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ASSESSMENT OF QUALITY OF LIFE OF PEOPLE LIVING WITH HIV/AIDS ATTENDING ANTIRETROVIRAL THERAPY CENTRE IN AN URBAN AREA.

Community Medicine

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ABSTRACT

Aims and objectives: 1) To study socio-demographic profile of people living with HIV/ AIDS. 2) To assess their quality of life.
Material & methods: Cross-sectional study was conducted on 319 subjects and Quality of life was assessed using WHO –Bref questionnaire & analyzed using SPSS software.
Results: Majority were females (52%) & 40.8% subjects belonged to 35-45 yrs age group. 80.88% were literate, 75.9% were married and 65.83% belonged to socio-economic class- II. 52.98% subjects had CD4 <300.The QOL score was highest for social domain (3.25±0.53). Male reported poor QOL in different domains & statistically significant result was obtained in General facet.
Conclusions: QOL score was highest for social domain. Male reported poor QOL in different domains

KEYWORDS:

HIV/AIDS, Quality of life(QOL), People living with HIV/AIDS(PLHA), B J Prasad's Classification

Introduction

HIV/AIDS is a serious public health, economic, and social problem with about 34 million people living with HIV/AIDS (PLHA) virus globally and 2.1 million people in India at the end of the year 2011.[1]HIV/AIDS is known to affect individual not only physically but also mental, socially & financially.

With the advent of highly active antiretroviral drugs, the HIV/AIDS which is a fatal infectious disease has now become a chronic manageable disorder. QOL is an important component in the evaluation of the well-being of HIV infected patients.[2] India is estimated to have around 20.9 lakh PLHA in 2011 which has decreased from 23.2 lakh in 2006[3]. Adult HIV prevalene has decreased from 0.41% in 2001 through 0.35% in 2006 to 0.27% in 2011. Children less than 15 years of age account for 7% (1.45 lakh) of all HIV infections; while 86% are in the age-group of 15-49 years. Of all HIV infections, 39% (8.16 lakh) are among women[4].

World Health Organisation (WHO) has defined quality of life(QOL) as 'individual's 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'.[5]

Objectives

1) To study demographic profile of people living with HIV/ AIDS.
2) To assess quality of life (QOL)of people living with HIV/ AIDS.

Material & Methods

It is a cross sectional type of observational descriptive study. Sample Size is 319

Selection of Subjects:

The Study was carried out at Antiretroviral therapy Centre (ART Centre) attached to Tertiary Health Care Centre between the period Jan 2014 to March 2014 using convenient sampling method , total of 319 newly registered HIV positive patients(age group 18-60 yrs) a consenting for study were included while pregnant & lactating women & seriously ill patient on ART were excluded. WHO BREF questionnaire[13] were used to assess Quality of Life which has 26 questions related QOL pertaining to 4 domains namely- Physical (7 questions), Psychological (6 questions), Social (3 questions), Environmental (8 questions), one question regarding the rating of the perceived QOL and one question regarding the level of satisfaction about their health .Data was analyzed using software SPSS 20 and Microsoft Excel 2010. Mean, Standard deviation, t test were applied to find statistical significance.

Ethics:

Institutional Ethics Committee approval was taken prior to the study.

Risk involved: Nil

Results

Majority of subjects were female 166(52%) & 153(48%) were male.130(40.8%) belonged to 35-45 yrs age group followed by107(33.5%) 25-35yrs .75.9% of subjects were married,17.9% were widowed,4.7% were unmarried while 1.6% were divorced. 252(80.6%) subjects were Hindu followed by Muslims religion50(15.7%) , Buddhists 9(2.8%) Christians1(0.3%) and other constitute 2(0.6%). Of 319 subjects 19.1% were illiterates, among the literate,27.9% completed primary education,followed by 36.4% who completed Secondary education 113(35.4%) were housewife and 17 (5.3%) were unemployed, 69 (21.6%)were unskilled 89(17.6%) were skilled worker .

According to Modified B J Prasad's classification[14], 210(65.83%) subjects belonged to socio-economic class- II followed by class I 89(27.9%) . Majority 169(52.98%) study population had CD4 count< 300 and 150(47.02%) had CD4 count > 300cells/mm^3 **(Table:1)**

