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Assessment of Quality of Life in People Living with HIV / AIDS (PLWHA) receiving ART

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ABSTRACT

Introduction: With increasing access to effective prevention, diagnosis, treatment, and care, HIV has become a manageable chronic health condition enabling people living with HIV (PLHIV) to lead long and healthy lives. WHO defines QOL as individuals' perceptions 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.**Objectives:** 1)To assess the quality of life of PLHIV attending the ART clinic in a Tertiary care hospital 2)To determine the association of socio demographic variables with health-related quality of life.**Methods:** This descriptive study conducted from April to June 2022 involved all HIV-positive patients of age >18 years attending the ART Clinic in a Medical College hospital. IEC clearance was obtained, and informed consent was taken from the study subjects. Data was collected using World Health Organization Quality of Life scale [WHOQOL-HIV]-BREF. Data was entered in Microsoft Excel 2019 and presented in tables and graphs. Important findings were subjected to tests of significance like t test and Chi square tests at 5% level of significance. **Results:** Looking at WHO QOL scores for PLHIV, this study shows that 21.9% had low scores (Quartile 1) suggesting poor quality of life. 23.6% had high QOL. Significant low scores (means) were seen in females (p 0.0002), Low education (p 0.007), perceived health status as poor (p 0.00001) and marital status – single, divorced, separated (p 0.000002).**Discussion:** QOL of PLHIV is negatively associated with female gender, lower education levels and marital status (widow /separated / divorced etc.). Perceived good health status also contributes to a better quality of life in PLHIV. **Conclusion:**Along with early initiation on lifelong antiretroviral therapy (ART), improving the quality of life of PLHIV is critical. Interventions such as ART and counseling play an important role in the quality of life in PLHIV. Measures to further reduce stigma and discrimination in the society are needed.

Key words: PLHIV, WHO Quality of Life Scale, ART, Gender, perceived health status

I. INTRODUCTION:

One of the aims of healthcare for People Living with HIV (PLWH) is providing adequate comfort and welfare and ensuring a satisfactory Quality of Life (QOL). According to the World Health Organization (WHO), QOL isa person's discernment of his situation in life in the context of the culture and value systems in which he lives. QOL is relative to his goals, expectations, standards, and concerns. QOL also looks at one's physical and psychological health, level of independence, social relationships, personal beliefs and the harmony with one's environment [1].

Over the years with better access to prevention, diagnosis, treatment, and care, HIV has become a manageable chronic health condition. PLWHs can now lead long and healthy lives provided they are initiated early to lifelong antiretroviral therapy (ART) and are adherent to it. Successful HIV interventions can be described in terms of health-related quality of life (HRQOL) [2].

The WHO suggests that the QOL of an individual is the subjective evaluation of his own personal life as he moves and lives and confirms to his own culture and values[3]. The WHO QoL-HIV protocol helps in assessing the QOL of PLWHs and is very essential for both research purposes and also to understand the individual's burden of disease and outcome[4].The WHO [QOL-HIV]-BREF is a multi-dimensional instrument comprising 31 items designed to assess the QOL of people infected with Human Immunodeficiency Virus (HIV).

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Description of the WHOQOL-HIV-BREF Questionnaire

S. No	Domain	Components
1	Physical Health	Presence of pain and discomfort, energy and fatigue, sleep and rest, and symptoms related to HIV
2	Psychological Well-Being	Negative and positive feelings, thinking, memory and concentration, body image and appearance, and self-esteem
3	Level of Independence	Mobility, activities of daily living, dependence on medication or treatments, and work capacity
4	Social Relations	Personal relationships, social support, and sexual activity
5	Environmental Health	Physical safety and security, home environment, financial resources, physical environment, and opportunities for acquiring new information
6	Spiritual Health	Concern about future death, forgiveness, and blame

The instrument also examines the general quality of life by asking the individual's overall perception of his quality of life and perception of health[5].

OBJECTIVES:

1) To assess the quality of life of PLWH attending the ART clinic in a Medical College hospital
2) To determine the association of socio demographic variables with health-related quality of life.

