

## **Anxiety among AIDS Patients: The Role of Age, Gender and Residence**

Trupti Ambalal Chandalia<sup>1</sup>, Dr. Hetal M. Patoliya<sup>2</sup>

### **ABSTRACT**

The aim of the present study was to find out the difference in Anxiety with reference to age, gender and area of residence among AIDS patients. The participants were 360 AIDS patients was randomly selected from the Pandit Dindayal Upadhyay Government Hospital, ART center in the Rajkot city in Gujarat. The sample falls in the age range of 21-50 year. Anxiety scales constructed by Derogatis (1994) were used to measure Anxiety among AIDS patients. The data was analysed using 'F' test and tukey test. The result revealed significant difference in anxiety between male and female AIDS patients. It was observed that the female had high anxiety than male AIDS patients, area group no difference and old age high anxiety than young age AIDS patients.

**Keywords:** HIV-AIDS, Anxiety and AIDS Patients.

The human immunodeficiency virus (HIV) is an infectious disease that compromises the human immune system, allowing opportunistic infections and cancers that would otherwise be easily suppressed, to thrive. HIV is transmitted by bodily fluids (Blood, semen) and can go undetected in individuals for years before AIDS-defining illnesses appear (Gandhi, Skanderson, Gordon, Concato, & Justice, 2007). Today the HIV virus and its progression to acquired immunodeficiency syndrome (AIDS) is recognized as a worldwide pandemic by the World Health Organization (UNAIDS & WHO, 2007). Over 33 million individuals are currently infected and the disease is estimated to be responsible for approximately 2 million deaths annually (UNAIDS & WHO, 2007). Although in the United States HIV/AIDS once primarily affected White gay and bisexual men (Kelly & Murphy, 1992), it is now increasingly more common among heterosexual men and individuals in minority ethnic groups (CDC, 2008). Estimates from 33 states with long-term, confidential name-based HIV/AIDS databases indicate

<sup>1</sup> Research Fellow, Department of Psychology, Saurashtra University, Rajkot

<sup>2</sup> Assistant Professor, Department of Psychology, Saurashtra University, Rajkot

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that there are approximately one million two hundred thousand individuals living with HIV/AIDS in the United States today (CDC, 20012).

There are an estimated 4.2 million people living with HIV in Asia, 90% of them are in India, China and Thailand. India contributes 49% of it (2.4 million people). The first focuses of HIV in India were detected in 1986 among sex workers in Chennai and the first AIDS case was reported in 1987 in Mumbai. Like in other countries, HIV was accompanied with stigma, discrimination, depression, suicidal tendencies and violence. Right from the beginning of the epidemic in India, an AIDS task force was established by the Indian Council of Medical Research (ICMR) for screening risk behaviour of such groups. As more cases began to be detected, a National AIDS Committee was set up under the Union Ministry of Health and Family Welfare in 1986. The objective of this committee was to control the spread of the infection and promote community and family-based care to people with HIV/AIDS. The National AIDS Control Organization (NACO) was established in 1992 and the first National AIDS Control Programme (NACP) was launched. Its main objective at that time was to undertake surveillance to know modes of spread, to screen blood and increase awareness. By early 1990s, cases of HIV infection had been reported in every state of the country and it was clear that individual states had different prevalence rates. In 1998, 176 surveillance sites were established and a nationwide surveillance was done, which revealed that there might be nearly 3 million HIV-infected persons in India

Despite the availability of effective cognitive and pharmaceutical treatments, anxiety remains one of the most commonly diagnosed mental health conditions affecting persons living with human immunodeficiency virus (HIV) disease (Bing et al. 2001; Whetten et al. 2008). Many aspects of HIV disease create potential for generating anxiety including financial difficulties, limited access to care, encountering HIV stigma, disclosure concerns, symptoms associated with HIV disease progression and an uncertain disease course (Lee et al. 2002). Anxiety symptoms also impact health outcomes in HIV disease. They are strong predictors of non-adherence with HIV medications and, as a result, anxiety symptoms may hasten HIV disease progression (Campos et al. 2010). They can also contribute to a diminished quality of life as well as higher costs of health care (Ford et al. 2004). Along with a growing body of research directed towards the testing of psychosocial clinical interventions for HIV-related anxiety, there has been a continuing interest in developing self management strategies for coping with anxiety symptoms.

