

**PREVALENCE OF ANXIETY DISORDER AND ITS CORRELATES IN CASES  
AWAITING HIV SCREENING****Dr. Abhishek Somani\*, Dr. Mrinalini Motlag, Dr. Himani Baxy**

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**ABSTRACT**

**Objectives:** 1) To assess the reason for HIV testing; 2) To assess the severity of anxiety in patients coming for HIV testing and associate it with socio-demographic characteristics. **Methods:** The cross-sectional study was carried out on 131 subjects who attended the Integrated Counseling and Testing Center at IGGMC, Nagpur from mid-April to mid-July 2016. A paper-based interview was conducted for each subject before HIV testing collecting information on socio-demographic characteristics, addiction, the reasons for HIV testing and severity of anxiety. For measuring severity of anxiety, Hamilton Anxiety Rating Scale was used. **Statistical analysis:** Chi-square test, proportions and other basic methods of data interpretation **Results:** About 39% (n=51) of the sample showed moderate to severe anxiety symptoms. Higher levels of anxiety were reported among females, the unemployed, the unmarried and smokers. Unprotected sexual behavior was reported in 34.35% of the sample out of which 60% showed moderate/severe anxiety. **Conclusion:** The findings show that significant number of people showed high levels of anxiety and should be identified, counselled and assisted to seek psychiatric treatment as an integral part of HIV management.

**KEYWORDS:****INTRODUCTION**

According to National AIDS Control Organization (NACO), the estimated number of people living with HIV was 2.08 million and that of new HIV infections (among adult population) was 0.116 million in 2011.<sup>[1]</sup> According to a study, the estimated number of people living with HIV (PLHIV) in Nagpur district is 13,061.<sup>[2]</sup> HIV infection is now being considered and treated as a chronic medical condition.<sup>[3]</sup> Persons with chronic diseases are more likely to have recent affective and anxiety disorders.<sup>[4]</sup>

HIV is an infection which many people have fears, prejudices or negative attitudes about. People coming for screening of HIV infection are nervous due to fear of being tested positive. They are worried about being shunned by family and peers, being insulted, rejected, gossiped about and excluded from social activities. This may lead to increased psychological damage in the form of anxiety disorder which has impact on further management of HIV infection. Also, many patients are hypochondriacs who need psychiatric help. Identifying such patients and sending them to psychiatry department for treatment will reduce the load on Integrated Counseling and Testing Centers (ICTCs).

This study focused on evaluation of severity of anxiety among patients awaiting HIV testing and analyzing its relationship to various parameters such as reason for HIV testing, socio-demographic characteristics and addiction. Management of anxiety beforehand will help in better understanding of its psychological impact and management of individuals with HIV infection.

**METHODS**

This cross-sectional study assessed the reason for HIV testing, severity of anxiety and its association with sociodemographic characteristics and reason for getting tested. For the study, 131 subjects who attended the Integrated Counseling and Testing Center at IGGMC, Nagpur were randomly recruited during regular clinic visits from mid-April to mid-July 2016. A paper-based interview taking 15-20 minutes was conducted for each subject before HIV testing. The interview collected information on socio-demographic characteristics (age, gender, employment, education, area-rural/urban/semi-urban), addiction (smoking, alcohol and substance abuse), the reasons for HIV testing and severity of anxiety. For measuring severity of anxiety, Hamilton Anxiety Rating Scale was used (refer attached Questionnaire). Cutoffs used were: no/minimal anxiety  $\leq$  7; mild anxiety = 8-14; moderate anxiety = 15-23 and severe anxiety  $\geq$  24.<sup>(5)</sup>

Employment was dichotomized to include any (part- and full- time) employment and unemployment. Education was categorized as  $\leq$ Middle school, High school and Graduation. Area was divided into rural, urban and semi-urban. At risk sexual behaviour is defined as not using a condom during their last sexual intercourse, if they reported having engaged in sexual activity in the previous 3 months. For addiction, only presence or absence of smoking and alcohol intake was taken into account and for drug abuse, the drug and route of administration. The reason for HIV testing included following parameters: Unprotected sexual behaviour, Needle prick, Blood transfusion, Referrals and self. The categories of I.V. drug abuse and perinatal transmission were not considered as there was no case of drug abuse and counselling for parent to child transmission is done at a different OPD. This study was approved by Institutional Ethics Committee, Indira Gandhi Government Medical College and Hospital, Nagpur.

