



# International Journal of Medicine and Pharmaceutical Research

CODEN (USA): IJCPNH | ISSN: 2321-2624  
Journal Home Page: [www.pharmaresearchlibrary.com/ijmpr](http://www.pharmaresearchlibrary.com/ijmpr)



## A Study on Prevalence and Risk Factors of Depression

Vashista Kanakam, Karnakar Reddy Yalla\*, Dr. B. Jaggadeesh Babu, Dr. B. Agaiah Goud

SRR College of Pharmaceutical Sciences, Valbhapur (V), Elkathurthy (M), Warangal (U), Telangana State-505476

### ABSTRACT

Depression is a worldwide public health issue and its prevalence increases each year. It is essential to understand depression in order to prevent and treat depression. The primary objective of this study was to evaluate the prevalence and risk factors of depression. A hospital based cross sectional study was carried out for six months. The prevalence and risk factors were evaluated. By calculating, the prevalence of depression was found to be 42.85% in a period of six months. The most affected age group was found to be in between 28-35 years. Family problems were found to be the highest cause of depression followed by stress, bereavement, financial issues etc. 28.5% of the patients were having suicidal tendency, 68.5% were not having suicidal tendency where 3% of them have already attempted suicide. By this study it was concluded that Prevalence of depression was found to be 42.34% in a period of six months. Females were more likely to be affected with depression when compared to that of males.

**Keywords:** Depression, Prevalence, Risk factors, Suicidal Tendency, WHO.

### ARTICLE INFO

#### \*Corresponding Author

**Karnakar Reddy Yalla**

SRR College of Pharmaceutical Sciences,  
Valbhapur (V), Elkathurthy (M), Warangal (U),  
Telangana State-505476



**ARTICLE HISTORY:** Received 05 April 2020, Accepted 30 June 2020, Available Online 10 August 2020

©2020 Production and hosting by International Journal of Medicine and Pharmaceutical Research. All rights reserved.

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

**Citation:** Karnakar Reddy Yalla, et al. A Study on Prevalence and Risk Factors of Depression. *Int. J. Med. Pharm. Res.*, 2020, 8(4): 100-105.

### CONTENTS

1. Introduction. . . . .	100
2. Materials and Methods. . . . .	101
3. Results and Discussion . . . . .	101
4. Conclusion. . . . .	105
5. References. . . . .	105

### 1. Introduction

Depression is a world-wide public health issue and its prevalence increases each year. It is essential to understand depression in order to prevent and treat depression. Depression is a common illness characterized by persistent sadness and a loss of interest in activities that one normally enjoys, accompanied by an inability to carry out daily activities, for at least two weeks. In addition, there may be a loss of energy; a change in appetite; sleeping more or less; anxiety; reduced concentration; indecisiveness; restlessness;

feelings of worthlessness, guilt, or hopelessness; and thoughts of self-harm or even committing suicide. Globally, the total number of people with depression was estimated to exceed 300 million in 2015, equivalent to 4.3% of the world's population. Depression is ranked as the single largest contributor to global disability (7.5% of all years lived with disability in 2015). At its worst, depression can lead to suicide, over 800 000 people die due to suicide every year. Suicide is the second leading cause of death in

15-29-year-olds. In India, the National Mental Health Survey (NMHS)2015-16 reveals that nearly 15% Indian adults need active intervention for one or more is estimated that in 2012, India had over 258,000 suicides, with the age-group of 15-49 years being mental health issues and one in 20 Indians suffers from depression. The life-time risk of depression in males is 8-12% and in females is 20-26%. However, the life-time risk of major depression (or depressive episode) is about 8%. Depressive disorders affect large numbers of children, adolescents, middle-aged groups and the elderly, both men and women, residing in urban and rural areas and slums of India. A recent study found that depressive symptoms accurately predict suicidal ideation in 94.2% of cases, suggesting a close link between depressive symptoms and suicidal ideation.

Although the relationship between depression and suicidal ideation is still controversial, it is suspected that depression can lead to suicidal ideation and proactive attempts at suicide. About 90% of people who kill themselves have depression symptom, and 47% to 74% of population risk of suicide is contributed by depression and its other psychiatric disorders. When it comes to countries, India is the most depressed country in the world, according to the World Health Organisation, followed by China and the USA. A study reported in WHO, conducted for the NCMH (National Care Of Medical Health), states that at least 6.5 per cent of the Indian population suffers from some form of the serious mental disorder, with no discernible rural-urban differences.

**Objectives:**

The study was conducted to evaluate the disease prevalence, to identify the risk factors and to counsel the patients

**2. Material and Methods**

A hospital based cross sectional study was carried out for a period of six months.

