

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY

**PREVALENCE OF MENTAL DISTRESS AND ASSOCIATED
FACTORS AMONG HOSPITALIZED MEDICAL SURGICAL
ADULT INPATIENTS IN PUBLIC HOSPITALS, ADDIS ABABA,
ETHIOPIA, 2020.**

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COLLEGE OF HEALTH SCIENCES
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Prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa, Ethiopia, 2020.

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Abbreviations and Acronyms

AAU	Addis Ababa University
AIDS	Acquired Immune Deficiency Syndrome
AOR	Adjusted Odd Ratio
BSc	Bachelor of Science
CI	Confidence Interval
COR	Crude Odd Ratio
DSM-IV	Diagnostic and Statistical Manual four
ETB	Ethiopian Birr
HFSUH	Hiwot Fana Specialized University Hospital
HIV	Human Immunodeficiency Virus
MSc	Master of science
PI	Principal Investigator
SPSS	Statistical Package for Social Sciences
SRQ	Self-Reporting Questionnaire
SSQ	Social Support Questionnaire
TASH	Tikure Anbessa Specialized Hospital
USA	United States of America
WHO	World Health Organization

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Abstract

Introduction: Mental distress is a mental or psychological syndrome, which influences the health status and treatment effectiveness, getting quality of care in a hospitalized medical surgical inpatients. It is more common in hospital setting than community setting population.

Objective: To assess the prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa, Ethiopia, 2020.

Methods: Institutional based cross sectional study was conducted with a total of 408 study subjects from March 1-30, 2020. Systematic random sampling technique was used and data was collected using interviewer administered questionnaire. Data was collected by trained nursing students, collected data was entered into Epi-data 3.1 and export to SPSS version 26 for analysis, and then binary and multiple logistic regression was performed to check the association between dependent and independent variable.

Result: The prevalence of mental distress among hospitalized medical surgical adult inpatients in public hospitals was 53.1% with (95%CI; 48%, 58%). Variables of being married [AOR=2.67; 95%CI(1.065,6.683)], private employee [AOR=2.21; 95%CI (1.001, 4.900)], daily laborer [AOR=4.70; 95%CI(1.218,18.215)], rural residence [AOR=1.85; 95%CI(1.047,3.264)], taking alcohol [AOR=1.68; 95%CI(1.025, 2.740)], previous psychiatric illness[AOR=3.40; 95%CI(1.078, 10.737)] and comorbidity [AOR=1.93; 95%CI (1.200, 3.094)] were found to be significantly associated with mental distress; while age, sex, ethnicity, religion, educational status, income, smoking, chat, social support, living condition, history of hospitalization, ward admitted and length of hospital stay were not significantly associated.

Conclusion and recommendation: The prevalence of mental distress was high and being married, private employee, daily laborer, residence in rural area, previous history of psychiatric illness, alcohol used and comorbidity disorder were associated with mental distress among hospitalized adult inpatients, there for health care providers should provide special consideration to those group of patients admitted to the hospital.

Key words: Mental distress, hospitalized medical surgical adult inpatients, Addis Ababa.

1. Introduction

1.1. Back ground

According to world health organization (WHO), mental health is a state of well-being in which an individual can realize his or her own abilities, interact positively with others, cope with stressors of life and work productively, fruitfully and contribute to the family and community. WHO noted that not exclusively to the absence of mental illness, but also addresses the concept of mental wellness. According to this, there is no health without mental health (1).

American Psychiatric Association's Diagnostic and Statistical Manual of mental disorders fourth edition (DSM-IV) define mental disorder is a clinically significant behavioral or psychological syndrome or pattern that occurs in a person associated with present distress (painful symptoms) or disability (impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom. It is a specific diagnosis of condition or type of mental illness that is made by trained mental health professionals after formal psychiatric assessment or interview (2).

Although mental disorders often have been neglected disorder because of its non-specificity in diagnosis and clinical manifestation, long term treatment require and various sociocultural myths and belief systems associated with it (3).

Besides of mental disorder, mental distress is a wider concept of mental health problem which comprises mental disorders that may not fall in to a specific standard diagnostic criteria. It defines as lack of psychological wellbeing affecting a person's thought, feeling, behavior and functioning (4).

Mental distress is a public health issue conceptualized by stress, confusion, emotion, hallucination, depression, anxiety, panic or somatic and other psychiatric symptoms. These symptoms may experience in persons without actually being ill in a medical sense and dominantly interfere in the day to day activity of their life events (5).

Mental distress is a collection of mental health abnormalities that may not be grouped into standard diagnostic criteria, which is characterized by symptoms of anxiety, depression, insomnia, fatigue, irritability, forgetfulness, difficulty in concentrating, and somatic symptoms

such as sleep problems, headache and backache (6). It also described as unpleasant mental or psychological status, declining or weakening once potential to successful deal (7).

Mental distress is more common in hospital setting than community setting; which influences the health status, treatment effectiveness and getting quality of care in a hospitalized admitted patients and study reports that up to 40 % of the patients in general medical and surgical wards are mentally distress and require mental health intervention (8).

Prevalence surveys showed that 20 to 60% of patients admitted in a general hospital setting suffer from the most common mental disorders like stress, depression and anxiety (9). Stress is a process in which environmental demands exceed the adaptive capacity of an individual to cope. Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioral components. Depression is a persistent sad, anxious or empty feelings, feelings of hopelessness and feelings of guilt (10).

Determinants barrier to address mental health and mental disorders are not only the individuals personal ability to manage one's thoughts, emotions, behaviors and relationship with others, but also social, cultural, economic, political and environmental factors such as national policies, social protection, living standards, working conditions, community social supports and comorbid health conditions (11).

1.2. Statement of the problem

Globally the impact of mental health problem is raising time to time, which accounted 12% of the global burden of disease and it will rise to 15% by the end of 2020; which will make the second leading cause of health disability in the world. This burden is thought to be worse in low income countries where poverty, communicable and non-communicable diseases abound and 75% of the global burden occurred in developing countries (12). Prevalence of mental disorder ranges between 8.4% and 29.1% to exist in one year's of an individual's life time and also ranges between 12.2% and 48.6% in an individual life time (13). World widely around 450 million people suffered from mental disorders related health problem; of which depressive mental disorder is one of the three leading causes of disease and it will also be the second leading cause of world disability by 2030 (14).

The burden of mental health problems in worldwide distribution estimated as in American countries USA 17.3%, Canada 15.5%, Mexico 10.9%, Brazil 14.5%, Argentina 15.7% and in Asian countries Russia 11.7%, China 11.4%, India 11.5%, Iran 17.7%, Australia 18.8% and in European countries France 16.4%, Germane 15.2%, united kingdom 14.2%, Spain 16.2% and in African countries Algeria 15.5%, Libya 14.6%, Egypt 14.6%, Sudan 16.1%, south Africa 12.8%, Nigeria 12% and Ethiopia 12.8% (15).

In Africa the effect of mental health problems resulted to reduce productivity and increase years lost disability; even in the last 2000 to 2015 the continent's population grew by 49%, yet number of years lost to disability as a result of mental and substance use disorders increased by 52% and in 2015 estimated that 17.9 million years lost to disability as a consequence of mental health problems. These disorders were almost as important cause of years lost to disability as were infectious and parasitic diseases, which accounted for 18.5 million years lost to disability (16).

In Africa especially in sub-saran Africa mental illness considered as a silent epidemic disorder, which resulted from structural and systemic barriers such as inadequate health care infrastructure, insufficient number of mental health care professionals, and lack of access to all levels of health care service (17). The proportion of Africans who receive treatment for mental health problem from mental health institution is extremely low. The annual rate of visits to mental health outpatient facilities is 14 per 100,000 (18).

In Ethiopia mental disorder is the leading non-communicable disorder in terms of burden. Among every five persons, one will be affected by mental disorders at some stage of his or her life events (19,20).

Mental illness has been neglected, non-addressed and increased burdensome problem affecting all segments of the population. Although prioritizing mental health has been difficult due to lack of resources, limited funding and no or ineffective mental health policies. Mostly governments, health policy-makers and funders historically have focused on communicable diseases that plague the continent, such as malaria, tuberculosis and HIV/AIDS (21).

The proposed solutions call to action to address mental health crisis are integrating mental health into primary health care, developing clear national mental health policies and focusing on practical implementation of policies, increasing mental health professionals, training mental health paraprofessionals, expanding community health care and making links with traditional healers may minimize severity of the problem (22).

A number of related factors like being male sex, younger age, educational status, marital status, occupation, residence, living condition, family history of psychiatry illness, comorbidity, social support, and ward admitted had not been encountered consistent statistically significant with mental distress in different literature reviews done in the previous; while some variables like psychiatric history before admission, psychiatric history after admission and psychiatric consultation were not statistically tested (23–30). The mental distress on comorbidity disorders like respiratory disorder patients were eight times and cardiac patients six times higher than without comorbid disorders (31).

Although the burden of the mental health problem is rising, as far as my search studies on mental distress among hospitalized medical surgical adult inpatients in Ethiopian have been scarce information, and not done in public hospitals, Addis Ababa. Few studies done somewhere also lack some important variables, not statistically significant with mental distress and were not specific to hospitalized medical surgical adult inpatients. Therefore, this study were fill such gaps and provide information on prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients.

