WOLKITE UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF MEDICINE

PREVALENCE OF MOOD DISORDER AND ASSOCIATED FACTORS AMONG ADULT PATIENTS ATTENDING FOLLOW UP CLINIC OF PYSCHIATRY DEPARTMENT, WOLKITE UNIVERSITY SPECIALIZED HOSPITAL, IN 2016 E.C.

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STUDENTS' RESEARCH REPORT TO BE SUBMITTED TO THE DEPARTMENT OF PUBLIC HEALTH, WOLKITE UNIVERSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE

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PREVALENCE OF MOOD DISORDER AND ASSOCIATED FACTORS AMONG ADULT PATIENTS ATTENDING FOLLOW UP CLINIC OF PYSCHIATRY DEPARTMENT, WOLKITE UNIVERSITY SPECIALIZED HOSPITAL, IN 2016 E.C.

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Lists of Abbreviations and Acronyms

AOR .... Adjusted Odd's Ratio

BPD ………………….. Bipolar disorder

CI .... Confidence Interval

COR .... Crude Odd's Ratio

DSM -5-TR .... 5th edition-Diagnostic and Statistical Manual of Mental disorders

E.C .... Ethiopian Calendar

G.C .... Gregorian Calendar

MDD …………………. Major depressive disorder

PDD ………………….. Persistent depressive disorder

SPSS .... Statistical Package for Social Sciences

WHO .... World Health Organization

WUSTH ……………..... Wolkite University Specialized Teaching Hospital

Abstract

Background: Mood disorders are among the most frequently encountered psychiatric conditions faced by clinicians in psychiatric settings, significantly affecting both the lives of patients and the capacity of healthcare facilities. During clinical attachments in the Psychiatry department, one can readily observe the scale of this issue.

Objectives: This research primarily aims to evaluate the prevalence of mood disorders observed in the follow-up clinic at WUSTH in 2016 E.C, as well as the various factors associated with it.

Methods: A cross-sectional, retrospective study design was used, involving a review of medical records from the past year (2016 E.C). The study population consists of adult clients attending follow-up sessions in the outpatient Psychiatry department at WUSTH during the study period. The sample size (n = 275) was selected through simple random sampling, by using Microsoft excel software. The data was analyzed using software analysis (SPSS) and presented by charts, figures and text form. Descriptive statistics was conducted using frequency distributions along with bivariate and multivariable logistic regression statistical model (with CI = 95% and $p < 0.05$).

Results: Out of 275 patients, 106 (38.5%) were diagnosed to have mood disorders, where the distribution for specific selected mood disorders was as follows: major depressive disorder 56.6%, bipolar disorder 42.5%, persistent depressive disorder 0.9%. Multivariable logistic regression analysis shows that there is statistically significant association ($p < 0.05$) between mood disorders and associated factors that are stated below; female sex (AOR = 2.889 (1.635-5.107), 95% CI), Marital status – Divorced (AOR = 6.386 (1.666-24.479), 95% CI), substance use (AOR = 2.074 (1.121-3.837), 95% CI), and chronic medical illnesses (AOR = 2.444 (1.070-5.581), 95% CI).

Conclusion: In this study, the prevalence of mood disorders is high with MDD highest of the selected mood disorders. Female sex, divorce, substance use and chronic medical illnesses are factors with significant association.

Recommendations: Routine mental health screening, expanding mental health Services and developing preventive Strategies are necessary to reduce/prevent this problem.

Chapter 1: Introduction

1.1 Background

Mood can be defined as a pervasive and sustained emotion or feeling tone that influences a person's behavior and colors his or her perception of being in the world. Disorders of mood-sometimes called affective disorders-make up an important category of psychiatric illness consisting of depressive disorder, bipolar disorder, and Persistent depressive disorders [1].

Mood disorders are best considered as syndromes (rather than discrete diseases) consisting of a cluster of signs and symptoms, sustained over a period of weeks to months, that represent a marked departure from a person's habitual functioning and tend to recur, often in periodic or cyclical fashion [2].

Patients with only major depressive episodes are said to have major depressive disorder or unipolar depression. Patients with both manic and depressive episodes or patients with manic episodes alone are said to have bipolar disorder. Patient with Major depressive disorder typically experiences feelings of guilt, changes in sleep pattern, inability to perform daily activity, lack of energy, changes in appetite, unintentional weight gain or loss, having trouble in decision making and recurring thoughts of death or suicide. A major depressive episode must last at least two weeks [1]. Major depressive disorder (unipolar depression) is reported to be the most common mood disorder [2].

A manic episode is a distinctive period of an abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy lasting for at least one week and patients show grandiosity, decreased need for sleep or rest and flight of thoughts or ideas [1]. A hypomanic episode is similar to a manic episode except that it is not sufficiently severe to cause impairment in social or occupational functioning and lasts at least four days [1].

