PREVALENCE AND ASSOCIATED FACTORS OF READMISSION AMONG PATIENTS WITH PSYCHIATRIC DISORDERS ATTENDING PSYCHIATRY OUTPATIENT DEPARTMENT AT JIMMA MEDICAL CENTER, JIMMA, SOUTHWEST ETHIOPIA

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JIMMA, ETHIOPIA

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Abstract

Background: *Admission is a valuable tool for stabilizing worsening psychiatric conditions, resuming discontinued drug regimens, and assisting individuals in transitioning to outpatient and community-based services. Severe mental disorders also have a chronic relapsing course that necessitates readmissions. Recurrent clinical readmissions strain the health-care system and increase the cost of treatment. A higher readmission rate is typically associated with inadequate inpatient psychiatric services. Even though high number of patients are readmitted repeatedly as seen in the mental clinics, there is no adequately available published documents showing its magnitude and contributing factors in Ethiopia.*

Objective: *To assess prevalence and associated factors of readmission among patient with psychiatric disorders attending psychiatry outpatient department at Jimma medical center, Jimma, southwest Ethiopia, 2021*

Methods: *we did Institutional based cross sectional study among 415 study participants selected by using consecutive sampling technique. A structured and interviewer administered questionnaire and medical chart review were used to collect the data. Data was entered into Epi data manager version 4.6 and exported to SPSS software version 25.0 for analysis. Bivariate logistic regression analysis was performed and variables with p-value < 0.25 were considered as candidates for multivariable logistic regression. Multivariate logistic regression analyses were done and statistically significant association between dependent and independent variables was declared at P<0.05 and 95% CI.*

Result: *A total of 415 patients were participated in the study. The prevalence of readmission was 216(52.0%) 95% Cl (47, 57). Male gender AOR= 2.279 95% Cl (1.405, 3.697), diagnosis of schizophrenia AOR=3.4,95% Cl(1.836,6.225), non-adherence to medications, AOR=2.4,95%Cl(1.349,4.309), longer length of stay(>60 days), AOR=3.012 95% Cl (1.411, 14.798) , duration of illness AOR=1.305 95% Cl (1.202,1.416) , and having of suicidal ideation and behavior, AOR=4.8,95% Cl(1.644, 14.102,) were significantly associated with readmission.*

Conclusion and recommendation*: This research demonstrated that readmission is high. Being male, diagnosis of schizophrenia, longer length of stay, poor medication adherence, duration of illness and suicidal ideation and behavior were associated with readmission. Enhancement of early detection and comprehensive treatment with continual assessment of treatment regimen of patients with mental illness required from responsible bodies and circle of patients.*

Key words: *prevalence, psychiatric readmission, psychiatric patients, psychiatric disorder, Jimma Medical Center, outpatient department*

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Abbreviation and acronym

ACT-assertive community treatment

ASSIST-alcohol, smoking and substance screening test

CCT-compulsory community treatment

CTO-compulsory treatment orders

DAI-Drug attitude inventory

ICM-intensive case management

JMC- Jimma medical center

MAQ-Medication adherence questionnaire

MARS-medication adherence rating scale

OPC-outpatient commitment

OPD-outpatient department

OSSS-3-Oslo social support-3 item

SBQ-R- suicide behavior questionnaire- revised

USD-united states dollar

List of Figures

List of tables

Contents

CHAPTER ONE

1. Introduction

1.1. Background

Inpatient hospital mental health services are just a one part of the total recovery choices available to people with mental disorders. Inpatient hospital facilities are often pursued when the symptoms of the disease become the most serious. it is a valuable tool for stabilizing worsening psychiatric conditions, resuming discontinued drug regimens, and assisting individuals in transitioning to outpatient and community-based services(1). Admission to a hospital is characterized as helping to reduce risk for both the patient and society, and handle crises by allowing for intervention in a managed environment(2).

Mental disorders also have a chronic relapsing course that necessitates multiple hospitalizations(3). Since the beginning of the community mental health movement and the deinstitutionalization process, mental health providers have come to see hospital readmission as a systemic failure(4). For persons suffering from mental diseases, hospital readmission is typically associated with poor health outcomes(3,5).

In the last few decades, readmission of inpatients has been one of the most critical issues in psychiatry(6). Readmission rates to the hospital are a valuable measure of treatment quality and they can be caused by acts taken or not taken during a patient's initial hospital stay. The study of hospital readmissions is complicated by the fact that, even with effective treatments, not all readmissions can be avoided(7).

With the growing trend and commitment to transfer care to the community, a clearer understanding of the factors that contribute to clinical readmissions is crucial. If readmission happens soon after discharge, this is even more important. Readmissions that happen shortly after the last discharge make wonder if something important was overlooked(8)

1.2. Statement of the problem

Even though in recent decades, deinstitutionalization has led to significant improvements in the use of psychiatric care all over the world, Psychiatric readmissions can be extremely stressful for patients and their families, as well as frustrate and demoralize mental health professionals(9,10).

Studies showed in the developed countries like United States of America, patients discharged were readmitted within six months, resulting in a 27 percent readmission rate(11). At a Portuguese psychiatric hospital, the readmission rate was 39.6% within 12 months, which was comparable to other European countries; it was also close to 40% after one year and 50% after two years. (12).

The prevalence of 30-day and 1-year psychiatric readmissions was 16.69 and 33.79 percent, respectively, a study conducted in far east countries, and 10.12 percent were considered repeated readmissions (≥3 admissions within 12 months after discharge)(13).

A research done in Africa also showed that higher figure at a Nigerian teaching hospital found that 41.4 percent of patients were readmitted over the five years study period(9). In Egypt 39% of the patients were readmitted within 1 year of after discharge (14) and in other study more than half of the studied subjects were readmitted to psychiatric hospitals more than one time 64.1%(15).6.9% were readmitted at least once a one year study period in Malawi(16).

Around 25 million Ethiopians are expected to suffer from a type of mental illness, with less than 10% receiving some form of treatment and less than 1% getting specialist care(17). Adults have an overall incidence of 18% mental illnesses. People are more mindful of the benefits of mental health than ever before. Families no longer appear to be agitated to obtain psychiatric treatment for mentally ill members of their family, hence a new attitude and practice towards mental health had impact on psychiatric readmission in our country (18).

Readmissions of patients especially with schizophrenia to Psychiatric Hospital have been on the rise in recent years. despite, raising major health-care challenges and placing significant strain on hospital facilities, no published study which showed it’s figure and associated factors until this time(19)

Readmission can be caused by a variety of causes including difficulties with psychiatric medication adherence and the length of the index admission. Adult patients with mood disorders and schizophrenia reported the largest number of all-cause 30-day hospital readmissions(3,5). Men are most likely to be readmitted, and or remained for a longer period of time are more likely to be readmitted(13). Poor medication adherence, unemployment, younger age and longer length of hospital stay were significant factors for readmission(9,15,16)

It's discouraging for hospital personnel to see so many of their patients return to the hospital so soon after their initial care. This may result in resignation and a loss of faith in psychiatric treatment. A few patients with very high readmission rates could potentially prevent new patients from receiving care from being admitted. This can result in lengthy wait times and, in some circumstances, jeopardize the effective treatment of mental illnesses(20). These patients' partnerships, as well as their access to community-based care providers, are all influenced by repeated admissions. Patients who are often rehospitalized are a point of concern. Since they use up a lot of the available public mental health money(21), costing an estimated USD112 million within 3 months(22).

Despite the fact that the concerns are pervasive due to the increasing burden of psychiatric disease, no trials have been undertaken to further address the issue by determining the confounding causes that affect the high incidence of readmission(19).

If the issue is not resolved, families will continue to disintegrate, stigmatization of the mentally ill will persist, the quality of mental health services will be jeopardized, and there will be insufficient financial and human resources to address the issue(7).

Even though readmission prevention is a significant problem in the treatment of mentally ill individuals, preventable readmission accounts for 9 percent to 48% of all inpatient readmissions(23). The prevention and diagnosis of the repetition of psychiatric disorders is essential for society, psychology and economy(7).

Readmission has its own adverse effect on the health of individuals with mentally ill and his family and it is also a great concern in the health facilities. Readmission is highly rise time to time in the psychiatry unit of very few mental health facilities of Ethiopia. In our knowledge there is no published study done in Ethiopia except a study done in Amanual mental hospital among schizophrenic

patients long years ago (2007). The study was specific on patients with schizophrenia and assessed its association with only substance use. Other factors had not been addressed. So, there is knowledge and data gap about readmission and associated factors among patients with mental health problems. Hence the aim of this study is to assess prevalence of readmission and associated factors among patients with psychiatric disorders.

1.3. Significance of the study

Mental health is an underdeveloped aspect in our country Ethiopia. Most people admitted to mental hospitals find themselves readmitted a few months later after their discharge. Repeat psychiatric hospitalizations are mostly concern those with severe mental illness. Little is known about the factors associated with psychiatry readmission as no published research has been performed in this area. Thus improvement of the whole treatment program and decrements of readmission incidence seeks recognizing and better understanding of such factors that contribute to repeated admission.

It would emphasizes the importance of intensifying sensitization regarding the risks of readmission, how to care for patients following discharge, and what families should do to avoid readmission of patients

The research will address the challenges related to factors related to readmission. Such knowledge will help as an input to planners to set priorities and to make appropriate services and resources available to patients and their families after hospital discharge.

This will help health planner to plan health effective interventions that will reduce on the magnitude of readmission of psychiatric Patient. The study will also help to health planners in allocating funds to different mental health programs and campaigns to help improve on accessibility of services and drugs.

It will also be a source of inspiration for further research and narrows the gap of literature in the topic.

CHAPTER TWO

2. Literature review

2.1. Overview

Mental health care is the period of transformation. Inpatient care is being phased out in place of community-based care in this transition. As new patterns emerge, measures are needed to determine the feasibility of these improvements. One potential result criteria has been suggested: patient readmission rates. Readmission is a complicated issue that is now little known. It represents a patient's clinical illness scenario, as well as the patient's pre- and post-admission circumstance and procedures. Pre- and post-admission transitions in patients returning to community-based services are the subject of programs to eliminate readmissions.

2.2. Prevalence of readmission

According to a study conducted in the United States, among 328 patients who discharged from psychiatry ward were readmitted within six months, reported a 27%readmission rate. In the equation, each patient was only counted once. When the admissions of patients who were readmitted more than once during the research time are counted in the numerator, the readmission rate rises to 29%(11).

A six-month chart review retrospective examination of 380 patients was undertaken at Hamad General Hospital in Qatar to assess socio demographic and clinical characteristics of patients with recurrent psychiatry readmission within 30 days. The rate of readmission was 10.5 %(24).

