

DOI <https://doi.org/10.33314/jnhrc.1533>

Quality of Life among People Living with Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome in a Anti-Retroviral Therapy Clinic

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ABSTRACT

Background: The increasing burden of Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome and its association with the stigma, disability, less productive life, diminished immune has overall affected the quality of well being. There are also many factors that directly or indirectly affect the quality of Life of People living with Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome. Thus, this study aims to assess Quality of Life among people living with Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome.

Methods: A cross-sectional analytical study among 100 individuals of age 18 years and above and diagnosed from 6 month and above attending the ART clinic of Bharatpur Hospital was carried out between using simple random sampling technique. Quality of life was evaluated using World Health Organization Quality of life questionnaire (WHO QOL-BREF instrument).

Results: This study reveals that the Quality of Life median scores were highest for the environmental domain (25 ± 2.6) and lowest for the social domain (11 ± 1.4). The overall Quality of Life median scores in the other two domains were physical domain (23 ± 2.4), and psychological domain (19 ± 3.1). The Quality of Life scores of all four domains were strongly co-related with the total measure of the quality of life. The strongest correlation was seen in psychological domain. Sex, Education, Marital status, Cause of HIV, Co-morbidities of illness, and Family support was statistically associated with overall Quality of Life.

Conclusions: Higher education, Good family support and no co-morbidities to the illness has a greater impact in improving the quality of Life.

Keywords: ART; HIV/AIDS; quality of life.

INTRODUCTION

Human immunodeficiency virus (HIV) / Acquired immune deficiency syndrome (AIDS) is a chronic infection that affects not only the patients' physical condition, but also their social relations, mental health and financial aspects.¹ HIV continues to be a major global public health issue, having claimed more than 35 million lives so far² and also a major problem in Nepal with more than 32,735 reported cases of people living with HIV.³

With the recent advances in clinical tests and treatments strategies for those suffering from human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), the survival of these patients has been increased and their Quality of Life (QOL) has become an important focus for healthcare providers.⁴ HIV patients struggle with numerous social problems such as stigma, depression, substance abuse, and cultural beliefs which can affect their QOL not only from the physical health aspect, but also from mental

and social aspect.⁵ Also due to their compromised immunological status they are vulnerable to repeated opportunistic infection depriving them of regular work, which further leads to economical problems hence reducing their overall quality of life. Therefore, this study aims to assess different domain of Quality of Life among People living with HIV.

METHODS

A cross-sectional analytical study was carried out among people living with HIV attending ART clinic of Bharatpur. We calculated sample size considering 700 as known population of the study area, 95% desired level of confidence and 10 % acceptable margin of error. The required sample size was 96; however, we rounded it and decided to interview 100 sample. Sample was collected using simple random sampling technique. Lottery method was used to collect 100 samples among 700 clients. People with HIV/AIDS with age more than 18 years, diagnosed from 6 month and above and with

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no severe life events within past 3 month were selected for the study. WHO-QOL BREF was used as a tool to collect the data. Permission from WHO was obtained and validated version of WHO-QOL BREF⁷ in Nepali language was received and used to collect the data in the study setting. Ethical Clearance was obtained from Nepal Health Research Council. Written consent was obtained from each sample before collecting data. Data obtained was reviewed, coded and entered in SPSS 20.2 version and non-parametric tests Mann-Whitney U or Kruskal Wallis test was used to assess the association between socio-demographic characteristics and overall Quality of Life.

RESULTS

Among total of 100 participants, two-third 61.0% were female and remaining were male. Majority of the participant 57% belongs to age group 36-50 whereas 14%

belong to age group 51-65. Also 72% were married and 23% were widowed. Fifty-one percent of participants were infected having sex with man whereas 31% were infected having sex with women. Similarly, half of the participants had illness (HIV/AIDS) from 1-5 years and one-third since 6-10 years. Considering the existing co-morbidities, 76% reported no co-morbidities to illness. Majority of the participants (88%) had family support and almost all the participants had accessibility to ART clinic.

