

A study of Quality of Life in Patients of HIV /AIDS Undergoing Anti-retroviral Therapy in Rajindra Hospital Patiala, Punjab

Jasbir Singh¹, Anupinder Thind², Ruchika Irene Dillu³, Avnish Kumar⁴

¹MD, Assistant Professor

²MD Assistant Professor

³MD Pharmacology

⁴MD Professor

Government Medical College Patiala and Rajindra Hospital, Patiala, 147001, Punjab, India.

Corresponding author: Anupinder Thind

Abstract

Introduction: HIV infection interferes with the immune system and increases the susceptibility of patient to many opportunistic infections. The anti-retroviral therapy (ART) that is given for the treatment of HIV infection is not curative, but it increases the life expectancy of the patient by preventing complications. However anti-retroviral drugs are expensive and have adverse drug reactions of their own.

Methods: The study involves 300 HIV/AIDS patients, 153 females and 147 males, undergoing anti-retroviral therapy in ART center in Rajindra Hospital Patiala. In this study patients undergoing ART were given questionnaire to evaluate their quality of life using WHOQOL- BREF¹ (Punjabi / English) instrument.

Result : It is observed that the HIV/ AIDS patients reporting to Rajindra hospital, ART center undergoing ART have reduced quality of life as seen on WHOQOL-BREF scale.¹ Patients undergoing ART were found to have lowest WHOQOL-BREF, 0-100 transformed scores in Environment domain followed by Physical health. Patient had highest score in Social relationships.

Conclusion : This study shows that even though life expectancy of a patient undergoing ART has increased with lesser opportunistic infections but still the HIV/ AIDS patients have reduced quality of life.² Even with the highest WHOQOL scores in social relationships depicting social support people living in Patiala district with HIV positive status still shows lower scores in environmental domain. This shows that even with adequate social support people living with HIV positive state face environmental issues like finances, security, safety, recreation, health care accessibility and their freedom. Low scoring in physical domain after environment also signifies that even though life span of HIV/AIDS patient undergoing antiretroviral therapy increases, it doesn't necessarily ease their physical pain and discomfort.

Keywords: HIV/ AIDS, Antiretroviral therapy, Quality of life, WHOQOL- BREF

Date of Submission: 13-12-2018

Date of acceptance: 28-12-2018

I. Introduction

HIV/ AIDS is a progressive incurable disease in which immune system collapses due to deficiency of CD 4 cells. This causes increased susceptibility of the HIV / AIDS patient to various opportunistic infections. In Punjab adult HIV prevalence was 0.18% till October 2014, 14553 patients were on ART therapy. According to the data collected from ART center Rajindra hospital total 9609 cases of people living with HIV were registered in HIV care as on 10 December 2018. The anti-retroviral therapy that is given for the treatment of HIV infection is not curative, but it increases the life expectancy of the patient by preventing complications. However anti-retroviral drugs are expensive and have adverse drug reactions of their own. Thus benefits of patients on ART weighs more than the side effects caused by them. However even with the social support and satisfying availability of health services HIV patients are not satisfied with their physical environment, safety and freedom. They also suffer from the mental anxiety, depression with decreased work capacity as compared to normal population. This necessitates the need to assess the quality of life in HIV patients in the social, environmental, physical health and psychological domains³. Environment is an important domain that is often neglected in our society, which is highly causative factor for the vicious cycle of low morale, low work capacity, repeated consultations and deterioration in health due to low finances and health care accessibility, lowering quality of life in HIV/AIDS patients.⁴

World health organization explains quality of life as, *Individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns*¹.

To measure quality of life WHOQOL-100 was framed, a questionnaire which is multidimensional in nature covering all the facets of life. WHOQOL-BREF is having 26 question covering physical, psychological, social and environmental domains. It is abbreviated form of WHOQOL-100. The 4 domains have following facets of quality of life with the given number of items asked.

1. Physical Health (7 items): daily activity, energy, fatigue, pain, discomfort, sleep and working capacity.
2. Psychological well-being (8 items) : negative or positive feelings, self-esteem , personal beliefs thinking , concentration , memory and learning.
3. Social relationships (3 items): personal relationship, sexual activity and social support.
4. Environment (8 items): freedom, security, safety, finances, health care accessibility, recreation, transport and physical environment.

II. Materials and Methods

Study Population: HIV/AIDS patients reporting at ART center for antiretroviral therapy

Duration of the study: 6 months

Study Design: Cross-sectional observational study.

Study Site: ART center at Government Medical College and Rajindra Hospital Patiala.

Sample Size: 300 HIV/AIDS patients undergoing antiretroviral treatment.

