa du'e
SDC.104	amantii	1 – Musliima 2 Orthodoksii 3protestantii/pheenxee 4 –katolikii 5- kan biraa_____
SDC.105	sabummaa	1- Amaaraa 2- Oromoo 3- Tigree 4-Yem 5 – Guraagee6- Kefaa 7 – kan biraa_____
SDC.106	Sadarkaa barnootaa	1-barreessuuf dubbisuu kan hidandeenye 2-barreessufi dubbisuu kan danda'u 3- kutaa 1 - 8 4- kutaa 9-12 5- koleejiif isaa oli
SDC.107	hojii	1- qote bulaa 2- haadha-manaa 3- daldala 4- hojjetaa mootummaa 5-hojjetaa dhuunfaa 6- barataa/barattuu 7- soorama 8- kan hojii hin qabne 9- kan biaa____
SDC.108	Galii ji'aa giddugaleessaan	----------birrii itoopiyaatiin
SDC.109	Bakka jireenyaa	1- baadiyyaa 2- magaalaa
SDC.110	Firooma dhukkubsata waliinii qaban	1- abbaa 2- haadha 3 –ilma/intala 4- obboleetti /obboleessa 5- adaadaa/eessuma 6. Niitii/dhirsa 7-kan biraa
SDC .111	Baayyina maatii mana keessa jiraatanii	----------
SDC .112	Baayyina namoota maatii keessaa dhibee sammuu qabanii	----------
SDC.113	Waggaa/ji'a meeqaaf dhukkubsataa	----------ji'aa/waggaadhaan.

	kunuunsitee?	
SDC.114	saatii 24 keessaa saatii meeqa dhukkubsataa wajjin dabarsita?	---------- saatii.
SDC.115	Dhibee kanneen akka dhiibbaa dhiigaa, dhibee sukkaaraa, kaanserrii, HIV/AIDS fi kkf kan ogeessa fayyaan mirkanaa'e ni qabdaa?	1. eeyyee 2- lakki
SDC.116	Deebiin keessan eeyyee yoo ta'e	yoo jiraateef natti himi ----------

SDC.117	Kanaan dura Dhibee sammuu akka qabdu ogeessa fayyaatiin sitti himamee beekaa?	1. eeyyee 2- lakki
SDC.118	Deebiin keessan eeyyee yoo ta'e	yoo jiraateef naaf himi ----------
SDC.119	Fageenyi mana keessanii hospitaala irraa kilo meetraan meeqaa?	---------- kiilomeetiraan

Kutaa 2ffaa: odeeffannoo dhuunfaafi dhibeen walqabata kan dhukkubsataa/dhukkubsattuu

No.	Gaaffilee	deebii
SDCP.201	Dhibee dabalataa kan dhibee sammuun alaa (kaardii dhukkubsataa irra ilaali)	----------
SDCP.202	Umrii	----------
SDCP.203	Saala	1- dhiira 2- dhalaa
SDCP.204	Akkaataa gaa'elaa	1–kan hin fuune/kan hin eerumne 2-kan hike/kan hiikta 3- kan fuudhe/kan heerumte 4- kan jelaa duute/kan irraa du'e
SDCP.205	Sadarkaa barnootaa	1-barreessuuf dubbisuu kan hidandeenye 2- barreessufi dubbisuu kan danda'u 3- kutaa 1 - 8 4- kutaa 9-12 5- koleejiif isaa oli

SDCP.206	Hojii	1- qote bulaa 2- haadha-manaa 3- daldala 4- hojjetaa mootummaa 5-hojjetaa dhuunfaa 6-barataa/barattuu 7-hojjeta guyya-guyyaa 8- kan hojii hin qabne 9- kan biaa____
SDCP.207	Miidhaa dhibeen sammuu dandeettu hojii hojjechuu iaa/ishee irratti fide	1.Sabebe dukkubaaf hojiirrati hin ramadamne. 2- yerrogutu hojiieta jirraa 3-ammalle yeroo muraasaaf ni hojjeta 4- sababa dhukkubaaf soorama ba'eera/baateetti 5-saba dhukkubaaf hojii dhaabeera/dhaabdeetti
SDCP.208	Umrii dhibeen sammuu itti eegale	_____waggaa
SDCP.209	Yeroo meeqaaf dhibeen sammuu itti deddeebi'e	_____
SDCP.210	Dhibeen sammuu erga hospitaala dhufan ilaalamanirraa jalqabee ji'a meeqaaf irra ture?	_____Month (s)
SDCP.211	Hospitaala ciisee/ciistee?	1. eeyyee 2- lakki
SDCP.212	Deebiin keessan eeyyee yoo ta'e	meeqaaf hospitaala ciisee/ciistee?----------

Kutaa 3ffaa: akkaataa hammeenya dhibee sammuu dhukkubsatichaa

Caregiver Global Impression (CaGI)

Gaaffilee armaan gadi akkataa kunuunsa dhukkubsata dhibee sammuu hamaa qabuuf gootaniin deebisaa

CaGI 301.Hammeenya dhibee sammuu kan turban afran darbee naaf himaa

Mallattoolee dhibee sammuu hin qabu 1	Mallatoo dhibee sammu baayyee salphaa qaba 2	Mallatoo dhibee sammu salphaa qaba 3	Gidwu'gelessa sammu ulfaataa qaba 4	Mallatoo dhibee sammu ulfaataa qaba 5	Mallatoo dhibee sammu baayyee ulfaataa qaba 6

CaGI 302.Akkaata jijjiirama mallatoole dhibee sammuu

Erga gaafa yalee jelqabdee dhukkubsatee kaasee walii gala akkataan jijjiirama mallatoolee dhibee sammuu isaa/ishee maal fakkaataa?

Erga yaala jalqabee baayyee itti fooyya'eera 1	Itti fooyya'eera 2	Xiqqoo itti fooyyaa'eera 3	Homaayyuu itti hin fooyyofne 4	Xiqqo itti hammate 5	Itti hammaateera 6	Baayyee itti hammaateera 7

CaGI 303. Akkaata jijjiirama haala kunuunsa dhukkubsataa

Dhukkabstichi erga yaala jalqabe /dee kunuunsa godhamuu akkawaligalatti mallattolee dhukkubichaa irratti giggiramaa akkami fide?