According to a retrospective based on electronic admission data the study examined the readmission and associated factors of psychiatry patients admitted at Guangzhou psychiatry hospital in china on 3455 patients over two years period, the readmission rate was 13.8 for one or more readmissions(3).

A cross-sectional study conducted based on semi structure interview on 3935 psychiatric inpatient admitted at Nour hospital psychiatry ward of Isfahan University of medical science, Isfahan, Iran for six year study period to assess factors Associated with

Readmission of psychiatry Patients. The readmission rate was varied between 1 and 10. 82.3% rate for readmitted once, 12.7% for twice and 5.1% for three and above readmissions(6).

A study conducted at AL-Abbasid hospital in Cairo on 120 mental ill patients to examine risk factors associated with readmission of hospitalized mentally ill patients majority of the participants were readmitted more than one times which was 64.1% the same country in Egypt the(15). A study done at a Nigerian teaching hospital on predictors of psychiatric readmission to the psychiatry unit of tertiary health facility based on a retrospective record check of all admissions and discharges to/from the psychiatric inpatient ward of the University of Ilorin Teaching Hospital on 789 psychiatric patients found that 41.4 percent of patients were readmitted over the study period(9).

2.3. Factors associated with psychiatric readmission

Socio demographic characteristics associated readmission among patients with psychiatric disorders

According to the study undertaken at Hamad General Hospital in Qatar to assess socio demographic and clinical characteristics of patients with recurrent psychiatry readmission within 30 days, being man, being single, and unemployed were all significantly associated with readmission(24). Another research, performed in Las Vegas, involved 7177 psychiatry patients. The majority of the readmitted were male (60.7 percent). 73.1 percent of participants were at age of 25-54 and 60% had never married before. Individuals whose age between 35-44, single or never married, and homeless were major predictors for psychiatry readmission. Female gender and age greater than or equal to 55, on the other hand, decreased the likelihood of rapid readmission(25).

A prospective cohort study on 114,330 psychiatric readmissions conducted in Taiwan to assess the psychiatric readmission rate in short and long terms (14 days, one year, and five years) and its associated predictors a data retrieved from files of national health insurance research database found that being male, having a low socioeconomic status, and living in a less urbanized region were all associated with an increase in readmission(26). A research conducted on predictors of early readmission of psychiatry patients in

Israel at a national level using data from the national psychiatric cases registry on 6868 patients over one year found that the major risk factors for readmission included the individual's age (up to 45)(10), and younger age(9).

In a case control study on 307 cases and 354 controls in two public psychiatric hospitals in Brazil over a 12-month period has a similar content findings which is being younger at first admission was associated with multiple readmissions(27), whereas according to a report performed in Canada on hospital readmissions for patients with psychiatric illness to acute care units over a year, and readmission was stronger in the elderly people(1).

According to a cohort retrospective analysis on the history and determinants of acute psychiatry readmission at Chris Hani Baragwaneth hospital on 180 psychiatry admissions for over one year using medical chart found that being married was important protective factor(28).

Clinical factors associated with readmission among patients with psychiatric disorders

A research at a Nigerian teaching hospital over five years study period, based on a retrospective record check of all admissions found that longer length of stay, multiple readmissions, and a diagnosis of schizophrenia were all predictive of readmission, whereas medication noncompliance was not(9). In similar, a study conducted in Israel, The major risk factors included a history of previous admission and an extremely brief hospital stay (up to 8 days)(10).

A retrospective study was conducted on 207 patients at urban community hospitals in Florida to assess risk factors associated with psychiatric readmission (within 15 days, 3-6 months, and 12 months) by reviewing charts, diagnosis of schizophrenia, history of alcohol abuse, and number of previous admissions were significantly associated with readmission(29).

According to a report from a prospective cohort study undertaken in Taiwan to determine the readmission rate in short and long terms and its related predictors, having spent more than 15 days in the hospital and having a diagnosis of schizophrenia or affective disorders were associated with a rise in readmission(26).

A research focused on a retrospective chart analysis of patients over the course of 18 months, with a total of 698 patients involved. Among them, 25 (3.6 percent) were readmitted due to noncompliance of treatment(30). A cross-sectional study conducted based on semi structure interview on 3935 inpatient psychiatric patients admitted at Nour hospital psychiatry ward of Isfahan University of medical science, Isfahan, Iran for six year study period to assess factors associated with readmission of psychiatry Patients. Type of diagnosis was found to be predictive of readmission(6).

According to a study performed in Brazil, certain clinical factors such as having a history of schizophrenia or depressive symptoms, and having a greater number of prior admissions is correlated with multiple readmissions(27).

A research conducted in Canada on hospital readmissions for patients with psychiatric illness to acute care units over a year study duration showed that a person with a diagnosis of schizophrenia and drug use disorder had a percentage of 53.3 percent, which was 14.2 percent higher than getting a diagnosis of schizophrenia alone. A related research conducted in Nigeria showed that multiple readmissions and a diagnosis of schizophrenia or affective disorder were indicative of readmission(9,26).

A retrospective research in Florida by using review of chart indicated that diagnosis of schizophrenia, history of alcohol abuse and numbers of previous admissions were significantly associated with readmission(29).

A three-year survey of 200 patients on conditions correlated with clinical readmission found that. The average hospital stay was reduced, although the number of readmissions increased. Substance or drug abuse (25%), and medication noncompliance were the most common factors for first readmission. Previous experience of readmission and types of illness [schizophrenia 36(41%) and mood disorders 24(27%)] were substantially correlated with readmission(31).

In a survey of 138 schizophrenia patients admitted involuntarily to investigate the three-month and one-year readmission rates and risk factors for readmission over a five-year period at a public psychiatric hospital in Taiwan, unmarried status and shorter total admission

days were associated with an increased risk of one-year readmission. Younger age was linked to a higher chance of 3-month readmission(32).

In another study conducted at Nevada state psychiatry hospital to assess factors associated with rapid readmission among psychiatry patients 7177 mentally ill patient were included, drug noncompliance and substance use or psychotic illness diagnoses were significant predictors for readmission(25).

In a survey of 1245 patients conducted in Norway, 54 percent of admissions and 62 percent of readmissions were attributed to suicidality behavior and idea. Suicide was also a strong predictor of readmission(33).

Social factors associated with readmission among patients with psychiatric disorders

A study done based on naturalistic retrospective at Kuala Lumpur hospital among 155 schizophrenic patients for one year of study period revealed that having social support was a protective factor to reduce psychiatric readmission(34).

Substance related factors associated with readmission among patients with psychiatric disorders

Descriptive survey and qualitative focus group interviews were used to conduct the study on 43 patients of schizophrenia out of 231 patients who were readmitted for the last two years prior to the study period and 14 attendants (family members of schizophrenic patients) at Amanuel psychiatric hospital in Ethiopia. The findings revealed that alcohol and khat abuse is one of the contributing factors to schizophrenia(19). Similarly a finding revealed that from a study done at Zurich Hospital in Switzerland on a sample of 554 patients, 228 (41.2 percent) were readmitted within 12 months of discharge. Concurrent use of various substances was one of the factors listed that determined the readmission rate(35).

2.4. Conceptual framework

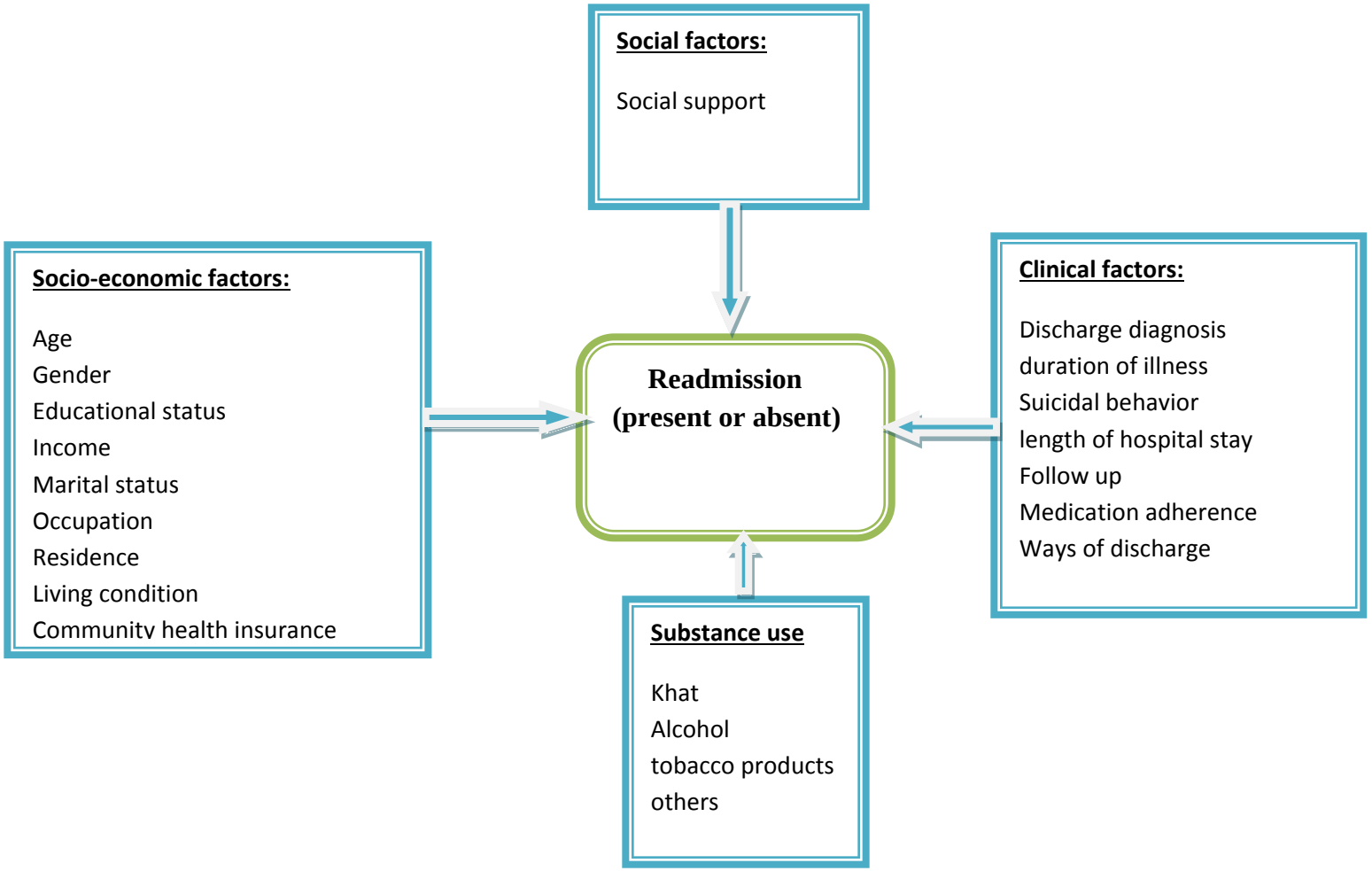

Figure 1.Conceptual frame work of factors associated with readmission among psychiatric patients after reviewing of different literatures(1,3,6,9–11,24,35)