Data Collection: Data was collected from both male and female patients between 18 to 50 years of age who were diagnosed HIV positive and were willing to participate in the study after being explained of the nature of study.

In this study 153 females and 147 males participated who were coming for antiretroviral treatment to ART center. After explaining the nature of the study, consent was taken from each participant. Participants were asked to fill WHOQOL-BREF (World Health Organization Quality of Life- BREF) structured questionnaire in English or Punjabi according to their ease. There were 26 questions in WHOQOL-BREF instrument. Each item uses 5 point Likert scale with higher scores donating higher quality of life.

The results were calculated using instructions given in WHOQOL-BREF Field trial version December 1996¹. The mean score of items within each domain was used to calculate the domain scores compatible with the scores used in WHOQOL-100. If more than 20% of data was missing the assessment was discarded. The raw data obtained was transformed into 4-20 and 0-100 scores.

III. Results and Discussion

According to the WHOQOL BREF questionnaire HIV patients undergoing ART were asked to rate their quality of life in which highest percentage (46%) of them rated it neither good nor bad and 40% rated it good. None of them felt that their quality of life is very poor.

48% were neither satisfied nor dissatisfied and 36% were satisfied with their health. None of them were completely dissatisfied.

Table 1. Shows mean and standard deviation of raw scores in all 4 Domains

S.no.	Domain	Mean	Standard Deviation	Maximum	Minimum
1	Physical Health	13.25	1.51	20	9
2	Psychosocial well being	13.87	2.22	18	7
3	Social relationship	14.74	2.47	20	6
4	Environmental	13.90	1.90	19	9

Table 2 shows mean and standard deviation of transformed scores 4-20 in all 4 Domains

S.no.	Domains	Mean	Standard Deviation	Maximum	Minimum
1	Physical Health	7.49	0.97	11	5
2	Psychosocial well being	9.22	1.56	12	5
3	Social relationship	18.58	2.47	20	8
4	Environmental	7.28	0.95	10	5

Table 3 shows mean and standard deviation of transformed scores 0-100 in all 4 Domains

S.no.	Domains	Mean	Standard Deviation	Maximum	Minimum
1	Physical Health	21.16	6.60	44	6
2	Psychosocial well being	32.83	9.82	50	6
3	Social relationship	91.12	15.48	100	25
4	Environment	20.66	5.80	38	6

The above tables shows that in Punjab, Patiala district quality of life in HIV/AIDS patient is highest in social relationships with mean value of 91.12 ± 15.48 and lowest in the Environmental domain with mean value 20.66 ± 5.80 in 0-100 transformed scores of WHOQOL-BREF scale. These results are in contrast with other studies which shows higher physical QOL in people living with HIV/AIDS.^{2, 3, 4}

Table 4. Shows comparison of WHOQOL-BREF 0-100 transformed scores between Males and females of HIV/AIDS patients reporting for antiretroviral therapy in ART center RajindraHospital , Patiala, Punjab.

S.no.	Domain	Mean and Standard Deviation in Female (n=153)	Mean and Standard Deviation in Male (n= 147)	t- value	P(T<=t)	Significance
1	Physical Health	21.22± 5.92	22.69 ± 5.92	1.247	0.215	Non-significant
2	Psychosocial well being	31.49 ± 9.93	34.22 ± 9.72	1.39	0.167	Non-significant
3	Social Relationships	89.71 ± 16.57	92.59 ± 14.45	0.926	0.356	Non-significant
4	Environment	19.67 ± 5.93	21.57 ± 5.46	1.670	0.098	Non-significant

No Significant difference was found in quality of life in physical, psychosocial , social and environmental domains taking transformed scores of 0-100 of WHOQOL-BREF , between male and female patients, reporting to the ART center in Patiala. This results differ from the results from other states like Karnataka, Mumbai, Pune, Mangalore and other states where socioeconomic conditions are much lower to Patiala district, Punjab.^{4, 5, 6,7,8,9}

IV. Conclusion

On WHOQOL – BREF scale majority of patients receiving antiretroviral therapy (46%) rated their quality of life neither poor nor good, 40 % rated it good, 6% very good and only 8% rated it poor.

48 % were neither satisfied nor dissatisfied, 36 % were satisfied with only 12% dissatisfied with their health.

