



SOCIO-DEMOGRAPHIC AND CLINICAL CORRELATES OF QUALITY OF LIFE OF PEOPLE LIVING WITH HIV/AIDS

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ABSTRACT

Background: HIV/AIDS impacts heavily on the infected individual and the society at large, there is therefore a need to evaluate the quality of life of HIV-infected individuals and its associated factors.

Aims: The aim of the study was to assess the quality of life of People living with HIV/AIDS (PLHIV) and its associated factors.

Methodology: Quality of life was measured using WHOQOL-BREF scale from a convenient sample of 100 People living with HIV/AIDS (PLHIV) attending ART centre, Bagalkot in a cross sectional survey. Data were analyzed using descriptive and inferential statistics.

Findings: Majority (77%) of PLHIV had poor overall quality of life. A significant association was found between total quality of life and family history of HIV ($\chi^2=5.89$, $p<0.05$), having children ($\chi^2=3.93$, $p<0.05$), WHO clinical staging ($\chi^2=8.34$, $p<0.05$) and suffering from any other illness ($\chi^2=4.18$, $p<0.05$).

Conclusion: Quality of life of PLHIV is greatly compromised and family history of HIV, having children, clinical staging and co morbidity are the factors associated with QoL of PLHIV.

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INTRODUCTION

Human immunodeficiency virus (HIV) infection / Acquired immunodeficiency syndrome (AIDS) is one of the serious public health problems with severe impact on various facets of human life.¹ At present, in the world, around 36.9 million people are suffering from HIV/AIDS.² Every year around 2 million people are infected by this virus.² With an HIV prevalence of 0.26% in the adult population, India has an estimated 2.1 million people living with HIV.³

Quality of life (QOL) is a term that is popularly used to convey an overall sense of well-being and includes aspects such as happiness and satisfaction with life as a whole. World Health Organization has defined 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, standards, expectations and concerns."⁴ With the recent advances in clinical tests and treatments for those suffering from human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), the survival of these

patients has been increased and their QOL has become an important focus for researchers and healthcare providers.⁵ Since the discovery of HIV at in beginning of the 1980s, HIV/AIDS has been one of the greatest health problems in the world.⁶ HIV/AIDS places an increasing burden on the health of the population, and causes further socioeconomic problems for individuals, families, communities, and governments in many countries.^{7,8} HIV is increasingly considered a chronic disease, a person living with HIV has to cope with a range of HIV-related symptoms for extended periods. Symptoms may be related to the infection itself, comorbid illnesses, or iatrogenic effects from HIV-related medications.^{9,10} Many of the HIV patients struggle with numerous social problems such as stigma, poverty, depression, substance abuse, and cultural beliefs which can affect their QOL not only from the physical health aspect, but also from mental and social health point of view and cause numerous problems in useful activities and interests of the patients.¹⁰

Several factors associated with better QOL among HIV-infected patients have been reported in the international literature, and mainly, the impact of HIV on QOL falls under four major domains. Sociodemographic characteristics such as male gender¹¹ younger age,¹² higher socioeconomic status,¹³ and employment¹³ have been associated with improvement in

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QOL. Other variables such as lower HIV viral load,¹⁴ greater CD4+ cell count,^{12,14,15} fewer or less bothersome HIV symptoms,¹⁶ and higher levels of hemoglobin¹⁷ have been shown to be important clinical/immunological indicators of better QOL. In addition, patients with no difficulty in taking medications,¹² those using regimens with a lower number of pills,¹² and those more adherent to antiretroviral therapy (ART)^{11,13,14} tend to have improved QOL following the start of treatment.

Considering the fact that many socio-demographic and clinical variables influence the QOL of People with HIV/AIDS, the present study aims at assessing the Quality of Life People living with HIV/AIDS at ART centre, Bagalkot and its association with their socio-demographic and clinical variables.

Study Design and Participants

Present study was a descriptive cross sectional study conducted between June 2017 to July 2017. A convenient sample of 100 people living with HIV (PLHIV) coming for follow up counseling at ART Centre, District Government Hospital, Bagalkot were selected for the study. PLHIV who were between 18 to 50 years of age and willing to participate were included in the study. PLHIV who were positive for less than 2 weeks were excluded because the information from them was asked based on their last two weeks of experience. PLHIV with severe opportunistic infection were also excluded from the study. Permission to conduct study was obtained from Project Director, Karnataka State AIDS Prevention Society, Bangalore.

Quality of Life (WHO Quality of Life -BREF)

Quality of life was measured using the World Health Organization (WHO) Quality of Life (QOL) short version (WHOQOL- BREF)⁴, a 26-item scale that assesses the quality of life of PLHIV in four domains: physical health, psychological, social relationships, environment. Scale was translated to Kannada and then back translated to English. Cronbach's α of 0.83 was obtained by administering the scale to 10 PLHIV.

Data Collection Procedures

Prior permissions were taken from relevant institutions before the beginning of data collection procedure. The study participants were identified during the study period at ART centre, District Government Hospital, Bagalkot. Every HIV infected person who fulfilled the inclusion criteria was approached for data collection. Consent was obtained by the interviewers before participants underwent the structured interview which lasted approximately for 15 to 20 minutes. Purpose of the study was explained to the participants and they were interviewed in Kannada or in the language understandable to them. All the information collected was based on patient's self report, but the information related to CD4 count and clinical staging was obtained from the medical records.

Data Analysis

Descriptive univariate statistics such as frequencies were used for categorical variables. Association between the socio-demographic and clinical characteristics with QoL was found using Chi-Square test.