CHAPTER THREE

3. Objective

3.1. General objective

To assess prevalence and associated factors of readmission among patients with psychiatric disorders attending psychiatry outpatient department at Jimma medical center, Jimma, southwest Ethiopia

3.2. Specific objectives

To assess prevalence of readmission among patient with psychiatric disorders attending psychiatry outpatient department at Jimma medical center, Jimma, southwest Ethiopia

To identify factors associated with readmission among patient with psychiatric disorders attending psychiatry outpatient department at Jimma medical center, Jimma, southwest Ethiopia

CHAPTER FOUR

4. Method and materials

4.1. Study area and period

This study was conducted at Jimma Medical Center (JMC) psychiatry outpatient department in Ethiopia over the course of two months in 2021. JMC is located in Jimma town, 355 km from Addis Ababa, capital city. It is one of the oldest public hospitals found in the South –Western part of the country that runs under Jimma University. It is currently the only medical center in this part of the country. This medical center gives a service for a catchment's population of 15 million and has more than 800beds, 1600 staff members. It has several specialty clinics. As one of the specialty clinics, psychiatry clinic has outpatient department (OPD) and inpatient unit. Psychiatric clinic of JMC was established in 1996. Currently there are more than 1000 patients who are attending follow up treatments at OPD monthly and on average around 70 patients are visiting daily. Officially the psychiatric clinic has 60 beds for inpatient services and 4 OPD.

4.2. Study design

Institutional based cross sectional study was conducted

4.3. Study population

4.3.1. Source of population

All patients with psychiatric disorders who were admitted at least once at JMC and attending at OPD during study period

4.3.2. Study population

All sampled patients with psychiatric disorders who were admitted at least once at JMC and attending at OPD

Inclusion criteria

All sampled patients with psychiatric disorders who were admitted at least once at JMC and attending at OPD

Exclusion criteria

Patients who were severely ill and difficult to communicate. And patients whose age is less than 18 years old and.

4.4. Sample size determination and techniques

4.4.1. Sample size determination

The sample size was estimated by using single population proportion formula. The Sample size was calculated by taking proportion of psychiatric readmission 50% since in our knowledge there was no published study in Ethiopia showing psychiatric readmission among patient with psychiatric disorders, 95% confidence interval and 5% margin of error

$$n = \frac{(Z\alpha_{/2})^2 \, p\,(1-p)}{d^2}$$

Where: n is the maximum sample size

$Z\alpha_{/2}$ is 1.96 (95% confidence level)

P is the proportion of population

d is margin of error which is 0.05

The sample size n =384.16≈ 385

After 10% non-response rate, the final sample size was became 424

4.4.2. Sampling techniques and procedure

The required sample size for this study was 424 people. Consecutive sampling technique was used to select the sample patients who meet the eligible criteria until the required sample size was saturated over two months of duration. When the patient came for follow

up visit, patient that had admission history were approached at waiting room. Data was collected through face to face interview to study subject and review of medical chart.

4.5. Study variables

4.5.1. Dependent variable

Readmission

4.5.2. Independent variables

Socio – demographic characteristics:

Age

Sex

Income

Marital status

Educational background

Occupation

Living condition

Residence

Community health insurance

Clinical factors:

Diagnosis during discharge

Lengths of hospital stay

Medication adherence

Regular follow up

Duration of illness

Ways of discharge

Suicidal behavior

Social factors:

Social support

Substance use

Alcohol, Khat, Tobacco, Others

4.5. Data collection instrument

Data was collected using structured questionnaires interview. The questionnaire consisted of questions on socio-demographic characteristics, clinical factors, social support, medication adherence, substance use and suicidal ideation and behavior.

Part I Socio demographic characteristics

This part assessed patient's age, sex, marital status, level of education, occupational status, residence, medical health insurance, and living condition. Data related to socio-demographic was obtained trough developed (adopted) questionnaire

Part II-Clinical characteristics

This part composes variables like diagnosis during discharge, number of admissions, total duration of illness, length of stay in the psychiatry ward, presence of regular follow up visit and types of discharge. Data related to clinical was obtained trough developed (adopted) questionnaire based on different literatures.

Part III -Medication Adherence Rating Scale

Medication Adherence Rating Scale (MARS). It is a 10-item self-reported medication taking behavior scale. Good reliability (Cronbach's alpha: 0.76) study done on patients with schizophrenia in Nigeria. It is a new inventory that incorporates features of both the DAI (Drug attitude inventory) and the MAQ (Medication adherence questionnaire).(36).

Part IV Social Support Scale (The Oslo 3-items) (OSSS-3)

Osss-3 used to assess level social support. The sum score categorized into three broad categories of social support. 3–8 poor social support, 9–11 moderate social support, and 12–14 strong social support. The Oslo-3 scale has been used in several studies, confirming the feasibility and predictive validity with respect to psychological distress(37).

Part V Alcohol, Smoking and Substance Involvement Screening Test the ASSIST (Version 2.0)

It includes 8 items measuring lifetime and recent use of substances but in this study only 2 items were used to assess substance use, along with tobacco, alcohol, cannabis, cocaine, amphetamines, inhalants, sedatives, hallucinogens, opioids, and different drugs(38).

Part-VI Suicide behavior questionnaire-revised (SBQ-R)

It used to identify at-risk individuals and specific risk behaviors. It has four items; the total score range from 3-18. Cutoff score is ≥ 8 for adult population. It was used in different study. a total score of less than 8 indicates has no suicidal ideation and behavior and a score of 8 and above indicates has suicidal ideation and behavior(39).

4.6. Operational definition

Readmission: it is operationalized as admitted in psychiatric ward of JMC for second or more time after being fully discharged by treating clinicians, absconded from the ward or discharged against medical will after the patient or family requested to leave the ward and decided to go home for three or more days, except for those on home leave(10).

Length of hospital stay: is operationalized as total duration of time in the psychiatry ward between admission and discharge in days (10)

Adherence to medication – 10-item medication adherence rating scale (MARS) was used.
A total score of 6 and above indicates adherence to medication and a score of less than 6 indicates non adherence to medication
Alcohol, Smoking and Substance Involvement Screening Test-2 items of ASSIST Used to measuring life time and current substance use.

Life time substance use: patient who non-medically used at least one substance in his/her lifetime

Current substance use: patient who non-medically used at least one substance (alcohol, Khat, cigarette and others) within the last 3 months before last admission or data collection period

Social support: in this study social support is measured using Oslo 3-items social support scale and a score of 3-8 is poor support, 9-11 is moderate support and 12-14 is strong support

Diagnosis during discharge: approved diagnosis by treating clinician and written on discharge treating clinician history note.

Duration of illness in years: total duration of time from onset of illness to readmission or data collection period in year

Ways of discharge: terminating (leaving) of inpatient treatment program of JMC after admission either by treating clinicians, absconded from the ward or discharged against medical will after the patient or family requested to leave the ward and decided to go home.

Regular follow up visit: attending of outpatient treatment 80% and above of the appointment within the year period before readmission or data collection(14).

Suicidal ideation and behavior: based on a tool of suicidal behavior questioner revised (SBQ-R). A patients who scored of less than 8 had no suicidal ideation and behavior and a scored 8 and above had suicidal ideation and behavior

4.7. Data quality assurance

To ensure data quality the questionnaires was prepared in English and translated to local languages (Amharic & Afan Oromo) and translated back to English by instructors from linguistic and literature department. The questionnaires was pretested prior to actual data collection at Shenen Gibe General Hospital on 5% (n=25) of the sample size that was not included in main study. Based on the pretest, vague and ambiguous questions were revised, modified and eliminated. The data was collected by four Bsc mental health professionals and supervised by one Msc mental health professional. Two days training was given to the data collectors and supervisor about the objectives, methodologies, ethical issues, tools, procedure of the data collection and infection prevention mechanism related to COVID 19. Over all data collection procedure and the completeness of the questionnaires was daily checked by supervisor. To avoid language barrier fluent speaker of local language were assigned.

4.8. Data processing and analysis

Data was coded and entered in to the computer using Epi-Data version 4.6 software. Then the data was exported to SPSS version 25 for analysis. Descriptive statistics which involve frequency and percentage for the variables was used. Bivariate logistic regression was performed to identify candidate variables for multivariable logistic regressions. Variables with p-value <0.25 in bivariate regression were considered as candidates for multivariable logistic regression. Multivariable logistic regression was performed to identify independent predictors of readmission. The statistical significance was considered at P-value <0.05 and adjusted odds ratio with 95 % CI was calculated to determine the strength of association. Finally, the result was presented by using charts, graphs and tables.

4.9. Ethical consideration

Ethical clearance was obtained from the Ethical review board of Jimma University Institute of health with a reference number IHRPGY/344/21. The data collectors clearly explained the aims of the study for study participant. Information was collected after obtaining written informed consent from each participant. The right was given to the study participants to refuse or discontinue participation at any time they want and the chance to ask any thing about the study. For the purpose of anonymity participant's name wasn't use at the time of data collection and all other personnel information kept entirely anonymously and confidentiality was assured throughout the study period. Data collectors was put their signature for they could obtain verbal consent for the interview from the respondents.

4.10. Dissemination of the finding

The results of the study will be submitted to Jimma University Faculty of Medicine, Institute of Health, hard copies of the findings will be disseminated to JMC and other concerned bodies as well.. The research paper will be presented in health professional organizations‟ annual meetings, professional conferences and trainings. Finally, attempts will be made to publish results in national or international journal to disseminate worldwide.