Erga yaala jalqabee baayyee itti fooyya'eera 1	Itti fooyya'eera 2	Xiqqoo itti fooyyaa'eera 3	Homaayyuu itti hin fooyyofne 4	Xiqqo itti hammate 5	Itti hammaateera 6	Baayyee itti hammaateera 7

Kutaa 4ffaa: Gaaffilee maatii (Expressed Emotion Tool)

Kanaafuu waanuma yeroo gaaffin kun siif dhiyaatu gara sammuu keetii dhufe deebisi. Filannoowwan jiran keessaa tokko qofa filadhu

1. gonkumaa 2. Darbee darbee 3 Yeroo baayyee 4 .Yeroo hundaa

S. No.		1	2	3	4
FQ.401	sababii issaatiif/isheetiif ofiikoo irraanfadheera/dhiiseera				
FQ.402	hojii akka inni/isheen hojjettuuf deddeebi'ee gaafachuun qaba				
FQ.403	yeroo baayyee fulduratti maaltu isa irratti/ishee irratti ta'a jedheen yaadda'a				
FQ.404	inni/isheen ni aara/ni aarti				
FQ.405	yeroo baayyee sababiin dhukkubsachuu isaa/ishee maal ta'inaa jedheen yaada				
FQ.406	isa/ishee qeequu/dheekkamuu irraa of qusachuun qaba				
FQ.407	sababii isaatiif/isheetiif rafuu hin dandeenye				
FQ.408	isa/ishee waliin yaada tokko irratti waliif galuun nuttu ulfaateera				
FQ.409	yommu waa'ee isaa yaadu qofaakoon dhiphadha				
FQ.410	wanta ani isaaf/isheef godhe isa/ishee hin gammachiisu				
FQ.411	fedhiin mataa kootii hangasitti akka barbaachisaa hin taanitti natty dhagaa'ama				
FQ.412	yeroo tokko tokko tokko waa'een isaa sammuukoon olitti na aarsa				
FQ.413	waa'een isaa/ishee baayyee na yaaddessa				
FQ.414	wanti inni hojjetu/wanti isheen hojjettu sirri miti				
FQ.415	akka aniyaadutii ofi kooti dhukkubni isa na qaba fakkata				
FQ.416	yeroo inni/isheen waan hunda narraa eegdu baayyee na aarsa				
FQ.417	inni/isheen jireenya koo keessatti baayyee barbaachisaadha				
FQ.418	akka inni amala isaa jijjiirratuundhiibbaan irratti taasisa				
FQ.419	Isa/Isha gargaruuf jedhee wanta na barbachisa hunda dhabeera				
FQ.420	yeroo hundumaa isheettin/isattin aara				

Kutaa 5: Perceived Devaluation-Discrimination Scale

1. sirrittan walii gala 2 .waliin gala 3. Itti waliif hin galu 4. Tasuma itti waliif

S. No.		**1**	**2**	**3**	**4**
PDD501	namoonni baayyee namoota dhibee sammuu qaba hiriyaa godhatanii waliin jiraatu				
PDD.502	namootni namoonni dhibee sammuu qaban hospilaa ciisanii jiran akkuma namoota kaaniitii sammuu yaaduu danda'u qabu jedhanii manu				
PDD.503	namoonni baayyeen amanamoodha jedhanii amanu				
PDD.504	namoonni baayyeen namoota dhibee erga dhibee isaani irra fayyaniin booda mana barnootaa mootummaa keessatti ramadanii akka hojjetaniif ni heyyamu				
PDD.505	namoonni baayyeen dhibeen sammuu dadhabina dhuunfaatiin dhufa jedhanii yaadu (R)				
PDD.506	namoonni baayyeen namoota dhibee smmuu qaban akka ijiille isaanii kunuunsaniif hin heyyaman (R)				
PDD.507	namoonni baayyeen baayyeen namoonni dhibee sammu qaban kan hospitaala ciisanii ba'an namaa gadi jedhanii yaadu(R)				
PDD.508	namoonni hojiif nama Ramadan baayyeen nama dhibee sammuu qaban hojichaaf ga'a yoo ta'an hojiif ni qaxaru				
PDD.509	namoonni hojiif nama qaxaran baayyeen namni dhibee sammu qabu hojiif yoo ragaa galfate namoota kan biraaf dursa kennu (R)				
PDD.510	hawwaasa koo keessatti namoonni baayyeen akkuma namoota kan biraa kunuunsanitti kunuunsu				
PDD.511	shamarran baayyeen namni dhibee sammuu hamaan dhukkubsatee hospitaalaa ciisee beeku gaaffi jaalalaa yoo isaaniif dhiyeesse tole hin jedhan (R)				
PDD.512	namoonni baaayyeen nama sababa dhibee sammuu qabuuf hospitaala ciisee ture yaada inni kennutti bakka hin kennani (R)				

