

ORIGINAL ARTICLE

Quality of Life in People Living with HIV/AIDS attending ART Plus Centre in Kanpur Nagar

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CITATION

Dixit GK, Nigam S, Midha T. Quality of Life in People Living with HIV/AIDS attending ART Plus Centre in Kanpur Nagar. Indian J Comm Health. 2023;35(4):410-416.

<https://doi.org/10.47203/IJCH.2023.v35i04.005>

ARTICLE CYCLE

Received: 04/04/2023; Accepted: 05/10/2023; Published: 31/12/2023

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ABSTRACT

Background: HIV/AIDS affects an individual physically as well as mentally, socially and financially. ART treatment has increased life expectancy so Quality of Life (QOL) has become an important aspect. **Aim & Objective:** To assess QOL in people living with HIV/AIDS attending ART Plus center in Kanpur Nagar. **Material and Methods:** A cross sectional study was carried out on 407 registered patients at ART Plus centre from 1st march 2021 to 31st December 2021. WHOQOL-HIV BREF instrument was used to assess Quality of life. **Result:** Overall QOL score of male patients (14.62 ± 2.05) was found higher than female patients (13.46 ± 1.92). Married study subjects had maximum overall QOL score (14.65 ± 2.00) and minimum QOL score was found in Widowed (12.99 ± 1.84). Maximum overall QOL score was found in Class I (15.62 ± 2.08) and minimum score was found in Class V (13.60 ± 2.00) of modified BG Prasad socioeconomic classification. The study showed that there was an association between QOL scores with gender, marital status and socioeconomic status. **Conclusion:** In this study QOL score was found higher in male, married study subjects with higher socioeconomic status.

KEYWORDS

Quality of life, People living with HIV/AIDS, WHOQOL-HIV BREF

INTRODUCTION

HIV/AIDS has become a serious health, economic, and social problem with 38 million people living with HIV/AIDS (PLHA) virus globally and approximately 2.34 million people only in India in the year 2019. Maharashtra had the highest estimated number of PLHIV (3.96 lakh), followed by Andhra Pradesh (3.14 lakh), Karnataka (2.69 lakh), Uttar Pradesh (1.61 lakh), Telangana (1.58 lakh), Tamil Nadu

(1.55 lakh), Bihar (1.34 lakh) and Gujarat (1.04 lakh). (1,2)

HIV is increasingly considered a chronic disease. For a person living with HIV, this means having to cope with a range of HIV-related symptoms for extended periods. Symptoms may be related to the infection itself, co morbid illnesses, or iatrogenic effects from HIV-related medications. (3)

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 six major domains. Socio-demographic characteristics such as male gender, married and higher socioeconomic status, have been associated with improvement in QOL.(3). In this study we had assessed QOL and influencing factors at ART Plus centre Kanpur nagar.

MATERIAL & METHODS

The present study was a cross sectional study. People living with HIV/AIDS (PLHA) aged 18 years and above of Kanpur Nagar attending ART Plus Center, GSVM Medical College Kanpur were taken as study subjects. There were 537 newly registered HIV patients in total between 1st march to 31st December 2021. Of these 407 patients fulfilled our inclusion criteria which was age more than 18 years, those who gave written consent, those who had completed 6 months' treatment at the center and those who were not hospitalised in last 3 months for any medical reason. 130 patients who were not part of our study were those with age less than 18 years (30), had not gave written consent (63), had not completed 6 months of treatment at the center (18) and had been hospitalised in last 3 months (19). Information regarding 407 study subjects was recorded on a predesigned and pretested questionnaire by direct per-sonal interview method over a period of 10 months. Each study subject was contacted once for approximately 30 minutes . The questionnaire consisted of questions related to biosocial profile & World health organisation quality of life HIV BREF (WHOQOL-HIV BREF) (4) instrument to fulfil the objectives of the pre-sent study. It contains six domains namely physical, psychological, level of independence, social relationships, environmental and spiritual/religious/personal belief. There were total 31 questions. Each domain contained a 5-point Likert scale. On the scale one, (1) indicates low and negative perceptions and five (5) indicates high and positive perceptions, which denoted better QOL. Scores of negatively directed questions

were reversed to make scores higher. Higher scores indicate better QOL.