There are two types of bipolar disorder: Bipolar type I Disorder is diagnosed whenever the criteria for at least one manic episode have been met and the occurrence of neither manic nor major depressive episode(s) is not better explained by other psychiatric conditions. The diagnosis of bipolar type II disorder is made if the criteria 2 for a current or past hypomanic episode and the criteria for a current or past major depressive episode are met [1].

Persistent depressive disorder (dysthymia) is another mood disorder with essential feature of depressed mood that occurs for most of the day, for at least 2 years. Individuals with persistent depressive disorder describe their mood as sad or "down in the dumps." Major depression may precede persistent depressive disorder, and major depressive episodes may occur during persistent depressive disorder [3].

Although the exact cause of these disorders is not known, several theories have been proposed. One of whom is the biological approach, in support of which many studies have shown that structural and biochemical abnormalities in patients with mood disorders such as disturbances in the intricate neuro-regulatory mechanisms can be considered as the etiology of these disorders. On the other hand; numerous family, adoption, and twin studies have long documented the genetic background of mood disorders [4].

From psychosocial point of view, several clinical observations have shown that stressful life events more often precede first episodes of mood disorders. It is believed that life events play the primary role in depression. For example; an environmental stressor like 3 unemployment; persons out of work are three times more likely to report symptoms of an episode of major depression than those who are employed [4].

1.2 Statement of the Problem

Mood disorders are one of the most commonly encountered psychiatric conditions and they cause significant distress on the lives of many patients. They can become so severe and result in significant impairment to the point where they can be seen as one form of disability. Most patients are not able to achieve the full extent of their potential and may even find it difficult to go by their

daily lives as their economic, social and sexual lives are hindered. It is at this stage that most seek medical care by which time hospitalization or frequent follow up is mandatory in order to clearly understand their illness and reset their lives thus in turn putting pressure on the health care system [5].

The increased mortality associated with mood disorders has been well-documented. Data from large population registries in Sweden and Denmark have shown that bipolar disorder is associated with substantial elevation in risk of both mortality in general, particularly death by suicide [2].

According to World Mental Health Survey Initiative on Prevalence and correlates of bipolar spectrum disorder, Mood disorders (Major depressive disorder and bipolar disorder) are complex and debilitating conditions affecting 18.6% (16.2% and 2.4%) of population worldwide [6]. Ethiopian National Health Survey on Prevalence of depression and associated factors shows prevalence of depressive episode is 9.1% [7]. Another research conducted at Jimma University Specialized Hospital on trends and possible causes of mental illness in psychiatry ward shows that mood disorder prevalence is 41.7% [8].

Mood disorders are a major global health concern, yet the prevalence and factors associated with it remain unknown in our study area due to lack of local research. Moreover, most of the researches done in Ethiopia are community based, not health facility and are not much focused on mood disorders. These gaps hinder effective healthcare planning and the implementation of targeted mental health interventions. In our study we systematically examined the prevalence and associated factors of mood disorders at Hospital setting (among adult patients on follow-up at WUSTH, psychiatric OPD), that provides crucial data hoping that it will bridge the stated gaps. The findings are important for evidence-based strategies for implementing mental health services.

1.3 Significance of the Study

This study provides critical insights into the prevalence of mood disorders and identify contributing factors among adult patients in a clinical setting. The findings can serve as a foundation for local and national health organizations to understand the extent of mood disorders and plan intervention strategies. The results can benefit policymakers, healthcare providers, and

researchers by highlighting the need for enhanced support services, awareness programs, and preventive mental health interventions. Furthermore, by focusing on sociodemographic, clinical, and psychosocial factors, this research can foster an interactive dialogue between mental health professionals and the community, promoting tailored mental health care approaches in Ethiopia.

1.4 Literature Review

According to World Health Organization mental health survey, mood disorders are generally found to be the second most prevalent class of mental disorders in the general population only preceded by anxiety disorders. The lifetime prevalence estimate of any mood disorder is approximately 12% and the 12-month prevalence estimates approximately 6% [5].

Prevalence estimates are generally higher in Western developed countries than in developing countries. From individual disorders, Major depressive disorder is found to be the most prevalent mood disorder, with lifetime prevalence estimates usually in the 4–10% range and 12-month prevalence estimates in the 3–6% range [5].

The most recent WHO global health estimates of common mental disorders put the proportion of depression in the global community to be 4.4% which shows just how epidemic the issue is and requires due attention [9].

An Ethiopian National Health Survey on Prevalence of depression and associated factors shows prevalence of depressive episode is 9.1%. It also shows, residence, age, marital status, educational status, chronic non communicable diseases (heart diseases, diabetic mellitus and arthritis) and alcohol drinking status were associated with depression. Among these age, marital status, alcohol use, chronic illnesses had significant association ($P < 0.05$): 55–64 years old (AOR=1.4, 95% CI 1.01–2.14), 65–74 years old (AOR=1.8, 95% CI 1.21–2.81) and >75 years (AOR=2.2, 95% CI 1.28–3.78), divorced (AOR=2.0, 95% CI 1.12–3.72), widowed (AOR=2.4, 95% CI 1.39–4.28), chronic medical illnesses (AOR=2.6, 95% CI 2.03–3.25) and alcohol consumption - non heavy drinker (AOR=2.3, 95% CI 1.87–2.89), infrequent heavy drinkers (AOR=2.5, 95% CI 1.54–4.09) and frequent heavy drinkers (AOR=1.9, 95% CI 1.42–2.79) [7].

