



International Journal of Medicine and Pharmaceutical Research

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Research Article

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Prevalence and Correlates of depression among the HIV/AIDS patients -A Prospective cross sectional study in South India

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ABSTRACT

Depressive disorders are one of the common comorbidity of HIV .it is more prevalent, disabling, and often chronic, with a high economic burden on the patient as well as the society. Although depression is common, determining its prevalence across studies and within different segments of the HIV population is not easy, given the variety of methodological issues that warrant consideration. This study aimed to estimates the prevalence of depressive disorders and its correlates. To determine the prevalence of depression among the HIV patients attending a private clinic in Guntur and to explore the possible role of patient-specific clinical and social issues as intermediary factors in the relationship between HIV/ AIDS and depression. Over a six -month period, all eligible and consenting patients attending a clinic suffering from HIV/AIDS, were invited to participate in the study. They were interviewed using the Patient Health Questionnaire (PHQ-9), an instrument validated for the detection of depression in primary care settings. socio-demographic data was obtained from all the participating patients. Depression prevalence rates were calculated and the association between depression and age, gender, antiretroviral treatment, living arrangement, marital status and major stressors explored. Forty one patients participated in the study and 90.24% (n=37) of them were depressed. Significant differences in the rates of depression were found with respect to the sociodemographic or clinical factors explored. The relatively high prevalence of depression among the patients highlights the need for depression screening in all the HIV patients.

Keywords: HIV/AIDS, Patients, Depression

ARTICLE INFO

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Article History: Received 05 May 2015, Accepted 29 May 2015, Available Online 10 June 2015

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Manuscript ID: IJMPR2579



PAPER-QR CODE

Citation: Mounica Bollu, et al. Prevalence and Correlates of depression among the HIV/AIDS patients -A Prospective cross sectional study in South India. *Int. J. Med. Pharm. Res.*, 2015, 3(3): 1051-1057.

1. Introduction

It is already predicted by World Health Organisation that depression will be the leading disability by 2020 after the Morbidity and Mortality report of Centers for Disease Control and Prevention (CDC) on September 9th 2005 [3]. It is commonly known that a patient with chronic disease develops depression. Several studies conducted at different parts of the globe shows that depression is usually seen in HIV positive patients. HIV and depression both may lead to death, decreasing the life span of the patient [1]. As both are potentially dangerous which not only influence the quality of life, relationships, employment, social impairment, isolated lives, vocational impairment, absence of pleasure [2]. The prevalence of depression in HIV positive patient varies depending upon the variation in socio cultural factors, economic factors, age, gender, marital status. Studies showed that social support do not effect much to prevalence rate for depression in HIV positive patient. Studies showed that decreased economic status have higher prevalence rate for depression in HIV positive patient [3].

Among the HIV patients, depression ranges from 0-47%. Depression in the patient can be caused due to several reasons like socio-economic status, progression of HIV, sexual orientation, community based. Depression may also be due to poor adherence towards ART (Anti – Retroviral Therapy) leading to poor clinical outcomes [1][3][8]. It's proved that depressions do not increase the risk of HIV infection. It is showed that HIV alone do not increase the cause of depression but some factors accompany the HIV positive person towards depression. They include social influences surrounding the patient, chronic diseases in general suffered by the patient, difficulty of the person to accept the reality of infection and adjust. These are the major causes of depression in HIV positive patient. The severity of depression is higher in the first week of newly diagnosed patient [1]. The intermediate factors for depression include female gender, high care giver burden, experiencing social stigma, poor social support, poverty, poor healthcare. The less factor but with more prevalence rate is substance abuse which could cause major depression or other psychiatric diseases in the patient [1] [2]. The usual symptoms of depression that can be observed in the HIV patient indicating depression are sleep disturbance, loss of interest / pleasure, feelings of guilt or thoughts of worthlessness, weight / appetite change, psychomotor disturbances, suicidal thoughts [3] [4]. Among these atleast 5 should be observed for atleast two weeks and among the five observed one must be loss of interest or decreased pleasure or depressed mood. These are observed by either care giver or sometimes HIV positive patient itself [3]. It is said in some studies that depressive symptoms in HIV patients like self-blame, guilt etc is due to either depression psychological mechanisms or via biochemical mechanisms such as elevated neuroinflammatory markers [4]. As some studies say HIV can lead to neuropsychiatric syndromes. It International Journal of Medicine and Pharmaceutical Research