Chapter five:

5. Result

5.1. Socio demographic characteristics of respondents

From the total of 424 sampled patients, 415 patients were participated in the study giving 97.87 % response rate but nine participants were eliminated due to missing/incomplete data. Majority, 64.1 % (n=266) of the patients were males. 42.9 %(n=178) of the patients' age was between 18- 28 years old and 44.6 %(n=185) of the patients were single. Nearly half, 48.0 %(n=199) of the subjects were educated up to grade 8^{th}. One fifth, 20.0 %(n=83) of the patients were private worker. The total monthly income mean and standard deviation of participants were 2566.70 and 1924.8 respectively with range of 0-6000 ET

Table.5. 1.Socio-demographic characteristics of patients with psychiatric disorders at JMC psychiatry OPD, Southwest Ethiopia, 2021 (N=415)

		Frequency	percent
Age	18 -28	178	42.9
	29 -39	95	22.9
	40 -50	117	29.2
	>50	25	6.0
Sex	Male	266	64.1
	Female	149	35.9
Religion	Muslim	205	49.4
	Orthodox	102	24.6
	Protestant	108	26.0
Marital status	Single	185	44.6
	Married	132	31.8
	Divorced	82	19.8
	Widowed	16	3.9
Education level	Unable to write and read	28	6.7

	Able to write and read	12	2.9
	1 -8th grade	199	48.0
	9- 12th grade	127	30.8
	College and above	48	11.6
Occupation	Farmer	68	16.4
	Merchant	40	9.6
	Government employee	75	18.1
	Private worker	83	20.0
	Daily labor	28	6.7
	House wife	42	10.1
	Student	43	10.4
	Unemployed	36	8.7
Living condition	Home	400	96.4
	Homeless	5	1.2
	Facility	10	2.4
With whom	With family	353	85.1
	Alone	41	9.9
	Others*	21	5.1
Residence	Urban	270	65.1
	Rural	145	34.9
Insurance	Yes	349	84.1
	No	66	15.9

Note: *others- with relatives, with friends

5.2. Clinical characteristics of respondents

Nearly half, 47.9 %(n=197) of the patients were diagnosed with schizophrenia. Majority, 71.3% (n=296) of the respondents were adherent to medication. Almost all, 93.7 %(n=379) of the patients had no suicidal ideation and behavior and nearly three-forth, 72.5 %(n=301) of the respondents were discharged with approval of clinician. More than half, 56.1 %(n=234) of the patients were stayed

in the ward for 7-30 days. The mean duration of illness was 4.8914 years and standard deviation was 4.71years with the minimum and maximum values were 8 months and 360 months respectively.

Table.5. 2.Clinical characteristics of patients with psychiatric disorders at JMC psychiatry OPD, southwest, Ethiopia, 2021(N=415)

Variables	Categories	Frequency	Percentage
Diagnosis	Major depressive disorder	102	24.6
	Bipolar 1 disorder	116	28.0
	Schizophrenia	197	47.9
Regular follow up	Present	398	95.9
	Absent	17	4.1
Ways of Discharge	Approved by clinician	301	72.5
	Patient/family request	94	22.7
	Abscond	20	4.8
Length of hospital stay(in days)	7-30	234	56.4
	31-60	152	36.6
	>60	29	7.0
Suicide ideation and behavior	No	379	91.3
	Yes	36	8.7
Medication adherence	No adherent	119	28.7
	Adherent	296	71.3

5.3. Social support and substance use history of respondents

All most all, 93.3%(n=387) of the respondents were had no history of use alcohol in their lifetime, near to one third 30.6%(n=127) of the respondents were had history of khat in their lifetime, while only 6.3%(n=26) of respondents had history of using tobacco in their lifetime. 28%(n=116) of respondents were had history of using khat in the last 3 month before last admission, 6.7%(n=28) and

7.0%(n=29) were had history of using of tobacco product and alcohol in the last before last admission respectively. Out of study participants 36.1%(n=150) had strong social support.

Table.5. 3 Social support and substance use of respondents, JMC, Jimma southwest Ethiopia, 2021(N=415)

Variables	Categories		Frequency	Percentage
Social support	Poor		90	21.7
	Medium		175	42.2
	Strong		150	36.1
substance use	Life time alcohol	No	387	93.3
		Yes	28	6.7
	Life time Khat	No	288	69.4
		Yes	127	30.6
	Life time Tobacco	No	389	93.7
		Yes	26	6.3
	Current Alcohol	No	386	93.0
		Yes	29	7.0
	Current Khat	No	299	72.0
		Yes	116	28.0
	Current Tobacco	No	387	93.3
		Yes	28	6.7

5.4. Distribution of admission number among respondents with their sex and diagnosis

The number of admission rate among respondents ranged from one to nine times. Nearly half, 48.0 %(n=199) of patients were admitted once. Almost one-fifth, 21.7 %(n=90) and, 21.0 %(n=87) of patients were admitted twice and three times respectively. The overall prevalence of readmission was 52.0%.

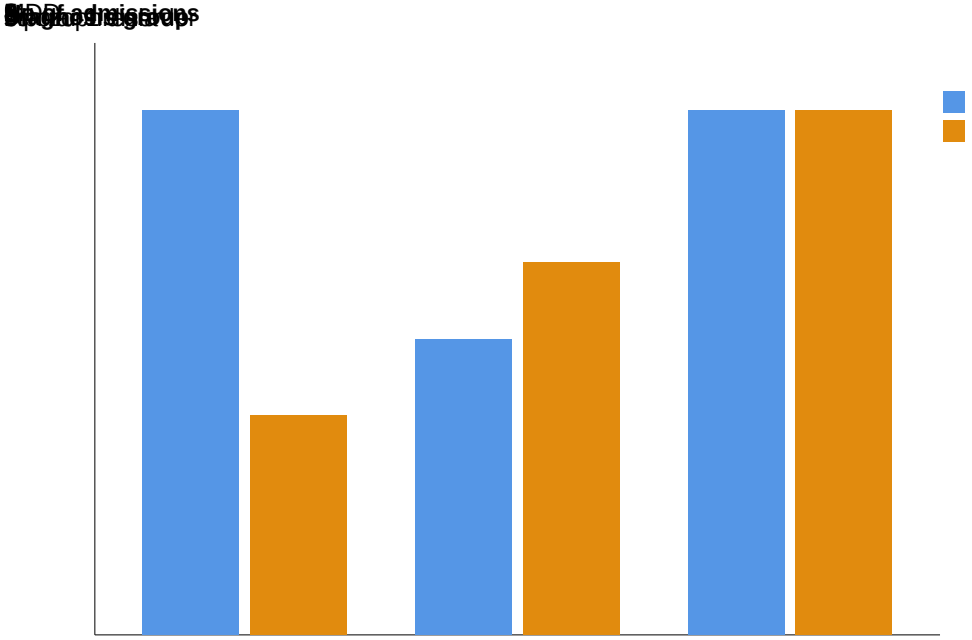

Figure 2: Number of admission among diagnosis group and gender of respondents, JMC, southwest Ethiopia, 2021(N=415)

Prevalence of readmission among respondents

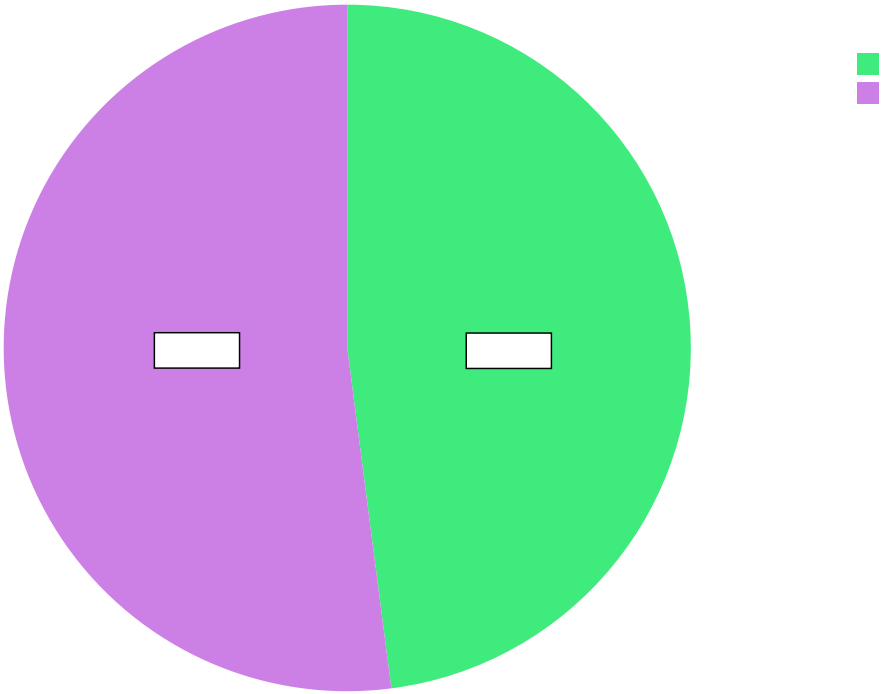

Figure 3: prevalence of readmission of respondents, JMC, Jimma, southwest Ethiopia, 2021(N=415)

5.5. Factors associated with readmission

Bivariate logistic regression analysis

Bivariate logistic regression analysis revealed that sex, age, education level, diagnosis, regular follow up, medication adherence, social support, suicidal ideation and behavior, length of hospital stay, lifetime and current use of khat were associated with readmission at $p< 0.25$

Multivariable binary logistic regression analysis of factor associated with readmission

Multicolliniarity analysis first checked among those variables which had association on bivariate analysis before the final model, and all the candidates for final models had Variance Inflation Factor (VIF) less than 2.01 and tolerance of greater than 0.49 Therefore, there was no issue of collinearity.

This study showed that the odds of being male to be readmitted is 2 times higher compared to being females (AOR= 2.279 95% Cl (1.405, 3.697)). Regarding to diagnosis, diagnosis of schizophrenia had 3 times more likely readmitted (AOR=3.088 95% Cl (1,717, 5.555)). In relation of length of hospital stay patients who stayed more than 60 days had 3 times more likely readmitted (AOR=3.012 95% Cl (1.411, 14.798)). Duration of illness 1.3 times more likely increase readmission (AOR=1.305 95% Cl (1.202-1.416)). Likewise, odds of patients who were non adherent to medication 2.4 times higher compared to those who were adherent to medication (AOR=2.310 95% Cl (1.312, 4.067)). additionally, patients who had suicide ideation and behavior also associated with readmission, 3 times more likely to readmitted than who had no suicidal idea and behavior (AOR=3.012 95% Cl (1.048, 8.651)).