The overall QOL was 77 where the median score was highest for environmental domain (25) followed by physical domain (23), psychological domain (19) and least for social domain (11). The QOL scores of all four domains were strongly co-related with the total measure of quality of life. The strongest correlation was seen in psychological domain.

Table 1. Respondents' Socio-demographic characteristics. (n = 100).

Variables	Frequency	Percent	Variables	Frequency	Percent
Sex			Currently ill		
Male	39	39.0	Yes	24	24.0
Female	61	61.0	No	76	76.0
Age			Duration of illness		
20 - 35	29	29.0	Below 1 year	10	10.0
36 - 50	57	57.0	1 - 5 years	51	51.0
51 - 65	14	14.0	6 - 10 years	34	34.0
Education			Above 11 years	5	5.0
None at all	15	15.0	Cause of HIV		
Primary school	54	54.0	Sex with a man	51	51.0
Secondary school	31	31.0	Sex with a woman	31	31.0
Marital status			Injecting drugs	1	1.0
Single	4	4.0	Blood products	9	9.0
Married	72	72.0	Others	8	8.0
Divorced	1	1.0	Co-morbidities to illness		
Widowed	23	23.0	None	81	81.0
Ethnicity			Weakness	12	12.0
Brahmin	23	23.0	Fever	2	2.0
Chhetri	14	14.0	Diabetics	1	1.0
Janajati	40	40.0	Pain	3	3.0
Dalit	23	23.0	Heart disease	1	1.0
Religion			Accessibility to ART clinic		
Hindu	84	84.0	Less than 1 hour	24	24.0
Muslim	1	1.0	1 hour	20	20.0
Christians	7	7.0	1- 2 hour	27	27.0
Buddhist	6	6.0	More than 2 hour	29	29.0
Others	2	2.0	Family support		
			Present	88	88.0
			Absent	12	12.0

Table 2. Median scores of different domains of the quality of life and their association with overall QOL.

QOL domain	Median score (SD)	Score range	Correlation With Overall QOL	p-value
Overall QOL	77(7.6)	56-93		
Physical	23(2.4)	16-29	0.781	0.001*
Psychological	19(3.1)	12-26	0.886	0.001*
Social	11(1.4)	6-12	0.582	0.001*
Environmental	25(2.6)	17-32	0.800	0.001*

Table 3. Respondents' median ± SD comparison of HIV/AIDS domains of the quality of life based on demographic variables.

Variable	WHO QOL-BREF domain scores and standard deviations									
	Physical	p-v	Psychological	p-v	Social	p-v	Environmental	p-v	Overall QOL	p-v
Sex(#)										
Male	58.05 (2.3)	0.035*	60.33 (2.8)	0.006*	58.92 (1.2)	0.017*	55.85 (2.6)	0.137	60.00 (6.7)	0.009*
Female	45.67 (2.5)		44.21 (3.0)		45.11 (1.4)		47.08 (2.6)		44.43 (7.7)	
Education (\$)										
Not at all	30.83 (2.4)		31.67 (2.5)		28.90 (1.5)		31.30 (2.6)		27.00 (2.1)	
Primary School	48.66 (2.6)		46.08 (3.0)		53.64 (1.3)		45.64 (2.4)		46.52 (0.9)	
Secondary School	61.56 (1.8)	0.002*	65.56 (2.7)	0.000*	53.98 (1.2)	0.006*	66.50 (2.3)	0.000*	67.08 (1.0)	0.000*
Cause of HIV (\$)										
Sex with a man	45.71 (2.4)		42.88 (3.1)		41.38 (1.4)		48.03 (2.7)		43.68 (7.9)	
Sex with a woman	52.40 (2.5)		51.52 (2.4)		55.10 (1.3)		45.90 (2.4)		49.85 (6.0)	
Injecting drugs	96.00 ----	0.198	99.00 -----	0.010*	90.00 -----	0.006*	94.50 -----	0.129	100.00 ----	0.012*
Blood products	63.56 (2.3)		66.61 (3.5)		63.56 (0.7)		62.17 (3.0)		68.44 (7.4)	
Others	53.31 (2.3)		70.94 (2.2)		71.19 (1.0)		65.44 (2.0)		70.13 (6.7)	
Co-morbidities to illness (\$)										
None	54.09 (2.2)	0.026*	55.00 (2.8)	0.024*	51.20 (1.3)		52.06 (2.7)	0.479	54.23 (7.1)	0.050*
Weakness	42.42 (2.4)		33.75 (3.0)		45.63 (1.5)		48.21 (2.6)		39.08 (7.9)	
Fever	5.00 (0.7)		13.75 (3.5)		18.75 (2.8)		16.50 (1.4)		8.50 (8.4)	
Diabetics	3.00 ----		11.50 ---		90.00 ----	0.391	16.50 -----		9.00 -----	
Pain	48.00 (2.0)		46.50 (3.0)		54.67 (0.57)		51.83 (2.0)		49.67 (7.0)	
Heart disease	3.00 -----		11.50 -----		64.00 -----		50.00 -----		13.50 ----	
Family support(#)										
Present	50.94 (1.2)	0.676	52.97 (2.6)	0.021*	53.87 (2.4)	0.001*	52.19 (2.9)	0.112	53.02 (7.5)	0.019*
Absent	47.25 (1.5)		32.42 (2.8)		25.79 (2.5)		38.13 (3.2)		32.04 (6.9)	