II. METHODOLOGY:

This descriptive study conducted from April to June 2022 involved all HIV-positive patients of age >18 years attending the ART Clinic during this period in a Medical College hospital. Institutional Ethics Committee clearance was obtained, and informed consent was taken from 233 study subjects (92 males and 141 females). Data was collected using the WHOQOL-HIV-BREF [6, 7]which contains six domains: physical health; psychological health; level of independence; social relationship; environmental health; and spirituality. The instrument is organized by a response scale (capacity, frequency, intensity, or satisfaction). Scores of each domain and overall scores were divided into quartiles and compared with demographic data to look for any associations. Data was entered in Microsoft Excel 2019 and presented in tables and graphs. Important findings were subjected to tests of significance like student t test and Chi square tests at 5% Level of Significance.

III. RESULTS:

Of the 233 PLWH seen in this study, 60.5% were females. 73.8% were less than 40 years of age. 71.7 % were from Lower Socio Economic Status. 51.5% were married the rest being divorced, separated or widowed.This study shows that 21.9% had low scores (Quartile 1) suggesting poor quality of life. 23.6% had high QOL (Quartile 4). Low scores (<mean) were seen in female PWLHs (chi sq. 14.2, p value <0.0002), lower levels of education (chi sq. 12. 1, p value <0.007), and marital status – single, divorced, separated (chi sq. 30.0, p value <0.000002).

63.1% of the PLWH who perceived that their health was good actually did have a higher QOL score. On the other hand of those individuals who perceived that their health status was poor, 81.1% had a low QOL score. The difference is statistically highly significant (Chi Sq. 30.5, p value <0.00001)

Scores in all 6 QOL domains were significantly lower in female PLHWs than the males (**Table 1**). The interpretation of QOL scores and one standard deviation from the mean are given in **Table 2**. Factors such as religion, caste, alcohol intake (males), no. of years infected with HIV were not found to be significantly associated with QOL.

IV. DISCUSSION:

An achievable target put forth by the UNAIDS is as follows: By 2020, 90% of all people living with HIV will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression. A subsequent 95-95-95 goal is set for 2030. The global HIV care range today is 75-79-81 corresponding to viral suppression in 48% of PLWHA. The only way to achieve this ambitious target is through approaches grounded in principles of human rights, mutual respect and inclusion[8].

Quality of life (QoL) is a construct which reflects how personal perceptions of goals, expectations, standards and concerns relate to their culture and value system. It is influenced by the physical health, psychological state, level of independence, social relations, and one´s rapport with their environment. The multi-dimensional health-related quality of life (HRQoL)

demonstrates the impact of an individual´s health status on their quality of life [9].

Health-related quality of life (HRQoL) can be affected by the existence of long-term medical conditions. In PLWHA, it measures the impact of HIV disease and its management on their physical, social, and psychological wellbeing. As the life expectancy of PLWHA is increasing, it becomes necessary to measure and monitor their HRQoL. The altered goal of treatment for HIV/AIDS today goes beyond mere survival and challenges the concept of better quality of life of PLWHA[10].

Ghiasvand H et al found in their study that ART has a positive impact on QoL. The results illustrated that time diagnosing and availability to hospital services had significant relationship with a higher QoL and CD4 < 200 was associated with a lower QoL. They suggest that policy makers should prioritise the provision of suitable diagnostic and therapeutic facilities for the early detection and continuous monitoring of the health status of PWLHs[11].KhademiNet al in their study in Iran found that marital status (single, widow etc.) and drug use were the main negative influencers of various domains of QOL. In the current study the influence of alcohol intake on QOL in men was not found to be significant [12].

The UNAIDS fact sheet 2022 states that in 2021, there were 38.4 million people living with HIV and 54% of them were women and girls[13]. Gebremichael DY et al in their study done in Ethiopia found thatfemale PLWHs had significantly lower quality of life in physical, psychological, independence and environmental domains as compared with males except social relationship and spiritual domains. Depressed HIV patients had significantly lower quality of life in all domains as compared with HIV infected patients without depression in both genders[10].

The feminization of the HIV pandemic has strong evidence in the local setting as women are increasingly more vulnerable to HIV infection and its consequences[14].Despite decreasing HIV mortality and incidence of new cases in recent times, the significant disparities in the HRQoL of male and female HIV patients calls for strengthening policies on gender mainstreaming in the management of HIV and broadening scope of HIV services to cover essential physical, psychological, social, environmental, and spiritual needs of the PLWHA[14].This disparity between the burden and resources allocated highlights the persistent need for targeted strategies aimed at increasing awareness about HIV and providing tools to adopt safe behaviours among those at highest risk[15].