is also said that depression in HIV patients may also be due to direct injury to sub-cortical areas of the brain, chronic stress [8]. So, it became a question “Whether a specific patient would really benefit from treatment of HIV infection to cope depression” which is not yet proved. That's why antidepressant medications are being used to treat the depression which are effective and other therapies which are specific to patient are used [4].

2. Materials and Methods

A data sheet was prepared which contains all the demographic information about the patient which consists of age, gender, name, occupation, address, education, employment, nationality and religion. The demographic details of the patient were hidden in order to maintain privacy.

The depression among the HIV patients were diagnosed by using International Classification Of Diseases (ICD) – 10. Patient Health Questionnaire (PHQ-9) was used to rate the severity of depression. It consists of total 09 questions. The total score interpretation is divided into 5 sections as severity of depression.

Table 1

Total Score	Depression Severity
1 - 4	Minimal depression
5 - 9	Mild depression
10 – 14	Moderate depression
15 – 19	Moderately severe depression
20 – 27	Severe depression

The questions in the questionnaires should be answered depending upon the behaviour of the patient for about two weeks before.

Inclusion Criteria

All the patients who attended the clinic over a 6 months period and who meet the criteria.

- Patients of age 18 to 40 yrs.
- Patients of both the gender.
- Patients who are known case of HIV infection.
- Patients who are willing to participate in the study.
- Patient who are adherent or non – adherent to ART.
- HIV patient who are stable throughout the interview and can answer.
- HIV patients with normal cognitive functions.

Exclusion Criteria

- Patients who are not willing to participate in the study.
- Pediatric population is excluded.
- HIV patient who are not stable until the interview.
- Patient with major cognitive behaviour problem.

- Patients having communication difficulties like hearing loss and not adequately improved with

hearing aid.

3. Results and Discussion

Table 2: Prevalence of depression in HIV patients

	Depression		No depression		Total
	n	%	n	%	
Total	37	90.24	4	9.75	41

Table 3: Social demographic factors and HIV status in patients living with HIV/ AIDS at a clinic in south India

Characteristic	N(41)	%
Age		
18-25	12	29.2
25-32	23	56.09
32-40	6	14.63
Gender		
Male	34	82.92
Female	7	17.07
Religion		
Hindu	13	31.70
Muslim	11	26.82
Christian	17	41.46
Education		
Illiterate	28	68.29
Primary	6	14.63
Secondary	5	12.19
Graduation	2	4.87
Occupation		
Labour	25	60.97
Employee	3	7.31
Business	13	31.70
Daily income		
<300	27	65.85
300-500	11	26.82
>500	3	7.31
Living Arrangement		
Alone	18	43.90
Family	13	31.70
Partner	6	14.63
Other	4	9.75
Marital Status		
Single	5	12.19
Married	29	70.73
Divorced/Separated	7	17.07
Residence		
urban	35	85.36
rural	6	14.63
Time since HIV diagnosis		
1-5 yrs	31	75.60
5-10 yrs	8	19.51
10 yrs	2	4.87

In this study the prevalence of depression in HIV patients was found to be 90.24%

Thought of suicide		
Ideation		
Present	27	65.85
Not present	14	34.14
Major Stressor		
HIV	33	80.48
Other	8	19.51
Experience of opportunistic infections		
Yes	15	36.58
no	26	63.41
Number of children		
1-2	28	68.29
3-5	11	26.82
>5	2	4.87
Socioeconomic class		
Middle	9	21.95
Lower	28	68.29
high	4	9.75
ART		
On ART	38	92.68
Not on ART	3	7.31
Duration of ART		
<6 Months	6	14.63
>6 Months	22	53.65
Not Started	2	4.87
Stopped Because of ADR's	11	26.82
Financial support		
Present	16	39.02
Not present	25	60.97
Disclosure of HIV status		
Disclosed	5	12.19
Not disclosed	36	87.80
Participants source of psychological support		
Spouse	17	41.46
Parents	21	51.21
others	3	7.31

Among the 41 respondents studied, majority of the participants (56.09%) were found in the age group of 25-32 years and are males (82.92%).most of the patients belongs to the religion of Christianity (41.46%).