On comparison of different domain of Quality of Life and socio-demographic variables, sex (0.009), educational status (0.001), Cause of HIV (0.012), co-morbidities of illness (0.050) and family support (0.019) was found to be statistically significant.

DISCUSSION

Although ART prolongs life by delaying disease progression, it does not eradicate HIV infection. AIDS is now considered a chronic illness. People Living with HIV have to manage their chronic HIV illness by taking ARVs for the rest of their lives, in order to prolong their lives. Previously, the response to ART used to be measured in terms of survival time and physician-rated toxicity but today, QOL has emerged as an important assessment of the impact of ART, therefore QOL has become an important outcome measure.

In the present study two-third of the participants were female. The high incidence of HIV infection among female may be due to women being more involved as a sexual worker, or it can be due to increased male labour migrant to neighbouring countries. Similar findings have been depicted in a study conducted in Karnataka, India⁸ where 61.5% of the participants were female. Whereas, majority (57%) belongs to age group 36-50, the increasing age of the participant proves the increased life longevity of people with HIV infection which may be the result of good efficacy and proper adherence to anti-retroviral therapy. But the findings has been contradicted by few studies which reflect majority of the participant being of young age⁹ and younger age being associated with improved Quality of Life.¹⁰ Regarding co-morbidities to illness, 76% reported no co-morbidities which is similar to the findings of the study¹¹ 98 (70.5%) were asymptomatic HIV-positive. Similarly, 88% of the participants had family support and almost all the participants had accessibility to ART clinic which denotes that stronger the coping resources less the stress hence improvement in overall quality of life.

The overall QOL was 77 where the median score was highest for environmental domain (25) followed by physical domain (23), psychological domain (19) and least for social domain (11). This findings is consistent with the study conducted in Chennai and karnataka, which revealed that QOL scores were highest for environmental domain which is 46.19¹² and (11.61 ± 1.83)⁹ respectively.

The QOL scores of all four domains were strongly correlated with the total measure of quality of life. It hereby states that all domains have a significant role in improving the quality of life. Until an equilibrium state is maintained among all four domains, somewhere the quality of life is compromised. Although all domains

being domain which is also supported by the study conducted in Iran.¹² On comparison of different domain of Quality of Life and socio-demographic variables, Gender (0.009),¹² educational status (0.001),¹³ Cause of HIV (0.012), co-morbidities to illness (0.050) and family support (0.019),¹⁴ was found to be statistically significant.

CONCLUSIONS

Gender, educational status, cause of HIV, co-morbidities to illness and family support plays an important role in improvement of Quality of Life of people living with HIV/AIDS. Reduced co-morbidities and improved family support are the most modifiable variables which can manifest a better wellbeing among People with HIV/AIDS. Therefore, a thorough understanding of the various factors that influence QOL need to be addressed and a appropriate set of comprehensive intervention should be initiated in early part of the disease.

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