On the other hand, study conducted in Butajira, Southern Ethiopia shows a life time prevalence of mood disorders to be 6.2% with the identification of several associated factors such as female sex, increasing age and low-income status [10].

A research done in Silte Zone, Southern Ethiopia showed that the prevalence of common mental disorders among adults was found to be 39.7%. The research shows that increased age, being female, low educational status, poor social support and having a life-threatening experience were positively associated with common mental disorders; and all these associations were statistically significant [11].

Similarly, Institution based cross-sectional study done on the magnitude and correlates of common mental disorder among outpatient medical patients in Ethiopia shows that the prevalence of the common mental disorder among participants was 39.2%. Factors like female sex, poor social support, diabetes mellitus, and current substance use were significantly associated with common mental disorder at a p-value less than 0.05 [12].

Another research conducted at Jimma University Specialized Hospital on trends and possible causes of mental illness in psychiatry ward shows that mood disorder prevalence is 41.7% (of these 60% were Major depressive disorder and 40% were Bipolar-disorder). The results of the study revealed that schizophrenia, major depression disorder, brief psychosis and anxiety disorder respectively were the frequent mental illnesses in the ward. These disorders generally attacked the productive age group (20 to 30 years of age), the major reasons of which could be attributed to drug use (mostly 'khat'), stress caused by academic failure, joblessness, and lack of youth friendly recreation areas [8].

A research done in Kombolcha, Northeast Ethiopia puts the prevalence of common mental disorders at 32.4% and factors that were significantly associated with common mental disorders were female sex, lack of formal education, low level of education, having small family size, family history of mental illness, living with chronic illness and active smoking were significantly

associated with common mental disorders. High level of emotional support was found to be protective of common mental disorders [13].

A cross-sectional study done in Addis Ababa, Ethiopia showed that the lifetime prevalence of mood disorders to be 5% whilst the lifetime prevalence for specific disorders such as bipolar disorders, depressive episodes and persistent mood disorders were 0.3%, 2.7% and 1.6% respectively. In this study, factors like female sex (AOR = 1.31, 95% CI), low educational level (AOR = 1.45, 95% CI), and unemployment (AOR = 1.63, 95% CI) were found to be highly associated with the development of mood disorders. However; marital status, ethnicity and in sharp contrast to other studies, increasing age did not show statistically significant association [14].

Prevalence of common mental disorders is 33.6% in Jimma town (as some study shows), amongst which mood disorders are highly likely to have a major share. Factors such as older age, being female, housewife, unable to read and write chewing khat and having chronic physical illness were significantly associated with higher prevalence of common mental disorders while being married in marital status was found to be a protective factor from common mental disorders [15].

