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### Prevalence of suicidal ideation and allied factors among patients with depressive disorder visiting psychiatry outpatient unit of dessie referral hospital, South Wollo, Ethiopia

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#### ABSTRACT

##### Background

Suicide is the act of intentionally causing one's own death. It is a psychiatric emergency. Depressive disorder continues to be associated with an under-recognized risk for suicidal ideation. Suicidality in depressive disorder is not only a predictor of future attempted suicide and completed suicide; it is also associated with reducing the quality of life and people who die by suicide are frequently undiagnosed and untreated peoples with depressive disorder.

##### Objective

The aim of this study was to assess the prevalence and allied factors of suicidal ideation patients with depressive disorder at outpatient unit of Dessie Referral Hospital, South Wollo, Ethiopia.

##### Methods

An Institution based cross-sectional study was conducted. A systemic random sampling technique was used to get 423 patients from April to May 2015. Composite international diagnostic interview was used to collect data. Data entered in to EPI-INFO version 7 and transferred to SPSS version 20 for further analysis. Logistic regression was carried out and odds ratio with 95% confidence intervals was computed.

##### Results

The prevalence of suicidal ideation was found to be to 26.6%. Female sex [AOR=2, 95%CI: 1.04-2.88], Those who live alone [AOR=3.64, 95%CI:2.11-6.96], Family history of suicidal attempt [AOR=4.05, 95%CI: 2.49-6.58], and those who ever use substance [AOR=1.77, 95%CI: 1.07-2.91] were associated with suicidal ideation.

##### Conclusion and recommendations

Prevalence of suicidal ideation high among people with depressive disorders patients. In this study Sex, living alone, ever substance use and family history of suicidal attempt, were significantly associated with suicidal ideation. Effective strategies like; proper treatment of depressive disorder, strengthening social ties and prevention of psychoactive substance use have to be designed to prevent completed suicide among patients with depressive disorder.

**Keywords:** Prevalence, Suicidal ideation, Allied factors, Patients, Depressive disorder, Psychiatry outpatient unit

## INTRODUCTION

Globally suicide mortality rate was 16/ 100,000 deaths. According to W.H.O estimates for the year 2020 and based on current trends approximately 1.53 million people will die from suicide and 10 to 20 times more people will attempt suicide worldwide [1]. According to National Vital Statistics System of the Centers for Disease Control and Prevention (CDC) in U.S the annual mortality rate of suicide is the 10th leading cause of death for all age groups in 2010 accounting for approximately 38,364 suicides [2]. Depressive disorder is one of the strongest co-relates of suicidal ideation and attempt that plays role in the development and sustained of suicide [3]. Suicide has also longitudinal relationships with psychological, social-environmental, low level of social and family support and substance abuse that are significantly related with suicidal ideation and attempt. Attempted suicide is one of the major risk factors for completed suicide which is associated with depressive disorder and is also a potentially fatal event [4]. According to study done in USA the life time risk of suicide among patients with untreated depressive disorders is nearly 20% and 141/100,000 respectively [5]. The risk of suicide in person with major depressive disorder is roughly 20 times than that of general population and suicide is estimated to be under-reported for multiple reasons including stigma, religious concerns and social attitudes [6]. Study done on the current suicidal ideation and past suicide attempts among patients with depressive disorders showed that those who had attempted suicide revealed greatly correlated with depressive disorder. A regression analysis revealed that pastsuicide attempts and hopelessness are significantly accounted for the presence of current suicidal ideation [7]. Depressive disorder can affect individuals at any stage of the lifetime. It appears to be chronic illness with a high risk of recurrence over one's lifetime especially when adequate treatment is not available and suicide remains one of the most common outcomes of depression. So significant numbers of depressive patients end their lives by committing suicide [8].