1.3. Significance of the study

The result were help in identifying associated factors of mental distress among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa. In Ethiopia there were only rare studies present on this topic but the problem is increasing time to time, so it needs further studies, investigations and also there was no consideration given for medical and surgical inpatients regarding in mental health care service. However there was evidence that indicates mental wellbeing were an important factor in the management of various medical and surgical disorder inpatients specially related to treatment effectiveness, getting quality of care and healthy life style modifications, so findings from this study will help in developing evidence based practice on mental health promotion programs for hospitalized adult inpatients and not only for this but also for institutionalized and community population. The result will serve to ministry of health, regional health bureaus and hospitals identify the impact of mental health related problems and develop clear national mental health policies. It will also use as resource to search remedial action for policy makers, health officials, non-governmental organizations, parents, care givers and other concerned bodies; who involves on the health of hospitalized adult inpatients. The results of this study will help in providing baseline data on prevalence of mental distress among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa and also importance as a baseline data to the other incoming researchers.

2. Literature Review

2.1. Prevalence of mental distress

Several studies which were conducted in different part of the world indicate that the prevalence of mental distress among hospitalized adult inpatients have been high and increased. A cross-sectional study conducted in a rural district in Vietnam in 2010 and Australia among care givers of inpatients in 2014 showed that the prevalence of mental distress was 5.4% and 27.5% respectively (5,32). Studies conducted in Jeddah, Saudi Arabia and Iran in 2019 revealed that the prevalence of mental distress were 25.5% and 34.8% respectively (24,33) and other studies showed that the prevalence of depressive like mental distress in a hospitalized patients in Jazan Province, Saudi Arabia in 2019 (20.6%) , India in 2018 (44.1%), Uganda in 2012 (22.5%), Nigeria in 2016 (22%), Adare general hospital, Hawassa, Ethiopia from May to June 2017 (38%) and Mekele, Tigray, Ethiopia in 2013 (54.6%) respectively (25–27,34–36).

A wide cross-sectional survey conducted in United Kingdom among 275 medical patients in 2016, Korea in family members of cancer patients in 2016, Northeast Brazil health care centers in 2019 and South Brazil among adult inpatients in clinical ward of university hospital in 2013 have been found 8.1%, 48.0%, 27.1% and 33.7% had anxiety like mental distress respectively (37–40).

Retrospective chart review of studies displayed that the prevalence of patients having distress in Southern Taiwan general hospitals in 2016, South Africa urban hospitals in 2012, Neuropsychiatric department of Amanuel mental health specialized hospital, Addis Ababa, Ethiopia among epileptic patients care in 2018 were 22.1%, 49.7% and 27.1% respectively (41–43). Another study conducted in Pakistan among medical surgical admitted inpatients in a tertiary care hospital revealed that the prevalence of depressive mental disorder was 87.9% and Menlike II referral hospital, Addis Ababa from April 10 to May 15, 2014 showed that common mental disorders were observed in 23.2% of medical patients from the total of 405 study subjects (28,44).

Institutional based cross-sectional study design conducted in two public hospitals in Harari Regional State (Hiwot Fana University Specialized Hospital (HFUSH) and Jagol Hospital) from February 01 to 28, 2017 and Debre Markos and Felege Hiwot hospitals, Northwest

Ethiopia among adult surgical patients in 2018 were found that the prevalence of depressive mental distress among 489 medical surgical adult patients admitted to governmental hospitals was 59.7% from interviewed subjects and anxiety like mental distress was 61% patients from a total of 353 patients scheduled for surgery respectively (45,46) and another studies conducted at Amanuel hospital, Addis Ababa, Ethiopia from May 1 to 31, 2013 and Gondar University hospital among medical surgical hospitalized adult inpatients in 2017 revealed that the overall prevalence of mental distress was found to be 56.7 % and 58.6% respectively (29,30).

2.2. Associated factors of mental distress

Several studies which were conducted in different part of the world indicate that the significant association of variables with mental distress vary from study to study in hospitalized medical surgical inpatients. A cross-sectional study conducted in Vietnam showed that being female were 17 times more likely to develop mental distress than being male and age 35-44 years 4.4 times and 45-60 years 7.4 times more likely to develop mental distress than the age <35 years and private employee were 3.5 times significantly associated with mental distress, while other variables like marital, education, occupation, income status were not significantly associated with mental distress (5) and another in Australia revealed that age of 20-29 and 30-39 years was 1.5 times, being single and divorced were 1.2 times, smoking 1.7 time and alcohol use was 1.4 times more likely associated with mental distress and residence was not significantly associated with mental distress (32).

A cross-sectional study conducted at Jeddah, Saudi Arabia in 2019 revealed that being female was triple times more likely to develop depression, two times more likely to develop anxiety and 2.3 time more likely to develop stress mental disorder and family history of illness were more than two times to develop anxiety and 2.2 times to develop stress and presence of comorbidity was 2.5 times more likely to be depress and almost three times more likely to develop anxiety than being female, no family history and absence of comorbidity respectively, but age was not significantly associated (24) and a study in Jazan, Saudi Arabia showed that depression have been seen in 17.7% of unable to write and read patients, 30.2% of low monthly income, 47.5% of patient with comorbid diseases (25). At India found that being age < 60 years and male gender were 2.2 times, education <12 grade 1.3 times, low monthly income 1.6 times and comorbidities 1.7 times more likely to develop depressive mental disorder than age > 60

years, being female gender, educational level >12 grade, high monthly income status and absence of comorbidity respectively; while age and duration of hospital stay were not significantly associated with depressive mental disorder (26).

A retrospective chart review of study conducted in a general hospital of southern Taiwan in 2016 showed that distress have been seen 63.1% of age >50 years where as 36.9% were age <50 years and education status of 5-15 years were 65.4% higher than 25.7% of below 5 years and 8.9% of above 16 years, while sex, marital status, occupation, tobacco, alcohol, admitted ward, comorbidity not having statistically significant association (41).

A nation-wide survey of 3522 bereaved family members of cancer patients conducted in Korea reveals that being old age were 1.05 times likely to develop mental distresses of anxiety and depression than younger age and marital status of being married 1.5 times likely to develop than unmarried; while sex, living with family, religion and duration of hospital stay were not significantly associated with both anxiety and depression (38).

In Sub-Saharan Africa specifically in Uganda displayed that age were the only statistically significant variable even weakly associated (OR=1.02 ; CI: 1.00-1.04); while others like education, gender, residence, occupation, comorbidity and social support were not statistically significant (27). Study in South Africa also found that comorbidity like sexually transmitted disease were four times, stomach ulcer 1.8 times and migraine headache 2.2 times more likely to develop psychological distress than absence of comorbidity; while educational status, age, marital status, social support, alcohol drinking, government employment and living with family were not statistically significant (42).

In Ethiopia an institution based Cross-sectional study design conducted in Menlike II referral hospital showed that being female 1.8 times likely to develop mental disorder than being male, age 20–39 years 8.6 times and age 40–59 years 2.2 times, low monthly income 3.5 times and comorbidity 17 times more likely to develop mental disorders than age >60 years, high monthly income and absence of comorbidity respectively; whereas marital status, educational status, occupational status, and residence have not been statistically significant associated (28) and a study done in Adare general hospital, Hawassa, South Ethiopia from May to June 2017 displayed that variables like age category of 18–24 years were 1.2 times more associated with

depression than older ages above 24 years old, comorbidity 2.2. times and being in surgical ward almost twice more likely to develop depressive mental disorder than absence of comorbidity and medical ward admission respectively; but others age > 24 years and medical ward admission have not been statistically significant and consuming tobacco products, drinking alcohol and chewing chat not statistically tested (35).

A study conducted in two hospitals at Harari regional state(HFUSH and Jagol hospital) in 2017 described that hospital stay 1-2 weeks and being users of psychoactive illegal drugs 2.2 times and chronic co morbidity four times more likely to develop depressive mental disorder, while sex, age, marital status, educational status, ward admitted, social support, previous hospital admission and cigarette smoking were not statistically significant (45) and study done in Debre Markos and Felege Hiwot hospital, Northwest, Ethiopia revealed that being female 2.2 times, unable to write and read, able to write and read and primary education (1–8 grade) seven times, and secondary education (9–12 grade) five times more likely to develop anxiety type mental distress than being male and educational level of college and above respectively (46). Also study at Amanuel hospital, Addis Ababa, Ethiopia in 2013 found that low social support were nine times, previous admission history 3.3 times, being farmer 2.2. times and being female 3.2 times more likely predictors for mental distress, while marital status, educational status, comorbidity and use of chat were not significantly associated (29).

Also another study done among caregivers of epileptic patients in Amanuel mental health specialized hospital, Addis Ababa, Ethiopia in 2018 showed that low social support was 7.5 times more likely to develop mental distress than high social support whereas age, sex, marital status and educational status were not statistically associated with mental distress (43) and Gondar university hospital revealed that history of previous hospital admission and being female twice, marital status of single/separated 2.8 times, tobacco users four times, alcohol users three times and hospital stays of 1-2 weeks 2.3 times more likely the predictors of mental distress; while age, residence, income, family history of psychiatry illness and ward admitted have not been significantly associated with mental distress to hospital inpatients (30).

3. Conceptual Framework

The conceptual framework had been constructed for factors related to mental distress among hospitalized medical surgical adult inpatients from the reviewed literatures. Based on the literatures of mental distress related factors are divided into socio demographic, clinical related, substance use related and psychosocial related factors.