RESULTS

Sample characteristics

Socio-demographic characteristics of PLHIV are presented in Table 1. A significant portion (63%) of PLHIV were less than or equal to 40 years of age. 45 % of the PLHIV were males and 55% were females. Majority of them were Hindus (86%). Most of them were either illiterates or has primary education, majority of them were unskilled workers (79%). 68 % of them were married, most of them had no family support (71%), majority of them from rural area (73%), 69% of them had family history of HIV, 55% of them had more than Rs. 5000/- monthly family income. Majority of them were belonging to nuclear family (64%) and had children (73%).

Clinical characteristics of PLHIV are presented in Table 2. More than half of the sample had infect with HIV through heterosexual contact, majority of PLHIV have been suffering HIV illness for more than two years. 69 % of them had regular compliance to ART, most(62%) of them were only on ART, 76 % of PLHIV had CD4n count less than or equal to 500 cells, high portion of the PLHIV were in 2nd and 3rd stage of HIV illness. 58% of them were suffering from other illness.

Table 1 Socio-demographic characteristics of People living with HIV

Sl.No.	Socio-demographic characteristics	Frequency (n=100)
1.	Age in years	
	≤ 40 years	63
	>40 years	37
2.	Sex	
	Male	45
	Female	50
	Transgender	5
3.	Religion	
	Hindu	86
	Islam	14
4.	Education	
	Illiterate	36
	Primary	33
	Secondary	14
	PUC	12
	Degree and Above	5
5.	Occupation	
	Skilled	21
	Unskilled	79
6.	Marital Status	
	Married	68
	Unmarried	21
	Widow	5
	Divorced/Separated	6
7.	Family Support	
	Yes	29
	No	71
8.	Area of living	
	Rural	73
	Urban	27
9.	Family of History of HIV	
	Yes	69
	No	31
10.	Family monthly Income	
	≤ 5000	45
	>5000	55
11.	Type of family	
	Joint	36
	Nuclear	64
12.	Having children	
	Yes	73
	No	27

Table 2 Clinical characteristics of People living with HIV

Sl. No.	Clinical characteristics	Frequency (n=100)
1.	Mode of HIV Transmission	
	Heterosexual	55
	Blood transfusion/ Needle prick	5
	Homosexual	3
2.	Duration of HIV Illness	
	≤ 2 years	21
	>2 years	79
3.	Regular compliance to ART	
	Yes	69
4.	On any other treatment	
	No	31
5.	CD4 count	
	Yes	38
6.	WHO Clinical Staging	
	No	62
7.	CD4 count	
	≤500	76
	>500	24
8.	WHO Clinical Staging	
	Stage I	8
	Stage II	32
	Stage III	39
9.	Suffering from any other illness	
	Stage IV	21
10.	Suffering from any other illness	
	Yes	58
11.	Suffering from any other illness	
	No	42

Assessment of quality of life of PLHIV

Findings reveal that majority of the PLHIV had poor quality of life (77%).

Table 3 Levels of Quality of Life

Levels of Quality of Life	Range of score	Frequency
Good Quality of Life	>65	23
Poor Quality of Life	<65	77

Association between QoL and Socio-demographic and clinical variables of PLHIV

Table 4 shows the association between QoL and socio-demographic variables of PLHIV. A significant association was found between the quality of life and family history of HIV and having children.

Table 4 Association between QoL and Socio-demographic variables of PLHIV

Sl. No.	Socio demographic variables	Df	Chi-square value
1	Age	1	2.88
2	Sex	1	0.01
3	Religion	1	0.86
4	Education	3	5.18
5	Occupation	1	3.43
6	Marital Status	3	6.62
7	Family support	1	0.19
8	Area of living	1	2.45
9	Family history of HIV	1	5.89*
10	Monthly Income of Family	1	5.42
11	Type of Family	1	0.23
12	Having children	1	3.93*

*P<0.05

Table 5 shows the Association between QoL and clinical variables of PLHIV. A significant association was found between the quality of life and WHO clinical staging and suffering from any other illness.

Table 5 Association between QoL and Clinical variables of PLHIV

Sl. No.	Clinical characteristics	Df	Chi-square value
1.	Mode of HIV Transmission	3	3.49
2.	Duration of HIV Illness	1	0.01
3.	Regular compliance to ART	1	2.14
4.	On any other treatment	1	0.9
5.	CD4 count	1	0.84
6.	WHO Clinical Staging	3	8.34*
7.	Suffering from any other illness	1	4.18*

*P<0.05

DISCUSSION

The main objective of the present study was to assess the level of quality of life of people living with HIV/AIDS and its association with their socio-demographic and clinical characteristics. This cross sectional study included a sample of 100 PLHIV attending the ART centre, District Government Hospital, Bagalkot. Findings revealed that majority of the PLHIV had poor quality of life (77%) and a significant association was found between the quality of life and family history of HIV, having children, WHO clinical staging and suffering from any other illness. Similar findings were observed in a study conducted to assess the quality of life of PLHIV at Zhejiang Province, China¹⁸, findings showed that a significant association was found between the QoL and WHO clinical staging ($\beta = -0.704$).

In the present study significant association was found between the QoL of PLHIV and presence of comorbid illnesses. Similar findings were found in the study conducted to assess the impact of co morbidities, depression, and substance use problems on Quality of Life among older adults living with HIV at New York.¹⁹ Findings showed that, In both bivariate and multivariable contexts, the number of comorbid conditions was associated with reduced quality of life. Depression and substance use were also negatively associated with quality of life.

CONCLUSION

Quality of life of PLHIV is affected by many factors. In the present study majority of PLHIV had poor quality of life and family history HIV, having children and clinical variables clinical staging and co morbidity were significantly associated with QoL of PLHIV.

Ethical Clearance

Ethical clearance was obtained from the institutional ethical committee of BVVS Sajjalashree Institute of Nursing Sciences, Bagalkot.

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