Statistical Analysis: The collected data was encoded into Microsoft Excel sheet and analysed by using SPSS (Version 25) software. Data was expressed using percentages, mean & standard deviation(SD). Quantitative data was analysed using Student's t-test to study association between QOL with gender, residence and family type and Analysis of Variance (ANOVA) test was applied to study association between QOL with age, marital status and socioeconomic status. P-value less than 0.05 was considered statistically significant.

RESULTS

Out of total 407 study subjects 55% belonged to the age group of 18-30 years,35.4% belonged to 31-40 years and the least 9.1% belonged to >40 years. Out of total study subjects 66.83% were male and 33.17% were female.91.9% of study subjects were Hindu and 8.1% were Muslim. 66.34% study subjects were from urban area and 33.66% study subjects were from rural area. 69.5% of study subjects were married, 12.8% were unmarried, 14.5% were widowed and 3.2% were divorced/separated.

A majority of study subjects had studied upto primary level of education (24.3%) & High school (20.1%).Only 1.5% study sub-jects had professional education status. 77.7% of study subjects belonged to nuclear family and 22.3% belonged to joint family. A majority of study subjects (33.4%) belonged to Class IV and least belonged to Class I(8.4%) as per Modified BG Prasad classification.(Table-1)

Overall QOL score was observed as 14.24 ± 2.08 (mean \pm SD). Maximum QOL score was observed in Physical domain (16.20 ± 2.51) followed by level of independence (15.28 ± 2.44), spirituality (14.68 ± 3.86), psychological domain (13.85 ± 2.62) environmental domain (13.52 ± 2.34) and minimum score was found in social domain (11.89 ± 3.90) (Table-2)

Table-1-Sociodemographic characteristics-

Sociodemographic characteristics	Frequency(Percentage)
Age	
18-30yr	224(55.0)
31-40yr	144(35.4)
>40yr	39(9.6)
Gender	
Male	272(66.83)
Female	135(33.17)
Religion	
Hindu	374(91.9)
Muslim	33(8.1)
Residence	
Rural	270(66.34)
Urban	137(33.66)
Marital Status	
Unmarried	52(12.8)
Married	283(69.5)
Divorced/Separated	13(3.2)
Widowed	59(14.5)
Education	
Illiterate	33(8.1)
Primary	99(24.3)
Middle	67(16.5)
High School	82(20.1)
Intermediate	56(13.8)
Graduate/Post Graduate	64(15.7)
Professional	6(1.5)
Type of family	
Nuclear	316(77.7)
Joint	91(22.3)
Socioeconomic status	
I	34(8.4)
II	67(16.5)
III	123(30.2)
IV	136(33.4)
V	47(11.5)

Table-2- QUALITY OF LIFE (QOL) SCORES

QOL SCORE	MEAN	STANDARD DEVIATION
Overall Score	14.24	2.08
Physical Domain	16.20	2.51
Psychological Domain	13.85	2.62
Level Of Independence	15.28	2.44
Social Domain	11.89	3.90
Environmental Domain	13.52	2.34
Spirituality	14.68	3.86

In physical domain maximum QOL score was found in >40 years study subjects (16.54±2.36) followed by 31-40 years (16.28±2.32) and minimum score was found in 18-30 years study

subjects (16.09±2.65). In social domain maximum QOL score was found in >40 years age group followed by 31-40 years (11.85±4.00) and minimum QOL score was

found in 18-30 years (11.73±3.91). Overall QOL score was found maximum in >40 years age group (14.86±1.45) followed by 31-40 years age group (14.19±2.16) and minimum in 18-30 years age group (14.16±2.12). QOL score was found higher in physical domain of male (16.43±2.44) than female (15.74±2.59) and in social domain also higher score was observed in male (12.58±3.73) in comparison to female (10.51±3.89). Quality of Life score for physical domain was found higher in married (16.42±2.43) followed by unmarried (15.86±2.76), widowed (15.71±2.62) and minimum in divorced/separated (15.23±2.45). Quality of Life score for Social Domain was found higher in married (13.18±3.62) followed by unmarried (9.61±2.94), divorced/separated (9.00±3.11) and widowed (8.51±2.63). Overall QOL score was maximum in married (14.65±2.00) followed by unmarried (13.75±2.15), divorced