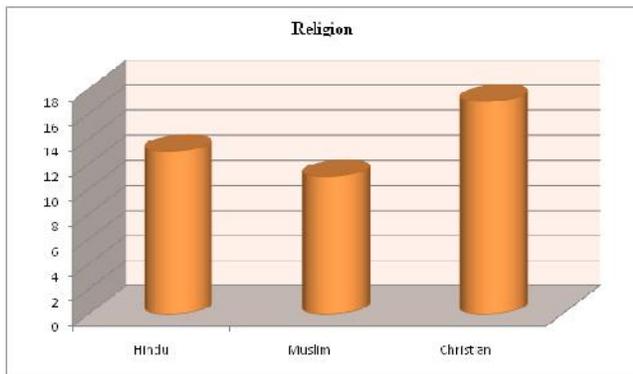


Figure 1

Many of the sufferers were illiterates (68.29%) and are working as labours (60.97%) whose daily income is less than 300 rupees (65.85%).

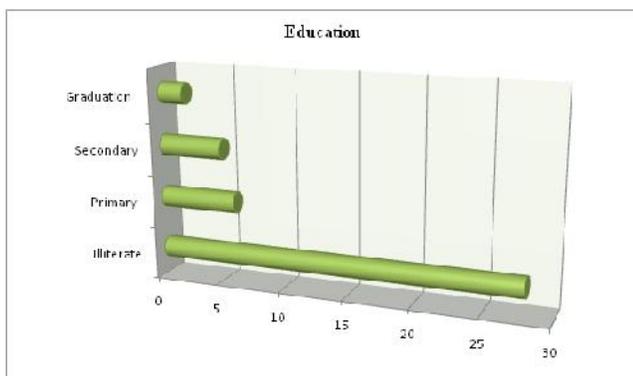


Figure 2

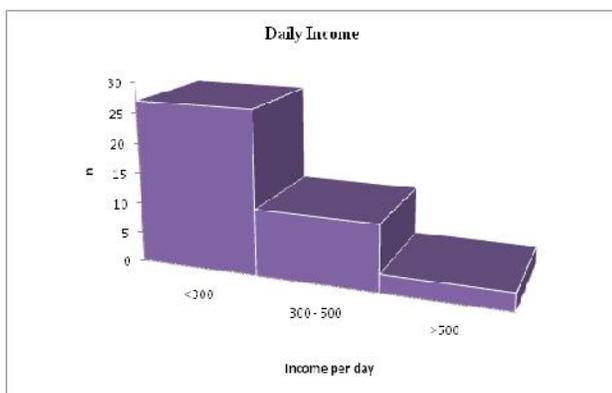


Figure 3

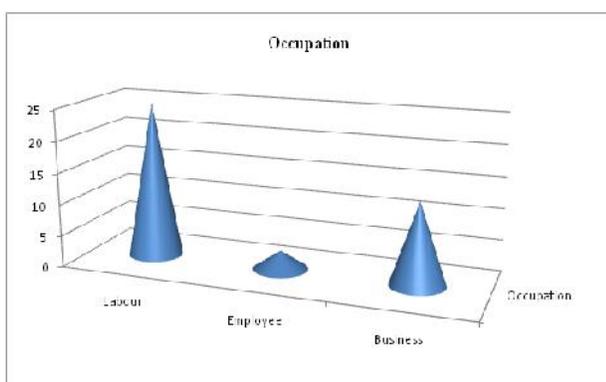


Figure 4

43.90% of them leading their lives individually where as 31.70% lives with their families. 29 i.e., 70.73% of the respondents were married and many of them (85.36%) have their residence in urban areas. 75.60% were diagnosed with HIV in the past 1-5 years.