1.5 Conceptual framework

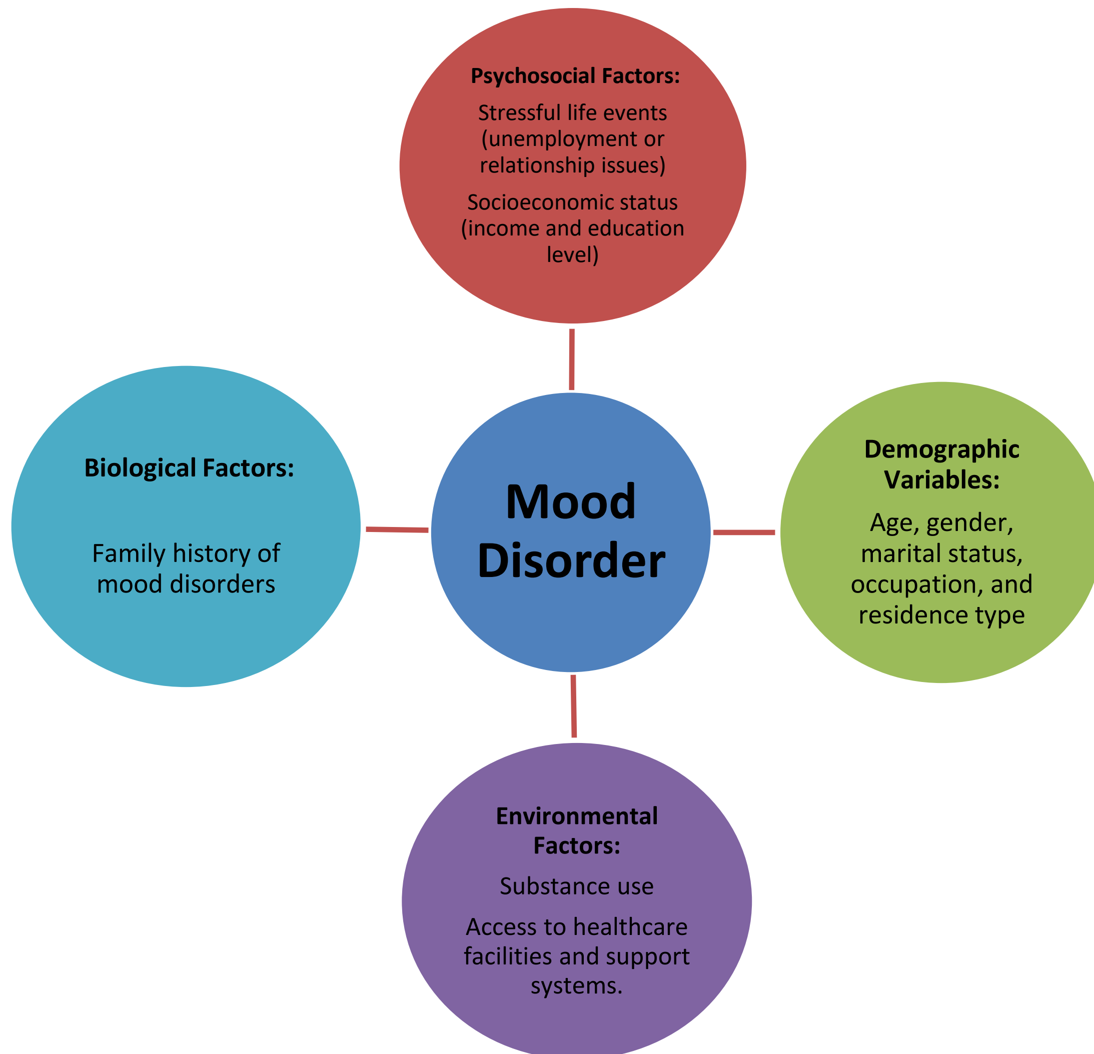


Figure 1: Conceptual framework of Mood disorders (Developed by the research team after revising various literatures [4] [7] [14])

Chapter 2: Research Objectives

2.1 General Objective

- ✓ To assess the prevalence of mood disorder among patients on follow up in 2016 E.C at Psychiatric clinic of WUSTH, Central Region of Ethiopia, Ethiopia.

2.2 Specific Objectives

- ✓ To determine prevalence of mood disorder among patients on follow up at Psychiatric clinic of WUSTH.
- ✓ To identify factors associated with mood disorder among patients on follow up at Psychiatric clinic of WUSTH.

Chapter 3: Research methods and materials

3.1 Study Design

A cross- sectional retrospective study design was used for this study.

3.2 Study Period

It was one year retrospective study covering the time period from 01/01/2016 E.C till 05/13/2016 E. C.

3.3 Study Setting

The study was conducted at Wolkite University Specialized Hospital, which is located in Gurage zone, SNNPR, Ethiopia. It is located in South Western part of country around 165 km from the Capital, Addis Ababa. WUSTH is the only specialized hospital in Gurage zone and it provides service to clients from Wolkite town, from the whole Woredas of Gurage Zone and its surrounding Oromia and Southern region Zones. The hospital has different departments: Internal Medicine, Surgery, Paediatrics, Gynaecology and Obstetrics, Psychiatry, Radiology, Ophthalmology and Dentistry. The Hospital provides Inpatient and Outpatient services including Emergency. In the hospital there are more than 150 beds for inpatients. Psychiatry department provides both Inpatient and Outpatient services including patient follow up.

3.4 Source Population

The source population of this study is all patients greater than 18 years of age who have their follow up in the outpatient clinic of psychiatry department, WUSTH.

3.5 Study Population

The study population was adult clients who have their follow up with in the study period in the outpatient clinic of psychiatry department, WUSTH.

3.6 Inclusion and Exclusion Criteria

- Inclusion Criteria
    1. Patients with the age of 18 and above attending follow-up at the Psychiatry Department's outpatient clinic (Adult patients).
    2. Patients with complete medical records containing relevant demographic, clinical, and social information required for the study.
- Exclusion Criteria
    1. Patients below 18 years of age
    2. Patients whose medical records insufficient
    3. Patients with a primary diagnosis other than mood disorder, where mood disorder symptoms are secondary or incidental.

3.7 Sample Size Calculation

The sample size was determined by using single population proportion formula by using p value from a study done at Jimma University Specialized Hospital, psychiatry ward which shows that prevalence of mood disorder is 41.7% [8].

The following formula was used to determine the sample size:

$$n' = \frac{Z^2 P(q)}{W^2}$$

Where; n': Maximum sample size

p: proportion – 41.7%

z: confidence interval - 95% (1.96)

w: margin of error - 0.05

➔ And the calculated $n' = 373$

Prevalence rate from other studies was also considered: prevalence of common mental disorders (from a study done in Silte Zone, Southern Ethiopia) and prevalence of common mental disorders in Jimma with the result of 39.7% [11] and 33.6% [15] respectively, but both of them provided lower n' (367 and 342 respectively).