**Inclusion criteria:-**

- ✓ Patients with depression
- ✓ Pregnant and lactating women
- ✓ Patients with chronic diseases

**Exclusion criteria:**

Patients who are not diagnosed with depression.

**Study procedure:**

The study was initiated at single-centre by selecting the patients based on inclusion criteria of the study. Patients with depression were enrolled into the study. This study was used to evaluate the prevalence and risk factors of depression

**Statistical method:**

Statistical analysis was performed using Microsoft office excel to determine the prevalence and risk factors of depression.

**3. Results and Discussion**

**Prevalence:**

A total of 5180 people who visited the hospital were enrolled into the survey. Out of 5180 , 2220 were people were found to be depressed. By calculating, the prevalence

of depression was found to be 42.85% in a period of six months (Period Prevalence). The prevalence was calculated using the following formula.

$$\text{Prevalence (\%)} = \frac{\text{Number of people with depression}}{\text{Total number of people measured}} \times 100$$

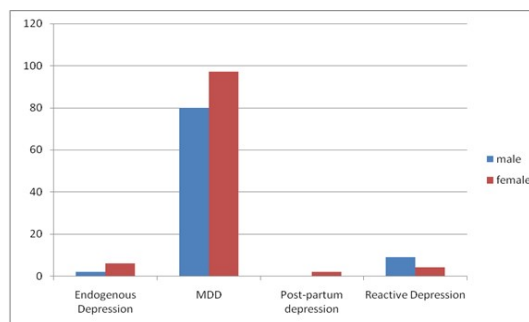
$$\text{Prevalence (\%)} = \frac{2220}{5180} \times 100$$

$$= 42.85\%$$

of the 2220 patients, 1280 (57.65%) patients were found to be females and 940 (42.34%) patients were found to be males.

**Gender:**

A total of 200 patients were enrolled into the study. Out of them 109(54.5%) were females and 91 (45.5%) were males.



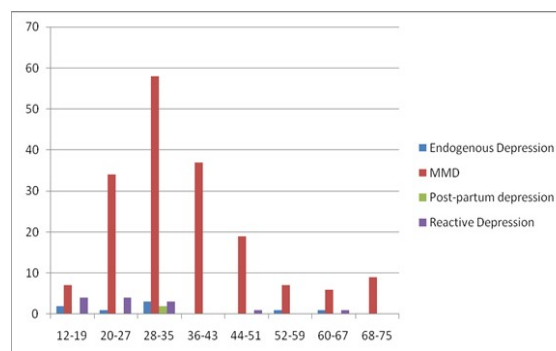
**Fig 1:** Distribution of study subjects according to Gender

**Age Wise:**

The most affected age group was found to be in between 28-35 years. The level of significance was found to be  $p < 0.03$  using Chi-Square test. Age wise distribution was calculated using the formula:

$$i = \frac{L-S}{C}; C = 1 + 3.322 \log n; i = \text{class interval}; L = \text{large value}; S = \text{small value}; n = \text{sample size}$$

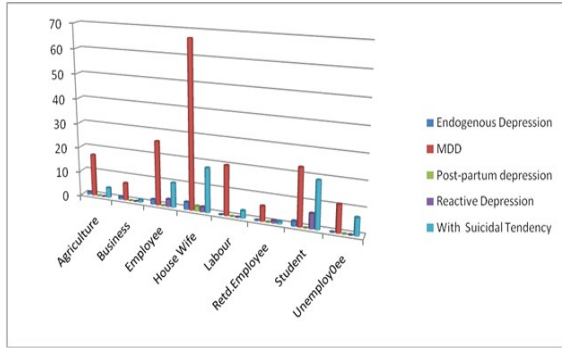
$$C = 7.875; i = \frac{75-12}{7.875}; i = \frac{63}{7.875}; \text{ i.e. } i = 8$$



**Fig 2:** Distribution of study subjects according to Age

**Occupation:**

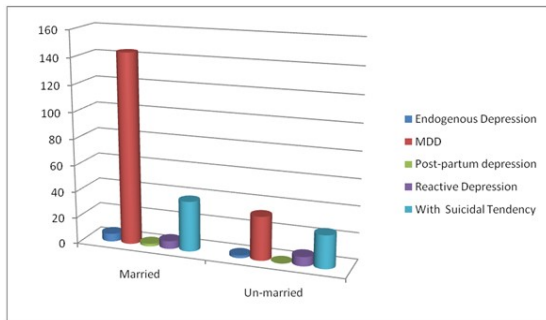
The occupation of the subjects were assessed and the highest percentage of people were found to be housewives i.e, 74 (37%) followed by employees 31 (15.5%), students 31 (15.5%), labor 20 (10%), Agriculture 18 (9%), un-employee 11 (5.5%), business 8 (4%), Retd. Employee 7 (3.5%).The highest Suicidal tendency is seen in students i.e., 19 (30.15%) followed by Housewives 18 (28.57%), Employees 10 (15.87%), un-employees 7 (11.11%), agriculture 4 (6.34%), labor 3 (4.7%), Business 1(1.58%), Retd. Employee 1 (1.58%).