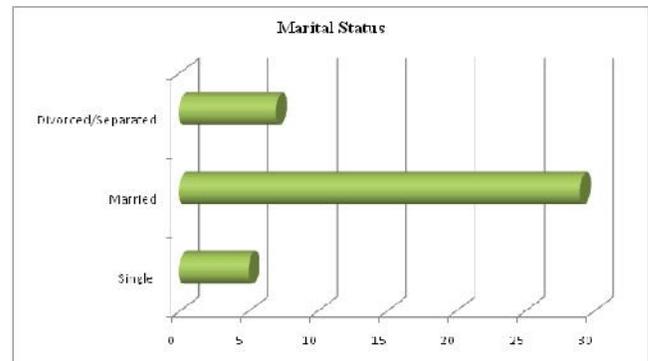


Figure 5



Figure 6

65.85% have the thought of suicide ideation and many of them (80.48%) are stressed with their disease condition. Among 41 study participants, 36.58% have experienced the opportunistic infections and 68.29% are found to be having 1-2 children. 68.29% belongs to the lower socioeconomic status and 92.68% were receiving the anti retroviral therapy.

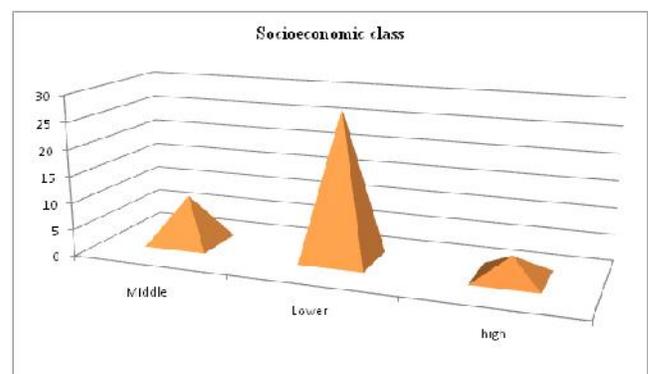


Figure 7

53.65% are using their medications from more than 6 months. 60.97% are not having any financial support where as 87.80% have not disclosed their HIV status.