A Longitudinal study conducted in European outpatient psychiatric Hospital indicates that suicidal ideation and suicidal attempt farther

increases when depressive disorder is co-morbid with disruptive behavior, substance abuse and anxiety [9]. Suicide is rated as one of the first eight leading causes of death annually in South Africa. About 5000 suicides were recorded yearly in South Africa [10]. Study done by Jacobson made a retrospective analysis of medical records from Nakamte General Hospital in western Ethiopia between 1966 and 1972 incidence rate of attempted suicide to be 4.5/100.000 [11]. There is limited study on the prevalence and risk factors of suicidal ideation and attempt among people with depressive disorder in Ethiopia. Therefore findings of this study will contribute to develop appropriate plan and intervention to reduce problem and also can serve as base line for those who wish to conduct study on this area.

## Objective

The aim of this study was to assess the prevalence and allied factors of suicidal ideation patients with depressive disorder at outpatient unit of Dessie Referral Hospital, South Wollo, Ethiopia.

## METHODOLOGY

### Study Area and Period

This Study was conducted at Dessie Referral Hospital psychiatry clinic Dessie is located in South Wollo administrative zone, Amhara National Regional state, North East Ethiopia. Dessie Referral Hospital is the only Referral Hospital which serves more than five million people of the South Wollo zone and neighboring zones. Psychiatric clinic in the Hospital were initiated in 1981 and currently providing outpatient services for psychiatric patients. the hospital has no psychiatrist but providing services with bachelor and master of science holders in psychiatry and mental health.

### Source Population

All patients already diagnosed as having depressive disorder and having follow up in psychiatric unit of Dessie Referral Hospital.

### Study Population

All patients already diagnosed as having depressive disorder and having follow up in

psychiatric unit of Dessie Referral Hospital during the study period.

### Sample Size And Sampling Procedure

A total of 423 patients with depressive disorder were included in the study. The sample size was determined using single population proportion formula and the sample size was calculated as follow.  $n = (Z_{\alpha/2})^2 \frac{p(1-p)}{d^2}$  Where P = Estimated proportion assumed as 50% (0.5), d = Absolute precision or tolerable margin of error (d) = 5% = 0.05.  $Z_{\alpha/2} = Z$  value at  $(\alpha = 0.05) = 1.96$  corresponding to 95% confidence level. Systematic random sampling technique was utilized to select study participants.

### Operational Definitions

- **Suicidal ideation** is defined as if respondent respond yes to a question; have you seriously thought about committing suicide in the past one month?
- **Ever substance use** use of at least one specified psychoactive substance which has no proved medical purpose in life time.
- **Current substance use** use of at least one specified psychoactive substance which has no proved medical purpose in the last three months.
- **Depression** Using PHQ-9 scale those scoring  $\geq 5$ .

### Data Collection and quality control

A structured interviewer administered questionnaire was used adapted from World Mental Health (WMH), Survey Initiative Version of the World Health organization (WHO), and Composite International Diagnostic Interview (CIDI). Data was collected by professional psychiatric nurses trained for one day on data collection tool. Pre-test was conducted on 22 (5%) of the sample size. Questionnaire was translated to Amharic language by professionals to be easily

understood by respondents and avoid inconsistencies of interviewing among data collectors.

### Data Processing And Analysis

Data was checked for completeness and consistency. Then it was coded and entered in the computer using Epi info version 7 software, transfer to and analyzed using SPSS version 20. Logistic regression analysis was conducted to identify factors associated with suicidal ideation. Those variables having P-value of less than 0.05 was used to determine significance. The strength of the association was presented by odds ratio at 95% confidence interval.

### Ethical Consideration

Ethical clearance was obtained from University of Gondar and Amanuel Mental Specialized Hospital. A formal letter of permission was obtained from Amanuel Mental Specialized Hospital and was submitted to Dessie Referral Hospital. Each participant was informed about the purpose of study. Confidentiality of data obtained from individual study participants maintained throughout the study. Verbal informed consent was obtained from each respondent.

