



# Level of depression and stigma among People Living With HIV/AIDS attending ART centers

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## ABSTRACT

**Background** India is home to 2.1 million HIV patients. Stigma and depressive morbidity related to HIV infection has serious individual and public health ramifications. With this background in mind the present study aimed at assessing the level of depression and stigma in People Living with HIV/AIDS (PLHA). **Materials and methods** A cross sectional study was conducted over a period of four weeks among 148 PLHA, who consented to be part of the study and were selected by Stratified random sampling. Perceived stigma and depression was assessed among study subjects using the standardized Berger stigma scale and BDI II. Pearson correlation and Chi square test were used to assess the relation between depression and stigma and the association of study variables with demographic variables. Data was analyzed using SPSS version 23 software. **Results** The majority of the study population had moderate to severe levels of depression and experienced severe levels of stigma in all the domains (>90%). The mean scores,  $64.99 \pm 6.8$  revealed that public attitude was most predominant type of stigma. A positive correlation existed between depression and all stigma domains. Depression was associated with socioeconomic status, whereas stigma was found to be associated with age, marital status, socioeconomic status and presence of children. **Discussion** Most of the PLHA attending the ART centers had severe levels of depression and stigma. Depression was also found to be positively correlated with stigma. Thus high prevalence of depression and stigma underscores the need for screening of PLHA for the same, to achieve better health outcome.

**Key words:** HIV/AIDS, stigma, depression, ART, PLHA

**Introduction:** HIV/AIDS has become the most sweeping and detrimental epidemic the world has ever experienced.<sup>1</sup> Human Immunodeficiency Virus (HIV) affects the person first and foremost at the biological level in the form of an aggressive virus that compromises immunity thus making the body susceptible to a number of infections leading to AIDS which is the fatal stage of the disease. It affects the entire demographic and economic structure of the society by increasing mortality rate among the youth and children who are considered as the backbone of any nation.<sup>2</sup>

## Review of literature

**Aguocha et al (2015)**, assessed the prevalence and socio demographic determinants of depression among 271 patients attending HIV/AIDS clinic in Nigeria using PHQ 9. The study found that 39.1% participants were depressed, out of which 24.5% were mildly depressed, 50% moderately depressed and 24.5% severely depressed. Females were found to be more depressed than males. Study recommended routine screening of PLHA for depression.<sup>3</sup>

**Manurang YH (2014)** on the depression profile of PLHA receiving ART. BDI was administered to 43 people. The results revealed that 70% of PLHA were not having any depressive symptoms, 12% had mild depression whereas only 9% had moderate to severe depression.<sup>4</sup>

**Olanrewaju GT (2013)**, conducted a descriptive study in Nigeria to assess the prevalence and correlates of depressive disorders among 300 PLHA using PHQ 9. The results revealed that 56.7% people were depressed and the symptoms were strongly related to gender, education, poor socioeconomic status, low social cohesion and stressful life events. The study recommended improvement in public health education and awareness programme to highlight the health impact of depressive symptoms among PLHA.<sup>5</sup>

## Problem Statement

A study to assess the level of depression and stigma among people living with HIV/AIDS attending selected ART centers of West Bengal.

## Objectives of the study

1. To assess the level of depression among people living with HIV/AIDS attending selected ART Centers of West Bengal.
2. To assess the level of stigma among people living with HIV/AIDS attending selected ART Centers of West Bengal.
3. To find out the correlation between level of depression and level of stigma among people living with HIV/AIDS attending selected ART Centers of West Bengal.
4. To find out the association between level of depression among people living with HIV/AIDS and selected demographic variables.
5. To find out the association between level of stigma among people living with HIV/ AIDS and selected demographic variables.

## Research Methodology

### Research approach

The approach used by the researcher was a **Quantitative Non Experimental approach** which was most appropriate method in view of the nature of the problem and the objectives of the study.

### Research design

The study design adopted by the investigator in the present study was **cross-sectional descriptive design** as descriptive research provides an accurate account of characteristics of a particular individual, event or group in real life situations.

### Research Setting

The pilot study and the main study were conducted at various **ART centers of Kolkata**.

### Population

In this study population was, PLHA attending ART centers.

### Identification of target and accessible population

In this study target population was People Living with HIV/AIDS attending ART centers and, on treatment. The accessible population was the People Living with HIV/AIDS available at the time of data collection.

## Sample

In this study, sample consisted of 148 People Living with HIV/AIDS attending selected ART centers of Kolkata, who fulfilled the inclusion and exclusion criteria.

## Sampling Technique

In the present study **Probability Proportional Stratified Random sampling technique** was used to select the required number of samples.

## Ethical Consideration

This research study was approved by the institutional ethical committee of the tertiary care hospital Kolkata (bearing certificate number 0441/2016). The permission to conduct the study was obtained from the Project Director, West Bengal AIDS control and prevention society and from the concerned ART centers. After explaining the details of the study the subjects were ensured about the confidentiality of the information and written informed consent was taken from them in the language they understand.