**RESULTS**

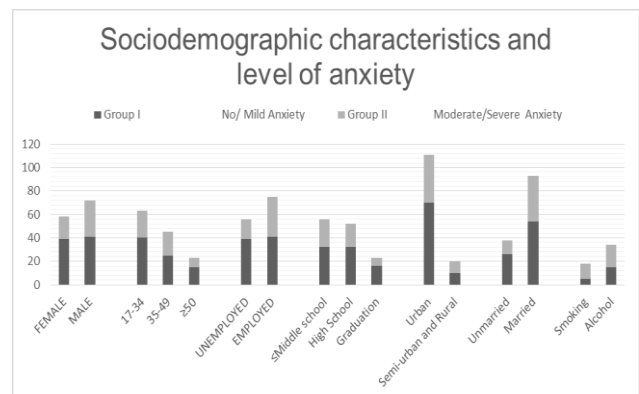
A total of 131 individuals were interviewed and had a mean age of 35.67 years (range 17-67, SD=11.96). The proportion of males (n=72; 54.96%) and females (n=58; 44%) was comparable. About 82% (n=108) were educated up to high school while only 18% (n=23) were attending college or finished graduation. About 57% (n=75) were employed and majority of the population was married (n=93; 71%). About 85% (n=111) of the individuals stay in urban area.

Nearly 30% (n=40) of the sample showed no or minimal anxiety symptoms, about one-third showed mild anxiety, 29% (n=38) of the sample showed moderate anxiety and 10% (n=13) had severe anxiety symptoms. Females were more anxious than males. One third of females showed moderate to severe anxiety symptoms. About half of the population belonged to 17-34 yr. age group out of which 37% showed moderate to severe anxiety. Unemployed individuals were 1.9 times more likely to show moderate/severe anxiety than the employed. The unmarried population showed 1.56 times more chances of moderate/severe anxiety than the married. Among smokers, about three-quarters were moderately/severely anxious and 50% of alcoholics showed more severe anxiety.

**Table 1: Demographics and Anxiety Severity.**

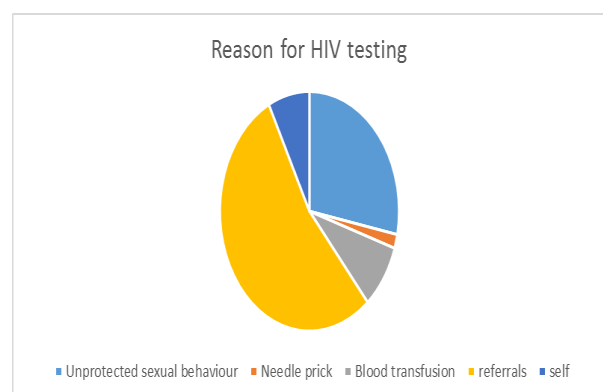
		n	%
Gender	Male	72	54.96
	Female	58	44.27
	Transgender	1	
Age (yrs.)	17-34	63	48.09
	35-49	45	34.35
	$\geq$ 50	23	17.56
Employment	Employed	75	57.25
	Unemployed	56	42.75
Education	$\leq$ Middle school	56	42.75
	High School	52	39.69

	Graduation	23	17.56
Locality	Urban	111	84.73
	Semiurban	9	7
	Rural	11	8.3
Marital Status	Married	93	71
	Unmarried	38	29
Addiction	Smoking	18	13.74
	Alcohol	38	29
	Others	1	
HAM-A Score- Level of Anxiety	No/ Minimal ( $\leq$ 7)	40	30.53
	Mild (8-14)	40	30.53
	Moderate (15-23)	38	29
	Severe ( $\geq$ 24)	13	10