Kutaa 6 .DADHABINA YOOKIIN BA'AA MAATII DHUKKUBSATAA GAAFACHUU

0 .Ba'aahinqabu 1. Ba'aa giddugaleessa 2. Ba'aa cimaa

S. No.		0	1	2
A. Ba'aa qarshii waliigalaan				
FBI. 601	Dhukkubsataan galii dhabuu: (hojii isaa/isii dhabeeraa/dhabdeettii? Hojii kan duraa dhaabuu? Haala kamiin galii maatii miidhe?)			
FBI.602	Sababa dhukkuba dhukkubsataatiif maatii keessaa namni galiiisaa dhabe: (namni hojjechuu dhaabe sabaa mana turuutiif, kaffaltii dhabuun, hojii dhabuun? Galiin maatii hammam hubamee?)			
FBI.603	Baasii sababa dhukkuba dhukkubsataatii fi yaalsisuuf ba'e:sababa dhukkuba isaatiif baassiin ykn qarshiin osoo itti hinyaadiin ba'e? Haammam galii maatii hube? Qorichaaf, geejjibaaf, bultiif fi kkf? Baasii kan biraa kan yaalumsa karaa amantaatiinii fi aadaatiin godhamu irratti ba'e? Kun akkamiin			
FBI.604	Baasii wantoota dabalataatiif ba'e: (fknf, fira dhukkubsataa biradhufeef; nama kunuunsu qacaruufii: ijoollee irra adda baasuufdallaa ijaaruu. Kun akkamiin galii maatii hubee?)			
FBI.605	Liqii liqeeffatame ykn qarshii qusannoo irraa ba'e: (akkamiin deebisuuf karoorfattan? Hammam maatii huba? Qusannoo irraa wanti baaftan jiraa? Kan qusattan ni fixxanii? Miidhaa hammamiitu maatii irra ga'e?			
FBI.606	Sababa baasii dhukkuba dhukkubsataatiif wanti karoorfattaniidhiistan: (fkn, gaa'ila achi dheeressuu, imala ykn ayyaanaayyaneffachuu dhiisuu? Maatiin hammam hubame?)			
B. Waliigala hojii idilee maatii miidhame				
FBI.607	Dhukkubsataan gara hojii, mana barumsaa kolleejjii fi kkf deemuudhiiseera: kun hagam maatiitti ulfaata?			
FBI.608	Dhukkubsataan mana keessatti maatii hojii hin gargaaru: kunammam maatii miidha?			
FBI.609	Miidhaa hojii maatii kan biraa irra ga'e: (namni biraa dhukkubsataaeeguuf jecha yeroo isaa ni gubaa, hojii idilee isaadhiisee? Hammam maatiitti ulfaata?			
FBI.610	Amala ykn sochii dhukkubsataan qabu kan dalagaa hube:(dhukkubsatan aakka namni tokkochi bira turu fedhuu, namni sunakka bira deemuu eyyemuu diduu, kkf? Achiin dhukkubsataanjeeqamuu, wantoota cabsuu, hirriba dhabuufi namoota biraa rafuudhorkuu? Kun hammam maatii hube?)			
FBI.611	Sababa dhukkuba dhukkubsataaf maatiin biraa dagatamuu: (namni biraa kan barumsa dhiise, nyaataa fi kkfa/ kun hammam ulfaata?)			
C. Waliigala boqonnan maatii jeeqamuu				
FBI.612	Boqochuuf ykn bashannanuuf yeroo dhabuu: guutummaati,walakkaan, hamma murtaa'e? Kana maatiin akkamiin ilaala?)			
FBI.613	Dhukkubni dhukkubsataa guyyaa ayyaanaa fi sa'aatii boqonnaanama biraa fudhachuu: (namni kun akkamiin kanaan miidhame?)			
FBI.614	Dhukkubsataan maatii isaa kan biraaf xiyyeeffannoo dhabuu, akkadaa'immaniif, fi miidhh inni jara irratti qabu.			
FBI.615	Sababa dhukkuba/dadhabina dhukkubsataaf sa'aatiin boqonnaaykn bashannanaa gubachuu/utuu itti hin fayyadamiin hafuu fknf fedhii daawwannaa ykn walitti dhufeenya maatii? Kana ilaalchise maatitti maaltu dhaga'ama?)			

D. Waliigala walitti dhufeenyi maatii jeeqamuu				
FBI. 616	Waliigalatti miidhaa mana keessatti mudate: (cimaadhaa, yartuudhaa? Waan baay'ee kan namaa hin galle, kkf? Miseensi maatiiakkamitti ilaala?)			
FBI.617	Miseensi maatii kan biraa kana irratti walfalmaa(fkf akka ittidhibamaan yaalamu, eenyu kan hojjetu, eenyu kan komatamu,kkf? Akkamiin miidhaman?			
FBI.618	Sababa amala dhukkubsataaf ykn qooddii dhukkuba waliinwalqabateenfirri ykn ollaan maatii dhkkubsataa dubbisuu dhiisuuykn hir'isuu? Maatiin akkamiin yaade kana?			
FBI.619	Maatiin qofaatti baafameera? Sababa hubannoo dhabuun yknsodaachuutiin maatiin qofaatti baafameera? Miseensi maatiiakkamitti ilaala?			
FBI.620	Dhibeen dhukkubsataa miidhaa kan biraa walitti dhufeenya maatiigidduutti yknmaatii fi olla ykn fira gidduutti fkn walii hiikuu, maatii gidduutti waldhabuu, qabeenya irratti waldhabuu, poolisiin gidduu seenuu, maallaqni gidduu maatiiti baduu, kkf? (maatiinakkamiin ilaala?)			
E. Waliigala Miidhaa qaamaa				
FBI.621	Sababa dhibee dhukkubsataatiif Maatii keessaa namni miidhaanqaamaa irra ga'e ni jiraa? Kun akkamitti jara miidhe?			
FBI.622	Miidhaan qaamaa kan biraa mudateeraa(fkf, ulfaatinni hir'achuu, dhukkubni kanaan dura ture namatti ka'uu? Kun hagam cimaa dha?			
F. Waliigala fayyaa sammuu nama kan biraa				
FBI.623	Miseensa maatii keessaa namni gaargarsa ogeessa xiinsammu barbaade jiraa sababa rakkoo dhibee dhukkubsataaf isaan irraga'een (fkn, dhukkubsataan of ajjeesuu yaaluu, gorsa fudhachuudiduu, waan gara fuulduraa sodaachuu) kun hagam ulfaata?			
FBI.624	Miseensaa maatii keessa kan hir'aba dhabe, kan of jibbe, kan of ajjeesuu yaade, kan waan xiqqootti baay'ee haaruu, kkf? Hammam ulfaata?			
FBI. Sub	Dhuma irratti dhiibbaan kan biraan dhukkubsatichi/dhukkubsatittiin maatii irratti fide/fidde kan nuti isin hin gaafatin hafne ni jiraa? Yoo jiraateef miidhaa akkamiiti?			
	Sababii dhibee dhukkubsataaf miidhaa hagamiitu sinirra ga'e?			