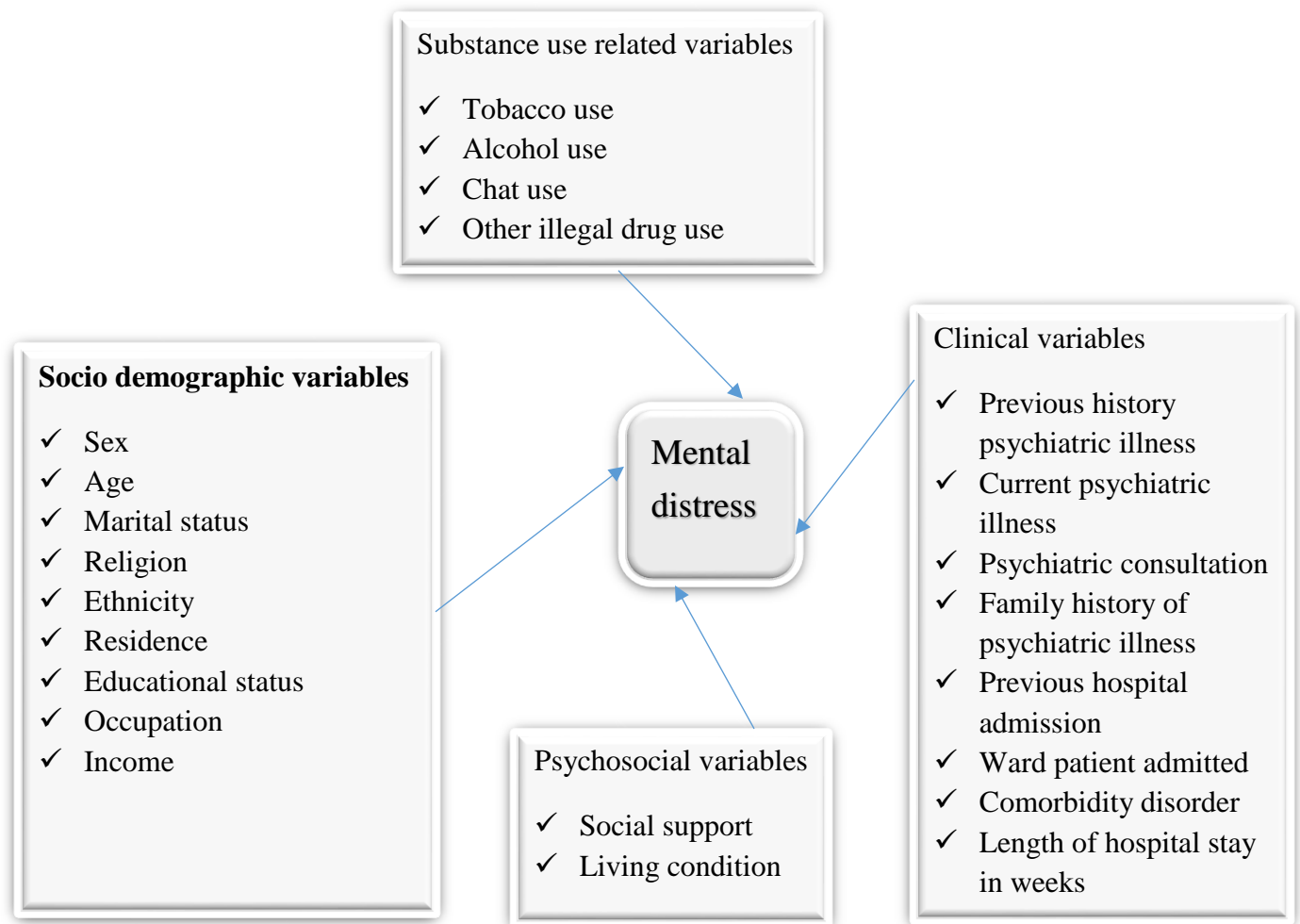


Figure 1: Conceptual framework constructed after reviewed different literatures study on mental distress and associated factors among hospitalized medical surgical adult inpatients.

4. Study Objectives

4.1. General objective

- ❖ To assess the prevalence of mental distress and its associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa, Ethiopia, 2020.

4.2. Specific objectives

- To determine prevalence of mental distress among hospitalized medical surgical adult inpatients in Addis Ababa, 2020.
- To identify factors associated with mental distress among hospitalized medical surgical adult inpatients in Addis Ababa, 2020.

5. Methods and Materials

5.1. Study area and period

Addis Ababa, capital city of the Federal Democratic Republic of Ethiopia, located at the center of the country that had 10 sub-cities and 116 Woredas with a total population of around 4.8 million according to Addis Ababa population (Demography, Maps, Graphs) estimation in 2020 (47). Its area was estimated to be 530 Km² with altitude ranging from 2200 to 3000 meter above sea level, average temperature of 22.8°C and average rainfall of 1,180.4 mm³. Addis Ababa had 53 hospitals of which 13 were public and 40 were private. Setting of study were in four randomly selected hospitals from Addis Ababa public hospitals of Ethiopia; which were TASH had a total of 646 inpatients from this 374 were adult inpatients, St.paulos hospital had total of 502 inpatients from this 237 were adult inpatients, Yikatit 12 hospitals had a total of 359 inpatients from this 139 were adult inpatients and Zewuditu hospitals had a total of 208 inpatients from this 72 were adult inpatients at a time. The study were conduct from March1 to 30, 2020.

5.2. Study design

An institution based cross - sectional study design was used.

5.3. Population

5.3.1. Source population

All hospitalized medical surgical adult inpatients at selected public hospitals.

5.3.2. Study population

Randomly selected hospitalized medical surgical adult inpatients available during the study period and who fulfilled the inclusion criteria.

5.4. Eligibility criteria

5.4.1. Inclusion criteria

All medical surgical inpatients greater than or equal to 18 years old present during data collection.

5.4.2. Exclusion criteria

Medical surgical adult inpatients unable to communicate with critical illnesses, physical impairment to speech, mental disability and post anesthesia were excluded.

5.5. Sample size determination and Sampling techniques

5.5.1. Sample size determination

The sample size was calculated both for the first and second specific objective.

The sample size was calculated by using single population proportion formula, considering the following assumptions; prevalence of mental distress 58.6% which done in Gondar University hospitals among medical surgical adult inpatients, 95% confidence interval and 5% margin of error (30).

$$n = (Z_{\alpha/2})^2 (pq)/d^2 = 1.96^2(0.59*0.41) / (0.05)^2 = \text{Where;}$$

n = required sample size for the study

d² = margin of tolerable sampling error commonly used 0.05.

z = confidence interval, most common one is 1.96 for 95%.

p = population proportion prevalence is 58.6%.

$$n = \frac{(1.96)(1.96)(0.59)(1-0.59)}{(0.05)(0.05)} = 372 \text{ with 10\% non-response rate the sample size were 408.}$$

Sample size determination using epi info version 7.2.1 stat calculation program for associated variables.

Table 1: Sample size determination using associated variables in hospitalized adult inpatients

No.	Consistently important variables	P	Total sample size
1.	Being female	56.7	316
2.	Alcohol use	57.4	146
3.	Tobacco use	85	270
4.	Previous admission history	59.1	326
5.	Length of hospital stay	27.5	220

The above variables were important, consistent and statistically significant for mental distress among hospitalized inpatients (30). The sample size determine by using factor variables were lower than obtaining the sample size determination using single population proportion formula, so using the population proportion determination was more representative than using specific objectives and the final sample size of the study would be 408.

5.5.2. Sampling procedure

Addis Ababa had 13 public hospitals and 4 hospitals selected using of simple random sampling lottery method, which were TASH, St.paulos, Yikatit and Zewuditu hospitals and totally 822 hospital admitted medical surgical adult patients at a time; which were TASH 374, St.paulos 237, Yikatit 139 and Zewuditu had a total of 72 medical surgical adult inpatients at a time. Then the number of medical surgical adult inpatients selected from each hospital were 185 from TASH, 118 from St. Paulos, 69 from Yikatit and 36 from Zewuditu hospitals using proportionate allocation formula. Finally, the study subjects, hospitalized adult inpatients were selected by systematic random sampling technique using the total sampling frame of 822 total number of study subjects and patients who were not present during the time of data collection were jumped and next number was included and a total of 408 study subjects were selected every $k = 2$ intervals.