Table.5. 4 Bivariate and Multivariate analyses of factors associated with readmission of respondents, JMC, Jimma southwest Ethiopia, 2021(N=415)

Variables	Categories	Readmission number and percentage		COR	P-value	AOR (95 % Cl)	P-value
		No No (percent)	Yes No (percent)				
Sex	Female	106(39.8)	160(60.2)	2.507 (1.659,3.787)	0.001*	1	1
	Male	93(62.4)	56(37.6)	1	1	2.279 (1.405,3.697)	0.001
Diagnosis	MDD	62(60.8)	40(39.2)	1	1	1	1
	B1PD	63(54.3)	53(45.7)	1.121(0.654,1.920)	0.678	1.639(0.861,3.122)	0.133
	Schizophrenia	74(37.6)	123(62.4)	2.375(1.457,3.870)	<0.001*	3.088(1.717,5.555)	0.001*
LOS (in days)	1-30	99(42.3)	135(57.5)	1	1	1	1
	31-60	84(55.3)	68(44.7)	1.470(0.976,2.213)	0.065*	1.175(0.716,1.928)	0.524
	>60	16(55.2)	13(44.8)	5.660(2.087,15.351)	0.001*	3.012(1.411,14.798)	0.011
Duration of illness(in years)				1.301(1.206, 1.403)	<0.001*	1.305(1.202-1.416)	<0.001
Medication adherence	Non adherent	37(31.1)	82(68.9)	2.679(1.707, 4.205)	<0.001*	2.310(1.312,4.067)	0.004
	Adherent	162(54.7)	134(45.3)	1	1	1	1
Suicide ideation and behavior	No suicide	193(50.9)	186(49.1)	1	1	1	1
	Has suicide	6(16.7)	30(83.3)	5.188(2.111, 12.753)	<0.001*	3.012(1.048,8.651)	0.041
Regular follow-	Yes	194(48.7)	204(51.3)	1	1		

up	No	5(29.4)	12(70.6)	2.282(0.789, 6.598	0.128*		
Ways of discharge	Approved by clinician	147(48.8)	154(51.2)	1	1		
	Patient/family request	46(48.9)	48(51.1)	0.996(0.627, 1.583)	0.987		
	Abscond	6(30.0)	14(70.0)	2.227(0.834, 5.951)	0.110*		
Age	18-28	94(52.8)	84(47.2)	0.503(0.211,1.197)	0.120*		
	29-39	40(42.1)	55(57.9)	0.773(0.311,1.926)	0.581		
	40-50	56(47.9)	61(52.1)	0.613(0.251,1.497)	0.283		
	>50	9(36.0)	16(64.0)	1	1		
Marital status	Single	83(44.9)	102(55.1)	1	1		
	Married	68(51.5)	64(48.5)	0.776(0.489, 1.198)	0.243		
	Divorced	43(52.4)	39(47.6)	0.738(0.438, 1.243)	0.253		
	Widowed	5(31.3)	11(68.8)	1.790(0.598, 5.357)	0.298		
Occupation	Farmer	32(42.1)	36(52.9)	1	1		
	Merchant	20(50.0)	20(50.0)	0.889(0.407, 1.942)	0.768		

	Government employee	33(44.0)	42(56.0	1.131(0.585, 2.187)	0.714		
	Private worker	43(51.8)	40(48.2)	0.827(0.435, 1.571)	0.562		
	House wife	20(47.6)	22(52.4)	0.978(0.453, 2.113)	0.954		
	Daily labor	13(46.4)	13(53.6)	1.026(0.424, 2.478)	0.955		
	Students	23(53.5)	20(46.5)	0.773(0.360, 1.662)	0.510		
	Unemployed	15(41.7)	21(58.3)	1.244(0.550, 2.814)	0.599		
Educational level	Unable to write and read	12(42.9)	16(57.1)	1	1		
	Able to write	4(33.3)	8(66.7)	1.5(0.365, 6.172)	0.574		
	1-8th grade	104(52.3)	95(47.7)	0.685(0.308, 1.522)	0.353		
	9-12 grade	63(49.2)	65(50.8)	0.774(0.339, 1.765)	0.542		
	College and above	16(33.3)	32(66.7)	1.5(0.575, 3.915)	0.407		
Living with whom	With family	170(48.2)	183(51.8)	1	1		
	Alone	18(43.9)	23(56.1	1.187(0.619, 2.276)	0.606		

	Others		11(52.4)	10(47.6)	0.845(0.350, 2.039)	0.707		
Living condition	Home		194(48.5)	206(51.5)	1	1		
	Homeless		2(40.0)	3(60.0)	1.413(0.234, 8.545)	0.707		
	Facility		3(30.0)	7(70.0)	2,197(0.560, 8.619	0.259		
Residence	Urban		132(48.9)	138(51.1)	0.898(0.599, 1.346)	0.602		
	Rural		67(46.2)	78(53.8)	1	1		
Health insurance	Yes		170(48.7)	179(51.3)	1	1		
	No		29(43.9)	37(56.1)	1.212(0.71, 2.058)	0.477		
Social support	Poor		36(40.0)	54(60.0)	1.461(0.860-2.480)	0.161*		
	Moderate		89(50.9)	86(49.1)	0.941(0.608-1.455)	0.784		
	Strong		74(49.3)	76(50.7)	1	1		
Lifetime substance use	Alcohol	No	188(48.6)	199(51.4)	1	1		
		Yes	11(39.3)	17(60.7)	1.460(0.666-3.198	0344		
	Khat	No	147(51.0)	141(49.0)	1			

		Yes	52(40.9)	75(59.1)	1.504(0.986-2.294)	0.058*		
	Tobacco	No	185(47.6)	204(52.4)	1	1		
		Yes	14(53.8)	12(46.20	0.777(0.357-1.724)	0.535		
Current substance use	Alcohol	No	186(48.2)	200(52.8)	1	1		
		Yes	13(44.80	16(55.2)	1.145(0.536-2.444)	0.727		
	Khat	No	150(50.2)	149(49.8)	1	1		
		Yes	49(42.2)	67(57.8)	1.377(0.893-2.122)	0.148*		
	Tobacco	No	188(48.6)	199(51.4)	1	1		
		Yes	11(39.3)	17(60.7)	1.460(0.666-3.198)	0.344		

Note: AOR=adjusted odds ratio, Cl=confidence interval, MDD=major depressive disorder, BP1D=bipolar 1 disorder, LOS= length of stay, 1= reference group

Chapter six

6. Discussion

The result of this study revealed that the overall psychiatric readmission rates were 52.0% 95% Cl (47, 57). In our knowledge there was study consistent with current study.

current result revealed much higher than from the study conducted in China(13), Iran(6), Israel(10), Portugal(12), Oman(14), Nigeria(9), Qatar(24), and Taiwan(26) with the prevalence of 33.7%, 17.8%, 13%, 39.6%, 39%, 41.4%, 10.5% and37.8% respectively. The possible explanation for this difference is Most of the above mentioned studies done in a limited time frame in 30 days, 6 months and 1 year up to a maximum of 6 years study period. They have not count the previous admission on readmission number and it affected the general prevalence of readmission. But in this study have not considered time-frame, so every admission was counted.

On the other hand, finding of this study lower than a finding conducted in Egypt(15) which was 64.1% prevalence of readmission. The possible discrepancy might be socio-demographic characteristics difference of participants between two studies. In the other study reported that socio-demographic characteristics determine the prevalence of readmission like marital status (without partner)(40). So, unlike current study, study done in Egypt most of the participants were single, divorced and widowed around 71%.

The finding of this study showed that being male is significantly associated to the readmission which was consistent with a study done in Taiwan(26) and Oman(14). It is also comparable to the study done at the University of California, San Diego Senior Behavioral Health Unit(41). It's feasible rationalization perhaps women have better attendance and seem to in looking for professional care once they are afflicted by minor health issues than men at comparable ranges of discomfort. So, their conduct can manipulate contamination as much as deserve relapse and admission. They also are much more likely adherence to medication and might manipulate relapse(26).

Additionally, the male gender is taken into consideration as a negative prognostic component for maximum severe mental illnesses(14). On the contrary, other study carried out in India(42) discovered that female sex became a predictive component for readmission. This is probably because of socio-demographic variations of study participants. Sex is the only socio-demographic risk factor for readmission, the lack of affiliation of readmission with socio-demographic variables can also additionally suggest that illness-specific variables are extra crucial determinants of readmission(42).

According to this study diagnosis of schizophrenia was significantly associated to readmission which agrees with a study done in Nigeria(9), Guangzhou, China (3), Taiwan(26), and the Los Angeles, United States (29). One third of patients with discharge diagnoses of schizophrenia had been at the highest risk of readmission (43,44) The possible affiliation of this diagnosis and readmission is the feature of the illness is rather deteriorating and cause extensive functional impairment, subsequently, it needs frequent hospitalization(9). Additionally, patients may have a poor understanding of their condition, which would possibly mitigate against treatment advice(43). Other reason could be the negative know-how of the disease and much less effective psycho-social support.

Among the predictors of readmission longer period of hospital stay had significant association with readmission comparable to study carried out in Nigeria(9), Beijing, China (13), Taiwan(26) and in the Harris County Psychiatric Center, Texas(45). The length of the initial hospital stay is critical to prevent future readmission(44), but if the length of stay is longer especially more than 15 days on the primary admission had been related to a higher rate of readmission (26). This could be explained by longer length of stay associated with chronicity of the illness, intense and highly refractory, therefore patients in such scenario frequently readmitted(46). And also length of stay and psychiatric readmission are strongly associated with the structure of the mental hospital system. That is the longer stay the greater extreme illness is, consequently difficult to manage in the outpatient ends in relapse and frequent hospitalization(45). likewise, it is associated with time-structured factors, with time, it's far possible that community supports grow to be much less cohesive over the years and certainly a weakening of the relationship(46). Additionally, it may depend upon the finding of the

predictive impact of a diagnosis of schizophrenia. Schizophrenia tends to be intense and much more likely to run a continual and deteriorating course.

In contrast, other findings confirmed a relationship in reveres way. It was supported by the study done in India(44). A longer duration of stay at primary admission decreased the likelihood of readmission(46). The readmission rate doubled and greater in advance with the lower the duration of stay and become short(44,46,47). This inconsistency might be explained by patients with longer preliminary stay may be attributed to the subsequent situation: With longer health facility stay, at the time of discharge there may be close to general remission of symptoms, Patients advantage higher insight into their illness, follow up treatment is higher. Psycho-education to the patient and own circle of relatives participants is sufficiently executed and discharge planning is higher(44).

Medication non-compliance is the most important factor to readmission. Medication non adherence was an independent predictor for readmission in the current study. Similarly, a study has previously shown medication non adherence was associated to readmission among patients who were discharged from a psychiatry hospital as reported in the study done in Cairo, Egypt (15), Oman(14), Philadelphia(30) and Malaysia(48). In general consensus that long-time period maintenance treatment stays the most dependable manner of preventing relapses. However, treatment adherence remains a substantial problem in the long-time period care of psychiatric patients, particularly schizophrenic ones(48). Nearly half of the respondents were identified with schizophrenia and it's also an independent predictor factor, which is probably much less recognizing to their disease and an excessive chance of non-adherence and exacerbation of symptoms and sooner or later results in readmission(29).