Kutaa 7ffaa: Social Support Part (Oslo Social Support Scale)

S.no.	Item	
OSSS.701	Guyyaa rakkinaatti naaf qaqqabuu dandanda'u kan ati jettu nama meeqa?	1.homaa 2.Nama 1 ykn 2 3.Naman 3-5 4.Nama 5 fi isaa ol
OSSS.702	Waa'ee keef kan dhiphatan ni jiru jettee yaaddaa	1.lakki 2.Xiqqoo=-xiqqoo 3.Nan shakka 4Muraasa 5.Baayyee
OSSS.703	Namoota irraa gargaarsa argachun hangam siif salphataa?	1.Baayyee ulfaata 2.Ni ulfaata 3.Nan dandaa'a 4.salphaadha 5.Baayyee salphaadha

kutaa 8ffaa :Modified Morisky Medication-Taking Adherence Scale-MMAS-4

No.	Gaaffilee	1. eeyyee	2.lakki
MMAS.801.	Qoricha fudhachuu irraanfattee beektaa?		
MMAS.802.	Qoricha yaadattee yeroo fudhachuu irratti rakkinni si mudatee beekaa?		
MMAS.803.	Yeroo dhibeen sitti fooyya'u qoricha fudhachuu dhaabdee beektaa?		
MMAS.804.	Yeroo qoricha udhattu dhibeenkee waan sitti hammaate sitti fakkaate qoricha addaan kuttee beektaa?		

በጅማ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ

የአእምሮህ ክምና ትምህርት ክፍል

መጠይቅ ለመሳተፍ የፈቃደኝነት ቃል መቀበያ ቅጽና መጠይቆች (Amharic version)

ኮድ----------

እኔ----------እባላለሁ፡፡

ውድ የቃለ መጠይቁ ተሳታፊ፤ ይህ ጥናት በጅማዩኒቨርሰቲ ሆስፒታል በእዕምሮ ህክምና ክትትል ላይ ያሉ የአእምሮ ህሙማን አስታማሚዎች በየእለቱ ከሚያጋጥማቸው የማስታመም ጫና ምክንያት የሚያጋጥማቸውን የስሜታዊ አገላለጽ እና ተዛማጅ ምክንያቶቹን የሚዳስስነው፡፡ ለዚህ ምጥናት የእርስዎ ቀና ተሳትፎ በእጅጉ ጠቀሜታ አለው፡፡ እርስዎ በዚህ መጠይቅ ላይ የሚሰጡት መረጃ ለምርምር እና ለጥናት ከመሆኑም አልፎ በችግሩ ዙሪያ ለሚስሩ መንግስታዊ እና መንግስታዊ ላልሆኑ ድርጅቶች እንደ አንድግብአትከማገልገሉእናየህክምናአገልግሎቱንከማጠናከርዉጭበእርስዎላይምንም አይነት ተጽዕኖ አይኖረውም፡፡

ሚስጥርን ከመጠበቅ አንጻር በቃለ መጠይቁ ላይ ስም አይጻፍም፡፡ ስለሆነም እርስዎ በዚህ ጥናት ውሰጥ ለሚጠየቁ መጠይቆች መልስ እንዲሰጡን በትህትና እንጠይቃለን፡፡ በመጠይቁ ላይ ላሉ ጥያቄዎችን ያለመመለስ ሙሉ መብት ሲኖርዎት መጠይቁንም በፈለጉበት ሰዓት ማቆም ወይም ማቋረ ጥይችላሉ፡፡ ነገርግን የእርስዎ ቀና ትብብር ከላይ ያስቀመጥነውን ግብ እንድንመታ ስለ ሚረዳን እባክዎ ጥያቄዎችን በመመለስ ይተባበሩን፡፡ እናመሰግናለን፡፡

በመጨረሻም በጥናቱ ላይ ለመሳተፍ ፍቃደኛነዎት?

አዎ----------አይደለሁም----------

የመረጃ ሰብሳቢ ውስም……ፊርማ ……ቀን ……

ተቆጣጣሪ …… ፊርማ……ቀን……

የጥናቱ ባለቤት ……ፊርማ……ቀን……

ክፍል- 1 የጥናቱተሳታፊዎች የስነ-ህዝብ፤ ማህበራዊ እና ኢኮኖሚያዊ ጉዳዮች መጠይቅ (የተንከባካቢ/አስታማሚ)

ተ.ቁ	የተሳታፊዉ ሁኔታ	
መለያቁጥር	----------	
SDC.101	ዕድሜ	----------
SDC.102	ፆታ	1. ወንድ 2.ሴት
SDC.103	የጋብቻ ሁኔታ	1. ያላገባ/ች 2.የተፋታ/ች 3. ያገባ/ች 4. የሞተበት/ ባት
SDC.104	ሀይማኖት	1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ካቶሊክ 5.ሌሎች፡ይጥቀሱ-------
SDC.105	ብሄር	1- አማራ 2- ኦሮሞ 3- ትግሬ 4. የም 5 –ጉራጌ 6- ከፋ 7 –ሌሎች፡ይጥቀሱ--
SDC.106	የትምህርት ደረጃ	1. ማንበብ መፃፍ የማይችል 2. ማንበብና መፃፍየሚችል 3. 1-8ኛ ክፍል 4. 9-12ኛክፍል 5.ኮሌጅና ከዛበላይ
SDC.107	የስራ ሁኔታ	1. ግብርና 2.የቤት እመቤት 3. ነጋዴ 4.የመንግስት ሰራተኛ 5. የግል መ/ቤት ሰራተኛ 6.ተማሪ 7. ያልተቀጠረ 8. ሌሎች፡ ይጥቀሱ----------
SDC.108	ወርሀዊ ገቢ በአማካይ	---------- ብር
SDC.109	የሚኖሩበት አከባቢ	1- ገጠር 2- ከተማ
SDC.110	ለታካሚው ምንድንነዎት?	1. አባት 2.እናት 3. ልጅ 4.እህት/ወንድም 5. አጎት/ክስት 6. ባል/ሚስት 7.ሌሎች፡ይጥቀሱ---
SDC.111	የቤተሰብብዛት	……..
SDC.112	የእእምሮ ህመምተኛ ብዛት	……..
SDC.113	ታካሚውን ለምን ያህል ግዜ ረድተውታል/ተንከባክበውታል; በወር (በአመት)?	----------(በወር /አመት).