So, among the 3 calculated samples we took the largest ($n' = 373$).

Because N < 10000, we used correction formula (N = 1050)

$$n = \frac{n'}{1+\frac{n'}{N}}$$

So, the sample size (n) = **275**

3.8 Sampling technique and Procedure

For this study, every patient attending the follow-up clinic in the Psychiatry Department is recorded daily in a registry book. Since patients are recorded each day, there were individual records which appeared multiple times over the study period. For this we took MRN of each patient on follow up in the year 2016 E.C and entered it into Microsoft excel and finally we did simple random sampling after removing duplications by using the same software.

3.9 Study variables

- ❖ Dependent variable:
  - ✓ Prevalence of mood disorder
- ❖ Independent variables:
  - ✓ Age
  - ✓ Sex
  - ✓ Ethnicity
  - ✓ Marital status
  - ✓ Educational level
  - ✓ Occupation
  - ✓ Residence
  - ✓ Substance use
  - ✓ Chronic medical illnesses
  - ✓ Family history of mental illness

3.10 Operational Definitions

1. **Mood Disorders**: Refers to major depressive disorder, bipolar disorder or persistent depressive disorder.
2. **Substance Use**: Regular use of substances like alcohol, tobacco, or khat within the last year or based on patient records
3. **Socioeconomic Status**: Categorized based on educational level, occupation and others.

4. **Follow-up Clinic**: Refers to the outpatient psychiatry clinic where patients are regularly seen and managed for psychiatric conditions.
5. **Chronic medical illnesses**: Refers illnesses like Hypertension, Diabetes, Cardiac diseases and others

3.11 Data Collection methods and tools

The data for this study was collected by the research team (medical students) from November 25 -28. The primary data collection method involved a thorough review of patient medical records, specifically targeting sociodemographic and clinical information pertinent to the study's objectives. Data was recorded using a structured questionnaire (which was developed by the research team after revising various Literatures - [7] [8] [12] [14]) divided into two sections: one covering sociodemographic characteristics - patient's age, sex, marital status, educational background, occupation, and residence - and another focused on Clinical and Psychosocial factors. This section focused on mood disorder diagnosis, family history of mental illness, substance use, and any chronic medical conditions.

3.12 Data Processing and Analysis

The collected data were thoroughly reviewed to ensure completeness and accuracy before analysis. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. Descriptive statistics were employed to summarize key sociodemographic and clinical characteristics of the sample population. The results were presented using charts, tables, and graphs for clarity.

For inferential analysis, multivariable logistic regression analyses were conducted to assess the association between mood disorders and independent variables. Variables with significant associations in bivariate analysis were included in the multivariable logistic regression model. Adjusted odds ratios (AORs) were calculated with a 95% confidence interval (CI) to identify independent predictors of mood disorders. P-values less than 0.05 were considered statistically significant.

3.13 Data Quality Assurance

To ensure data quality, a structured and pre-tested data collection tool (questionnaire) was utilized. Each medical record was reviewed by members of the research team to confirm completeness and consistency. Cross-checking was performed regularly to minimize errors during data entry and processing. The research advisors also reviewed the data collection tool to ensure reliability and validity.

3.14 Ethical Considerations

Ethical approval for this study was obtained from the school and from WUSTH. The confidentiality of participants was upheld throughout the study by using medical record numbers (MRNs) instead of patient names. The study was Retrospective and didn't involve Intervention. All collected data were securely stored, accessible only to authorized research team members. Additionally, permission was granted by the hospital administration to review medical records.

3.15 Dissemination of Findings

The results of this study will be shared with relevant stakeholders, including the Department of Public Health and the Department of Psychiatry at Wolkite University, through a detailed report and presentation. Additionally, findings will be made available to hospital administration and mental health professionals to inform clinical practices and strategies for improving patient care. To further broaden the impact, we may plan to present our findings at academic conferences and seminars within Ethiopia. We may also submit the study for publication in relevant health and psychiatry journals, making the information accessible to a wider scientific community.

Chapter 4: Results

4.1 Socio-demographic Characteristics

A total of 275 patients (males 149/54.2% and females 126/45.8%) were included in the study. The mean age of the patients is 31.16 with minimum and maximum of 20 & 63 years respectively (Table 1).