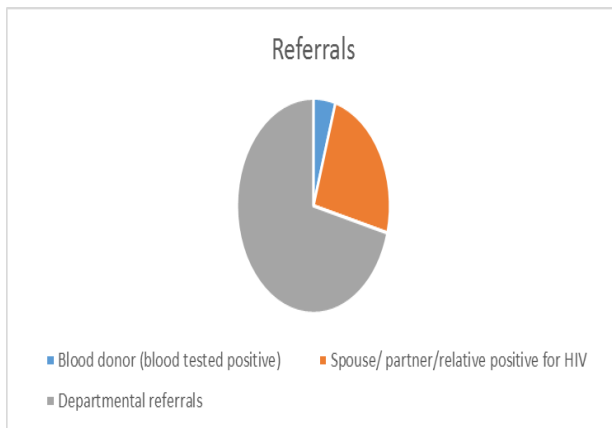


**Fig. 1: Sociodemographic Characteristics and Anxiety.**

Regarding the reason for HIV testing, majority of the subjects were referrals which included departmental referrals (n=61), discordant couples (n=21) and blood donors who were called by ICTC for blood being tested positive. Unprotected sexual behaviour was reported in 34.35% of the sample out of which 60% showed moderate/severe anxiety. Half of the individuals having history of blood transfusion were showed moderate/severe anxiety. 9% were self-reported cases while 2% were getting tested due to a needle stick injury.



**Fig. 2: Reason for HIV testing.**



**Fig. 3: Referrals.**

## DISCUSSION

Severity of anxiety among individuals awaiting pre-test counselling at ICTC was assessed and moderate to severe level anxiety was detected in one third of the sample. The association between reason for HIV testing, sociodemographic characteristics and moderate to severe anxiety was found. The findings indicate the need for active screening and treatment of anxiety as an integral part of HIV management.

While assessing the reason for HIV testing, we found that maximum anxiety was reported in the individuals who had unprotected sexual intercourse.<sup>[6,7]</sup> Majority of them requested the test due to persistent anxiety symptoms interfering with normal life. In some of the subjects, psychiatric symptoms may persist after being tested positive which increase the involvement in high-risk behaviour.<sup>[8]</sup> This may have impact on further management which may also lead to non-adherence to treatment.<sup>[9]</sup> Thus, identifying such individuals during counselling will help provide psychiatric help to avoid negative outcomes.

Associations with sociodemographic characteristics (gender, age, education and employment) were found in line with previous studies.<sup>[10,11,12]</sup> Females were more anxious than males. Among the discordant couples, majority were women with HIV positive husband who showed psychological distress regarding acquiring infection and transmitting to their children. Studies have shown the psychosocial impact on wives of HIV-positive men,<sup>[13,14]</sup> as well as in men regarding fear of transmitting infection to their partners.<sup>[15]</sup> Unemployment and lower level of education were associated with higher level of anxiety symptoms. These socio-economic stressors may be more responsible for anxiety than HIV infection itself.<sup>[12,11]</sup> Unmarried individuals showed higher anxiety than married ones. This may be attributed to uncertainty about the future life as the infection is lifelong and not curable. In this study we did not focus on marriage related issues separately, though there have been studies regarding marital stability and psychological impact in discordant couples who require special attention.<sup>[16]</sup> Current smokers and alcoholics

reported higher anxiety. Individuals may engage in such behaviour to decrease the anxiety symptoms which is often seen in chronic diseases. Studies have shown no significant relationship between pack-years and anxiety severity.<sup>[17]</sup>

HIV infection is now being considered and treated as a chronic medical condition.<sup>[3]</sup> Persons with chronic diseases are more likely to have recent affective and anxiety disorders.<sup>[4]</sup> There is significant psychosocial impact due to lifelong disease burden, fear of stigmatization by the community and economic burden.

## ACKNOWLEDGMENTS

Anxiety is often associated with diagnostic testing and HIV-AIDS being a sensitive issue, the effect is even more. Although, with greater awareness and screening programmes, the stigma has decreased, significant number of people showed high levels of anxiety indicating the need of psychiatric help. Symptoms of anxiety are often underestimated by the healthcare providers thus their emotional distress overlooked. Such individuals are reluctant to talk about their problems with others and to seek help. They should be identified, counselled and assisted to seek psychiatric treatment as an integral part of HIV management. Future research may be carried out between psychiatric morbidity and risk behaviour, marital issues, addiction by following up the subjects.

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