SDC.114	ታካሚውን በመርዳት /በመንከባከብ በ24 ሰዓት ውስጥ ለምን ያክል ሰዓት ያሳልፋሉ?	_____ሰዓት
SDC.115	የታወቀ /በህኪም የተነገረዎት አካላዊ ህመም አሎት?ምሳሌ ስኳር፣ ግፊት፣ ካንሰር ፤ወዘተ	1- አዎ 2-የለም
SDC.116	ለጥያቄ 115 መልሶአዎከሆነ	ምን እንደሆነ ይግለጹ----------
SDC.117	የታወቀ/በህኪምየተነገረዎትየአዕምሮህ መምአለዎት?	1- አዎ 2- የለም
SDC.118	ለጥያቄ 117 መልሶአዎከሆነ	ምን እንዱሆነ ይግለጹ----------
SDC.119	የሆስፒታሉእርቀትበኪ/ሜትር	----------ኪ.ሜ

ክፍል- 2 የ ጥናቱ ተሳታፊዎች የስነ-ህዝብ፤ማህበራዊ እና ኢኮኖሚያዊ ጉዳዮች መጠይቅ (የህመምተኛው /የታካሚውን)

SDCP.201	አሁን ላይ ያለው ታካሚው ያለው ተደራቢ ህመም (ከታካሚው መዝገብ ይመልከቱ)	_____
SDCP.202	ዕድሜ	_____
SDCP.203	ፆታ	1- ወንድ 2- ሴት
SDCP.204	የጋብቻ ሁኔታ	1. ያላገባ/ች 2.የተፋታ/ች 3. ያገባ/ች 4. የሞተበት/ ባት
SDCP.205	የትምህርተ ደረጃ	1- ማንበብመፃፍየማይችል 3. 1-8ኛክፍል 2- ማንበብናመፃፍየሚችል4. 9-12ኛክፍል 5- ኮሌጅናከዛበላይ
SDCP.206	የስራ ሁኔታ	1. ግብርና 2. የቤትእመቤት 3. ነጋዴ 4. የመንግስትሰራተኛ 5. የግልመ/ቤትሰራተኛ 6. ተማሪ 7- የቀንሰራተኛ 8- ያልተቀጠረ 9- ሌሎች፡ይጥቀሱ----------
SDCP.207	በህመሙ ምክንያት በታካሚው ስራ/ ቅጥር ሁኔታ ላይ የተፈጠረለውጥ	1- በህመም ምክንት ያልተቀጠረ 2- ሙሉ ሰዓት የሚሰራ 3-በህመሙ ምክንያት የተወሰነ ሰዓት ብቻ የሚሰራ 4- ጡረታ የወጣ 5- በህመምም ክንያት ስራ ያቆመ
SDCP.208	ህመሙ ሲጀምረው የታካሚው ዕድሜ ስንት ነበር?	_____
SDCP.209	የታከሚው ህመም ምን ያህል ጊዜ በተደጋጋሚ ተከስቶ ያውቃል?	_____
SDCP.210	የህመሙ አጠቃላይ ጊዜ (በወር /በአመት)	_____ወር/በአመት

SDCP.211	ካሁን በፊት ሆስፒታል ተኝቶ/ታያውቃል?	1- አዎ 2- አያውቅም
SDCP.212	ለጥያቄ 211 መልሶአዎከሆነ	ስንት ዙር /ድግግሞሹን ይግለጹ----------

ክፍል . 3 Caregiver Global Impression (CaGI)

CaGI 301. የታካሚው የህመም /ምልክት ደረጃ

እባክዎትን ላለፉት 4 ሳምንታት ያስተዋሉትን የታካሚው የህመም /ምልክት ደረጃ ይግለጹ

ምንም የህመም ምልክት የለም 1	በጣም ትንሽ የህመም ምልክት አለ 2	ትንሽ የህመምምልክት አለ 3	መካከለኛ የህመምምልክት አለ 4	ከባድ የህመምምልክት አለ 5	በጣምከባድ የህመምምልክት አለ 6

CaGI 302. የታካሚው የህመም /ምልክት ደረጃ የለዉጥ መጠን

ባጠቃላይ የታካሚው የህመም /ምልክት ደረጃ ለዉጥ ህክምና ከጀመረ ጀምሮ ምን ይመስላል?

ህክምና ከጀመረ ጀምሮበጣም ጥሩ ለዉጥ አለ(ተሸሎታል) 1	ጥሩ ለዉጥ አለ (ተሸሎታል) 2	ትንሽ ለዉጥ አለ (ተሸሎታል) 3	ህክምና ከጀመረ ጀምሮ ምንም ለዉጥ የለም 4	ትንሽ አሞታል(ብሶ በታለል) 5	አሞታል(ብሶበታለል) 6	ህክምና ከጀመረ ጀምሮበጣም አሞታል(ብሶበታለል) 7

CaGI 303.በታካሚው የህመም /ምልክት ደረጃ ላይ ያለየእንክብካቤ አሰጣጥ ያመጣው የለዉጥ መጠን

ባጠቃላይ ህክምና ከጀመረ/ች ጀምሮ በታካሚው(በአእምሮ ህመምተኛው) ላይ ያለዎትየእንክብካቤ አሰጣጥ የለዉጥ መጠን በታካሚው የህመም /ምልክት ደረጃ ላይ ምን ይመስላል)?

ህክምና ከጀመረ ጀምሮ በጣም ጥሩ ለዉጥ አለ (ተሸሎታል) 1	ጥሩ ለዉጥ አለ (ተሸሎታል) 2	ትንሽ ለዉጥ አለ (ተሸሎታል) 3	ህክምና ከጀመረ ጀምሮ ምንም ለዉጥ የለምለ 4	ትንሽ አሞታል(ብሶበታለል) 5	አሞታል(ብሶበታለል) 6	ህክምና ከጀመረ ጀምሮ በጣም አሞታል (ብሶበታለል) 7

ክፍል 4፡የቤተሰብ መጠይቅ (ኤክስፐረስድ ኢሞሽን)

መመሪያ፡ ይህ መጠይቅ የSchizophrenia የዐዕምሮ ህመም ተጠቂ የሆነ የቤተሰብ አባል የሚንከባከቡ ሰዎች በእየእለቱ የሚያጋጥማቸውን ችግሮች የሚያልፉባቸዉን የተለያዮ መንገዶች ይዘረዝራል እባክወትን ለእያንዳንዱ ጥያቄ አንድ፤ አንድ መልስ ብቻ ይመልሱ