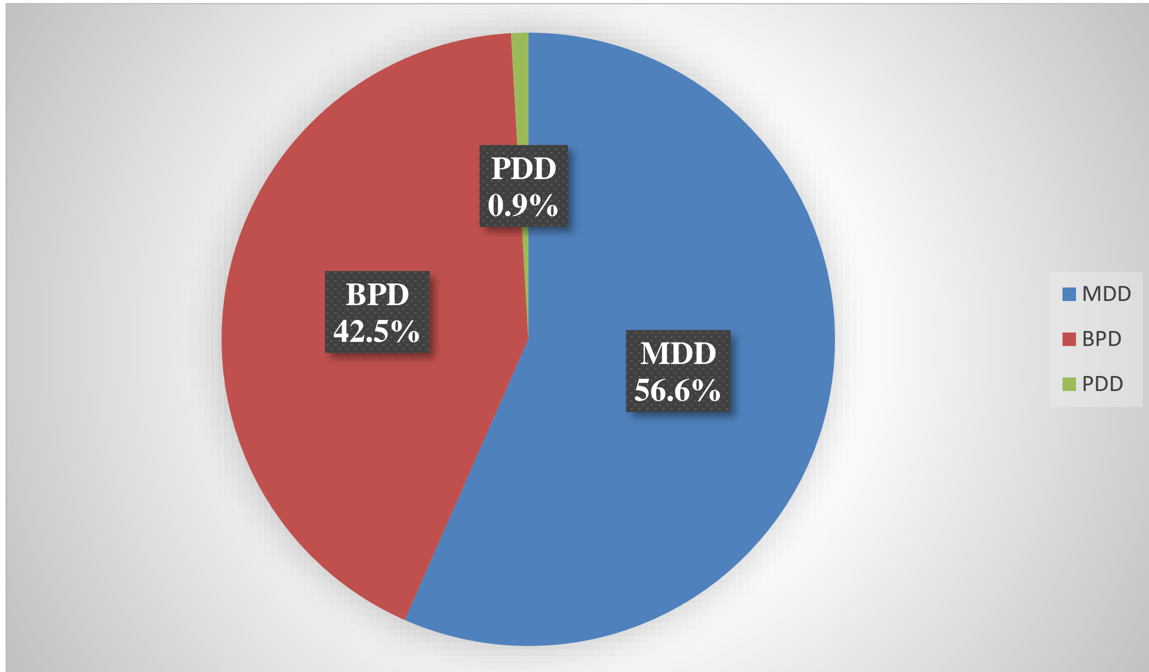
Table 1: Socio-demographic features of adult patients on follow up at outpatient clinic of psychiatry department, WUSTH from 01/01/2016 to 05/13/2016 E. C.

Variables	Category	Frequency	Percent	Cumulative Percent
Sex	Male	149	54.2	54.2
	Female	126	45.8	100.0
Age	18-25	93	33.8	33.8
	26-45	157	57.1	90.9
	46-65	25	9.1	100.0
Ethnicity	Gurage	215	78.2	78.2
	Amhara	13	4.7	82.9
	Oromo	26	9.5	92.4
	Other*	21	7.6	100.0
Marital status	Single	145	52.7	52.7
	Married	114	41.5	94.2
	Divorced	14	5.1	99.3
	Widowed	2	0.7	100.0
Educational status	Illiterate	34	12.4	12.4
	Primary school	132	48.0	60.4
	Secondary school	45	16.4	76.7
	College/University	64	23.3	100.0
Occupation	Unemployed	39	14.2	14.2
	Government employee	26	9.5	23.6
	Merchant	59	21.5	45.1
	Farmer	47	17.1	62.2
	Housewife	41	14.9	77.1
	Other**	63	22.9	100.0
Residency	Urban	116	42.2	42.2
	Rural	159	57.8	100.0

Other*: Silte, Hadiya, Wolayita   Other**: Daily laborer, NGO

4.2 Prevalence of mood disorders

Out of 275 patients whose medical records are reviewed, 106 (55.7% females and 44.3% males) were found to have Mood disorders which is 38.5%. Among diagnosed mood disorders, Major depressive disorder (MDD) is the highest (Figure 2).



Key: MDD – Major depressive disorder, BPD - Bipolar disorder, PDD-persistent depressive disorder

Figure 2: Prevalence of selected mood disorders among mood disorder patients on follow up at the outpatient clinic of psychiatry department, WUSTH from 01/01/2016 to 05/13/2016 E. C

4.3 Factors associated with mood Disorders

Multivariable logistic regression analysis shows that being female (AOR = 2.889, 95% CI 1.635-5.107), marital status – divorced (AOR = 6.386, 95% CI 1.666-24.479), substance use (AOR = 2.074, 95% CI 1.121-3.837) and chronic medical illnesses (AOR = 2.444, 95% CI 1.070-5.581) are significantly associated ($p < 0.05$) with mood disorders (Table 2).

Table 2: Factors significantly associated with mood disorders among patients on follow up at WUSTH, Psychiatry Department from 01/01/2016 to 05/13/2016 E.C.