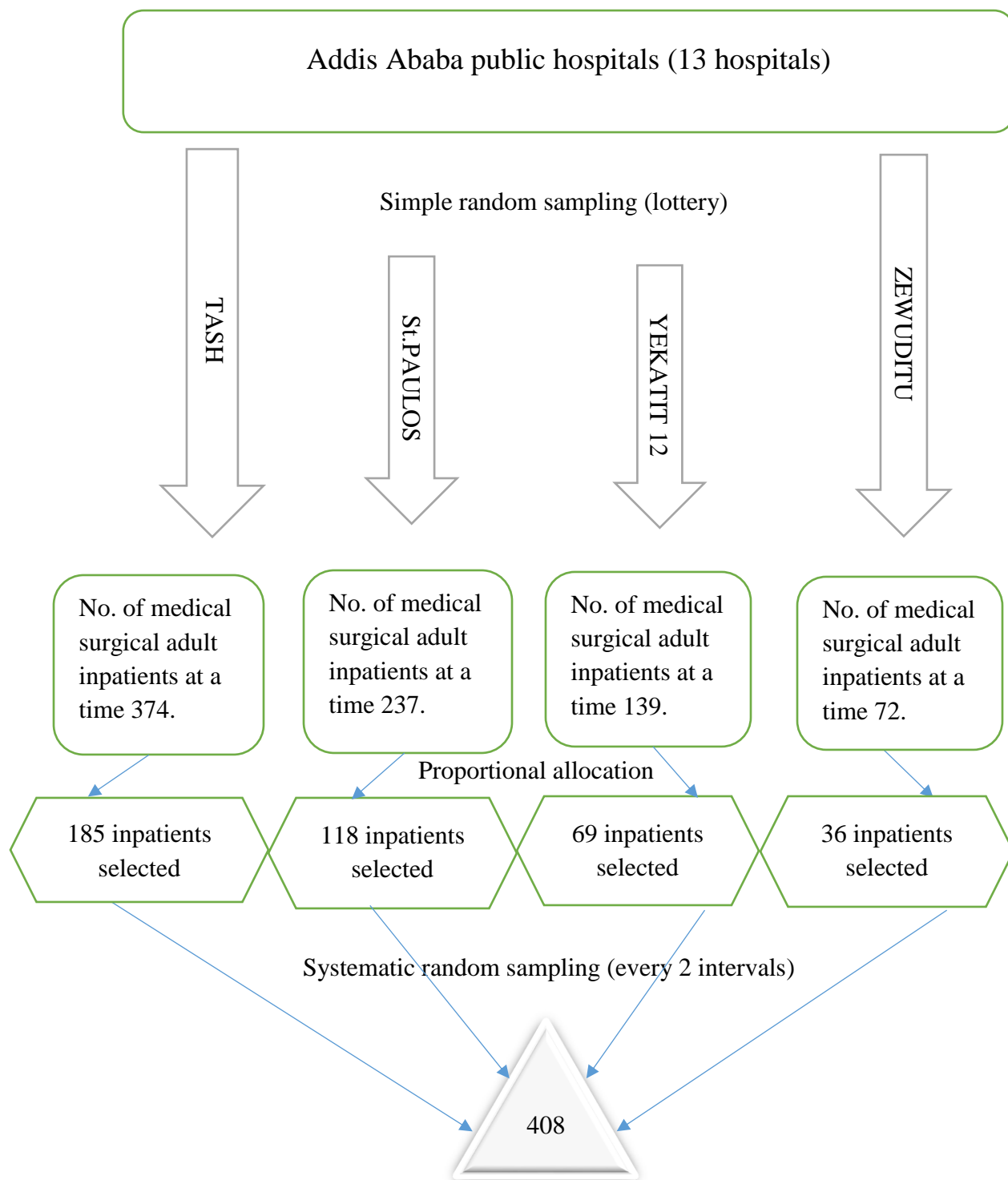


Figure 2: Schematic presentation of sampling technique a study on mental distress and associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa, Ethiopia, 2020.

5.6. Study variables

5.6.1. Dependent variables

Mental distress

5.6.2. Independent variable

❖ Socio demographic variables

- Age
- Sex
- Religion
- Ethnicity
- Residence
- Occupation
- Monthly Income
- Marital status
- Education status

❖ Substance use related variables

- Tobacco use
- Alcohol use
- Chat use
- Illegal drug use

❖ Psychosocial variables

- Social support
- Living condition

❖ Clinical related variables

- Previous psychiatric history
- Psychiatric illness after admission
- Psychiatric consultation
- Family history of psychiatric illness
- Previous hospital admission
- Ward admitted
- Comorbidity
- Length of hospital stay

5.7. Operational definition

Mental distress: Patients who were found to have 8 or more symptoms of the 25 SRQ 25 questions in the last 4 weeks are considered as having mental distress.

Substance use: When patients used specific addictive and illegal substance in the last 1 year.

High social support: Based on the SSQ-6 who scored higher than or equal to the mean.

Low social support: Based on the SSQ-6 who scored lower than the mean.

Comorbidity: Patients with two or more disorder.

Critical illness: Patients on mechanical ventilation, loss of consciousness and unable to respond

5.8. Data collection tools and procedures

5.8.1. Instruments and Measurements

Amharic version of the questionnaire was used for data collection. First the questionnaire was prepared in English language then translated to Amharic and back to in English. Two clinical staffs as supervisor and four nursing students as a data collectors with half day time training were used. Data was pre tested and collected using structured interviewer administered questionnaire having four parts. The socio-demographic characteristics, substance use, clinical related, and psychosocial related variables. social support variable questionnaire adopted from SSQ short of six item measures of social support and the one who scored higher than or equal to the mean from SSQ-6 had high social support while below was low social support (48) . Self-Reporting Questionnaire; dichotomous type scale to determine the prevalence of mental distress in adult inpatients. The SRQ-25 was a standardized questionnaire having 25 item questions adapting the SRQ for Ethiopian Populations for culturally-sensitive psychiatric screening instrument. This tool was validated in Ethiopia and other low socioeconomic countries. In Ethiopia, sensitivity and specificity of 86% and 84% respectively for a cut-off point of 8 (49).

5.8.2. Data quality control

Two supervisors of nursing staffs and four data collectors of nursing students were recruited for distribution, training and orientation. After getting verbal consent the data collectors interviewed the participants using standardize interviewer administered questionnaire; which was translated from English to Amharic and back to English by licensed translators to be consistence, symmetrical and easy understandable. After the data collectors had finished;

submitted the filled questionnaire to the principal investigator timely. In order to evaluate the clarity of the questions in the questionnaire and ensure the reactions of the respondents to the questions pretest was done on 5% of similar study subjects in Ras Desta hospital before one week of data collection and appropriate modification was taken. The collected data was reviewed and checked for completeness before data entry and incomplete data was discarded.

5.9. Data processing and analysis

First the data was checked for its completeness and consistency, then it was coded and entered in EPI data version 3.02 software. After entry, data was exported to statistical package for social science (SPSS) version 26 for analysis. Descriptive analysis using frequencies, proportions, graphs was performed to describe number and percentage of socio-demographic characteristics of the sample and other variables. Binary logistic regression analyses model was used to identify associated factors of mental distress. This was done by odds ratio and p value with 95% confidence interval (CI). Explanatory variables with p-value ≤ 0.25 in the bivariate logistic regression was entered into multivariate logistic regression analysis to control possible confounding. Hosmer-Lemeshow's test was found to be insignificant (p-value = 0.999) and Omnibus tests was significant (P-value = 0.001) which indicate the model was fitted. P-value of less than 0.05 was used to declare level of statistical significant and adjusted odd ratio (AOR) with 95% CI was estimated to identify significantly associated variables with the dependent variable, mental distress. Finally the results were presented in text, tables and graphs based on the types of data.

5.10. Ethical Consideration

Ethical clearance was obtained from respective institution permission ethical review committee from each units. Verbal consent was obtained from each selected participant to confirm their willingness. Explanation of the survey purpose, description of the benefits and an offer to answer all inquiries were made to the respondents. Also affirmation that they were free to withdraw consent and to discontinue participation without any form of prejudice was made. Privacy and confidentiality of collected information was ensured throughout the process as no name was written. Patients who had severe mental distress due to mental illness was linked to psychiatry unit within their hospital for intervention.

6. Result

6.1. Socio-demographic characteristics of the study participants

In this study, the data were collected from 401 respondents through face-to-face interviews with the response rate of 98.3%. Among those 214(53.4%) were men, 89(22.2%) were in the age group of 25-34 and the mean age of the participants' was 40.8 years with standard deviation of ± 15.72 . From the study participants 157(39.2%) were Amhara ethnicity and 260(64.8%) live in urban, 239(59.6%) were orthodox religion, 237(59.1%) were married, 104(25.2%) have primary education and 98(24.4 %) were farmer. Majority of the respondents have low income 213 (53.1%) (Table 2).

Table 2: Sociodemographic characteristics of study participants in public hospitals, Addis Ababa, Ethiopia, 2020 (n=408).

Variables	Category	Frequency	Percent (%)
Age	18 to24	69	17.2
	25 to 34	89	22.2
	35 to 44	79	19.7
	45 to 54	72	18.0
	55 to 64	58	14.5
	65 and more	34	8.5
Sex	Female	187	46.6
	Male	214	53.4
Religion	Orthodox	239	59.6
	Muslim	90	22.4
	Protestant	60	15.0
	Catholic	8	2.0
	Others	4	1.0
Marital status	Single	116	28.9
	Married	237	59.1
	Divorced	22	5.5
	Windowed	26	6.5
Ethnicity	Amhara	157	39.2
	Oromo	114	28.4
	Tigray	33	8.2
	Gurage	45	11.2
	Silte	25	6.2
	Others	27	6.7
Residence	Rural	141	35.2
	Urban	260	64.8
Education	Can't read and write	84	20.9
	Can read and write	61	15.2
	Primary	101	25.2
	Secondary	87	21.7
	Higher education	68	17.0
Occupation	Governmental worker	68	17.0
	Private employee	84	20.9
	Merchant	61	15.2
	Farmers	98	24.4
	Housewives	49	12.2
	Daily laborers	16	4.0
	No job	25	6.2
Income	Low income	213	53.1
	High income	188	46.9

6.2. Substance use related factors of mental distress

From the study participants 49(12.2%) were used chat, 132(32.9%) used alcohol, 18(4.5%) smoked and 3(0.7%) were used other illegal substances like hashish (Table 3).

Table 3: Substance used related factors of study participants in public hospitals, Addis Ababa, Ethiopia, 2020 (n=408).

Variables	Category	Frequency	Percent (%)
Chat used	Yes	49	12.2
	No	352	87.8
Alcohol used	Yes	132	32.9
	No	269	67.1
Tobacco used	Yes	18	4.5
	No	383	95.5
Other drugs used	Yes	3	0.7
	No	398	99.3

6.3. Psychosocial factors of mental distress

Among the study participants 332(82.8%) were living with their family, 59(14.7%) were live alone and 10(2.5%) were live with others. From this study 277(69.1%) had low social support and 124(30.9%) had high social support (Table 4).