On transforming raw data to 0-100 score, the highest scores were obtained in social relationship (91.12 ± 15.48). This shows that support from family and friends greatly affects the quality of life in people living with HIV/AIDS.^{7,9} Support and empathy from the society not only gives the mental support but also helps in psychosocial stability of the patient.¹⁰ Psychosocial domain displayed second highest score of 32 ± 9.82 in patients living in Patiala district. Physical health score was relatively low (21.16 ±6.60), which can be attributed to chronicity of the disease and adverse effects of antiretroviral treatment. Antiretroviral treatment reduces the complications of AIDS, lowers the viral load and increases the life expectancy of the HIV positive patient but at the same time side effects of the antiretroviral therapy causes physical discomfort in most of the patients. The lowest score was in the environmental domain (20.66±5.80), this shows despite of the awareness about HIV/AIDS, there is still a social stigma in the society.^{7,11} Due to lack of empathy from the society and general population, people living with HIV/AIDS find it difficult to transport, recreate, avail proper health care facilities and live with freedom. According to 2011 census, district Patiala consists of 59.74% rural population which is about 3.8 Lakhs. People living with positive HIV status from rural background are more prone to poor physical environment, lack of finances, safety and security.

This study shows that patients of HIV/AIDS are not only affected by reduced physical health but also the environment they live in. Therefore this study points out the need for social awareness about this chronic infection among the general population and sensitize people to have empathy for people suffering from HIV/AIDS.^{7,12.}

References

- [1]. WHOQOL-BREF, Introduction , Administration , Scoring and Generic version of the Assessment. Field Trial Version, December 1996. Programme on Mental Health. World Health Organization , Geneva.
- [2]. Arjun B. Y, Unnikrishnan B, Ramapuram J. T, Thapar R, Mithra P, Kumar N, DarshaB :Factors Influencing Quality of Life among People Living with HIV in Coastal South India. *Journal of the International Association of Providers of AIDS Care (JIAPAC)*2017;Vol.16 (3):247–253. <https://doi.org/10.1177/2325957415599213>
- [3]. Banandur P, Becker ML, Garady L, YallapaA , Isaac S, Potty R S, Washington RG, Blanchard JF, Moses S , Banadakoppa RM : P5-S6.36 Factors affecting quality of life of people living with HIV In Karnataka, India.*SexTransmInfect* 2011; Vol.87:A340-A341.
- [4]. Gupta SK, Shrivastava AK, Gupta P, Sharma P, Sarawagi R. A study on self reported Quality of Life of HIV-Positive Slum Dwellers in Mumbai, India. *J Community Med Health Educ*2012 ; Vol. 2:172. Doi: 10.4172/2161-0711.1000172.
- [5]. Kohli RM, Sane S, Kumar K, Paranjape RS, Mehendale SM. Assessment of quality of life among HIV- infected persons in Pune, India. *Qual Life Res* 2005; Vol 14: 1641.
- [6]. Rashmi A, Kundapur R. A Study on demographic factors affecting quality of life among HIV positive individuals attending a district anti retroviral treatment center in Mangalore. *Int J Community Med Public Health* 2018;Vol.5 : 215-9.
- [7]. Bhat U. S ,Cherian A V, Bhat A ,Chapman H J ,Lukose A , Patwardhan N ,Satyanarayana V, Ramakrishna J .Factors affecting psychosocial well-being and quality of life among women living with HIV/AIDS. *NUJHS* 2015; Vol. 5: No.4, December 2015, ISSN 2249-711.
- [8]. Anand D, Puri S and Mathew M. Assessment of Quality of Life of HIV-Positive People Receiving ART: An Indian Perspective. *Indian J Community Med* 2012 Jul-Sep; 37(3): 165-169. Doi:10.4103/0970-0218.99918

- [9]. Wig N, Lekshmi R, Pal H, Ahuja V, Mittal CM, Aggarwal SK. The impact of HIV/AIDS on the quality of life : A cross sectional study in north India. Indian journal of Medical Science 2006; Vol.60, No. 1, January, 2006 : 3-12
- [10]. T Mahalakshmy , KC Premarajan, AbdoulHamide. Quality of Life and its determinants in people living with human immunodeficiency virus infection in Puducherry, India. Indian J Community Med. 2011 Jul-Sep; 36(3): 203-207
- [11]. Imam HM, Karim MR, Ferdous C, Akhter S. Health Related quality of life among the people living with HIV. Bangladesh Med Res Counc Bull 2011; Vol.37: 1-6
- [12]. Liping M, Peng X, Haijiang L, Lahong J, Fan L. Quality of Life of People Living with HIV/AIDS : A Cross-Sectional Study in Zhejiang Province, China. PLoS ONE 2015; 10(8): e0135705. doi: 10.1371/journal.pone.0135705

AnupinderThind. "A study of Quality of Life in Patients of HIV /AIDS Undergoing Anti-retroviral Therapy in Rajindra Hospital Patiala, Punjab." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 12, 2018, pp 28-31.