Variables	Category	Mood Disorders		COR (95% CI)	P Value	AOR (95% CI)	P Value
		YES	NO				
Sex	Male	47	102	1		1	
	Female	59	67	1.911 (1.169-3.125)	0.01	2.889 (1.635-5.107)	0.000*
Marital status	Single	52	93	1		1	
	Married	42	72	1.043 (0.627-1.737)	0.871	0.835 (0.485-1.439)	0.516
	Divorced	11	3	6.558 (1.75-24.57)	0.005	6.386 (1.666-24.479)	0.007*
	Widowed	1	1	1.788 (0.11-29.19)	0.683	0.795 (0.044-14.488)	0.877
History of substance use	No	74	132	1		1	
	Yes	32	37	1.543 (0.888-2.680)	0.124	2.074 (1.121-3.837)	0.02*
Chronic medical illnesses	No	90	156	1		1	
	Yes	16	13	2.133 (0.981-4.637)	0.056	2.444 (1.070-5.581)	0.034*

*: significant association

From the total study population, quarter (25.1%) of them are using and/or has history of substance (Khat, Tobacco and/or Alcohol) use (Figure 3).

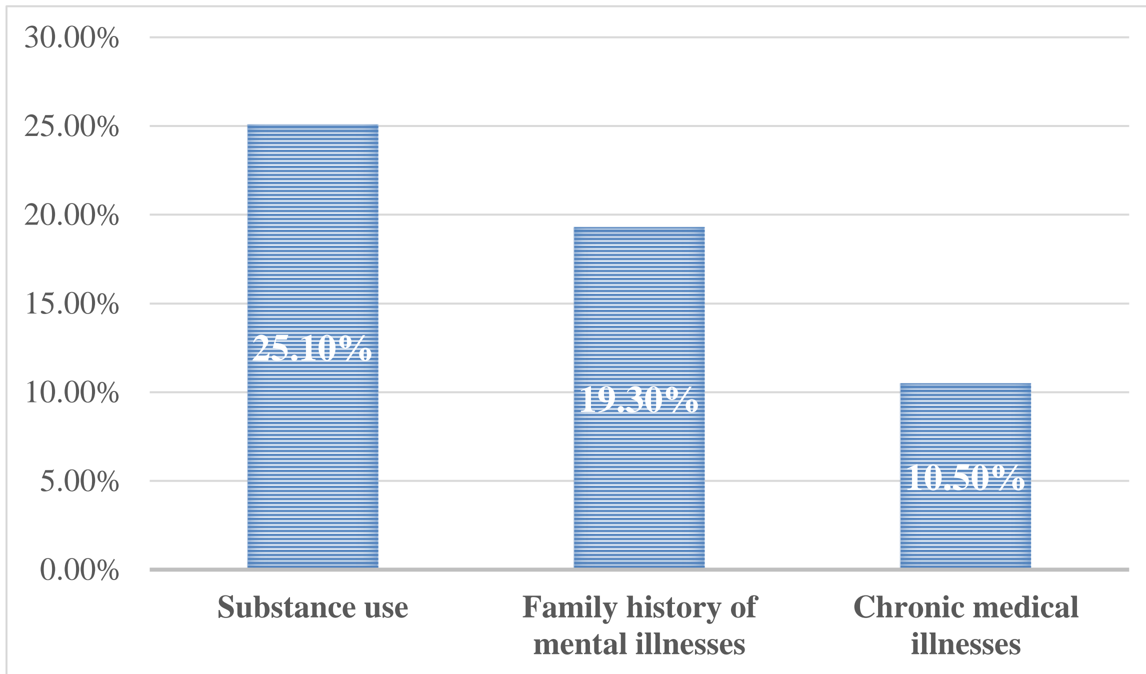


Figure 3: Measure of independent factors among patients on follow up at outpatient clinic of psychiatry department, WUSTH from 01/01/2016 to 05/013/2016 E. C.

Chapter 5: Discussion

The prevalence of mood disorders among adult patients attending the psychiatric outpatient clinic at Wolkite University Specialized Hospital was found to be 38.5%. This finding is comparable to study conducted in Jimma University Specialized Hospital, which reported a prevalence of 41.7% for mood disorders [8]. These results reinforce the substantial burden of mood disorders within Ethiopian healthcare settings, particularly in hospital-based populations.

Major depressive disorder (56.6%) was the most prevalent mood disorder among the study population, followed by bipolar disorder (42.5%) and persistent depressive disorder (0.9%). The high proportion of depressive disorders aligns with global and Ethiopian reports, including the World Mental Health Survey, which indicates that depression is the most common mood disorder globally and study done in Jimma University Specialized Hospital, which shows that MDD is 60% and BPD is 40% [8]. This highlights the pressing need for targeted interventions for depression within clinical settings.

The study identified significant associations between mood disorders and certain demographic and clinical factors. Females were 2.8 times more likely to have mood disorders compared to males (AOR = 2.889, 95% CI = 1.635–5.107, $p < 0.05$). This finding is consistent with other studies conducted in Ethiopia and globally, which attribute higher prevalence rates in females to hormonal, psychological, and social stressors [6] [7]. A cross-sectional study done in Addis Ababa shows female sex is significantly associated (AOR = 1.31, 95% CI) [14].