## Findings of the study

**Table 6a: Distribution of PLHA according to demographic characteristics**

n=148				
S. No	Socio demographic variables	Group	Frequency (f)	Percentage (%)
1.	Age (yrs)	21-30	26	17.6
		<b>31-40</b>	<b>66</b>	<b>44.6</b>
		41-50	40	27
		51-60	16	10.8
2.	Gender	<b>Male</b>	<b>96</b>	<b>64.9</b>
		Female	49	33.1
		Transgender	3	2
3.	Marital Status	Single	24	16.2
		Divorced/Separated	6	4.1
		Widow/Widower	19	12.8
		<b>Married</b>	<b>99</b>	<b>66.9</b>
4.	Socioeconomic	Upper middle	12	8.1

	Status	Lower middle	18	12.2
		<b>Upper lower</b>	<b>101</b>	<b>68.2</b>
		Lower	17	11.5
5.	Religion	<b>Hindu</b>	<b>129</b>	<b>87.1</b>
		Muslim	18	12.2
		Christian	1	0.7
6.	Living arrangement	Alone	19	12.9
		In shelter home/others	3	2
		<b>With family</b>	<b>126</b>	<b>85.1</b>
7.	Residence	Rural	37	25
		Semi-urban	37	25
		<b>Urban</b>	<b>74</b>	<b>50</b>

Table 6b: Distribution of PLHA according to clinical variables

n=148

Clinical				
S.No.	variables	Group	Frequency (f)	Percentage (%)
1.	Social Support	No support	23	15.5
	(family, network or	<b>From one service</b>	<b>45</b>	<b>30.4</b>
	society)	Two services	43	29.1
		Multiple services	37	25
2.	HIV status of spouse	<b>Positive</b>	<b>74</b>	<b>59.7</b>
		Negative	42	33.9
		Undetected/unknown	8	6.4

3.	Mode of HIV infection	<b>Sexual</b>	<b>98</b>	<b>66.2</b>
		Blood borne	15	10.2
		Infected needles	11	7.4
		Unknown	24	16.2
4.	Time duration since	< 6	20	13.5
	Diagnosis(months)	6 to 12	24	16.2
		12 to 18	21	14.2
		<b>&gt;18</b>	<b>83</b>	<b>56.1</b>
5.	Duration of ART	< 6	26	17.5
	(months)	6 to 12	22	14.9
		12 to 18	22	14.9
		<b>&gt;18</b>	<b>78</b>	<b>52.7</b>
6.	Taking ART regularly	<b>Yes</b>	<b>136</b>	<b>91.9</b>
		No	12	8.1

## SECTION II

Table 7: Level of depression among PLHA

n=148

Depression level	Frequency (f)	Percentage (%)	Mean score	SD(±)
Minimal/No Depression	10	6.8		
Mild	11	7.4	<b>31.31</b>	<b>11.9</b>
Moderate	33	22.3		
Severe	94	63.5		

Table 7 reveals the level of depression among PLHA. Out of 148 subject's majority (63.5%) had severe depression, while 29.7% had mild to moderate level of depression. The mean Depression score of 31.31 with standard deviation of (±) 11.9 also depicts that maximum PLHA had severe level of depression.

## SECTION III

**Table 9: Level of stigma among PLHA according to various domains  
n=148**

Socio-economic status	Level of depression				Total	$\chi^2$	p value
	Minimal/No	Mild	Moderate	Severe			
Middle	5	5	5	15	30		
Lower	5	6	28	79	118	<b>11.4</b>	<b>0.021</b>
<b>Total</b>	10	11	33	94	148		

Table 9 shows the level of stigma perceived by the subjects in various domains. Among 148 subjects, majority (91.9%) experienced overall severe stigma. The data highlights that severe stigma was experienced by them in various domains, personalized stigma (90.5%), disclosure concern by (98%), negative self image (90.5%) and public attitude (91.2%). It also revealed that among the four domains, stigma due to public attitude was most predominant with a mean of 64.99 ( $\pm$ ) 6.8.

## SECTION IV

**Table 11: Association of level of depression among PLHA with socioeconomic status**

Stigma domain	Level of stigma	f (%)	Mean score	SD ( $\pm$ )	n=148
Personalized stigma	Moderate	14(9.5)	58.45	7.47	
	<b>Severe</b>	<b>134(90.5)</b>			
Disclosure concern	Moderate	3(2)	32.97	4.10	
	<b>Severe</b>	<b>145(98)</b>			
Negative self image	Moderate	14(9.5)	41.18	4.71	
	<b>Severe</b>	<b>134(90.5)</b>			
<b>Public attitude</b>	Moderate	13(8.8)	<b>64.99</b>	<b>6.8</b>	
	<b>Severe</b>	<b>135(91.2)</b>			
Overall Stigma	Moderate	12(8.1)	128.74	12.93	
	<b>Severe</b>	<b>136(91.9)</b>			

table value= 7.82(p<0.05)

Table 11 and Fig 15 reveals the association between level of depression and socioeconomic status. The computed chi square value, 11.403 is more than the table value (9.49) at df 4 and  $p < 0.05$ , which indicates a statistically significant association between level of depression and socioeconomic status.

## Conclusion

The present study was carried out with the objective of assessing the level of depression and stigma in PLHA who were attending the ART centers. The study also aimed at finding the association between the stigma and depression. The findings of the study revealed that PLHA experience severe levels of stigma and depression. There was statistically significant correlation between stigma and depression. The study helped in identifying various demographic variables which were significantly associated with the variables.

The ignorance among the general population along with misconceptions and widely perceived negative risk factors is a potential cause for the silence surrounding this disease. These findings of the study can be utilized in various arenas of Nursing practice, research, education and administration. Ensuring high quality comprehensive services at ART centers and a high level of social support would help to reduce the associated stigma and depression. Efforts should be directed towards sensitizing people for avoiding stigmatization towards PLHA, as it is violation of their human rights.

The study results emphasized the need of routine screening of PLHA for depression and stigma and make them aware about the impact it has on their general well being. The study also recommended that similar studies could be done to assess causal relationship between depression and stigma and assess the various determinants for the same.

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