1. የለም/በጣም በትንሹ 2. በትንሹ 3. ሁልጊዜ 4.በጣምሁልጊዜ

S. No.		1	2	3	4
FQ.401	በእርሱ /በእርሷ ምክንያት እራሴን እስከ መጣል/ችላ እስከ ማለት ደርሻለሁ				
FQ.402.	ነገሮችን እነዲያደረግ እርሱን/እርሷን ደጋግሜ መጠየቅ አለብኝ				
FQ.403.	የሱ/የሷ ሁኔታ ምን እንደ ሚሆን ሁል ጊዜ ያሳስበኛል				
FQ.404.	እሱ/እሷ ያበሳጨኛል/ታበሳጨኛለች/ያናድደኛል/ታናድደኛለች				
FQ.405.	ስለእሱ/እሷ የህመም ምክንያት በጣም ያሳስበኛል				
FQ.406.	እርሱን/እርሷን ላለመንቀፍ /ላለመተቸት እሞክራለሁ				
FQ.407.	በእርሱ /በእርሷምክንያትመተኛትአልቻልኩም				
FQ.408.	በነገሮቸላይመስማማት/መግባባትለኛከባድነዉ				
FQ.409.	ስለእሱ/እሷየሚያሳስብጉዳይንበውስጤእይዘዋለሁ/እደግፋለሁ				
FQ.410.	እኔለእርሱ /ለእርሷ ብየ ለማደርገው ነገር ሊታመሰግንም/ አያመሰግንም/ አይረዳም/አትረዳም				
FQ.411.	የራሴን ፍላጎት አላሰቀድምም				
FQ.412.	አልፎ አልፎ ትእግስቴን ያስጨርሰኛል/ታስጨርሰኛለች				
FQ.413.	በጣም አስብለታለሁ /አስብላታለሁ /እጨነቃለሁ				
FQ.414.	አንዳንድ ነገሮችን አውቆ /አውቃ በጥላቻ ምክንያት ያደርጋል /ታደርጋለች				
FQ.415	እኔ እራሴ የምታመም/ህመሙየሚይዘኝይመስለኛል				
FQ.416.	ሁል ጊዜ የሆነ ነገር ከእኔ በፊለገ/ች ጊዜ ያናድደኛል				
FQ.417.	እሱ/እሳ የህይወቴ ወሳኙ ክፍል ነው/ናት				
FQ.418.	የተስተካከ ለባህሪ አንዲነኖረው/ራትመጨቅጨቅአለብኝ				
FQ.419.	እርሱን/እርሳን ለመርዳት ስል የሚያስፈልጉኝን /የሚጠቅመሙኝ ንነገሮች አጥቻለሁ				
FQ.420.	በእርሱ /በእርሳሁልጊዜእናደዳለሁ				

ክፍል 5: የደረሰ የመድሎ ስሜት አስመልክቶ የተዘጋጁጥያቄዎች ለ Schizophrrenia የዐዕምሮ ህመም ተጠቂ የሆነ የቤተሰብ አባል ለሚንከባከቡ ሰዎች (Perceived Devaluation-Discrimination Scale)

1.ሙሉ ለሙሉ እስማማለሁ 2. እስማማለሁ3.አልስማማም4. በፍፁምአልስማማም

S. No.	ጥያቄ	1	2	3	4
PDD. 501.	ብዙ ሰዎች የአእምሮ ህመምተኛ የነበረን ሰው የቅርብ ጉዋድኛ ለማድረግ ይፈቅዳሉ				
PDD. 502.	ብዙ ሰዎች የአእምሮ ሆስፒታል የነበረ ሰዉ ልክ አንደማንኛዉም ጤናማ ሰዉ አኩልየአእምሮ ችሎታ አለው ብለዉ ያምናሉ				
PDD. 503.	ብዙ ሰዎች የአእምሮ ህመምተኛ የነበረን ሰዉ ልክ አንደማንኛዉምጤናማ ዜጋ ሰዉ ነው ብለዉ ያምናሉ				
PDD. 504.	ብዙሰዎችየአእምሮህመምተኛየነበረንሰውሙሉበሙሉከዳነብሓላየህዝብት/ቤትውስጥ በመምህርነትማገልገሉን/ላንይቀበሉታል				
PDD. 505.	ብዙ ሰዎች የአእምሮ ሆስፒታል መገባት የውድቀት ምልክት እንደሆነ ይሰማቸዋል				
PDD. 506.	ብዙ ሰዎች የአእምሮ ህመምተኛ የነበረን ሰዉ አልፎ አልፎም ደህና ቢሆንም ልጆቻቸውን እንዲንከባከቡላቸው አይቀጥሩም (R)				
PDD. 507.	ብዙ ሰዎች የአእምሮ ሆስፒታል የነበረ ሰዉ ከሰው የሚያንሱ አድርገው ያስባሉ				
PDD. 508.	ብዙ ቀጣሪዎች የአእምሮ ህመምተኛ የነበረን ሰው ለስራው ብቁ ከሆነ ይቀጥራሉ				
PDD. 509.	ብዙ ቀጣሪዎች የአእምሮ ህመምተኛ የነበረን ሰዉ የስራ ማመልከቻ ለሌላ ሰው ቅድሚ ያይሰጣሉ(R)				
PDD. 510.	ብዙ ሰዎች በአለሁበት ማህበረሰብ የአእምሮ ህመምተኛ የነበረን ሰዉ ልክ እንደ ማንኛውም ሰው ነው የሚነከባከቡት				
PDD. 511.	ብዙ ወጣት ሴቶች በከባድ የአእምሮ ህመም ሆስፒታል ተኝቶ የነበረ ሰዉን ለፍቅር ግንኙነት አይፈቅዱትም (R)				
PDD. 512.	ብዙ ሰዎች አንዴ የአእምሮ ሆስፒታል የነበረ ሰዉ መሆኑን ካወቁ የአሱነ/ሳንህሳብ ከቁም ነገር አይቆጥሩትም (R)				