/separated (13.18±1.79) and minimum for widowed (12.99±1.84). Quality of Life score for Physical domain was found higher in Socioeconomic status I (17.35±2.58) followed by II (16.91±2.31), III (16.01±2.47), IV (16.00±2.44) and V (15.40±2.61). Among social domain QOL score was found higher in Socioeconomic status I (12.74±3.371) followed by II (11.23±4.43), III (11.83±3.86), IV (11.91±3.86) and V (11.14±3.45). Overall QOL score was found higher in Socioeconomic class I (15.62±2.08) followed by class II (14.70±2.26), class III (14.09±1.89), class IV (14.01±2.03) and class V (13.60±2.00) of modified BG Prasad classification and there was higher QOL score in Physical domain of joint family (16.34±2.46) than nuclear family (16.16±2.52). Overall QOL score was found higher in joint family (14.34±1.98) when compared with nuclear family (14.20±2.11). (Table 3)

Table-3-Association of QOL Score with Sociodemographic factors

Age	Physical domain (mean±sd)	Psychological domain (mean±sd)	Level of independence (mean±sd)	Social domain (mean±sd)	Environmental domain (mean±sd)	Spirituality (mean±sd)	Overall score (mean±sd)
18-30	16.09 (2.65)	13.81 (2.61)	15.23 (2.50)	11.73 (3.91)	13.50 (2.54)	14.56 (3.88)	14.16 (2.12)
31-40	16.28 (2.32)	13.68 (2.67)	15.29 (2.41)	11.85 (4.00)	13.48 (2.23)	14.58 (3.97)	14.19 (2.16)
>40	16.54 (2.36)	14.65 (2.39)	15.51 (2.21)	13.00 (3.37)	13.77 (2.17)	15.69 (3.22)	14.86 (1.45)
P value	0.4993	0.1035	0.7868	0.1077	0.7512	0.1874	0.0909
Gender							
Male	16.43 (2.44)	14.21 (2.59)	15.53 (2.45)	12.58 (3.73)	13.80 (2.35)	15.19 (3.78)	14.62 (2.05)
Female	15.74 (2.59)	13.10 (2.54)	14.78 (2.35)	10.51 (3.89)	12.95 (2.20)	13.65 (3.81)	13.46 (1.92)
P value	0.0105	<.0001	0.0031	<.0001	0.0004	0.0001	<.0001
Marital Status							
UnMarried	15.86 (2.76)	13.58 (2.97)	15.09 (3.09)	9.61 (2.94)	13.44 (2.85)	14.88 (3.53)	13.75 (2.15)
Married	16.42 (2.43)	14.14 (2.50)	15.57 (2.27)	13.18 (3.62)	13.78 (2.25)	14.80 (3.96)	14.65 (2.00)
Divorced/Separated	15.23 (2.45)	13.35 (3.07)	14.46 (2.40)	9.00 (3.11)	12.80 (2.06)	14.23 (3.90)	13.18 (1.79)
Widowed	15.71 (2.62)	12.87 (2.55)	14.27 (2.36)	8.51 (2.63)	12.58 (2.10)	13.97 (3.69)	12.99 (1.84)
P value	0.0629	0.0050	0.0011	<.0001	0.0024	0.4534	<.0001
Residence							
Rural	16.06 (2.65)	13.59 (2.81)	15.01 (2.61)	11.73 (4.16)	13.43 (2.25)	14.23 (3.98)	14.01 (2.22)
Urban	16.27	13.97	15.41	11.98	13.57	14.91	14.35