## RESULTS

### Socio-demographic characteristics depressive disorder

A total of 410 patients responded for this study making a response rate of 96.6%. Out of 410 study subjects 248 (60.5%) of respondents were Female, 293 (71.3%) of the participants were Muslim and 71(17.3%) of the respondents were government employed. Three hundred forty three (86.1%) were Amhara by ethnicity and 319 (77.8%) of respondents were living alone (Table1).

**Table 1. Socio-demographic characteristics of patients with depressive disorder visiting psychiatric unit of Dessie referral hospital, north east Ethiopia 2015**

VARIABLES	CATEGORY	FREQUENCY	PERCENTAGE
Sex	Female	162	39.5
	Male	248	60.5
Age	18-29	201	49.0
	30-44	158	39.0
	45	51	12.0
Religion	Orthodox	103	25.5
	Muslim	293	71.3
	Protestant	8	2.0
	Catholic	6	1.5
Educational status	Unable to read & write	163	39.7
	1-8grade	66	16.1
	9-12grade	120	29.3
	Above 12	61	14.9
Marital status	Single	80	19.5
	Married & living together	205	50.0
	Married but not living together	40	9.8
	Divorced	45	10.9
	Widowed	40	9.8
Ethnicity	Amhara	353	86.1
	Oromo	33	8.0
	Tigre	11	2.7
	Gurage	13	3.2
Living status	with Family	319	77.8
	Alone	91	22.2
Perceived family help	Yes	208	50.7
	No	202	49.3

### Clinical Characteristics of Participants

Two hundred six (50.2%) of participants diagnosed as having depressive disorder for less than 1 year. Regarding frequency of episode, 170 (41.2%) of study participants had experienced symptoms of depression within one week period and 219 (53.4%) every one week to one month

period. One hundred ninety three (47.1%) reported that they had family history of depressive disorder. Majority, 326 (79.5%) respondents had no family history of suicidal attempt where as 382 (93.2%) of study participants had no family member who has committed suicide.

**Table 2. Clinical characteristics study participants visiting psychiatric unit of Dessie Referral Hospital, 2015.**

Variables	Category	Frequency	Percentage
Duration of illness	<1year	206	50.2
	1-5years	142	34.6
	>5years	62	15.2
Frequency of episode	1 week-1month	170	41.3
	1month-1 year	219	53.4

	>1year	21	5.3
Status of controlling the illness	Fully Controlled	189	46.1
	partially controlled	158	38.5
	Not controlled	63	15.4
Known diagnosed medical illness	yes	89	21.6
	No	321	78.3
Family history of depressive disorder	Yes	193	47.1
	No	217	52.9
Family history of committing suicide	yes	28	6.8
	No	382	93.2

### Non medical use of psychoactive substances

One hundred eighty nine (46.1%) of participants reported that they had used non prescribed psychoactive substance Among those who have

used these psychoactive substances majority, 157(83.1%) use khat. One hundred seventy two (42.0%) had current use of these substances.

**Table 3. Frequency distribution of substance use among people with depressive disorder visiting psychiatric unit of Dessie Referral Hospital, north east Ethiopia.**

Category	Response	Frequency	Percentage
Ever use of any psychoactive substance	Yes	189	46.1
	No	21	53.9
Ever use of khat	Yes	157	83.1
	No	253	16.9
Ever use of alcohol	Yes	19	10
	No	391	90
Ever use of tobacco	Yes	13	6.8
	No	397	93.2
Current use of any psychoactive substance	Yes	172	42
	No	238	58
Current use of khat	Yes	116	28.3
	No	294	71.7
Current use of alcohol	Yes	28	16.3
	No	382	83.7
Current use of tobacco	Yes	28	16.3
	No	382	83.7

### Prevalence of suicidal ideation

In this study the prevalence of suicidal ideation was 26.6%. The prevalence was higher among female (58.5%) than male and among those who had suicidal ideation, Majority, 91(83.5%) had reported that they thought to kill themselves on average once a month.