Suicidal ideation and behavior also related to readmissions. This finding is consistent with the result done in Hauk eland University Hospital in Bergen, Norway(33). As reported in the study’s finding conducted in Norway, more than half of patient's cause for readmission was suicidal behavior(33). It could explained by patients who have suicidal behavior excessively seek mental health services and clinicians gave great concern to those patients(33). And also suicidal behavior is a psychiatric emergence patients with suicidal behavior were treated at inpatient rather than at outpatient setting to avoid possible self harming behavior.

Interestingly, in an assessment of readmission in Oman, having a risk of suicide was associated to a decrease prevalence of readmission(14). It is probably a method used to assess suicide behavior is different from this study. They used patients' medical records but in current study with standard tool to assess suicidal behavior.

This study finding showed in agreement with the studies done in the United States(30) and in a mental health unit of a southwest Nigeria University Teaching Hospital(49) duration of illness was related to readmission. patients with whose duration of illness more than five years were 3.43 times much more likely to relapse and readmitted(50). Out of readmitted patients with schizophrenia, greater than 27% of the psychotic patients have been readmitted all through the subsequent 150 months (12.5 years) after their primary discharge(43). The possible explanation could be long duration of illness can partly be explained by the high rate of the severe diagnosis which is associated with a poor outcome and high proportion of psychiatric care user. As well long duration of illness goes along with early onset, which is poor prognostic indicator of most mental illnesses(43)

Strength of the study

It is the first try to assess psychiatry readmission among all psychiatric patients with relatively larger sample size and incorporate additional more factors than previous study. It also found six predictors of readmission which have not been mentioned in previous study done in Ethiopia.

Limitation of the study

As it on a single center (institution) study limits the ability to infer (generalize) on whole psychiatry patients

It is retrospective study required recall of past history which may be prone to recall bias

Some variables were assessed with only self-report such as duration of illness and ways of discharge which may have influenced by social desirability bias.

Some of data should obtain from medical chart. However medical charts of other facility were not availability, so admission of in other facility not considered. it may affect the overall magnitude of readmission

In addition, some important variables like global assessment of functioning at discharge, medical co-morbidity have not been studied because difficult to get from the study participants and not available on medical chart

Chapter seven

7. Conclusion and recommendation

7.1. Conclusion

This research showed that readmission was high. Being male, diagnosis of schizophrenia and major depressive disorder, longer length of stay, poor medication adherence, duration of illness and suicidal ideation and behavior were associated with readmission

7.2. Recommendation

Based on the finding, the following recommendations are suggest

To Jimma medical center psychiatry clinic

- To start continues psycho-education to the patient and primary care givers about treatment protocol during discharge and follow up visit
- To detect/screen suicidal ideation and behavior every visit and provide necessary management immediately.
- Enhance integrated and collaborative management while the patient at inpatient to minimize longer hospital stay
- Encourage and regularly incorporate psychosocial treatment to reduce further deteriorating course of illnesses
- we recommend to give great concern to patients with schizophrenia while they inpatient

To health post and health extensions

- As they direct and frequent contact with community to create awareness about sign and symptoms of mental illness to enhance early detection and treatment of mental illness

- Provide psychological support for patients with mental illness to start and sustain on treatment regimen

To Further researchers

- To know cause of readmission it is better to do longitudinal retrospective design
- Include other important factors like family system, hospital facility, medical co-morbidity and other factors
- To do at inpatient setting to assess further clinical factors

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ANNEX I:

QUESTIONNAIRE

Jimma University

Institute of health

Faculty of Medical Science

Department of psychiatry

Information sheet

Title of the research project –Readmission and associated factors among psychiatric patients at Jimma university medical center, psychiatry unit, Jimma, southwest Ethiopia

Name of the principal investigator –Seid Belay

Name of the organization-Jimma University

Name of the sponsor -Jimma University

The objective of the research project -To assess prevalence of readmission and associated factors among psychiatric patients admitted at Jimma university medical center, psychiatry unit, Jimma, southwest Ethiopia, 2021

Procedure: We invite you to participate in this project. If you are willing to participate in this project, you need to understand and sign the agreement form. Then after, you will be interviewed by the data collectors. You do not need to tell your name or to give your

telephone number to the data collector and all your responses and the results obtained will be kept confidentially by using coding system whereby no one will have access to your response.

Harm - No harm will be inflicted because of their participation in this study.

Confidentiality - The information provided will not be used for any purpose other than meeting the objective of the research.

Benefit -If you participate in this research project, there may not be direct benefit to you but your participation is likely help us to meet the research objective. Ultimately, this will help us to improve quality of services provided to patients with mental disorder in this country.

Incentives: You will not be provided any incentives or payment to take part in this project.

Voluntary participation and withdrawal - Your decision to participate in this study is complete voluntary. If you decide to not participate in this study, it will not affect the care, services, or benefits to which you are entitled. If you decide to participate in this study, you may withdraw from your participation at any time without penalty.

Contact person - This research project will be reviewed and approved by the ethical committee of Jimma University. If you have any question or doubt regarding this study, you can contact the following individual through:

Investigator: Phone number: +251938038582 Email:seidbelay55@gmail.com

Advisors: +251910107507 Emailyonitesfaye71@gmail.com

+251910058532 Email:gutemaahmed@gmail.com

Your consent - I voluntarily agree to participate in this research program

Yes No

I understand that I will be given a copy of this signed consent form.

Signature of participant _____ Date _____

Name and signature of supervisor: _____Date_____

Name and signature of data collector: _____Date_____

I. Socio demographic information of participants

No	Questioners	Alternative response	Coding
1.	Sex	1. Male 2. Female	
2.	Age	----------	
3.	Religion	1. Muslim 2. Orthodox 3. Protestant 4. Catholic 5. other specified	
4.	Marital status	1. single 2. married 3. divorced 4. widowed	
5.	Educational level	1. Un able to read and write 2. Able to read and write 3. 1-8th grade 4. 9 -12th grade 5. College and above	
6.	Occupation	1. Farmer 2. Merchant 3. Government employee 4. Private worker 5. Unemployed	

		6. House wife 7. Student 8. Daily labor 9. Others specify	
7.	Total monthly income	…….	
8.	Living condition before last discharge	1. Home 2. Homeless 3. Facility	
9.	With whom you are living?	1. With family 2. Alone 3. Other	
10.	Residence	1.urban 2. rural	
11.	Community Health insurance	1. Yes 2. No	

I. Clinical factors

Ser.no	Questions	Alternative answers	
1	Diagnosis during discharge(from medical chart)	----------	
2	Duration of illness	----------	
3	Number of admission		
4	Length of hospital stay (in day) (from medical chart)	----------	

5	Regular visits to hospitals for follow up (from medical chart)	1. Present 2. Absent	
6	Ways of discharge	1. Approved discharge 2. Patient/family request 3. Abscond	

I. Question to assess social support (Oslo Social Support Questionnaires (Oslo-3)

The following questions ask about how participants experience his/her social relationship. Please, encircle the option that represents the participant's experience.

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

3.	How easy is it to get practical help from Family or relatives if you should need it? (choose one option)	5. Very easy
		4. Easy
		3.meduim
		2.difficult
		1.very difficult

II. Question to assess Substance-related and behavioral factors

This question is about substance use. Please choose the option represents the participants and write appropriate answer for participants experience about his/her use of alcohol beverage.

1.	In your lifetime, have you ever used any of following the substances?	1.Yes 2.No
2.	If your answer is Yes for Q-1, which substance do you use?	1.Alcohol (beer, wine, arake, teji, tella) 2.Khat 3.Tobacco product 4.Others specify
3.	In the past 3 months, have you used any of the following substances?	1.Yes 2.No
4.	If your answer is Yes, which substance do you use?	1.Alcohol 2.Kat

		3.Tobacco product 4.Others specify

III. Medication Adherence Questionnaire

S/No:	Questions		
1	Do you ever forget to take your medication?	Yes	No
2	Are you careless at times about taking your medication?	Yes	No
3	When you feel better, do you sometimes stop taking your medication?	Yes	No
4	Sometimes if you feel worse when you take the medication, do you stop taking it?	Yes	No
5	I take my medication only when I am sick	Yes	No
6	It is unnatural for my mind and body to be controlled by medication	Yes	No
7	My thoughts are clearer on medication	Yes	No

8	By staying on medication, I can prevent getting sick.	Yes	No
9	I feel weird, like a ‘zombie’ on medication	Yes	No
10	Medication makes me feel tired and sluggish	Yes	No

IV. Suicidal behavior related questions

Ser. no	Questions	Response	
1	Have you are thought about or attempt to kill yourself?	1. Never 2. It was just a brief passing thought 3. I have had a plan at least once to kill myself but did not try to do it 4. I have had a plan at least once to kill myself and really wanted to die 5. I have attempted to kill myself, but did not want to die 6. I have attempted to kill myself, and really hoped to die	
2	Have often you thought about killing yourself in the past year	1. Never 2. Rarely (1time) 3. Sometimes (2 times) 4. Often 3-4 times) 5. Very Often (5 or more times)	
3	Have you ever told someone that you were	1.No 2. Yes, at one time, but did not really want to	

	going to commit suicide, or that you might do it?	die 3. Yes, at one time, and really wanted to die 4. Yes, more than once, but did not want to do it 5. Yes, more than once, and really wanted to do it	
4	How likely is it that you will attempt suicide Someday?	0.Never 1.No chance at all 2.Rather unlikely 3.Unlikely 4.Likely 5.Rather likely 6.Very likely	

በጅማ ዩኒቨርስሲቲ

የጤና ኢኒስቲቲዩት

የህክምና ሳይንስ ኮሌጅ

የአዕምሮ ህክምና ትምህርት ክፍል

መጠይቅ ለመሳተፍ የፍቃደኝነት ቃል መቀበያ ቅፅእና መጠይቆች

<u>የምርምሩ ርዕስ</u>፡- በጅማ ዩኒቨርሲቲ መዲካል ሴንተር የስነአእምሮ ክፍል ዉስጥ በአእምሮ ህመም ተይዘዉ ተኝተው የነበሩ ታካሚዎችን በተደጋጋሚ ሆስፒታል የመተኛት ሁኔታ እና ተያያዥ ምክንያቶችን መገምገም ::

ይህ ጥናት በጅማ ዩኒቨርሲቲ ሜዲካል ሴንተር ውስጥ

ያጠናል::እርሶ በዚህ ጥናት ተሳታፊ እንዲሆኑ ተጋብዘዋል::