Table 4: Psychosocial factors of study participants in public hospitals, Addis Ababa, Ethiopia, 2020 (n=408).

Variables	Category	Frequency	Percent (%)
Living condition	Alone	59	14.7
	Family	332	82.8
	Others	10	2.5
Social support	low social support	277	69.1
	high social support	124	30.9

6.4. Clinical related factors of mental distress

Among the study participants 213(53.1%) were admitted in medical ward, 199(49.6%) had previous history of hospitalization, 157(39.2%) had comorbid disorder, 144(35.9%) were stay at the hospital for < 1 week, 119(29.7) stay for 1 to 2 week and 138(34.4) stay for more than 2 weeks, 61 (15.2%) had family history of psychiatric illness, 17(4.2%) had gotten psychiatric counseling, 18(4.5%) had previous history of psychiatric condition and 6 (1.5%) had current psychiatric condition (Table 5).

Table 5: Clinical related factors of study participants in public hospitals, Addis Ababa, Ethiopia, 2020 (n=408).

Variables	Category	Frequency	Percent (%)
Previous history of psychiatric condition	Yes	18	4.5
	No	383	95.5
Having psychiatric condition	Yes	6	1.5
	No	395	98.5
Contact to psychiatric counseling	Yes	17	4.2
	No	384	95.8
Family history of psychiatric illness	Yes	61	15.2
	No	340	84.8
Ward admitted	Medical	213	53.1
	Surgical	188	46.9
Previous history of hospitalization	Yes	199	49.6
	No	202	50.4
Comorbidity disorder	Yes	157	39.2
	No	244	60.8
Time stayed in hospital	< 1 week	144	35.9
	1-2 week	119	29.7
	> 2 week	138	34.4

6.5. The Prevalence of mental distress

In this study the prevalence of mental distress among hospitalized medical surgical inpatient in public hospitals, Addis Ababa, Ethiopia, 2020 (n=408) was 213(53.1%).

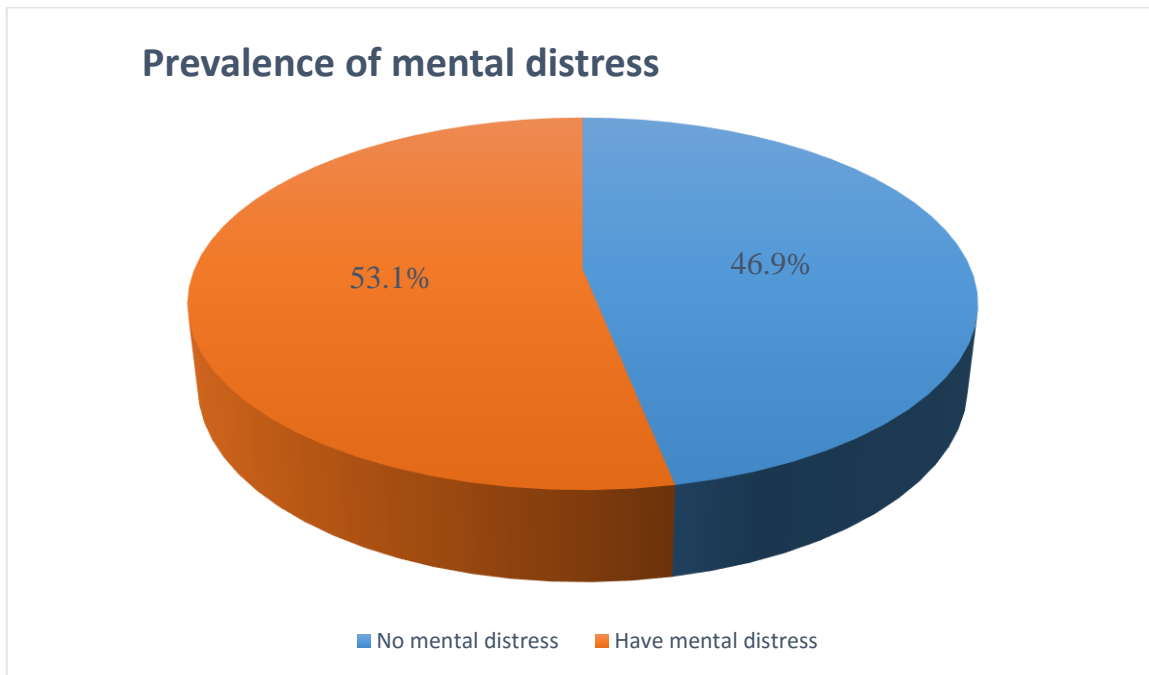


Figure 3: Prevalence of mental distress among hospitalized medical surgical inpatient in public hospital, Addis Ababa, Ethiopia, 2020 (n=408).

6.6. Factor associated with mental distress

Those variables with a P-value of ≤ 0.25 in the binary logistic analysis was entered to multiple logistic analysis using enter method to identify the independent factors associated with mental distress among hospitalized inpatients. In bivariate analysis the covariates: marital status, educational status, occupation, monthly income, alcohol use, previous history of psychiatric condition, contact to psychiatric counseling, family history of psychiatric illness, having comorbid disorder and time of hospital stay were associated with mental distress among hospitalized inpatients. In multiple logistic regression analysis, covariates: marital status, residence, occupation, alcohol, previous history of psychiatric illness and comorbidity disorder were associated with 95% confidence interval.

Marital status of being married was almost 2.7 times more likely to develop mental distress relative to being unmarried [AOR=2.67; 95% CI (1.065, 6.683)]. Participants living in rural area were nearly two times associated with mental distress compared with those living in urban area [AOR=1.85; 95%CI (1.047, 3.264)]. Those respondents who have been private employee have higher than two fold to develop mental distress [AOR= 2.21; 95%CI (1.001, 4.900)] and who are being daily laborers were greater than 4 times likely to develop mental distress relative to those who have been governmental employee [AOR=4.70; 95%CI (1.218, 18.215)].

Regarding substance use study participants who drink alcohol were almost 1.7 times more likely to develop mental distress than those who were not drink [AOR=1.68; 95%CI (1.025, 2.740)]. Those inpatients who have history of previous psychiatric illness were 3.4 times more likely to develop mental distress than having no history [AOR= 3.40; 95%CI (1.078, 10.737)] and inpatients who had comorbid disorder were more than twice likely to develop mental disorder than had no comorbidity disorder [AOR= 1.93; 95%CI (1.200, 3.094)] (Table 7).

Table 6: Binary and multiple logistic regression analysis of factors associated with mental distress among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa, Ethiopia, 2020.

Variables	Category	Mental distress		Crude Odd Ratio	Adjusted Odd Ratio
		Yes	No		
Marital status	Single	53	63	1.35(0.564,3.214)	1.74(0.638, 4.756)
	Married	136	101	2.15 (0.939,4.946)	2.67(1.065,6.683)
	Divorced	14	8	2.80 (0.865, 9.060)	2.70(0.755, 9.689)
	Widowed	10	16	1.00	1.00
Residence	Rural	89	52	1.88(1.234, 2.857)	1.85(1.047, 3.264)
	Urban	124	136	1.00	1.00
Education	Can't read and write	54	30	2.57(1.332,4.963)	1.14(0.438,2.953)
	Can read and write	32	29	1.58(0.785,3.165)	0.77(0.304,1.965)
	Primary	54	47	1.64(0.882, 3.055)	0.89(0.385,2.057)
	Secondary	45	42	1.53(0.807,2.904)	0.86(0.382,1.946)
	Higher education	28	40	1.00	1.00
Occupation	Government employee	25	43	1.00	1.00
	Private worker	48	36	2.29(1.191, 4.417)	2.21(1.001,4.900)
	Merchant	27	34	1.37(0.674, 2.767)	1.57(0.651,3.790)

	Farmers	61	37	2.84(1.495, 5.379)	1.62(0.636,4.108)
	Housewives	29	20	2.50(1.174,5.297)	1.93(0.729, 5.089)
	Daily laborers	11	5	3.78(1.179, 12.148)	4.70(1.218,18.215)
	Others	12	13	1.59(0.629,4.010)	1.82(0.590, 5.616)
Monthly income	Low	125	88	1.61(1.087,2.397)	1.17(0.681,1.994)
	High	88	100	1.00	1.00
Alcohol	Yes	78	55	1.29(0.844,1.964)	1.68(1.025, 2.740)
	No	135	133	1.00	1.00
Previous history of psychiatric illness	Yes	14	4	3.24 (1.046, 10.009)	3.40(1.078,10.737)
	No	199	184	1.00	1.00
Psychiatric counseling	Yes	12	5	2.19(0.755, 6.322)	1.53(0.413,5.685)
	No	201	183	1.00	1.00
Family history of psychiatric illness	Yes	40	21	1.84(1.040, 3.249)	1.82(0.972,3.413)
	No	173	167	1.00	1.00
Comorbidity	Yes	100	57	2.03(1.348, 3.068)	1.93(1.200, 3.094)
	No	113	131	1.00	1.00
Hospital stay	< 1 week	69	75	1.00	1.00
	1-2 week	66	53	1.35(0.831, 2.204)	1.18(0.691, 2025)
	>2 week	78	60	1.41(0.884, 2.259)	1.13(0.672,1.896)

7. Discussion

7.1. Prevalence of mental distress

The prevalence of mental distress in this study was 53.1% within (95%CI, 48%-58%). This finding was relatively comparable with study reported from Korea among surgical inpatients, South Africa hospitals and elsewhere in Ethiopia in hospitalized inpatient care givers were 48%, 49.7%, 54.6% and 56.7% respectively (29,36,38,42).