On multiple logistic regression, being female [AOR=2.95% CI: 1.04-2.88], Living alone [AOR=3.64, 95% CI: 2.11-6.96], having family history of suicidal ideation [AOR=4.05,95% CI:2.49-6.58] and ever use of psychoactive substances [AOR=1.77, 95%CI: 1.07-2.91] had stastically significant association with suicidal ideation. (Table 4)

### Factors associated with suicidal ideation

On Binary analysis sex, living with family, ever substance use, and family history of suicidal attempt showed association with suicidal ideation.

**Table 4. Factors associated with suicidal ideation among people with depressive disorder visiting psychiatric unit of Dessie Referral Hospital, north east Ethiopia 2015**

Variable	Category	Suicidal ideation		COR (95% CI)	AOR(95%CI)
		Yes	No		
Age	18-29	36	100	1.18(0.66-2.11)	1.07 (0.80-1.44)
	30-44	44	133	1.00	1.00
	≥45	29	68		
Sex	Male	11	118	1.00	1.00
	Female	98	183	1.62 ( 1.01-2.61)	2 (1.04-2.88) *
Living status	With family	66	248	1.00	1.00
	Alone	43	43	3.9 ( 2.36-6.45 )	3.64 (2.11-6.96)***
Family history of suicidal attempt	Yes	60	65	4.45 (2.78-7.09 )	4.05(2.49-6.58)*
	No	49	236	1.00	1.00
Ever use of psychoactive substance	Yes	69	140	1.98(1.26-3.11)	1.77(1.07-2.91)**
	No	40	161	1.00	1.00
Perceived family support	Yes	73	190	0.84(0.5-1.34)	0.84(0.53-1.34)
	No	36	111	1.00	1.00

## DISCUSSION

This institutional based cross sectional study was conducted to assess suicidal ideation and associated factors among patients with depressive disorder. The prevalence of suicidal ideation in this study was 26.6%. This finding is lower when compared with studies in Helsinki and Finland that was 58 % [15]. The difference could be due to variation in sample size and the tool used to screen both suicidal ideation and depressive disorder.

The prevalence in this study was also lower than a range from 47% to 69% reported by a study done among adult patients with depressive disorders in United States Montefiore Medical center [16]. This difference could be due to variation in socio- economic and culture from which patients belong. This study showed that female patients with depressive disorder were about 1.62 times more likely to have suicidal ideation compared to male patients [AOR=1.62, 95%CI: 1.04-2.88].

## CONCLUSION

The prevalence of suicidal ideation among people with depressive disorders in this study was

lower when we compare with other studies. Being female, living alone, ever substance use and family history of suicidal attempt, were significantly associated with suicidal ideation.

## Authors' contribution

AB conceived and designed study, collected, analyzed and interpreted data; YG and PK drafted the manuscript and finalized for important intellectual content. All authors read the draft manuscript and approved the final copy for submission.

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## REFERENCES

- [1]. Sokero, TP, Eerola MH. Decline in suicidal ideation among patients with MDD. *Journal of Affective Disorders* 95, 2006, 95-102.
- [2]. Gvion Y, Apter A. Aggression, impulsivity and suicide behavior: a review of the literature. *Suicide life Threat Behav* 15, 2011, 93-112.
- [3]. McKibben JBA, Mental health service utilization in the U.S. Army. *Psychiatry Serv* 64, 2013, 347-353.
- [4]. Crosby, A. E. et al. Suicides—United States, Mortality and Morbidity *Weekly Review* 16, 2011, 56-59.
- [5]. Isacson G. suicide prevention. a medical breakthrough *acta psychiatrica Scandinavica*. 102, 2011, 113-117.
- [6]. American Association Suicidology. *Fact Sheets: Reliable information about suicide* 2011.
- [7]. Montross LP. Suicidal ideation and suicide attempts among middle-aged and older patients with schizophrenia spectrum disorders and concurrent subsyndromal depression. 12, 2008, 884-90.
- [8]. Bondy B, Buettner A, Zill P. Genetics of suicide. *Mol Psychiatry* 11, 2006, 336-351.

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