<u>የምርምሩ አጥኚ</u> ፡- አቶ ሰኢድ በላይ

<u>የምርምሩ ሒደት</u>፡-

ይህ የጥናት ሂደት ቀላል ሲሆን የተወሰኑ ጥያቄዎችን የሚጠየቁ ይሆናል:: በዚህ ጥናት ተሳታፊ መሆንዎ ምንም የሚያስከትለው ጉዳት የለም ይልቁንም ከርስዎ የምናገኘው መረጃ ተገቢውን ህክምና ለመስጠት ይረዳል::

<u>የምርምሩ ሚስጥራዊነት ሁኔታ፡-</u>

በዚህ ጥናት ውስጥ ስመዎትም ሆነ የሚሰጡት መረጃ ጥናቱን ከሚያካሂዱት አካላት ውጪ አይወጣም በጥናቱ ተሳታፊ ለመሆን ካልፈለጉ ለመሳተፍ አይገደዱም ከተጀመረም በኋላ በማንኛውም ጊዜ የማቋረጥ መብትዎ የተጠበቀ ይሆናል::

<u>የምርምር ፕሮጀክቱ ስፖንሰር</u> ፡- ጅማ ዩኒቨርሲቲ

ይህ ምርምር ፕሮጀክት በጅማ ዩኒቨርሲቲ የጥናትና ምርምር ስነምግባር ኮሚቴ ይገመገማል:: ይህንን ጥናት በተመለከተ ጥያቄ ወይም ጥርጥር ካሎት ከታች በተጠቀሰው አድረሻ የሚመለከተውን ሰው ማግኘጥ ይችላሉ::

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<u>ስምምነት፡-</u> በዚህ የምርምር ፕሮጀክት ውስጥ ለመሳተፍ እስማማለሁ

አዎ____ አይደለም____

ይህንን መረጃ ተረድቻለው ከዚህም መረጃ ነኮፒ ይሰጠኛል

የተሳታፊ ፊርማ_____ ቀን_____

የሱፐርቫይዘር ስምና ፊርማ_____ ቀን_____

የመረጃ ሰብሳቢ ስምና ፊርማ_____ ቀን_____

ቁጥር	የህመምተኛው/የታካሚው የግል ጉዳዮች ሁኔታ	
ነ.	ዕድሜ(በአመት)	----------
2.	ፆታ	ነ. ሴት 2. ወንድ
3.	የጋብቻ ሁኔታ	ነ. ያላገባ/ች 2. የተፋታ/ች 3. ያገባ/ች 4. የሞተበት/ ባት
4.	ሀይማኖት	ነ. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌሎች፡ይጥቀሱ----------
5.	የትምህርት ደረጃ	ነ. ማንበብ መፃፍ 2. ማንበብና መፃፍ የማይችል የሚችል 3. ነ-8ኛ ክፍል 4. 9-12ኛክፍል 5- ኮሌጅና ከዛ በላይ
6.	የስራ ሁኔታ	ነ. ግብርና 2. የቤት እመቤት 3. ነጋዴ 4. የመንግስት ሰራተኛ 5. የግል መ/ቤት ሰራተኛ 6. ተማሪ 7. የቀን ሰራተኛ 8- ያልተቀጠረ 9- ሌሎች፡ይጥቀሱ----------
7.	ወርሀዊ ገቢ በአማካይ	---------- ብር
8.	የሚኖሩበት አከባቢ	ነ- ከተማ 2- ገጠር
9.	ከሆስፒታል ከወጡ በሑዋላ ያለው የኑሮ ሁኔታ	ነ.ቤት 2.ቤትአልባ 3. ተቁዋም ውስጥ
ነ0.	ከሆስፒታል ከወጡ በሁዋላ ከማን ጋር ነበረ የሚኖሩት	ነ.ከቤተሰብዎ ጋር 2.ለብቻዎት 3. ሌላ ካለ ይጥቀሱ----------
ነነ.	የጤና መድህን ተጠቃሚ ነዎት	ነ.አዎ 2. አይደለም

የህመምተኛው/የታካሚው ክሊኒካል ጉዳዮች ሁኔታ

ተ.ቁ		
1.	የምርመራ ውጤት	
2.	ህመሙ ከጀመረ ምን ያህል ጊዜ ነው	
3.	ከሆስፒታል በምን ምክንያት ነበር የወጡት	1.በሃኪም የመውጫ ማረጋገጫ 2. በታካሚ/በታካሚ ቤተሰብ ጥያቄ 3. በታካሚው በራሱ ፍቃድ(የህክምና ባለሙያዎችን ሳያሳውቅ)
4.	ምን ያህል ጊዜ ሆስፒታል ተኝተዋል	
5.	የመጨረሻ የሆስፒታል ቆይታዎ ጊዜ(በቀን)	
6.	ለመደበኛ ክትትል ሆስፒታል ይጎበኛሉ	1.አዎ 2. የለም

ክፍል-2: የማህበራዊ ግንኙነት እና የግል ተሞክሮዎችን ይመከታል

ተ.ቁ	የማህበራዊ ግንኙነት እና የግል ተሞክሮዎትን የሚመለከቱ ጥያቄዎቸ	አማራጭ መልሶች
1.	ምን ያህል ሠው አደጋ (ችግር) በሚያጋጥሞት ጊዜ በቅርብ የችግርዎ ተካፋይ ሉሆኑልዎት ይችላሉ?	4. ከ 5 በላይ
		3. ከ 3-5
		2. 1 ወይም 2
		1. ምንም
2.	ምን ያህል ሠው ስለ እርስዎ ግድ ይሆናሉ?	5. ብዙ
		4. ጥቂት
		3. አርግጠኛ አይደለሁም
		2. በጣም ትንሽ
		1. ምንም

3	ከቅርብ ጎረቤትዎ በተጨባጭ እርዳታ የማግኘት እድልዎ ምን ያህል ነው?	5. በጣም ቀላል
		4. ቀላል
		3. መጠነኛ
		2. ከባድ
		1. በጣም ከባድ

ክፍል 3 □□□□ ያለ□ የ□□ሃኒ□ አ□ሳሰ□ በተ□ለከ□ የተዘጋ□ □□□□

□.□	□□□□□	መልስ	
1.	□ዳሃኒቶ□ በአግባ□ □□ሰ□ □ዘንጋ□ ኢጋ□□□ ያ□□□?	**አዎ**	**የለም**
2.	□ዳሃኒቶ□ በ□□ስ□□ ጊ□ የግዴለሽነ□ ባህርይ አለቦ□ □□?	**አዎ**	**የለም**
3.	ከበሽ□□ □ልክ□ በጥቂ□ □ነ □□ በ□□ ሲሻ□□ □ዳሃኒቱ□ የ□ያቆሙበ□ ጊ□ አ□ ወ□?	**አዎ**	**የለም**
4.	□ዳሃኒቶ□ በ□□ስ□በ□ ጊ□ □ጥ□ ስ□□ □ሰ□ዎ□ □ዳሃኒ□ □□ሰ□ አመ□□ ያ□□□?	**አዎ**	**የለም**

5	መድሃኒቴን የምወስደው በታመምኩ ጊዜ ብቻ ነው	**አዎ**	**የለም**
6	አዕምሮዬ እና ሰውነቴ በመድኃኒት ቁጥጥር ስር መሆኑ ከተፈጥሮ ውጭ ነው	**አዎ**	**የለም**
7	በመድኃኒት ላይ ያለኝ ሃሳቦች ግልፅ ናቸው	**አዎ**	**የለም**
8	መድኃኒት ላይ በመቆየት ፣ መታመሜን መከላከል እችላለሁ	**አዎ**	**የለም**
9	መድኃኒት ላይ በመሆኔ እንደ “ደመነፍስ” ያለ እንግዳ ነገር ይሰማኛል	**አዎ**	**የለም**
10	መድሀኒት የድካም ስሜት እና እንቅስቃሴዬ ላይ ቀርፈፍ እንድል አድርጎኛል	**አዎ**	**የለም**

ክፍል-4: የእጽ ተጠቃሚነት መጠይቅ

	የእጽ አይነት መጠይቅ	መልስ
1.	በህይወት ዘመንዎ ከዚህ በታች ከተዘረዘሩት ንጥረ ነገሮች ውስጥ ተጠቅመዋል ?	0. የለም ነአዎ
2.	ለ ጥ.ቁ.ነ አዎ ከሆነ ፣ ምን አይነት ንጥረ ነገሮች? (አንድ አና ከዚያ በላይ ማክበብ ይቻላል)	ነ. አልኮሆል 2. ጫት 3. ትንባሆ 4. ሌላ____
3.	የመጨረሻ ጊዜ ከመተናትዎ በፊት ላለፉት ሶስት ወሮች ማንኛውንም ንጥረ ነገር ተጠቅመዋል?(አንድ አና ከዚያ በላይ ማክበብ ይቻላል)	0. የለም ነ. አዎ
4.	ለ እጥ.ቁ.3 አዎን ከሆነ ምን አይነት ንጥረ ነገሮችን ይጠቀማሉ?	ነ. አልኮሆል 2. ጫት 3. ትንባሆ 4. ሌላ____

ክፍል- 5 እራስን በማጥፋት ዙሪያ በሚመለከት ያለ መጠይቅ

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	
1	እራስዎን ለመግደል አስበው ወይንስ ሞክረዋል?	1. በጭራሽ 2.አጭር የሚያልፍ ሀሳብ ብቻ ነበር 3 እራሴን ለመግደል ቢያንስ አንድ ጊዜ እቅድ ነበረኝ ግን ለማድረግ አልሞከርኩም 4.እራሴን ለመግደል ቢያንስ አንድ ጊዜ እቅድ ነበረኝ በእውነት መሞት እፈልግ ነበር 5.እራሴን ለመግደል ሙከራ አድርጌ ነበር ፣ ግን መሞት አልፈለግሁም 6. እኔ እራሴን ለመግደል ሞክሬያለሁ እናም በእውነት	

		ለመሞት ተስፋ አድርጌ ነበር	
2	ባለፈው ዓመት ውስጥ እራስዎን ለመግደልምን ያህል ጊዜ አስበው ያውቃሉ (ለመጨረሻ ጊዜ ሆስፒታል ከመተኛትዎ በፊት)	1. በጭራሽ 2 አልፎ አልፎ (1 ጊዜ) 3. አንዳንድ ጊዜ (2 ጊዜ) 4. ብዙ ጊዜ (3-4 ጊዜ) 5. በጣም ብዙ ጊዜ (5 ወይም ከዚያ በላይ ጊዜ)	
3	አንድን ሰው እራስዎን እንደሚያጠፉ ነግረውት ያውቃሉ ወይም ሊያደርጉት ይችላሉ?	1.አይ 2 አዎ ፣ በአንድ ወቅት ፣ ግን በእውነት መሞት አልፈልግም ፣ 3 . አዎ ፣ ከአንድ ጊዜ በላይ ፣ ግን ማድረግ አልፈልግም	
4	ወደፊት አንድ ቀን ራስን የማጥፋት ሙከራ ምን ያህል ሊሆን ይችላል?	0. በጭራሽ 1. በጭራሽ ምንም ዕድል የለም 2 በርግጥ አይሆን 3. አይሆንም 4.ሊሆን ይችላል 5. በርግጥ ሊሆን ይችላል 6. በጣም ሊሆን ይችላል	

Gucaa I: Gaaffilee afaan oroomo

Univaarsitii Jimmaa fakaalitii yalaa fayyaa

Oddefannoo

Maqaa qoraataa – Sa’iid Balaay

Maqaa dhabaataa - univarsittii jimmaa

Ispoonsaara qoraanichaa – Univaarsitii Jimmaa

Haalaa qoraanno: We invite you to participate in this project. If you are willing to participate in this project, you need to understand and sign the agreement form. Then after, you will be interviewed by the data collectors. You do not need to tell your name or to give your telephone number to the data collector and all your responses and the results obtained will be kept confidentially by using coding system whereby no one will have access to your response.