ክፍል 6፡የአዕምሮ ህመም በታካሚዉ ቤተሰብ ላይ ስለሚያስድረዉ ጫና/ተፅዕኖ የሚዳስስ መጠይቅ

0. ምንም ጫና አይፈጥርም 1. መካከለኛጫና ፈጥሯል 2.ከፍተኛ ጫና ፈጥሯል

ተ.ቁ	መለኪያ	0	1	2
ሀ. ኢኮኖሚያዊ ጫና				
FBI. 601	ታካሚው የገቢ ምንጩን አጥቷልን? (ለምሳሌ በህመሙ ምክንያት ስራዉን አጥቷል? ስራ መሥራትስ አቁሞዋል?... ይህ በቤተሰቡ ገቢ ምንጭ ላይ ምን ያህል ተፅዕኖ/ጫና ፈጠረ?)			
FBI.602	በታካሚው ህመም ምክንያት ሌላ የቤተሰብ አባል የገቢ ምንጩን (ለምሳሌ ከታካሚዉ ጋር ቤት ለመሆን ስራ ማቆም/ማቋረጥ፣ ክፍያ ማጣት፣ ስራ ማጣት....በዚህ ምክንያት የቤተሰቡ ገቢ/ኢኮኖሚ ምን ያክል ጫና ተፈጠረበት?)			
FBI.603	ለታካሚው ህመምና ከህክምና ጋር ተያይዞ የወጣ ወጪ(ለምሳሌ ታማሚው/ዋ በህመሙ ምክንያት ገንዘብ ያባክናል? ለህክምና፣ ለመድሀኒት፣ ለትራንስፖርት እንድሁም ከቤት ውጭ ለሚደረጉ ታካሚውን የሚመለከቱ ወጪዎች እና ለባህል/ሀይማኖታዊ ህክምና ምን ያክል አወጡ? በዚህ ምክንያት የቤተሰቡ ገቢ/ኢኮኖሚ ምን ያክል ጫና ተፈጠረበት?)			
FBI.604	በታካሚውም ክንያት ለተጨማሪ ወጭዎች መጋለጥ፤ (ለምሳሌ ሌላ ቤተሰብ/ዘመድ ለማስታመም/ለመርዳት መጥቶ መቆየት፣ ነርስ/ ሞግዚት መቅጠር፣....እነዚህ በቤተሰቡ ፍይናንስ/ገቢ ላይ ምን ያክልተፅዕኖ ፈጠሩ?)			
FBI.605	ከታካሚው ህመም ጋር በተያያዘ ምን ያክል ብድር ወስደዋል? ብድሩ እንዴት እንደሚከፍሉ ስያቀዱት ነገር አለ? በታካሚው ምክንያት ገንዘብ መቆጠብ አቁመዋል? እነኚህ ችግሮች ምን ያክል ቤተሰቡ ላይ ተፅዕኖ ፈጠሩ?			
FBI.606	በታካሚው ህመም ምክንያት በተፈጠረ የገንዘብ እጥረት የታቀዱ ነገሮች በሰዓቱ ሳይከናወኑ የቀሩ ኣሉ? ለምሳሌ የጋብቻ ጊዜ መዘግየት፣ መንፈሳዊ /ሀይማኖታዊ ፕሮግራሞች መስተጓጎል/መሰረዝ? በነዚህ ምክንያት ቤተሰቡ ላይ ምን ያክል ጫናተፈጠረ?			
ለ. በቤተሰብ ጊዜና አጠቃላይ የዕለት እንቅስቃሴ/ ስራ ላይ የሚፈጠርጫና				
FBI.607	ታካሚው ከስራ፣ ከት/ቤት፣ከኮሌጅ ወዘተ መቅረት! ይህ ቤተሰቡ ላይ ምን ያክል ችግር ፈጠረ?			
FBI.608	ታካሚው በቤት ውስጥ ሥራ አያግዝም? ይህ በቤተሰቡ ላይ ምን ያክል ተፅዕኖ ፈጠረ?			
FBI.609	በታካሚው ምክንያት የሌሎች ቤተሰብ አባላት የእለት እንቅስቃሴ መስተጓጎል፤ (ለምሳሌ ታካሚውን ለመጠበቅ ሌሎች መደበኛ ስራዎችን መተዉ? ቤተሰቡ በዚህ ምክንያት ያክል ተቸገረ?)			
FBI.610	የታካሚው ባህሪ አስቸጋሪ መሆን፤(ለምሳሌ ታካሚው ሌላው ከእርሱ ጋር እንድሆን አጥብቆ መፈለግ ወይም ትቶት እንዳይሄድ መከልከል ወዘተ፣ ታካሚዉ ለሌሎች አደገኛ መሆን ለምሳሌ፡ መሳደብ፣ መማታት፣ እቃ መስበር፣ ሌሎች እንዳይተኙ ማድረግ ወዘተ እነዚህ ችግሮች በቤተሰቡ ላይ ምንያክል ችግር/ ጫናፈጠሩ)			
FBI.611	በታካሚው ህመምም ክንያት ለሌላ የቤተሰብ አባል ተኩረት አለመስጠት፤(ለምሳሌ፡ ሌላ የቤተሰብ አባል ከስራ ወይም ትምህርት ቤት መቅረት፣ ምግብ መብላትን መርሳት ወዘተ ይህችግርከ ብደቱ ምን ያክል ነው?)			