Age	Physical domain (mean±sd)	Psychological domain (mean±sd)	Level of independence (mean±sd)	Social domain (mean±sd)	Environmental domain (mean±sd)	Spirituality (mean±sd)	Overall score (mean±sd)
	(2.44)	(2.52)	(2.34)	(3.77)	(2.39)	(3.78)	(2.00)
P value	0.4387	0.1835	0.1318	0.5551	0.5618	0.0989	0.1326
Socioeconomic Status							
I	17.35 (2.58)	15.29 (2.93)	16.62 (2.51)	12.74 (3.71)	15.53 (2.44)	16.18 (3.14)	15.62 (2.08)
II	16.91 (2.31)	14.42 (2.66)	15.88 (2.49)	12.13 (4.43)	14.10 (2.53)	14.73 (3.91)	14.70 (2.26)
III	16.01 (2.47)	13.71 (2.46)	15.20 (2.26)	11.83 (3.86)	13.14 (2.25)	14.67 (3.70)	14.09 (1.89)
IV	16.00 (2.44)	13.56 (2.50)	14.90 (2.21)	11.91 (3.86)	13.17 (2.12)	14.52 (3.99)	14.01 (2.03)
V	15.40 (2.61)	13.12 (2.68)	14.77 (2.93)	11.04 (3.45)	13.23 (1.96)	14.02 (4.13)	13.60 (2.00)
P value	0.0007	0.0007	0.0005	0.3906	<.0001	0.1484	<.0001
Family Type							
Nuclear	16.16 (2.52)	13.84 (2.54)	15.17 (2.49)	11.94 (3.94)	13.41 (2.38)	14.70 (3.84)	14.20 (2.11)
Joint	16.34 (2.46)	13.88 (2.91)	15.65 (2.24)	11.70 (3.80)	13.91 (2.15)	14.60 (3.95)	14.34 (1.98)
P value	0.5417	0.9057	0.0811	0.5993	0.0583	0.8308	0.5599

DISCUSSION

In the present study overall mean score of QOL was found maximum in physical domain followed by level of Independence, spirituality, psychological domain, environmental domain & minimum mean score was found for social domain. Maximum mean score of QOL in Rural & Urban Area was found in Physical domain. Minimum QOL score of rural & urban area was found in social domain.

In the present study maximum QOL score was found in physical domain in >40 years study subjects (16.54±2.36) followed by 31-40 years (16.28±2.32) and minimum score was found in 18-30 years study subjects (16.09±2.65). In social domain maximum QOL score was found in >40 years age group followed by 31-40 years (11.85±4.00) and minimum QOL score was found in 18-30 years (11.73±3.91). However in a study conducted by Banagi Yathiraj Arjun et al (5) on 356 PLHA in Mangalore city showed that maximum QOL score in physical domain of 18-30 years age group (17.5±1.4) followed by 31-40 year age group (16.9±1.9), 41-50 year age group (16.0±2.1) & minimum score in >50 year age group (15.3±2.3). In social domain QOL score was found higher in 18-30 year age

group (13.0±1.9) followed by 31-40 year age group (12.3±1.7), 41-50 year age group (12.0±1.5) & minimum score in >50 year age group (11.9±1.9). In our study higher QOL score in >40 year age group may be due to the fact that the people of higher age had better social inclusions, higher spiritual experience and forgiveness than the lesser age group persons.

In the present study QOL score for physical domain, psychological domain, level of Independence domain, social domain, environmental domain and spirituality domain was found higher in male as compared to female and this association was found to be statistically significant (p-value<0.05). Similarly, in a study done by Deepika Anand et al (6) on 153 study subjects at an ART clinic of MKCG Medical College Berhampur, Orissa, QOL mean score was higher in males than females. In Physiological domain, the mean score in male was 12.0±2.7 and for female was 11.5±2.6. The mean score for Psychological Domain for male was 12.2±2.4 and for female was 11.8±2.4. The mean score for Level of Independence domain for male was 11.8±2.5 and for female was 11.7±2.6. The mean score for Social domain for male was 12.0±1.9 and

for females was 11.0 ± 2.1 & for Environmental domain, the mean score for male was 12.2 ± 1.8 and for female was 11.5 ± 1.7 . However, in their study spirituality domain, QOL score for females (14.6 ± 2.1) was greater than males (14.5 ± 2.4).

A similar trend was seen in a study done by K.H. Rajeev et al (7), where in, the mean score for physical domain for male was 11.65 ± 1.46 and for female was 11.30 ± 1.48 . The mean score was 13.30 ± 1.55 for males and 13.02 ± 1.32 for females for psychological domain. For Social relationship domain, the mean score for male 11.93 ± 1.06 and for female 11.85 ± 1.09 and for Spirituality domain, the mean score for male was 12.24 ± 1.27 and for female was 12.13 ± 1.38 . However, a higher mean score was observed in females than in males in level of independence domain, which was 11.18 ± 1.09 for males and 11.21 ± 1.16 for females. Similarly for environmental domain, the mean score for male was 11.39 ± 0.89 and for female was 11.45 ± 0.94 . Higher QOL score values in our study may be due the the fact that the study subjects taken in our study had taken ART treatment more than 6 months.