Rakkoo – qoraannoo kanaa irraattii hirmaachu kessaanif rakkoon kamiiyu isiin hin qunaamu.

Iccittii eguu – oddefannon isiin keennitan kaamiyyuu xiyeffannoo qorannootin alaa wan biraatif hin olu.

Gargaarsaa addaa - qorannoo kana irrattii hirmaachun kessaan ilaalcha dhukkuuba sammuu fi dhukkuubsataa sammuu irraatti qabdaniif fayaadu danda'aa kanan alaatti garuu hirmaachuu keassaanif fayiidaa malaqaa argattan hin jiru.

Incentives: You will not be provided any incentives or payment to take part in this project.

Hirmaachu fi hirmaachuu dhabuu – qorannoo kana irraattii hirmaachu fi hirmaachu dhabuun fedhii kessaan irrattii kan hundaa'e, tajaajilaa kanaan duraa hospitalaa kana irraa argaacha turtaan irraattii dhibbaa hin qabu. Ergaa qorannoo kana irrattii hirmaachuu egaaltan boddeelle addaan kutu ni dandeessu.

Nama wal qunaamtan –qorannoo kun boordii universiitii Jimmaatin kan sakatta'aame fi mirkaana'ee dha. Qorannoo kana irraattii yoo gaaffii qabataan namoota armaan gadii qunaamu ni dandessuu.

Lakk bibiilaa: +251938038582 Imeeli :Seidbelay55@gmail.com

+251910107507 Imeeli: yonastesfaye71@yahoo.com

+251910058532 imeeli :gutemaahmed@gmail.com

Walii galtee - qorannoo kan irraattii hirmaachuf fedhii kiyya nan agaarsisa.

Eeyyen miti

Koppiin walii galtee kana akkaa naf kenaamuu naf galeera.

Mallaattoo hirmaattoota _____ guyyaa _____

Maqaa fi mallaatto to'ataa: _____ guyyaa _____

Maqaa fi mallaatto oddefannoo sassaaba:_____ guyyaa_____

I. Gaffilleehalaahawassuumawaliinwal- qabataan

lakk	Gaffillee	debii	Kodii
1.	Saala	3. Dhiraa 4. Dhalaa	
2.	Umurii		
3.	Dhukubanii samuu umurii kee meqaa irraatti sijalqabe?	1 ----------	
4.	Amanta	6. Muselimaa 7. Ortodoksii 8. Protestantii 9. katolikii 10. kan biroo	
5.	Halaa fudhaa fi herummaa	5. kanhinfudhane/herumanne 6. kanfudhee /herumatee 7. kanaddaanba'aan 8. kanjalaadu'eeykndutee	
6.	Sadarkaabarumssaa	6. kandubissuu fi baressuuhindandenyee 7. kandubissuu fi baressuudanda'uu	

		8. kutaa1-8^{tfaa} 9. kutaa9 -12^{ffaa} 10. kolejjii fi isaa ol	
7.	Halaa Hojii	10. Qoteebulaa 11. Daldallaa 12. Hojettaamotummaa 13. Hojettaadhunfaa 14. Hojii dhabaa 15. Hadhaamana 16. Barataa 17. Hojettaa guyyaa 18. Kanbiroo	
8.	Galiiji'aan	…….	
9.	Essaatti jirata	4. Mana 5. Manahinqabu 6. Dhabataakessaa	
10.	Eynuuwaliinjirataa?	4. Mattiiwaliin 5. Kophaa 6. Kanbiroo	
11.	Bakee jirenyaa	1.magalaa 2. badiyyaa	
12.	Insuransii qabdha	3. Eyyee 4. miti	
13.	Gosaadhu kubbaa		

14.	Yeroomeqaafcistee?		
15.	Yeroohagamif hospital cistee (guyyaa dhan)		
16.	Yeroo yeroon hospitaadedebinniillalamta?	1. Jira 2. Hinjiru	
17	Yeroohagamifdhukubasatee	----------	

II: gaaffiillen arman gadii gargaarsa hawaassumma waliin kan wal qabattanniidha

Qajeelfama I**:** Gaffiillen armaan gadi haalaa hirmaattonni walitti dhufeenyi hawwaasummaa isaani ittii gafaatamaan ilaalaata.Deebii hirmaattoonni ittii kennaan irraatti maarsi.

lakk	Gaffiilee	deebii
1.	Yoo rakkoon cimaan si qunaame namoota hagaamtu si waliin ta'uu danda'aa? (tokkoo qofa filaadhu)	4/ 5 olii
		3/ 3-5
		2/ 1ykn 2
		1/ hin jiru
2.	Hojii hojjaattu irrattii hangam namootnii xiyeffannoo siif kennuu? (tokkoo qofa filaadhu)	5.xiyeffanno fi fedhii baay'ee guddaa ta'e.
		4.xiyeffannoo fi fedhii baay'ee qabu
		3. hin beekamu

		2. xiyeffanno fi fedhii xiqoo
		1. Xiyeffanno fi fedhii hin qaban.
3.	Gargarsa barbaadde maatii ykn firaa kee irraa argaachun hangam sitti salphaata? (tokkoo qofa filaadhu)	5. baayee salphaadha
		4. salphaadha
		3.
		2.
		1.

II. Gaaffiille haala fayyadaama araadaa gadhe waliin kan wal-qabatan.

Qajeelfama: gaaffilleen armaan gadii kun fayadaama araadaa gadhe waliin wal-qabaata. Deebii hirmaataan sirriitti ibsu danda'uu irrattii marsii.

1.	Jiruu kee keessaa araadoota addaa addaa fayaadamtee beektaa?	1.Eeyyeen 2.miti
2.	Yoo deebiin gaaffii 1 "eeyyeen" ta'e araadaa gosaa kam fayyadaamta ?	1.alkoolii (biraa, waynii, araake, daadhii, faarso) 2.caatii 3.tamboo 4.kan biro
3.	Ji'oota sadaan darban keessattii araadoota armaan duraa fayyadamtee beektaa?	1.Eeyyeen 2.miti
4.	Yoo deebiin gaaffii 3ffa "eeyyeen" ta'e maal fayyadaamte?	1. alkoolii 2. Caatii 3. tamboo 4. kan biro

III. gaffillee halaa fayadama qorichaa illaltan.

lakk:	Questions		
1	Qoricha kee fudhachuu dagattee bektaa?	eeyyee	lakkii
2	Sa’aatii qoricha kee itti fudhattuuf xiyyeeffannoo kennu dhabuun jiraa?	eeyyee	lakkii
3	Yeroo fayyummaan sitti dhagahamutti qoricha kee fudhachuu dhiisuuf yaaltee beektaa?	eeyyee	lakkii
4	Yeroo tokko tokko sa’aatii qoricha itti fudhattutti haalli gaarin yoo sitti dhagahamu baate qoricha fudhachuu ni dhiftaa?	eeyyee	lakkii
5	Qoricha koo kanan fudhadhu yeroo nadhukkubu qofa	eeyyee	lakkii
6	Sammuu kootifis tahee qaama kootiif qoricha fudhachuun waan natty tolu miti	eeyyee	lakkii
7	Waa’ee qorichaa irratti yaannikoo ifaadha	eeyyee	lakkii
8	Qoricha irra turuudhaan dhibee firraa ittisuu nan danada’a.	eeyyee	lakkii
9	Waa’ee qorichaa irratti yaada qabatamaa hinqabu	eeyyee	lakkii
10	Qorichi dadhabbii fi mukaahuun akka natty dhagahamu godha	eeyyee	lakkii

IV. Gaffilee of ajjechaawaliinwal-qabattaan

lakk	Gaffilee	Debii	
1	Of ajjessufyadanniyknyalatan	1. gonkuma 2. yadaayerooxiqoofturee	

	iibektu?	3.ajjessufyerootokkooyadeenturegaruuhinyalee 4. ajjessufyerootokkoocalaayalentureedu'uusnan barbada. 5.ajjessufyaleentureegaruudu'uuhinbarbaduu. 6. ajjessufyaleentureegaruudu'uus nan barbadaa.	
2	Waggaa darbee kessaa yeroo meqaaf of ajjessufyaltee turtee?	1. gonkumma 2. xiqoo (yeroo 1) 3. darbedarbee (yeroo 2) 4. yeroobay'ee(yeroo 3-4) 5. yeroobay'eebay'ee (yeroo 5 ol)	
3	Namaaf akkaan of ajjessuu barbadan dubatani bektu?	1.lakki 2.eyyee,yerootokkoofgaruudu'uuhinbarbaduu 3.eyyee,yerootokkoofgaruudu'uuhinbarbaduu. 4.eyyee,yerootokkoocalaagaruudu'uuhinbarbaduu 5. eyyee,yerootokkoocalaagaruudu'uunan barbadaa.	
4	Kanaan bodaa yeroo meqaaf of-ajjessuuf ni yaltaa?	0.gonkummaa 1.caraaakkasiigonkumahinjiru. 2.ummuma hindanda'uu 3.hin ummamuu 4.ummamuunidanda'aa 5.ni umamamaa 6.caraa ummamuu isaa bay'eedha	