**Fig 3:** Distribution of study subjects according to Occupation

**Marital Status:**

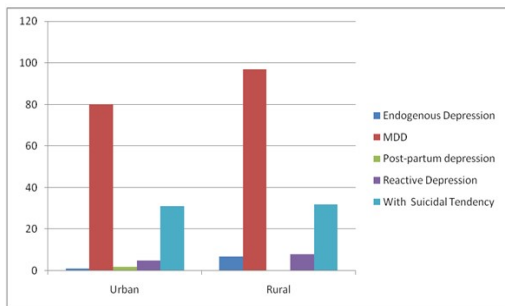
Out of 200 patients, 158 (79%) were married and 42 (21%) were un-married. The suicidal tendency in married patients was found to be 60.31%(38) and in un-married was found to be 39.68% (25).



**Fig 4:** Distribution of study subjects according to Marital Status

**Region:**

Out of 200, 112 (56%) people are from rural areas and 84 (44%) are from urban areas. The suicidal tendency was found to be 50.79%(32) in people belonging to rural areas and 49.20% (31) in people belonging to urban areas.

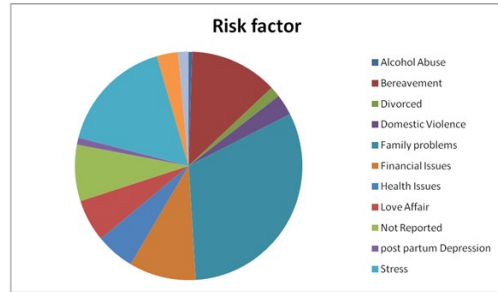


**Fig 5:** Distribution of study subjects according to Region

**Risk Factors:**

In this study the risk factors associated with depression were identified by interviewing the depressed patients. Family problems were found to be the highest cause of depression i.e.,63 (31.5%) followed by stress 33(16.5%), Bereavement 25 (12.5%), Financial issues 19 (9.5%), love affair 12 (6%), health issues 11 (5.5%), Domestic violence 6 (3%), un employment 6 (3%), widowed 3 (1.5%),

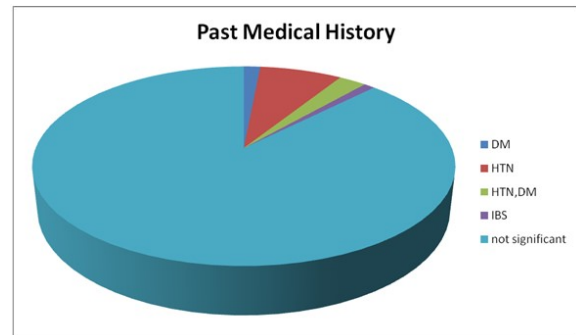
Divorced 3 (1.5%), Postpartum depression PPD 2 (1%), alcohol abuse 1 (0.5%) and 16 (8%) were not reported.



**Fig 6:** Distribution of study subjects according Risk Factors

**Past Medical History (PMHX):**

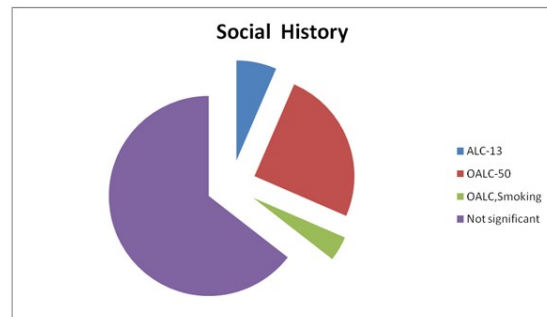
Out of 200 patients, 175 (87%) were not significant and 15 (7.5%) were found to be Hypertensive , 5 (2.5%) were found to be having both Hypertension (HTN) and Diabetes Mellitus (DM) 3 (1%) were having diabetes and 2 (1%) were having Inflammatory bowel syndrome (IBS).