Marital status was significantly associated with mood disorders, with divorced individuals being 6 times more likely to have mood disorders compared to single individuals (AOR = 6.386, 95% CI = 1.666–24.479, $p = 0.007$). This may be attributed to the emotional and social instability often associated with marital dissolution. Similar findings were reported in Ethiopian National Health Survey on Prevalence of depression and associated factors, where being divorced and widowed was significantly associated with higher rates of depression (AOR=2.0, 95% CI 1.12–3.72 and AOR=2.4, 95% CI 1.39–4.28 respectively) [7].

Substance use (AOR = 2.074, 95% CI = 1.121–3.837, p = 0.02) and chronic medical illnesses (AOR = 2.444, 95% CI = 1.070–5.581, p = 0.034) were also significantly associated; where those who use substances are 2 times and those with chronic medical illnesses are 2.4 times more likely to have mood disorders. These findings are supported by previous studies that document the bidirectional relationship between chronic illnesses, substance use, and psychiatric disorders. Chronic illnesses often exacerbate mental health issues due to the stress of managing long-term conditions, while substance use can trigger or worsen mood symptoms. Similar findings are observed in Ethiopian National Health Survey on Prevalence of depression and associated factors where alcohol consumption (AOR=2.3, 95% CI 1.87–2.89) and chronic medical illnesses (AOR=2.6, 95% CI 2.03–3.25) significantly associated with depression [7].

5.2 Strengths and limitations of the study

- **Strengths**

1. Hospital-Based Focus: This study provides critical insights into mood disorders within a clinical setting, addressing a research gap in Ethiopia.

2. Reliable Sample Size: The sample size of 275 participants is adequate to draw meaningful conclusions and enhances the statistical power of the study.

3. Use of Multivariable Analysis: Adjusting for confounding factors strengthens the reliability of the associations identified.

- **Limitations**

1. Cross-Sectional Nature: The study cannot establish causal relationships between the identified factors and mood disorders.

2. Single-Site Study: Conducted in one hospital, the findings may not be generalizable to other regions of Ethiopia or broader populations.

Conclusion

This study revealed a significant burden of mood disorders among adult patients attending the psychiatric clinic of Wolkite University Specialized Hospital, with a prevalence of 38.5%. Major depressive disorder was the most common diagnosis. Factors such as female gender, divorced marital status, substance use, and chronic medical illnesses were strongly associated with mood disorders. These findings underscore the critical need for targeted mental health interventions and policies to address the high burden of mood disorders in Ethiopia, particularly in rural and resource-limited settings.

Recommendations

- **For Healthcare Providers**

1. Integrate Routine Mental Health Screening: Implement routine screening for mood disorders, particularly for high-risk groups such as females, divorced individuals, and those with chronic medical conditions or substance use.

2. Holistic Care Approach: Foster collaboration between psychiatry and other departments (e.g., internal medicine) to manage comorbid conditions effectively.

- **For Policy Makers**

3. Expand Mental Health Services: Increase access to mental health care in rural areas by establishing community-based mental health programs and expanding telepsychiatry services.

4. Address Stigma: Develop public awareness campaigns to reduce stigma and promote help-seeking behavior for mental health issues.

- **For Researchers**

5. Conduct Longitudinal Studies: Investigate the causal relationships between identified risk factors and mood disorders.

6. Explore Preventive Strategies: Focus on preventive mental health programs targeting at-risk populations, such as individuals undergoing marital disruption or managing chronic illnesses.

- **For Communities**

7. Promote Social Support Systems: Encourage community-based support groups to provide emotional and social assistance to individuals with mood disorders. By addressing these recommendations, stakeholders can improve the understanding, management, and prevention of mood disorders in clinical and community settings in Ethiopia.

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Annex

Questionnaire

Part 1: Sociodemographic data

Sex 1: Male 2: Female	Age	Ethnicity 1: Gurage 2: Amhara 3: Oromo 4: Wolayita 5: Silte 6: Other	Marital Status 1: Single 2: Married 3: Divorced 4: Widowed 5: Other	Education Level 1: Illiterate 2: Primary 3: Secondary school 4: College/University	Occupation 1: unemployed 2: Government Employee 3: Merchant 4: Farmer 5: Housewife 6: Other	Residence 1: Urban 2: Rural

Part 2: Clinical and Psychosocial factors

1. Does the patient have mood disorder? 1: Yes 2: No
2. If 'Yes' to the above question, which type of mood disorder does he/she have?
   1: Bipolar disorder 2: Major depressive disorder 3: Persistent depressive disorder

3. Does the patient have family history of mental illnesses? 1: Yes 2: No
4. Does the patient have history of substance use? 1: Yes 2: No
5. If 'Yes' to question No. 4, Which type of Substance?
   1: Alcohol 2: Tobacco 3: Khat 4: Other
6. Does the patient have known Chronic medical illnesses? 1: Yes 2: No