The prevalence of this study was 53.1% but, the studies conducted in Pakistan among medical surgical admitted inpatients in a tertiary care hospitals, Harari Regional State, Debre Markos and Felege Hiwot hospitals in surgical patients and Gonder University hospital, Ethiopia among medical surgical adult inpatients were 87.9%, 59.7%, 61% and 58.6% respectively (23,44–46). This variation may be resulted from making mental health as global prioritizing problems, change in improving policy, service development and management protocol on mental health related problems (50,51) and life style modification of patients, change in patient safety with in and after the hospitals, relatively increase mental and psychological counseling and even change in methodological system might be also the possible difference.

The prevalence of this study was 53.1% while, the studies reported from Jeddah, Saudi Arabia, Iran, India, United Kingdom among medical patients, Northeast Brazil health care centers, South Brazil university hospital among adult inpatients in clinical ward, Uganda and Nigeria hospitalized patients were 25.5%, 34.8%, 44.1%, 8.1%, 27.1%, 33.7%, 22.5% and 22% respectively (24,26,27,33,34,37,39,40) and similarly higher than the studies reported from Vietnam, Jazan Province, Saudi Arabia, Southern Taiwan general hospitals, Hawassa, Ethiopia, Amanuel mental health specialized hospital in care givers of epileptic patients, Ethiopia, Menlike II hospital, Ethiopia were 5.4%, 20.6%, 38%, 22.1%, 27.1% and 23.2% respectively (5,25,28,35,41,43). This variation might be resulted from change in methodological difference, study population; which were data taken from chronic medical surgical and trauma inpatients including intensive care unit inpatients, difference in screening and diagnostic questionnaire tool used; some researchers used like Kessler scale, Burden Assessment Scale, Hospital Depression, Anxiety and Stress Scale to measure mental distress and other sociodemographic and environmental factors may increase the prevalence of mental distress on this study.

7.2. Factors associated with mental distress in hospitalized inpatient

In this study marital status of being married was an important factors; which was statistically associated with mental distress with almost 2.7 times more positively associated with distress than being unmarried. This result of the study was similarly consistent to the study reported from Korea in cancer patients, Gondar University, North West Ethiopia among hospitalized medical surgical adult inpatients respectively (30,41). The reason that being married marital status more likely to develop mental distress, this might be due to holding more responsibility to their home, family and child care, imbalance of demand and supply of resources to their family during being paired and poor communication and socialization relationship with in the family and other socioeconomically factors might be the possible difference.

Inpatients living in rural area have been two times significantly associated with mental distress than living in urban but, in other studies living in rural residence have not been significantly associated with mental distress. This might be resulted from patients living in rural district might have low perception on life style modification, relaxation, recreation and other luxury enjoyments for the management of distress and low seeking behavior to get psychological and mental health counselor or consultation.

In this study being private employee were more than 2 times positively associated with mental distress compared to being a governmental employee and this association was also similarly in line with the study revealed from Vietnam (5); this also might be resulted from poor life style enjoyment and devote their time in the working place and work load, payment payed to them, poor administration and management system, relatively having low awareness and being daily laborer were the most highest statistically associated variable; which was almost five times more highly associated with mental distress compared to being governmental employee; which might be resulted from having low income to fulfill their daily allowance, live alone and far from their family, sometimes lack of work and work load at a point of time would be the possible reason.

Inpatients who drink alcohol had near to 1.7 times more likely associated with mental distress than those who were not drink alcohol. This result was extended to the study done in Australia, Gonder university compressive specialized hospitals, Ethiopia among hospitalized medical surgical adult inpatients (30,32). The reason might be resulted from people with alcohol abuse are responsible for neuropsychiatric disorders, domestic violence, child abuse and neglecting

and productivity loss and also meets the diagnostic criteria for majority of mental disorders and sometimes they may develop distress in their life after a time (15).

Participants who had previous history of psychiatry illness were highly increase the vulnerability of mental distress. Previous history of psychiatric illness had been 3.4 times more highly associated with mental distress than those who had no previous history of illness. This might be due to patients who had history of psychiatric illness might not be fully recovered and well healthy from their illness; some negative and positive psychiatric symptoms may present and may full fill the screening diagnostic criteria and positively associated with mental distress.

On this study also respondents with comorbid disorder had been twice significantly associated with mental distress than those who had no comorbid disorder. This result was similarly in the same way to the studies reported from Jeddah, Saudi Arabia, Jazan, Saudi Arabia, India, South Africa, Menlike II, Hawassa and Harari Regional State hospitals of Ethiopia respectively (24–26,28,35,42,45). This outcome might be resulted from inpatients with two or more chronic comorbid disorder may have different physical illness, being tensioned about their illness and limited from their daily physical exercise and activities which may result to lead mental distress.

8. Strength and limitation

8.1. Strength

- Standardized and valid questionnaires was used in this study.
- Many different variables were assessed and new variables were also added to assess.

8.2. Limitation

- Some symptoms listed in self-reporting questionnaires can be included to physical illness from which the patient is suffering that is why the prevalence becomes high.
- Medical surgical hospitalized adult inpatients in private hospitals were not included.
- The study was cross-sectional study and did not describe cause- effect relationship.

9. Conclusion and Recommendation

9.1. Conclusion

The prevalence of mental distress among medical surgical hospitalized inpatients in Addis Ababa public hospitals was 53.1% within (95%CI; 48%, 58%). Being married status, rural residence, occupational status of being private employee and daily laborer, drinking alcohol, previous history of psychiatric illness and comorbidity disorder were statistically associated with mental distress among hospitalized medical surgical adult inpatients.

9.2. Recommendation

Addis Ababa public hospitals

- Those health care providers who are working in the hospitalized inpatients should give special consideration for inpatients who are being married, employees working in private area, daily laborers, alcohol users, patients who have previous history of psychiatric illness and comorbid disorders.
- Health care providers should identify mental distress cases through their assessment and screening inpatients presenting in medical and surgical inpatients.
- Interventions could develop that have focus on distress reduction and health promotion activities to hospitalized inpatients from admission to discharge.
- Scheduled and ongoing psycho-education and intervention that helps to cope distress, empowering in patients with knowledge and develop their competence in handling their illness and enhance their chance of living a life that is as normal as possible.

Federal ministry of health

- Ministry of health should assigned mental health expertise and trained other para medical mental health professionals in medical surgical wards to handle mental health problem.

Researchers

- Researcher should furtherly investigate mental distress through both qualitative and quantitative.
- Researcher should also search using other study design that show cause-effect relation.

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11. Annexes

11.1. English version

Annex I: Respondents information sheet

Dear respondents!

Good morning/Afternoon! My name is _____. I am working as data collectors with a study conducted in Addis Ababa University, College of health science, School of nursing and midwifery, post graduated adult health nursing. You are selected and included in the study as a part of the sample population to interviewer administered questionnaire designed by the researcher on prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients. You will participate if you give me verbal consent after you have understood the following information:

Objective of the study: To assess the prevalence of mental distress and associated factors.

Risks and benefits: The result of the study will help policy makers and other concerned bodies to design plan and intervention related to improvements of mental distress for adult patients admitted in medical surgical ward. In this way you may get benefit from the intervention policy. There is no payment and risk or discomfort as a result of participating in this study except that you lost your time during the interview. If you stop/not willing to participate, no influence on your care that you are getting from this health institution.

Confidentiality: All information given by you will be kept strictly confidential. Any of your personal information will not register. The information obtained in this study will be used only for research purposes.

Autonomy: Your participation is voluntary basis and you are not obligated to answer any question that you do not willing to respond. If you feel any discomfort with the question, it is your right not to respond and you have the right to withdraw from the study at any time you need. But your honest participation will contribute a lot to generate information to come up with important findings.

If you have any question related to this study you can contact Mr. Shegaw Tesfa Mengist using his cell phone: +251923065311.

Annex II: Consent form

I understood the purpose, benefit, and what is required from me and what the consequences of the study on me are if I take part in the study entitled on prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa. I understood that personal information regarding me; like name will not be registered and all response given by me will not be transferred to the third party without my permission. I also understood that I can decide whether or not to take part in the study or even withdraw from the study at any time. The researcher has also informed me that no influence on by care and support.

Agreement: Yes ☐ No ☐

Thank you very much for your co-operation!

Data collector name _____ signature _____

Date _____ month _____ year _____

Supervisor name _____ signature _____

Date _____ month _____ year _____

Annex III: English Version questionnaire

Part one: Sociodemographic related questions

Instruction: Answer the following questions by asking one by one and clerk about socio-demographic characteristics of the patient by circling the answer.

No.	Questionnaire and filters	Coding categories	Code
101	How old are you?	Age in years(____)	
102	Sex	1. Male	
		2. Female	
103	What is your religion	1. Orthodox	
		2. Muslim	
		3. Protestant	
		4. Catholic	
		5. Others (specify)--	
105	What is your marital status now?	1. Single	
		2. Married	
		3. Divorced	
		4. Widowed	
106	What is your ethnicity	1. Amhara	
		2. Oromia	
		3. Tigre	
		4. Gurage	

		5. Silte	
		6. Others (specify)--	
107	What is your current place of residence?	1. Rural	
		2. Urban	
108	What is your educational status?	1. Can't read and write	
		2. Can read and write	
		3. Primary	
		4. Secondary	
		5. Higher education	
109	What is your occupation?	1. Governmental worker	
		2. Private employee	
		3. Merchant	
		4. Farmers	
		5. Housewives	
		6. Daily laborers	
		7. Others	
110	How much your income per a month?	-----	

Part two: The Self-Reporting Questionnaire (SRQ)

The following questions are related to certain pains and problems that may have bothered the patient in the last 4 weeks. Then tick '**X**' in the '**Yes**' box if you have had this symptom in the last 4 weeks. On the other hand, if not experienced this symptom in the last 4 weeks tick in the '**No**' box.