**Fig 7:** Distribution of study subjects according to Past Medical History

**Social History (SHx):**

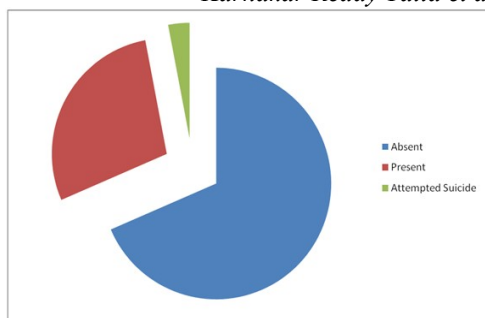
Of the 200 patients , 50 (25%) patients were found to be occasionally alcoholic (OALC), 13 (6.5%) were found to be Alcoholic (OALC), 8 patients were having both Occasionally alcoholic and smoking habits and 129 (64.5%) were not significant.



**Fig 8:** Distribution of study subjects according to Social History

**Suicidal Tendency:**

Out of 200 patients with depression 137 (68.5%) were not having suicidal tendency, 57 (28.5%) were having suicidal tendency and 6 (3%) have already attempted suicide.



**Fig 9:** Distribution of study subjects according to Suicidal Tendency

**Discussion:**

A cross-sectional study was conducted for a period of six months and the prevalence was found to be 42.85%. Some other studies found prevalence of 45.9% in urban slums of Mumbai and in rural community of West Bengal showed a prevalence of 52.2%. Most of the studies showed that female gender has higher risk of developing depression than males and our study showed same association as other studies, where Females were found to be more affected with depression i.e., 57.65% than males i.e., 42.34%, which is in supportive to the data obtained from other studies. In this study the factors associated with depression were evaluated using Cross sectional study by interviewing the depressed patients who visited the hospital. A total of 200 patients were enrolled into the study. Of 200 patients, 109 (54.5%) were females and 91(45.5%) were males. The most of the people affected with depression were found to be in between 28-35 years. Housewives (37%) were found to be mostly affected with depression followed by employees (15.5%), students (15.5%). However the suicidal tendency is mostly seen in students (30.15%) followed by housewives (28.57%) and employees (15.87%). In this study, Family problems were found to be the highest cause

of depression (31.5%) followed by Stress (16.5%), Bereavement (12.5%), Financial Issues (9.5%), Love Affair (6%), Health Issues(5.5%), Domestic Violence (3%), Unemployment (3%), widowed (1.5%), Postpartum Depression (1%), Alcohol Abuse (0.5%) where as 8% of the cases were not reported, which partially supports to the data obtained from some other similar studies. Several researchers have also shown the prevalence of depression is higher in rural areas compared with urban areas. In our study, Out of 200, 112 (56%) people are from rural areas and 84 (44%) are from urban areas, which is in supportive to the data obtained from other studies. The suicidal tendency was found to be 50.79%(32) in people belonging to rural areas and 49.20% (31) in people belonging to urban areas. Alcohol and tobacco were the substances abused by the patients. 25% of the patients were found to be occasionally alcoholic (OALC), 6.5% were found to be Alcoholic, 4% patients were having both Occasionally alcoholic and smoking habits and 64.5% were not significant. Out of 200 patients with depression, 68.5% were not having suicidal tendency, 28.5% of the patients reported suicidal tendency and 3% have already attempted suicide.

**Strengths:**

The strength of this study is that it is performed on relatively large sample size with significant results. The present study is very much useful to know the most affected population with depression which are separately categorized into different groups i.e., based on Age, gender, marital status, occupation, risk factor, region, social history and it also show depressive patients along with suicidal tendency.

**Limitations:** Only patients who visited the hospital were enrolled into the study. The study was conducted only in single center. The study doesn't focus on diet, sleeping patterns and treatment patterns of the patient.

**Table 1** Distribution of study subjects according to gender

Gender	Depression type			
	Endogenous Depression	MDD	Post-partum depression	Reactive Depression
Male (91)	2	80	0	9
Female (109)	6	97	2	4
Total (200)	8	177	2	13

**Table 2** Distribution of study subjects according to Age

Age group	Depression type				Significance (P-<0.05)
	Endogenous Depression	MDD	Post-partum depression	Reactive Depression	
12-19	2	7	0	4	0.03
20-27	1	34	0	4	
28-35	3	58	2	3	
36-43	0	37	0	0	
44-51	0	19	0	1	
52-59	1	7	0	0	
60-67	1	6	0	1	
68-75	0	9	0	0	
Standard	1.07±1	19.08±22.13	0.71±0.25	1.77±1.62	

deviation (SD)				
----------------	--	--	--	--

**Table 3** Distribution of study subjects according to Occupation

Occupation	Depression type				Suicidal Tendency
	Endogenous Depression	MDD	Post-partum depression	Reactive Depression	
Agriculture	1	17	0	0	4
Business	1	7	0	0	1
Employee	2	26	0	3	10
House Wife	3	67	2	2	18
Labour	0	20	0	0	3
Retd. Employee	0	6	0	1	1
Students	2	23	0	6	19
Unemployee	0	11	0	0	7