Table.1 Demographic factors of People living with HIV/AIDS

Variables		No. of Workers		Total (%)
		Male (%)	Female (%)	
Age Group (Years)	< 25	10 (6.5)	16(9.6)	26 (8.2)
	25 – 35	39 (25.5)	68 (41)	107 (33.5)
	35 – 45	68 (44.4)	62 (37.3)	130 (40.8)
	45-55	33 (21.57)	19 (11.45)	52(16.30)
	>55	3(1.96)	1(0.6)	4(1.25)
Marital Status	Unmarried	13 (8.5)	2 (1.2)	15 (4.7)
	Married	129 (84.3)	113 (68.1)	242 (75.9)
	Widowed	10 (6.5)	47(28.3)	57 (17.9)
	Divorced	1(0.7)	4 (2.4)	5(1.6)
Religion	Hindu	126(82.35)	131(78.92)	257(80.56)
	Muslim	22(14.38)	28(16.87)	50(15.67)
	Buddhists	4(2.61)	5(3.01)	9(2.82)
	Christain	1(0.65)	0(0)	1(0.31)
	Others	0(0)	2(1.2)	2(0.63)
Literacy Status	Illiterate	24 (15.7)	37 (22.3)	61 (19.1)
	Primary	43 (28.1)	46 (27.7)	89 (27.9)
	Secondary	55 (35.9)	61 (36.7)	116 (36.4)
	Higher Secondary	28 (18.3)	22 (13.3)	50 (15.7)
	Graduate	3 (2)	0 (0)	3 (0.9)
Occupation Skills	Unemployed	15 (9.2)	2 (1.2)	17(5.3)
	Unskilled	35 (22.9)	34 (20.5)	69 (21.6)

	Semi skilled	31 (20.3)	0	31 (9.7)
	Skilled	72 (47.05)	17(10.2)	89 (27.9)
	Housewife	0	113 (66.9)	113 (35.4)
SES	Upper	40(26.14)	49(29.52)	89(27.90)
	Upper middle	109(71.24)	101(60.84)	210(65.83)
	Middle	1(0.65)	9(5.42)	10(3.13)
	Lower Middle	2(1.31)	7(4.22)	9(2.82)
	Lower	1(0.65)	0(0)	1(0.31)
Cd4 count	<300	85(55.56)	84(50.60)	169(52.98)
	>300	68(44.44)	82(49.40)	150(47.02)
Total	153	166	319 (100)	

Table 2: Quality of Life in different domain

Domain	Mean	Standard deviation
General QOL	2.35	0.68
Physical	2.68	0.39
Psychological	2.89	0.21
Social	3.25	0.53
Environmemtal	2.95	0.16

Table 2: shows descriptive statistics of various domains of quality of life measured in the subjects.The quality of life score was lowest for physical domain(2.68±0.39) followed by psychological domain(2.89±0.21). The Quality of life score was highest for social domain(3.25±0.53) followed by Environmental domain(2.95±0.16)

Table 3: Genderwise comparision of Quality of life in people living with HIV/AIDS

Domain	Gender		Total	P value
	Male(n=153) mean±SD	Female(n=166) mean±SD		
General	2.24±0.71	2.47±0.64	2.36±0.68	0.002*
Physical	2.66±0.40	2.71±0.38	2.68±0.39	0.253
Psychological	2.88±0.21	2.9±0.21	2.89±0.21	0.345
Social	3.22±0.52	3.29±0.54	3.26±0.53	0.244
Environmental	2.95±0.17	2.96±0.15	2.95±0.16	0.703

***Statistical significant difference between males & female(p<0.05)**

Table3 depict descriptive statistics of different domain of quality of life in males & female. Comparing the QOL score in different domains ,male reported poor QOL &statistically significant result was obtained in General facet.

Discussion

Socio Demographic Factors

In this present study, Of 319 subjects, 52% were women and 48% were men.As per NACO annual report 2012-2013 [4], 39% of all HIV infections are among women . **Nirmal et al**[7] in their study reported equal number of men and women. **Folasire et al**[9] in their study reported 62% female & 38% male. (Table.1)

130 (40.8%)of the subjects belonged to 35-45 yrs age group followed by107(33.5%) 25-35 yrs age group .The mean age of the subject was 37.90 ± 8.33 years ranging from 18 to 60 years.In a Study, **Marzieh Nojomi et al** [6] observed mean age of the patients was 35.4 ± 6.4 (range: 22 – 54) years and majority of subjects belonged to 30 – 39 years age group (57.6%). **Nirmal et al**[7] in their study observed that mean age of subject was 35.7 yrs (range-26-60yrs). In a study by **Folasire et al**[9], the mean age of the respondents was 38.1 ± 9.0 years. This confirms that most of the HIV cases occur among the sexually active and economically productive population who are responsible for child bearing and bread winning for the family. Hence this problem results in economic loss to the country. (Table.1)

Out of the total 319 subjects, 75.9% were married, 17.9% were widowed, 4.7% were unmarried while1.6% were divorced**.** In a study by **Nirmal et al**[7] 60% were married, 13.33% were widowed , 13.33%were separated ,10% were Single & 3.33% were divorced. **Gowda et al**[12] reported 60.4% married, 9% unmarried ,5.9%divorced and 24.7%widowed .The result of present study is in line with Nirmal et al[7] & Gowda et al[12] studies. (Table.1)

In the present study 80.6% were Hindus followed by 15.7% Muslim, 2.8% were Buddhist while 0.3% were Christians. In a study **Basavarajaiah et al**[11], reported 81.87% were Hindus , 12.75% were Muslims and 5.37% were Christians.(Table.1)