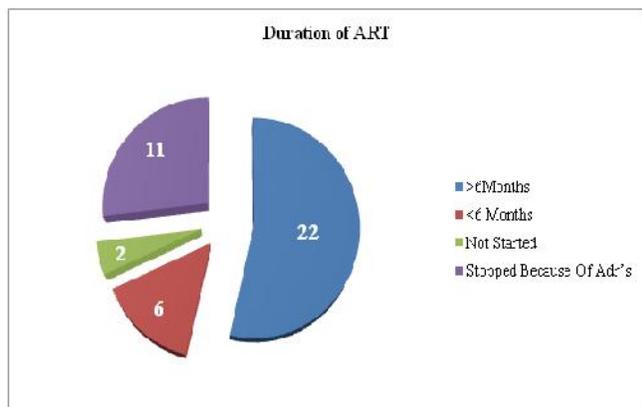


Figure 8

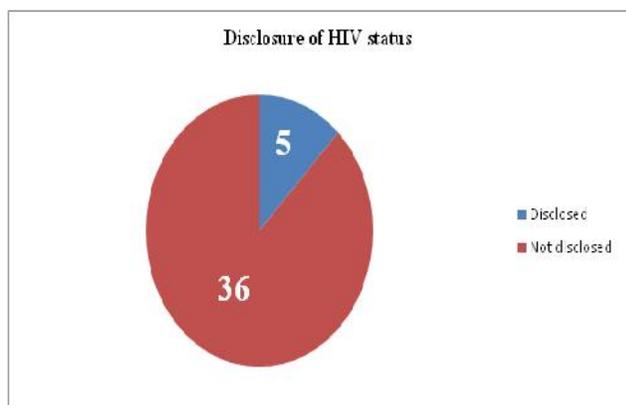


Figure 9

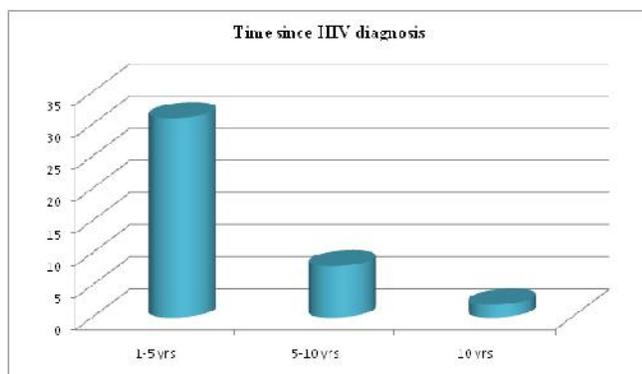


Figure 10: Levels of Depression among the Respondents, Using the Patients Health Questionnaires (PHQ-9) Scale.

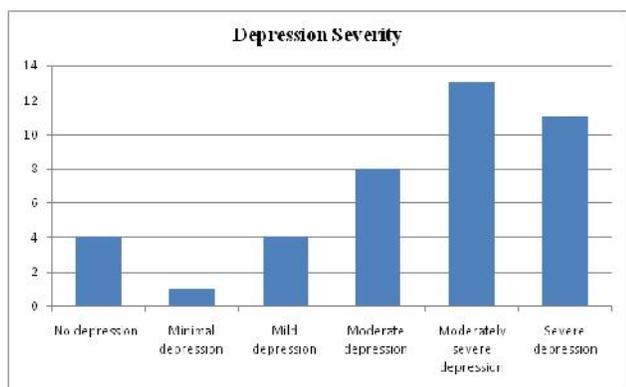


Figure 11

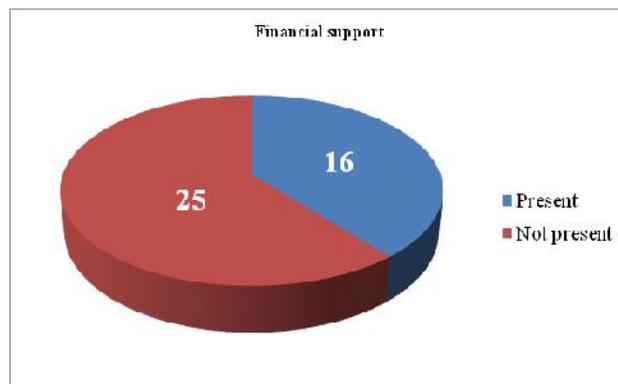


Figure 12: Many of the participants (51.21%) obtain the psychological support from their parents rather than from others.

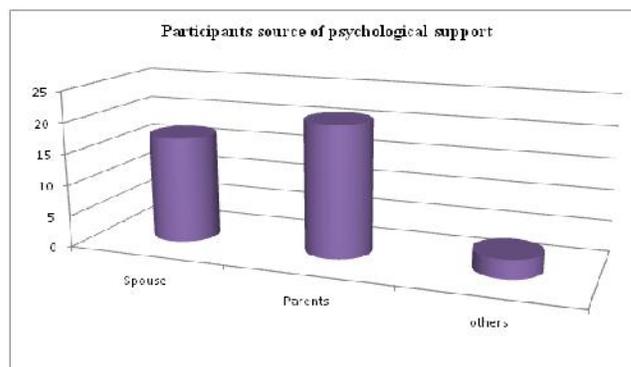


Figure 13

Table 4

Depression Severity	n	%
No depression	4	9.75
Minimal depression	1	2.43
Mild depression	4	9.75
Moderate depression	8	19.51
Moderately severe depression	13	31.70
Severe depression	11	26.82

In the present study, majority of the participants (31.70%) were found to be having moderately severe depression and 26.82% are having severe depression where as 9.75% were found to be not having any depressive symptoms are diagnosed with the HIV.

Discussion:

The present study is an attempt to elicit information about prevalence of depression in HIV-positive patients. Depression was statistically significant in urban men, and lower socioeconomic class many of them were illiterates. Thus, depression is highly prevalent among the individuals living with HIV which is still under diagnosed and undertreated, and there is a need to incorporate mental health services as an integral component of HIV care. In present study the prevalence is 90.24% which is compared with others in which it was found that a study by TR Clarke, The prevalence of depression was 58.75%. This is in comparison to a study by Berger-Greenstein et al., where 72.9% of the patients were found to be depressed.