No	Encountered health problem with in the last 4 weeks	Yes	No
		1	2
201	Do you often have headaches?		
202	Is your appetite poor?		
203	Do you sleep badly?		
204	Are you easily frightened?		
205	Do your hands shake?		
206	Do you feel nervous, tense or worried?		
207	Is your digestion poor?		
208	Do you have trouble thinking clearly?		
209	Do you feel unhappy?		
210	Do you cry more than usual?		
211	Do you find it difficult to make decisions?		
212	Is your daily work suffering?		
213	Are you unable to play a useful part in life?		
214	Have you lost interest in things?		

215	Do you feel you are a worthless person?		
216	Has the thought of ending your life been on your mind?		
217	Do you feel tired all the time?		
218	Do you have uncomfortable feelings in your stomach?		
219	Are you easily tired?		
220	Do you find it difficult to enjoy your daily activities?		
221	Do you feel that someone has cursed you?		
222	Do you feel that someone is jealous of you?		
223	Do you feel crawling sensations under your skin?		
224	Do you feel burning sensations in your scalp or all Over the body?		
225	Do you often feel your heart is beating too fast?		
	Total Yes Answers		

Part three: Substance use related questions

The following questions focuses on alcohol taking, cigarette smoking, chat chewing and other substances use like hashish and sedative use in the last 1 year. So you are kindly requested to give a genuine answer about your personal behavior on the use of these substances.

No.	Questioners	Yes	No
		1	2
301	Have you used chat in the last 1 year?		
302	Have you used any kind of alcohol drink in the last 1 year?		

303	Have you used any kind of tobacco product in the last 1 year?		
304	Have you used any illegal substances / Such as hashish, and Heroin in the last 1 year?		

Part four: The following questions are related to psychosocial variables, which have two parts of social support related variables and living condition related variables.

The first one: Social support related questions

401	Who can you really count on to help you not think about your worries when you feel under stress?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons
402	Who can you really count on to help you feel more relaxed when you are under pressure or tense?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons
403	Who accepts you totally, including both your worst and best points?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons

404	Who can you really count on to care about you, regardless of what is happening to you?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons
405	Who can you really count on to help you feel better when you are feeling generally down-in-the dumps?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons
406	Who can you count on to comfort you when you are very upset?	1. No one 2. Family 3. Friends 4. Organization 5. Religious father/persons 6. Unknown persons
	Total score	

The second part: Living condition related questions

501	Who lives with you?	1. Alone	
		2. Family	
		3. Others	

Part five: Clinical condition related questionnaire

601	Have you previous history of psychiatric condition?	Yes	1
		No	2
602	Have you develop psychiatric condition after admission?	Yes	1
		No	2
603	Have you linked to psychiatric consultant?	Yes	1
		No	2
604	Have you family history of psychiatric illness?	Yes	1
		No	2
605	Have you previous history of hospital admission?	Yes	1
		No	2
606	What ward you admitted?	Medical	1
		Surgical	2
607	Have you more than one illness?	Yes	1
		No	2
608	How much times you stay in the hospital?	<1 week	1
		1-2 week	2
		>2 week	3

I have finished thank you regards!

11.2. Amharic version

የተሳታፊዎች መረጃ ቅፅ

ክቡራን የጥናቱ ተሳታፊዎች: እንደምን አደራችሁ/ዋለችሁ? ስሜ _____ እባላለሁ
በአዲስ አበባ ዩኒቨርሲቲ ህክም እና ጤና ሳይንስ ኮሌጅ በሚደረገው ይህ ጥናት ላይ መረጃ ሰብሳቢ
ነኝ። እርስዎም በዚህ “prevalence of mental distress and associated factors among hospitalized
medical surgical adult inpatients in public hospitals, Addis Ababa” በሚለው የጥናት ፅሁፍ ላይ
ለተጠቀሱ መጠይቆች መልስ ይሰጡን ዘንድ የጥናቱ አካል ሆነው ተመርጠዋል።

ከዚህ በታች ያሉትን መረጃዎች ከተረዱ በኋላ ፍቃደኛ ከሆኑ በጥናቱ ላይ መሳተፍ ይችላሉ።

የጥናቱ አላማ: የስነ-አእምሮ ችግር እና ተያያዥ ጉዳዮችን ለማወቅ

ጉዳት እና ጥቅም: የዚህ ጥናት ውጤት ለስነ-አእምሮ ፖሊሲ ቀረፃ እና ለሚመለከታቸው አካላት በ
ሆስፒታል ውስጥ በአዋቂዎች የተኝቶ ህክምና ውስጥ የስነ-አእምሮ ችግር ላይ የመፍትሄ እርምጃ እና
ማሻሻያ ለመውሰድ ይጠቅማል። በጥናቱ ላይ ተሳታፊ በመሆንዎ የተወሰነ ጊዜዎን መስዋት ከማድረግዎ
ያለፈ ምንም አይነት ጉዳት የለውም። ሌላው በጥናቱ ላይ ሲሳተፉ ቢያቸርጡም ሆነ ለመሳተፍ ፍቃደኛ
ባይሆኑ ከጤና ተቆሙ ከሚያገኙት አገልግሎት ምንም ዓይነት ተጽኖ ሊደርስብዎት አይችልም።

ሚስጥራዊነት: በመጠይቆች ላይ የሰጡት መረጃ ሚስጥራዊነቱ ፈፅሞ የተጠበቀ፤ ለሶስተኛ አካል
ተላልፎ እንደማይሰጥ እና ስም እንደማይመዘገብ መግለፅ እወዳለሁ።

የራስ ፍቃደኝነት: በጥናቱ ላይ መሳተፍም አለመሳተፍም፤ በማንኛውም ሰዓት ማቋረጥ ይቻላል።
ከዚህ ጥናት ጋር የተያያዘ ማንኛውም ጥያቄ ካልዎት አቶ ሸጋዉ ተስፋ መንግስት ብለዉ በዚህ ስልክ
ቁጥር: +251923065311 ማግኘት ይችላሉ።

Annex 1: የስምምነት ቅፅ

prevalence of mental distress and associated factors among hospitalized medical surgical adult inpatients in public hospitals, Addis Ababa በሚለው ጥናት ላይ የጥናቱን ጥቅም፤ከኔ ምን

እንደሚጠበቅ እና ለኔ ሚሰጠውን የጥናቱን ውጤት በደንብ ተረድቻለሁ። እኔ የሰጠውት ግላዊ መረጃ ሚስጥራዊነቱ ፈፅሞ የተጠበቀ፤ ከፈቃዴ ውጭ ለሶስተኛ ወገን ተላልፎ እንደማይሰጥ እና ስም

እንደማይመዘገብ ተረድቻለሁ። ሌላው ደግሞ በጥናቱ ላይ መሳተፍም አለመሳተፍም፤ በማንኛውም

ሰዓት ማቋረጥ የምችል መሆኔን ተረድቻለሁ። ሌላው ከጤና አገልግሎትና እርዳታ ጋር የተያያዘ ተጽኖ

እንደሌለው አጥኚው አሳውቆኛል።

ስምምነት: አዎ ☐ የለም ☐

ፈቃደኛ ስለሆኑ አመሰግናለሁ!

የመረጃ ሰብሳቢ ስም _____ ፊርማ _____

ቀን _____ ወር _____ ዓ.ም _____

የተቆጣጣሪ ስም _____ ፊርማ _____

ቀን _____ ወር _____ ዓ.ም _____

Annex II: የአማረኛ ትርጉሜ መጠይቆች

ክፍል አንድ: ከስነ-ህዝብ ጋር ተያያዥ መጠይቆች

ትእዛዝ: በጥንቃቄ ካነበባችሁ በኋላ ለሚከተሉት ጥያቄዎች ተገቢውን መልስ ስጥ/ጭ

ቁ.ረ	ጥያቄ	መለያ ምድብ	ኮድ
101	እዴሜዎ ስንት ነው?	_____ ዓመት	
103	ጾታ	1. ሴት	
		2. ወንድ	
104	ሃይማኖትዎ ምንድን ነው?	1. ኦርቶድክስ	
		2. ሙስሊም	
		3. ፕሮተስታንት	
		4. ካቶሊክ	
		5. ሌላ (ይገለፅ) _____	
105	የጋብቻ ሁኔታ ምንድን ነው?	1. ያላገባ/ች	
		2. ያገባ/ች	
		3. የፈታ/ች	
		4. የሞተበት/ባት	
106	ብሔረዎ ምንድን ነው?	1. አማራ	
		2. ኦሮሞ	
		3. ትግሬ	
		4. ጉራጌ	
		5. ስልጤ	
		6. ሌላ (ይገለጽ) _____	