**Table 4** Distribution of study subjects according to Marital Status

Marital Status	Depression type				Suicidal Tendency
	Endogenous Depression	MDD	Post-partum depression	Reactive Depression	
Married	6	144	2	6	38
Un-married	2	33	0	7	25

**Table 5** Distribution of study subjects according to Region

Region	Depression type				Suicidal Tendency
	Endogenous Depression	MDD	Post-partum depression	Reactive Depression	
Urban	1	80	2	5	31
Rural	7	97	0	8	32

**Table 6** Distribution of study subjects according Risk Factors

Risk factor	Number of patients
Alcohol Abuse	1
Bereavement	25
Divorced	3
Domestic Violence	6
Family problems	63
Financial Issues	19
Health Issues	11
Love Affair	12
Not Reported	16
post-partum Depression	2
Stress	33
Unemployment	6
Widow	3

**Table 7** Distribution of study subjects according to PMHx

Condition	Number of patients
DM	3
HTN	15
HTN,DM	5
IBS	2
not significant	175

**Table 8** Distribution of study subjects according to SHx

Habit	Number of patients
ALC	13
OALC	50

OALC, Smoking	8
Not significant	129

**Table 9** Distribution of study subjects according to suicidal tendency

Suicidal Tendency	Number of patients
Absent	137
Present	57
Attempted Suicide	6

#### 4. Conclusion

By this study it was concluded that prevalence of depression was found to be 42.34% in a period of six months. Females were more likely to be affected with depression when compared to that of males. The most common factors associated with depression were Family Problems, Stress, Bereavement and Financial Issues. They should be focused on so as to reduce the probability of occurrence of depression. Depression is an extremely important and common condition and deserves careful attention. As people with Depression tend to have suicidal tendency, early treatment and proper mental support from the family and society may play a major role in treating depression. Early detection of depression is helpful in preventing further complications.

**Consent:** Patients written consent has been collected and preserved by the authors.

**Acknowledgement:** We would like to express our sincere gratitude to Dr. B. Jagadeesh Babu consultant psychiatrist at Jayakrishna psychiatric care and counseling centre.

#### 5. References

- [1] Brower V. Nutraceuticals: poised for a healthy slice of the healthcare market Nat Biotechnol. 1998; 16: 728-731.
- [2] Zhou X , Bi B , Zheng L , Li Z , Yang H , Song H, Sun Y. The prevalence and risk factors for depression symptoms in a rural Chinese sample population.
- [3] Yu-Hang Wang, MEd, Zhou-Ting Shi, MEd, and Qian-Ying Luo, Med. Association of depressive symptoms and suicidal ideation among university students in China A systematic review and meta-analysis
- [4] Depression De\_nition and DSM-5 Diagnostic Article by: Jessica Shelton
- [5] Depression. Author: Jerry L Halverson, MD; Chief Editor: David Bienenfeld, MD.
- [6] Common Types of Depression By Nancy Schimelpfening Medically reviewed by a board-certified physician.
- [7] Adolescent Psychopathology: II. Psychosocial Risk Factors for Depression. Article in Journal of Abnormal Psychology, June 1994.
- [8] Kamlesh Sharma, Anmol Gupta, Ravi C Sharma, Narinder Mahajan, Anjali Mahajan, Deepak Sharma, Salig Ram Mazta. Prevalence and risk factors for depression in elderly North Indians.
- [9] Essential medicals of pharmacology kd tripathi
- [10] Rajkumar AP, Thangadurai P, Senthilkumar P, Gayathri K, Prince M, Jacob KS. Nature, prevalence and factors associated with depression among the elderly in a rural south Indian community.
- [11] Moledina SM , Bhimji KM , Manji KP .Prevalence and Associated Factors of Depression in an Asian Community in Dares Salaam, Tanzania.
- [12] Buvneshkumar M, John KR, Logaraj M .A study on prevalence of depression and associated risk factors among elderly in a rural block of Tamil Nadu.
- [13] Pooja Chauhan, Prashant R. Kokiwar, Kotina Shridevi, Sushma Katkuri. A study on prevalence and correlates of depression among elderly population of rural South India.