The HRQoL of HIV patients can be influenced by disease-related factors (CD4+ count, viral burden, HIV disease stage); psychosocial factors (social support, coping and disclosure); socio-demographic characteristics (age, gender, employment and level of education). Understanding the magnitude and how these factors affect the HRQoL will enable health planners, managers, and policymakers design interventions for improving the HRQoL of PLWHA. Ghiasvand H found a positive association between the time of diagnosis and accessibility of services on QoL among PWLHs. Diagnosing HIV/AIDS in its earliest stage and then designing in-time therapy with patients may have a positive impact on managing and controlling the illness. This can lead to a better QoL for PWLHs' by preparing them for useful coping strategies and improved resilience[11].

Marital status and QOL: This study showed that mean (SD) age of PLWH was 40.21 (10.45) years. Females had better QOL than males except for spirituality, religion and personal beliefs. The gender differences disappeared in multivariate results. A significant association was observed between education and the independence, environment, and spirituality domains of QOL. In addition, being married was correlated with overall QOL, psychological and social relationships domains of QOL of PLWH. Drug use was a behavioral factor with negative influence on the QOL[5].

Joulaei Het al showed in their study from Iran that the majority of the participants had poor health-related quality of life which was affected by unemployment, co-morbidity, and social support from family. They further suggest that married patients compared to single, people with university education compared to illiterate, rural patients compared to urban patients, people with a duration of infection of more than 5 years compared to less than 5 years, and unknown transmission route, treatment with ART compared to no treatment had a statistically positive relationship with higher scores of HRQoL [16]. In the current study no. of year of illness was not found to be a significant factor.

Bukhori Bin their study in Indonesia among Muslim PLWHA found that the physical and psychological problems they experienced encouraged them to use religious coping such as prayer. This religious coping has a calming effect, which impacts reducing physical complaints and

overcoming psychological problems. This strengthens the application of holistic therapy to PLWHA through palliative care to handle pain and other physical complaints and psychosocial-spiritual concerns [17].

Positivereligiouscopingmethodsreflectasecurerelationshipwithatranscendentforce,asenseofspiritualconnectednesswithothers,andabenevolentworldview.Negativereligiouscopingmethodsreflectunderlyingspiritualtensionsandstruggleswithinoneself,withothers,andwiththedivine[18].Spirituality is an essential factor for HIV/AIDS patients. Spirituality helps a person to achieve balance, improves health, well-being, and adapt to illness. Spiritual needs have a significant relationship with the characteristics of PLWHA. All dimensions of spiritual needs become essential for people with HIV/AIDS[19].

V. CONCLUSION:

QOL of PLHIV is negatively associated with female gender, lower education levels and marital status (widow /separated / divorced etc.). Perceived good health status also contributes to a better quality of life in PLHIV. Interventions such as ART and counseling play an important role in the quality of life in PLHIV. Measures to further reduce stigma and discrimination in the society are needed. The significantly lower HRQoL among female HIV patients calls for a multipronged approach towards strengthening gender mainstreaming in the management and control of HIV patients.

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Table 1: Distribution of domains according to gender

QOL Domains	Mean Scores		t statistic	p value
	Male (SD)	Female (SD)		
Physical	11.28 (1.44)	10.75 (1.73)	2.49	0.013*
Psychological	15.17 (1.95)	14.38 (1.99)	2.99	0.003*
Level of Independence	13.57 (1.35)	12.93 (1.47)	3.4	0.0008**
Social	13.78 (2.09)	12.73 (2.16)	3.67	0.0003**
Environmental	17.6 (2.85)	16.26 (3.03)	3.43	0.0007**
Spiritual	11.04 (1.93)	10.8 (2.64)	0.81	0.42

* significant, ** Highly significant **

Table 2: Distribution of WHO QOL Scores across all domains

WHO QOL Domains Score	Mean Transformed Score	Standard Deviation	Interpretation
Physical	67.75	14.44	Very Good
Psychological	60.21	14.93	Good
Level of Independence	68.48	11.03	Very good
Social	57.37	13.47	Good
Environmental	44.92	12.56	Moderate
Spiritual	64.33	18.51	Very Good