107	መኖሪያ ቦታዎ የት ነው?	1. ገጠር	
		2. ከተማ	
108	የትምህርት ሁኔታዎ እንዴት ነው?	1. ማንበብና መጻፍ የማይችል/ትችል	
		2. ማንበብና መጻፍ የሚችል/ትችል	
		3. ከ1-8 የተማረ	
		4. ከ9-12 የተማረ	
		5. ከፍተኛ ት/ት ተቆም የተማረ	
109	የስራ ሁኔታዎ እንዴት ነው?	1. የመንግስት ሰራተኛ	
		2. በግል ተቆም የሚሰራ	
		3. ነጋዴ	
		4. አርሶዓደር	
		5. የቤት እመቤት	
		6. የቀን ሰራተኛ	
		7. ሌላ (ይገለጽ) _____	
110	በወር አማካይ ገቢዎ ስንት ነው?	-----	

ክፍል ሁለት: ባለፉት አራት ሳምንታት የተከሰተ የጤና እክል

ከዚህ በታች የተዘረዘሩት ጥያቄዎች ባለፉት አራት ሳምንታት ውስጥ አጋጥመዎችሁ ሊሆኑ ስለሚችሉ ችግሮች ጋር ይያያዛሉ። እባክዎትን ባለፉት አራት ሳምንታት ውስጥ አጋጥመዎት በሚያውቁ ምልክቶች **አዎ** በሚለው አጋጥሞዎት በማያቁ ምልክቶች ደግሞ **አይደለም** በሚለው ሳጥን ላይ የ'x' ምልክት ያድርጉ። የሚሰጡት መልስ ሚስጥራዊነቱ ፈፅሞ የተጠበቀ ነው። መልስ ለመስጠት አስቸጋሪ ጥያቄ ከገጠመዎት በተሻለ ሁኔታ ይሆናል ብለው የሚያስቡትን መልስ ይሙሉ እንጅ ሌላ ሰው መጠየቅ የተከለከለ ነው።

ቁጥር	ባለፉት አራት ሳምንታት የደረሰ የጤናችግር	አዎ	የለም
		1	2
201	ራስ ምታት ብዙ ጊዜ ያሞታል ?		
202	ምግብ የመቀበል ፍላጎትዎ ቀንሷል?		
203	በደንብ አይተኙም ወይ ?		
204	በቀላሉ ይደነግጣሉ ?		
205	እጅዎ ይንቀጠቀጣል ?		
206	የመንፈስ መጨነቅ የመጠበብ ሁኔታ አለብዎት ?		
207	ምግብ ከበሉ በኋላ ሆድዎን ይከብድዎታል ?		
208	በትክክል ማሰብ ይቸግሮታል ?		
209	ደስታ የማጣት ስሜት አለዎት ?		
210	ያለበቂ ምክንያት እምባ እምባ ይልዎታል ?		
211	በየቀኑ በሚሰሯቸው ስራዎች መደሰት ይቸግሮታል ?		
212	በእለት ተእለት ተግባርዎ መወሰን ያስቸግሮታል ?		
213	የእለት ተግባርን ለመፈጸም ያስቸግሮታል ?		
214	በአካባቢዎ ጠቃሚ ተሳትፎ ማድረግ ያስቸግሮታል ?		
215	በአንዳንድ ነገሮች ላይ የነበርዎት ፍላጎት (ስሜት) ጠፍቶአል ?		
216	የማልጠቅም ሰው ነኝ ብለው ያስባሉ ?		
217	ህይወትዎ አስጠልቶዎት መቼ ባረፍኩ ያሉበት ጊዜ አለ ?		
218	ሁልጊዜ ድካም ይሰማዎታል ?		
219	ሆድዎ ይረበሻል ?		
220	በቀላሉ ይደክምዎታል?		
221	ሰዎች እርስዎን ሆንብለው የሚያበሳጩዎት ይመስልዎታል ?		
222	ሰዎች እርስዎን የሚጠራጠሩዎት ይመስልዎታል ?		
223	በቆዳዎ ስር የሚንቀሳቀስ/የሚራመድ/ ነገር ያለ ይመስልዎታል?		

224	በሰውነትዎ ላይ የማቃጠል ስሜት ይሰማዎታል ወይ ?		
225	የልብ ምትዎት የጨመረብዎት/የፈጠነብዎት/ ይመስልዎታል ?		
	ጠቅላላ አዎ ያሉ ድምር		

ክፍል ሦስት: የተለያዩ ህገ-ወጥ አደንዛዥን ጥረ-ነገሮችን ከመጠቀም ጋር የተያያዙ መጠይቆች

ከዚህ በታች በሰንጠረዥ ለተመለከቱት ጥቂዎች ጩኔ፤አልኮል፤ሲጋራ እና ሌሎች እንደ ሀሽሽና አደንዛዥ እፅ ባለፉት አንድ ዓመት ውስጥ ከመጠቀም ጋር የተያያዙ ናቸው። ስለነዚህ ጥያቄዎች ትክክለኛ መልስ እንዲሰጡን በአክብሮት አንጠይቃለን።

ቁጥር	ባለፉት አንድ ዓመት ውስጥ የተጠቀሙት ዕጽ	አው	የለም
		1	2
301	ባለፈው አንድ ዓመት ውስጥ ጩኔ ተጠቅመዋል?		
302	ባለፈው አንድ ዓመት ውስጥ ማንኛውንም አይነት የአልኮል መጠጥ ተጠቅመው ያውቃሉ?		
303	ባለፈው አንድ ዓመት ውስጥ ማንኛውንም አይነት የትምባሆ ውጤት ለምሳሌ እንደ ሲጋራ ተጠቅመው ያውቃሉ?		
304	ባለፈው አንድ ዓመት ውስጥ ሌላ አይነት ንጥረ- ነገሮችን እንደ ሀሽሽ እና የአደንዛዥ እፅ (ሄሮይን) ተጠቅመው ያውቃሉ?		

ክፍል አራት: ከማህበራዊ ስነልቦና ጋር ተዛማጅ ጥያቄዎች፤ እነዚህ ጥያቄዎች በሁለት የተከፈሉ ሲሆኑ አንደኛው ከማህበራዊ ድጋፍና ሁለተኛው ከኑሮ ሁኔታ ጋር የተያያዙ ናቸው።

አንደኛ: ከማህበራዊ ድጋፍ ጋር የተያያዙ ጥያቄዎች

401		1. ማንም የለም
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	እርስዎ በጭንቀት ውስጥ በሚሆኑበት ጊዜ ስለጭንቀትዎ እንዳያስቡ የሚያደርግዎት ክስተት ረዳት ብለው የሚቆጥሩት ማነው?	2. ቤተሰብ
		3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
402	እርስዎ በጣም ጫና በሚበዛብዎት ጊዜ ዘና እንዲሉ የሚያደርግዎት ክስተት ረዳት ብለው የሚቆጥሩት ማነው?	1. ማንም የለም
		2. ቤተሰብ
		3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
403	በጣም የከፋ ነገርዎንም ሆነ ምርጥ የሆነውን ሙሉ ለሙሉ የሚረዳዎ ማነው?	1. ማንም የለም
		2. ቤተሰብ
		3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
404		1. ማንም የለም
		2. ቤተሰብ

	በእርስዎ ላይ ምንም አይነት ነገር ቢፈጠር የሚጠብቅዎ እና ለእርስዎ ይጨነቃል ብለው የሚላት ትክክለኛ ረዳት ብለው የሚቆጥሩት ማነው?	3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
405	እርስዎ ሙሉ ለሙሉ የመውደቅ ስሜት ውስጥ በሚሆኑበት ጊዜ የተሻለ እንዲያስቡ የሚያግዝዎ ትክክለኛ ረዳት ብለው የሚቆጥሩት ማነው?	1. ማንም የለም
		2. ቤተሰብ
		3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
406	እርስዎ በጣም በተበሳጭ ጊዜ ምችት እንዲሰማዎ ያደርጋል የሚላት ትክክለኛ ረዳት ብለው የሚቆጥሩት ማነው?	1. ማንም የለም
		2. ቤተሰብ
		3. ጋደኞች
		4. ድርጅት
		5. የሀይማኖት አባት/ግለሰብ
		6. የማይታወቁ ሰዎች
	ጠቅላላ ድምር ውጤት	

ክፍል ሁለት፡ ከኑሮ ሁኔታ ጋር የተያያዙ መጠይቆች

501	ከማን ጋር ነው የሚኖሩት?	1. ብቻዬን
		2. ከቤተሰብ ጋር
		3. ሌላ (ይገለጽ) _____

ክፍል አምስት፡ ከጤናክል ጋር የተያያዙ መጠይቆች

ቁጥር	ጥያቄ	መለያ ምድብ	ከድ
601	ከዚህ በፊት የስነ አምሮ ችግር ነበረብዎት?	አዉ	1
		የለም	2
602	ሆስፒታል ከገቡ በኋላ የስነ አምሮ ህመም ተገኝቶብዎታል?	አዉ	1
		የለም	2
603	የስነ አጃምሮ ባለሙያ አማክረዋል?	አዉ	1
		የለም	2
604	በቤተሰብ ውስጥ የስነ አምሮ ህመም የታመመ አለ?	አዉ	1
		የለም	2
605	ምን የህክምና ክፍል ውስጥ ነዉ የተኙት?	የዉስጥ ደዌ	1
		ቀዶ ጥገና	2
607	በህክምና የተረጋገጠ ከአንድ በላይ ህመም አለብዎት?	አዉ	1
		የለም	2
608	ሆስፒታል ውስጥ ለስንት ሳምንታት ጊዜ ያህል ቆዩ?	< 1 ሳምንት	1
		1-2 ሳምንት	2
		> 2 ሳምንት	3

ጨርሻለሁ ከአክብሮት ጋር አመሰግናለሁ!