A growing body of research presents evidence of the high prevalence of anxiety disorders among persons living with HIV disease (Bing et al. 2001; Kempainen et al. 2006; Whetten et al. 2008). Prevalence rates of anxiety disorders have been estimated to be as high as 38%, compared to 11% in the general population (Pence et al. 2007). In addition to increased rates of generalized anxiety disorder and panic disorder, studies also reflect high rates of post-traumatic stress disorder (PTSD; O’Cleirigh et al. 2009; Reisner et al. 2009). Multiple investigators suggest that anxiety disorders may be highest among groups with the highest HIV prevalence rates including high-risk women of colour and men who have sex with men (O’Cleirigh et al. 2009). Studies

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also highlight the co-occurrence of HIV-related anxiety with other mental health disorders, including substance use and mood disorders (Gaynes et al. 2008).

Psychological disorders like depression and anxiety are potentially dangerous conditions, in the context of HIV/AIDS, which can influence health-seeking behaviour or uptake of diagnosis and treatment for HIV/AIDS. More recent research demonstrates a linkage between anxiety and adverse physiological changes in HIV. Increased levels of psychological distress, including anxiety, may result in the deregulation of stress regulation hormones, a diminished regulation of the immune system, an impaired response to HIV medications (Greeson et al. 2008; Lampe et al. 2010) and increased severity of fatigue (Barroso et al. 2010). Looking at this aspect the present study was carried out with following objectives:

### OBJECTIVES

1. To find out the difference in anxiety between female and male AIDS patients.
2. To find out the difference in anxiety between rural and urban area AIDS patients.
3. To find out the difference in anxiety between young age and old age AIDS patients.

### METHOD

#### *Sample:*

The sample for the present study consisted of 180 female and 180 male AIDS patients were selected randomly from Pandit Dindayal Upadhyay Government Hospital, Antiviral Therapy (ART) Rajkot city in Gujarat. The age range of students was 21-50 year AIDS patients.

#### *Tool:*

*The following tools were used in the present study:*

#### **1. Personal Data Sheet:**

Personal data sheet was prepared to collect some personal information such as age, gender, family income, area type etc.

#### **2. Anxiety Scale (SCL-90-R Scale):**

This 90-item self-report symptom inventory measures a broad range of psychological problems and symptoms through nine primary symptom dimensions including somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism (Derogatis et al. 1973). The SCL-90 is designed for use with individuals from the community as well as persons with medical or psychiatric conditions. The SCL-90 is scored on a five-point scale assessing 'how much' the respondent was bothered by each symptom in the past week (0 = not at all; 4 = extremely). The instrument has well-established reliability and validity and has been tested across numerous populations 13 years old and older (Derogatis & Unger 2010). In this study, anxiety symptoms were assessed with the 10-item anxiety subscale from the SCL-90. The items in this subscale are summed to obtain a total

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score that can range from 0 to 40. Internal consistency in this sample was high (Cronbach's  $\alpha = 0.95$ ).

### **Procedure:**

The investigation explained the purpose of the study to the subjects. When the subject was comfortable with instructions and ready for testing, questionnaires were given. They were asked to answer each and every item of all the administered questionnaires and were ensured that the responses given by them would be kept confidential. Scoring was carried out as per the manual. F test and Tukey test was used for statistical analysis.

## **RESULT AND DISCUSSION**

In order to objectives of the study data were analyzed using F-test. When the statistical analysis regarding the impact of use of gender, area of residence and age on anxiety among AIDS patients was carried out interesting results were obtained. These results are presented in above tables.

*Table-1, ANOVA summary of Anxiety with reference to gander, area and age to AIDS patients*

Source	S. S.	df	M. S.	F
A (Gander)	525.63	1	525.63	20.63**
B (Area)	0.23	1	0.23	0.009 <sup>NS</sup>
C (Age)	309.51	2	154.75	6.08**
ABSS	166.74	1	166.75	6.55**
ACSS	285.72	2	142.86	5.61**
BCSS	102.05	2	51.03	2.01 <sup>NS</sup>
ABCSS	99.37	2	49.69	1.95 <sup>NS</sup>
WSS	8856.43	348	25.45	
TSS	10345.66	359		