In the current study, majority 80.9% were literates and 19.1% were illiterate. Among the literate,36.4% completed secondary school. 27.9% completed primary school.15.7% completed higher secondary school & only 0.9% were graduate. In a study, **Marzieh Nojomi et al**[6],21.5% pursued primary education and 45.3% pursued secondary education.,18.7% pursued Higher secondary school 11.5% completed academic & education status of 2.8% patients was unknown.In a study **, Fatiregun et al**[8] concluded that 17.5% were illiterate , 28.6% patients pursued primary education, 38.9% pursued secondary education & 15.1% pursued tertiary education. (Table.1)

59.25% subjects were employed & 40.75% were unemployed.27.9 % were skilled worker, 21.6% were unskilled workers i.e., mainly daily wage earners, 9.7% were semi-skilled workers and 34.8% are housewife. Among the skilled worker 26.97% were driver.Study done by **Anand et al**[10] found unemployment was more among females as majority were housewives. In a study **Gowda et al**[12] found 75.3% were employed and 24.7% were unemployed. 65.83% subjects belonged to socio-economic class- II followed by 27.9% class -I, 3.13% belonged to class - III, 2.82% class – IV and 0.31% belonged to class V. In a study **Gowda et al**[12] ,2.4% subjects belonged to Class - I, 13.7% belonged to Class - II, 29.0% belonged to Class III, 43.5% belonged to Class IV and 11.4% belong to Class V. (Table.1)

52.98% subjects had CD4 <300cells/mm^3 and 47.02% had CD4 count >300cells/mm^3. **Nirmal et al**[7] in their study found 26.67% subjects had CD4 count <200 cells /mm^3, 50% had CD4 count between 200 - 500cells /mm^3 & 23.33% had CD4 count>500 cells /mm^3. In a study **Gowda et al**[12] found that 149 patients had CD4 count <350cells /mm^3 & 106 patients had CD4 count >350cells /mm^3.The result of present study is consensus with **Nirmal et al**[7] **& Gowda et al**[12] studies. (Table.1)

Quality of Life

The Quality of life score was highest for social domain (3.25±0.53) which measures aspects such as social contacts, family support & ability to look after family & satisfaction with sexual activity followed by environmental domain which measures the patients freedom, quality of home environment, financial status, quality & accessibility of health & social care and was lowest for physical domain (2.68±0.39) which assess presence of pain & discomfort, dependence on medication , energy &fatigue, mobility ,sleep and rest, activities of daily living & perceived work capacity followed by psychological domain(2.89±0.21) which assess patient's affect positive & negative self concepts, higher cognitive functions, body image & spirituality. **Fatiregun et al**[8] in their study documented QOL score was highest & similar in Psychological , physical , spirituality/ religion/ personal belief domain however lower score was recorded in social n environmental domain. In a study by **Folasire et al**[9], QOL score was highest in Psychological domain followed by physical , environmental domain and lowest score was noted in social domain.Study by **Anand et al**[10] documented highest QOL score in spirituality/religion/personal belief domain & similar QOL score in physical, psychological ,social ,level of independence domains . **Fernanda lopes et al**[16]**.** study reported similar QOL score in all the domains . A study by **Aswin kumar et al**[15] reported highest QOL score in environmental domain and lowest in Social relationships domain. The highest score in social & environmental domain in the present study might be due to good social support & quality & accessibility of health & social care. The highest QOl score in the environmental domain is in consensus with by **Aswin kumar et al**[15] study .The low score in physical domain implies counseling for drug adherence, good nutritional care & overall care similarly poor score in psychological domain implies counseling to enhance assertive approach toward life. (Table.2)

Genderwise comparision of Quality of life in people living with HIV/AIDS

Comparing the QOL score in different domains ,male reported poor QOL & statistically significant result was obtained in General facet. In a study by **Folasire et al**[9], male & female reported similar mean QOL score .Study done by **Anand et al**[10] documented females reported lower score in all domains of QOL in comparision to male. **Fatiregun et al**[8] in their study documented that gender status showed significant difference in level of independence domain . A study by **Aswin kumar et al**[15] reported QOL score was similar in male as well female **Fernanda lopes et al**[16] their study reported lower QOL score in psychological & environmental domains . (Table.3)

Conclusions:

Majority of subjects were female ,belonged to age group 35-45yrs of age.Most of subjects were literate , belonged to Hindu religion , were employed & belonged to upper middle class (classII) socioeconomic stratum. The Quality of life score was highest for social domain (3.25±0.53) & lowest for physical domain(2.68±0.39). Male reported poor QOL in all the domains of Quality of life &statistically significant result was obtained in General facet.

Recommendations

1. HIV is a devastating illness having profound impact on various dimensions of life, evaluation of QOl is should be mandatory along with medical modality of treatment
2. Quality of life (QOL) should be assessed as routine and in subsequent follow-up of HIV-infected patients.
3. Capacity building of counseler to assess the QOL should be undertaken.

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