In the present study QOL score was found higher in physical domain in married (16.42 ± 2.43) followed by unmarried (15.86 ± 2.76), widowed (15.71 ± 2.62) and minimum in divorced/separated (15.23 ± 2.45). Quality of Life score for social domain was found higher in married (13.18 ± 3.62) followed by unmarried (9.61 ± 2.94), divorced/separated (9.00 ± 3.11) and widowed (8.51 ± 2.63). The association of QOL with marital status was found to be statistically significant (p -value $< .05$) in psychological domain, level of independence domain, social domain & in environmental domain. However, in study done by K.H. Rajeev et. al. (7) in physical domain maximum score was found in single (11.82 ± 1.24) followed by married (11.55 ± 1.46), widowed (11.32 ± 1.44) and minimum score was found in divorced/separated (10.73 ± 2.14) & in social domain maximum QOL score was found in widowed (11.96 ± 1.08) followed by married (11.91 ± 1.06), single (11.89 ± 1.12) and minimum score was found in divorced/separated (11.25 ± 1.09). The better

QOL observed in married group in our study could be because of spouse support.

In this study in physical domain QOL score was found higher in Socioeconomic status class I (17.35 ± 2.58) followed by class II (16.91 ± 2.31), class III (16.01 ± 2.47), class IV (16.00 ± 2.44) and class V (15.40 ± 2.61). Among social domain QOL score was found higher in Socioeconomic status class I (12.74 ± 3.71) followed by class II (12.13 ± 4.43), class III (11.83 ± 3.86), class IV (11.91 ± 3.86) and class V (11.04 ± 3.45). Association between socioeconomic status and QOL was found to be statistically significant (p value < 0.001) in physical domain, psychological domain, level of independence, environmental domain & in overall score. In a study done by Yasir Alvi et. al. (2020) (8) the study subjects were divided into two groups class I,II,III & class IV,V and observed that in physical domain higher QOL score was found in I,II,III, group (16.21 ± 2.5) when compared with class IV,V (15.2 ± 3.2). In social domain QOL score was found higher in class IV,V (13.2 ± 2.8) when compared to class I,II,III (12.4 ± 3.1). Association between socioeconomic status and QOL was found to be statistically significant (p value < 0.001) in Physical domain, Psychological domain, Level of independence, Social domain and in Environmental domain.

In our study QOL score was found maximum in physical domain in joint family (16.34 ± 2.46) followed by nuclear family (16.16 ± 2.52). In social domain higher QOL score was found in Nuclear family (11.94 ± 3.94) as compared to joint family (11.70 ± 3.80). Similarly, a study done by Yasir Alvi et. al. (8) showed that in physical domain higher score was found in joint family (15.8 ± 2.7) than nuclear family (15.3 ± 3.1). However, in social domain QOL score was found higher in Joint Family (13.1 ± 2.9) when compared with nuclear family (12.9 ± 2.9).

CONCLUSION

As there are a large number of factors influencing Quality of Life, various aspects of different domains have been examined in the present study. The QOL score was found to be higher in male, married, those with higher socioeconomic status and those living in joint

family. The higher QOL score was found in male gender probably because of discrimination against female HIV patients at the level of family. Higher QOL score in married study subjects could be because of better spouse support. Higher QOL score in higher socioeconomic status could be because of financial security and better facilities available to them. Hence this study highlights the importance of social and financial support for PLHA.

RECOMMENDATION

There should be no stigma against PLHA. Family should support patient to improve quality of life. Also regular awareness programme on HIV should be carried out at community level and importance of providing social support to such patients should be emphasised. Interventions to improve socioeconomic status of PLHA should also be carried out by providing them better job opportunities.

AUTHORS CONTRIBUTION

All authors have contributed equally.

FINANCIAL SUPPORT AND SPONSORSHIP

Nil

CONFLICT OF INTEREST

There are no conflicts of interest.

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