RC Gibson et al study shows the Marital Status as 38.5% were found to be single and 53.3% were married Among these ,Major Stressor is not HIV but is of other reason (53.1%) but in our study 12.19% were single and 70.73% were married and 17.07% were separated/divorced. major stressor is HIV (80.48%).

In another study by Shittu RO et al., Highest participants(29.4) were found in the age groups of 36-40 yrs.and were females(81.8%) 81.8% were Islamic .68.3% were separated/divorced.32.4% were educated up to primary level and 24.7% up to secondary level.53.5% were traders,25.4% were selfemployed. Among the cases, 109(36.3%) had minimal depression, while 4(13%) were severely depressed. But Among the 41 respondents studied in our study ,majority of the participants(56.09%) were found in the age group of 25-32 years and are males(82.92%).most of the patients belongs to the religion of Christianity(41.46%). majority of the participants (31.70%) were found to be having moderately severe depression and 26.82% are having severe depression where as 9.75% were found to be not having any depressive symptoms are diagnosed with the HIV. A study by Do AN et al., among 4168 from medical monitoring project 2,981 were males and 1123 were females 39% were found to be in the age group of 45-54 and 50.7% completed more than high school education .53.9% are diagnosed with HIV from more than 10 years. In current study,75.60% were diagnosed with HIV in the past 1-5 years.

Gaynes BN,et al. conducted a study in 400,in that 297 members were females and 394 belongs to the religion of Christianity and 245 belongs to primary education level and many of them have the place of residence as urban. In present study 43.90% are leading their lives individually where as 31.70% lives with their families.29 i.e.,70.73% of the respondents were married and many of them (85.36%) have their residence in urban areas. In a similar study by VO Olisah et al it was found that Among 310 subjects ,212(68.4%) were females .60% belongs to the Christianity

4. Conclusion

By this study,we found that the prevalence of depression was relatively high in the HIV-infected individuals. Clinicians usually never recognize the depressive symptoms in HIV affected patients, so assessment of the patients with

and 52.9% were married and many 120(38.7%) were unemployed.116(37.4%) belongs to primary education.Joon Young Song et al.,unemployment (65% in patients with depression vs. 31% in patients without depression) was found as a risk factors for depression.In this study many of the people's(59% vs 60%) marital status was not known. Among 122 patients in a study by Ndu A. C.et al majority of the respondents (46.7%) were between 18 and 30 years with a female preponderance (65.6%). Fifty four percent were married. Almost half of respondents were either traders (27%) or students (22.1%) and majority (50.8%) had a minimum of secondary education. In a study by B. Unnikrishnan, Among 137 HIV-positive women, 51.1% were depressed.Among the depressed 48 (66.7%) were from rural area and 22 (33.8%) were from urban area.81.3% were widowed.52.7% belongs to the hindu religion and 56.2% were diagnosed in recent 5 years.51.7% were not on ART.65.2% belongs to lower socioeconomic status. Of the 117 participants,in T Bongongo, study 41.9% belongs to the age group of 30-39 years and 82(70.1%)were females.most of them (70.1%) were unmarried and 76.9% were unemployed81(69.2%) participants were suffered with mild depression,2(1.7%) were with moderate depression ,1(0.9%) was with severe depression and 33(28.2%) were observed to have no depressive features. In Solomon H. Tesfaye et al.,study Among 500 respondents 409(81.8%) were urbans and 52% were females .45.6% belongs to the age group of 25-34 and 47% were educated up to secondary level/above.59% were currently married and 67.4% were employed 35.6% income was in between 501-999 birr.38% were having medium social support and 486(97.2%) have disclosed their HIV status.

Limitations

There are some limitations in this study.we cant assure that all the respondents had given the correct answers.the study is completely hospital based and the results in this study is only from those approached the hospital for treatment but it can't gives us the information about whats going on in the community settings.

their riskfactors should be done by using depression screening instruments and is recommended for the good therapeutic outcomes in HIV-infected patients.

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