\*\*= $P < 0.01$ , NS=Not Significant

As gender was one of the factors included in factorial design 2x2x3 ANOVA carried out and the F-Value (Table-1) was found to be 20.63 which is significant at 0.01 level. Thus, the result revealed significant impact of gander on anxiety among AIDS patients. Reveals that the mean scores of anxiety of female and male are 21.34 and 19.32 respectively difference of the mean 2.02 is remarkable. Concluded the female had high anxiety than male AIDS patients. The results in regard to the main effect of gender clearly indicated that HIV positive females had greater scores on composite anxiety and its feeling component than male counterparts. The findings are, therefore, consistent with those reported by Larson and Pleck (1999) and Barroso, Carlson, and Meynell (2003). The result of the present study is supported by other studies (Ashmore, 1990; Brody & Holly, 1999; Martinez et. al., 2002 and Prentiss et. al., 2007). The probable reason for this difference Taylor (2006) also reports that as HIV positive women suffer from critical gynaecological infections too, mere counselling seems to produce less effect on them as compared to male patients. It is, therefore, suggested that counselling needs to be combined with

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some other therapeutic procedure to relieve the female patients from anxiety to a greater extent. suggested that counselling needs to be combined with some other therapeutic procedure to relieve the female patients from anxiety to a greater extent.

When F-test was applied to examine to impact of residence area on AIDS patients not significant impact was found. The F- value is 0.009 which is no significant Reveals that the mean scores of anxiety of rural and urban AIDS patients are 20.56 and 20.51 respectively no significant difference of the mean 0.05.

When F-test was applied to examine to impact of age on AIDS patients significant impact was found. The F- value is 6.08 which are significant at 0.01 level. Thus, the result revealed significant impact of age on anxiety among AIDS patients. Reveals that the mean scores of anxiety of 21 year to 30 year, 31 year to 40 year and 41 year to 50 year are 20.01, 19.75 and 21.85 respectively difference of the mean (C<sub>1</sub> vs C<sub>2</sub>) 0.26, (C<sub>1</sub> vs C<sub>3</sub>) 1.84 and (C<sub>2</sub> vs C<sub>3</sub>) 2.10 is remarkable. Concluded the female had high anxiety than male AIDS patients.

**Table-2, Tukey test summary for Anxiety with reference to gender, area and age group**

Groups	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>
20.01	-	0.26 <sup>NS</sup>	1.84 <sup>*</sup>
19.75	-	-	2.10 <sup>**</sup>
21.83	-	-	-

\*P<0.05, \*\*P<0.01, NS= Not Significant

Groups	A2B1	A2B2	A1B2	A1B1
18.67	-	1.31 <sup>NS</sup>	2.36 <sup>**</sup>	3.78 <sup>**</sup>
19.98	-	-	1.05 <sup>NS</sup>	2.47 <sup>**</sup>
21.03	-	-	-	1.42 <sup>NS</sup>
22.45	-	-	-	-

\*\*P<0.01, NS= Not Significant

Groups	A2C1	A2C3	A2C2	A1C2	A1C1	A1C3
18.65	-	0.97	1.05	1.15	2.72	5.40
19.62	-	-	0.08	0.18	1.75	4.43
19.70	-	-	-	0.10	1.67	4.35
19.80	-	-	-	-	1.57	4.25
21.37	-	-	-	-	-	2.68
24.05	-	-	-	-	-	-

\*\*P<0.01, NS= Not Significant

So far as the impact of age on AIDS patients is concerned out of possible three comparisons two mean differences were found significant at 0.01 and 0.05 level by computing Tukey test. The most striking results were obtained for the group of AIDS patients with old age group. This

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group of AIDS patients significantly differed with group of AIDS patients with  $C_1$  vs  $C_3$  and  $C_2$  vs  $C_3$  age groups. Thus, AIDS patients with 41 to 50 year age group experienced high anxiety and AIDS patients with 20 to 31 year age group indicate low anxiety. The result of the present study is supported by other studies (Israelski Gore Feltoen, Power, Wood and Koopman, 2001).

So far as the impact of gender and area on anxiety is concerned, results of Post hoc Tukey test revealed that out of possible six comparisons three mean differences were found significant at 0.01 level. The most striking results were obtained for the group of AIDS patients with female at rural area group and AIDS patients with male at urban area group indicate low anxiety.

So far as the impact of gender, area and age on anxiety is concerned, results of Post hoc Tukey test revealed that out of possible fifteen comparisons six mean differences were found significant at 0.01 level. The most striking results were obtained for the group of AIDS patients with 41 to 50 year age of female group and AIDS patients with 41 to 50 year age of male group indicate low anxiety.

### CONCLUSION

As far as gender is concerned gender and age group significantly differed in anxiety, that means female AIDS patients are high on anxiety than male AIDS patients and area of residence group is no significant difference. As far as age group is concerned old age AIDS patients are significantly anxiety than young age AIDS patients.

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