ሐ. አጠቃላይ የቤተሰብ ትርፍ ሰዓት ላይ የሚፈጠር ጫና				
FBI.612	ከዚህ በፊት ይደረጉ የነበሩ መዝናናት ሙሉ በሙሉ፣ በከፊል ና ወይም በጭራሽ ማቆም የቤተሰቡ አባላት ለዚህ ሁኔታ ምን ምላሽ ሰጡ?			
FBI.613	ታካሚው የሌላ ሰዉ የበዓላት ጊዜና ትርፍ ሰዓት እየተጠቀመ እየተሻማ ነዉ፤ በዚህ ምክንያት ያሰዉ ምን ያክል ይጎዳል?			
FBI.614	ታካሚው ለቤተሰቡ አባላት ለምሳሌ ለልጆች ትኩረት መስጠት አለመቻሉ ቤተሰቡን ምን ያክል ተፅዕኖ ፈጠረበት?			
FBI.615	በታካሚው ህመም ምክንያት በትርፍ ጊዜ ታቅደው የነበሩ ፕሮግራሞች ለምሳሌ የመዝናኛ ጉዞ፣ ከቤተሰብ ጋር መሰባሰብ መስተጓጎል /መቅረት? በዚህ ጉዳይ የቤተሰቡ አባላት ምን ይሰማቸዋል?			
መ. አጠቃላይ የቤተሰብ መስተጋብር/ ግንኙነት ላይ የሚፈጠር ጫና				
FBI. 616	በቤት ውስጥ የተፈጠረአ ላስፈለጊ መጥፎ ነገር አለ? ለምሳሌ ቤቱ አሰልቺ ሆነ ወይም ፀጥ አለ? ወይም ቤት ውስጥ አለመግባባቶች አሉን? የቤተሰብ አባላቱይህንንተፅዕኖእንዴትያዩታል?			
FBI.617	ሌሎች የቤተሰቡ አባላት ጭቅጭቅ ውስጥ ገብተዉ ያዉቃሉ? (ለምሳሌ ታካሚው እንዴት መታከም እንዳለበት፤ ማን ማሳከም እንዳለበት፤ ለህመሙማን ነዉ ተጠያቂው? ወዘተ)			
FBI.618	ዘመዶች እና ጎረቤቶች በታካሚው ህመም ምክንያት ወይም ከህመሙ ጋር የተያያዘ ማግለል ቤተሰቡን መጠየቅ አቁመዋል ወይም ቀንሰዋል? በዚህ ላይ ቤተሰቡ ምን ይሰመዋል?			
FBI.619	ቤተሰቡ ከሌሎች ሰዎች ተገለዋል? በሀፍረት ወይም ሎሎች በትክክል አይረዱንም በሚል ፍራቻ ራሳቸውን ከሌሎች ጋር መሆን አቁመዋል? በዚህ ላይ የቤተሰቡ አባላት ምን ይሰማቸዋል?			
FBI.620	የታካሚው ህመም በቤተሰቡ መካከል ወይም በቤተሰቡና በጎረቤት /ወዳጅ ዘመድ መካከል የግንኙነት መሻከር እንድፈጠር ምክንያት ሆኗልን? ለምሳሌ ትዳር መላያየት፣ የቤተሰብ ጠብ፣ ንብረት መካፈል.... ቤተሰቡ ምን ይሰማዋል?			
ሠ. በአካላዊ ጤና ላይ የሚፈጠር ጫና				
FBI.621	ከቤተሰብ አባላት ውስጥ በታካሚው ህመም የባህሪች ግር ምክንያት አካላዊ የጤና መታወክ ያጋጠመው አለ? ለምሳሌ አደጋ መድረስ ወዘተ ይህ ለቤተሰቡ ምን ያህል ችግር ሆኗል?			
FBI.622	ለተጨማሪ የጤና መታወክ የተጋለጠ ቤተሰብ አባል አለን? ለምሳሌ ክብዴት መቀነስ ፣ በፊት የነበረ ህመም መባባስ ወዘተ የችግሩ መጠን ምን ያክልነው?			
ረ. በአዕምሮ ጤና ላይ የሚፈጠር ጫና				
FBI.623	ከቤተሰብ አባላት ውስጥ የስነ ልቦና ቀውስ አጋጥሞት እርዳታ ያስፈለገው ሰው አለ? ለምሳሌ ህመምተኛዉ ራሱን የማጥፋት እቅድ፤ አለመታዘዝ ወይም ስለ ህመምተኛዉ መፃኢ መጨነቅ?			
FBI.624	የቤተሰቡ አባል የሆነ ሰው ለእንቅልፍ ማጣት፣ ድብርት፣ ራስን የማጥፋት ፍላጎት፣ በተደጋጋሚ መነጫነጭ ወዘተ ችግር የተጋለጠ አለ? አዎ ከሆነ የችግሩ መጠን ምን ያክልነው?			
FBI.sub	ባጠቃላይ ታካሚውን በማስታመመዎ ምን ያክል ጫና አሳድሮብዎታል?			

ክፍል 7. የታካሚው ቤተሰብ ከሌሎች ሰዎች የሚያገኙትን ማህበራዊ ድጋፍ የሚዳስስ ቅጽ (Social support)

ተ . ቁ .	ጥያቄ	ምላሾች
OSSS.701	ችግር ቢገጥምዎት ምን ያህል ሰው በቅርብ የችግርዎ ተካፋይ ሊሆንልዎት ይችላል ?	1. ምንም 3. 3 - 5 2. 1-2 4. ከ 5 በላይ
OSSS.702	ምን ያህል ሰው ስለ እርስዎ ግድ ይለዋል (ያስባል/ይጨነቃል…ብለው ያስባሉ)?	1- ምንም 4- ትንሽ 2- በጣምትንሽ 5- ብዙ 3- እርግጠኛ አይደለሁም
OSSS.703	ከቅርብ ጓዴኛዎ ከሆኑሰዎች ተጨባጭ እርዳታ የማግኘት እድልዎ ምን ያህልነው ?	1-በጣምከባድ 2- ከባድ 3- መጠነኛ 4- ቀላል 5- በጣምቀላል

ክፍል 8: Modified Morisky Medication-Taking Adherence Scale-MMAS-4

ተ.ቁ	ጥያቄ	1.አዎ	2. አይደለም
MMAS.801.	እረስቶ መድሀኒት ሳይወስድ ቀርቶ ያውቃል/ታዉቃለች?		
MMAS.802.	መድሀኒት አስታውሶ የመውሰድ ችግር አለበት/አለባት?		
MMAS.803.	ህመሙ መለስ ሲልለት አልፎ አልፎ መድሀኒት መውሰድ የቆማል/ታቆማለች ?		
MMAS.804.	አልፎ አልፎ መድሀኒት በሚወስድበት ጊዜ ህመሙ ከጠነከርበት /ባት መድሀኒት መውሰድ ያቆማል/ታቆማለች?		

DECLARATION

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

Name: Bethlehem Yimam

Signature: _____

Name of the institution:JimmaUniversity Medical Center

Date of submission: _____

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

Name and Signature of the first advisor

Mr. Matiws Soboka (BSc., MSc., Assistant Professor)

_____

Name and Signature of the second advisor

_____

_____