A Study to Evaluate the Quality of Life in Relation to Various Socio Demographical and Clinical Correlates Among People Living with Hiv /Aids Residing in Selected Area of Hubballi

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Abstract:- AIDS is caused by the Human Immunodeficiency Virus, which originated in non-human primates in sub-Saharan Africa and was transferred to humans during the late 19th or early 20th century. Since the time first case was detected in USA in 1981, the HIV/AIDS epidemic continues its expansion across the globe. The first AIDS case in India was reported in may-1986. In India the HIV/AIDS epidemic is now more than one and a half-decade old. Within this period it has emerged as one of the most serious public health problems in the country. More devastating condition is the mental status of those people. Their quality of life is more hammered because of the social isolation and poor stigma. Many measures have been adopted by governmental and nongovernmental agencies to improve the quality of life of PLWHIV, but the distribution is so wide that the coverage of such help is falling short.

Keywords:- Acquired Immune Deficiency Syndrome, Human Immune deficiency virus, People Living with HIV/AIDS Quality of life, World Health Organization, Analysis of variance, Health Related Quality Of Life, Sexually Transmitted Diseases, National AIDS Control Organization, WHO Quality of Life, Medical Outcome Survey –HIV.

I. INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) is a fatal illness which leaves the victim vulnerable to lot of life threatening opportunistic infectious disorders, or unusual malignancies. Living with HIV/AIDS not only hampers physical health but also mental and social well being of the person. It is not simply a virus that causes diseases, but also social and historical events that impacts how others react towards people living with HIV/AIDS. Unless a cure is found or life prolonging therapy can be made widely available, majority of people living with HIV/AIDS will suffer with the diseases, with serious impact on quality of life[4]. AIDS is caused by the Human Immunodeficiency Virus, which originated in non-human primates in sub-Saharan Africa and was transferred to humans during the late 19th or early 20th century. Since the time first case was detected in USA in 1981, the HIV/AIDS epidemic continues its expansion across the globe. The first AIDS case in India was reported in may-1986. In India the HIV/AIDS epidemic is now more than one and a half-decade old. Within this period it, has emerged as one of the most serious public Health problems in the country[2]

There are two types of HIV infections in humans: HIV-1 and HIV-2. The HIV is more virulent, is more easily transmitted and is the cause of the vast majority of HIV infections globally. The Pandemic strain of HIV-1 is closely related to a virus found in the Chimpanzee of the subspecies. Pan troglodytes, which leaves in the forest of the central African Nation of Cameroon, Equatorial Guinea, Gabon, republic Congo and Central African Republic[2]. HIV-2 is less transmittable and is largely confined to West Africa, along with its closest relatives, a virus of sooty Mangabey, an old world monkey inhibiting southern Senegal, --Guinea-Bissau,

Guinea, Sierra Leone, and Western Ivory coast. David carr was apprentice printer form Manchester, England who died in October-1959 following the failure of his immune system, he succumbed to pneumonia. Doctor's, baffled by what he had died from, preserved 50 of his tissue samples for inspection. In 1990, the tissues were found to be HIV positive. One of the earliest documented HIV-1 infections was discovered in a preserved blood sample taken in 1959 from a man from Leopol -dville, Belgian Congo. A second early documented HIV-1 infection was discovered in a preserved lymph node biopsy sample taken in 1960 from a woman from Leopoldville, Belgian Congo. Infection with HIV is a serious public health problem costing lives of many people including health workers.

World Health Organization (WHO) recommends the use of post exposure prophylaxis (PEP) for preventing occurrence of HIV infection. Health care workers including medical interns are regularly exposed to blood, tissues and other body fluids which render them at risk of acquiring HIV infection[2]. Living with HIV can impact upon many of the factors that affect quality of life, not only physical health, but also mental and social well being. After all, HIV is not simply a virus that causes diseases, but also a social and historical event that impacts how others react towards those people. Issues including personal safety and human rights as well as other aspects of the political and social infrastructure can radically affect quality of life. Quality of life (QOL) is a term that is popularly used to convey an over all sense of well-being and includes aspects such happiness and satisfaction with life as a whole .WHO defined QOL as "individual 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, expectation and consumer[3]. HIV/AIDS places increasing burden on the health of the population and causes further socio-economic problem for individual, families, communities and government in many countries. For a person living with HIV, this means having tocope with a range of HIV-related symptoms for extended periods. Symptoms may be related to infection itself[3].

➢ *HIV/AIDS in children:*
Children are innocent victim of HIV/AIDS. It is fatal illness and pandemic diseases with large number of infected children throughout the world. Approximately 0.8 million children below 15 years of age are infected as estimated by WHO. It compresses 15 to 20 % of all cases of HIV in world.

➢ Number of children under 15 years living with HIV in 2006-2.3 million.

➢ AIDS death in 2006 among children 15 years about 3,80,000.

➢ 2011- is about 2.7 million cases are found in world among that 0.87 million cases are contributed to world by India only.
The quality of life was reflected accurately with mood disturbance, social support, physical symptoms, distress; self perceived mode of HIV transmission and measure source of financial support. With this idea, the study was taken up in this part of district. This study aims to find out the quality of life in patients living with HIV/AIDS pertaining to their socio-demographic variables[5].

II. OBJECTIVES OF THE STUDY

1. To assess the quality of life of people living with HIV/AIDS.
2. To assess the level of clinical correlates among people living with HIV/AIDS.
3. To find the relationship between the quality of life and clinical correlates among
   People living with HIV/AIDS.
4. To find the relationship between the quality of life and socio demographic
   Characteristics among people living with HIV/AIDS.

➢ *Selected Variable:*
Study Variable 1 : Quality of life of people living with HIV/AIDS.
Study Variable 2 : Socio-demographic characteristics of people living HIV/AIDS.
Study Variable 3 : Clinical correlates among the people living HIV/AIDS.

III. MATERIALS AND METHODS

This chapter deals in detail with the methodology adapted for the study. It also describes the rationale for research approach, research design, setting of the study, population, sample, sampling technique, and sample size, method of data collection, development of tool, ethical consideration, validity, pilot study, reliability and plan for data analysis. The present study involved one time assessment and description of the study variable thus descriptive survey approach was adapted for the study to assess the quality of life in relation to various socio-demographic and clinical correlates among people living with HIV/AIDDS residing in selected area of Hubballi . A descriptive research approach was considered as the appropriate measure to assess the quality of life in relation to various socio demographical and clinical correlates among people living with HIV/AIDS residing in selected area of Hubballi. In this study the target population was people living with HIV/AIDS residing in Hubballi..

➢ *Method of data collection*
    Data was collected at the ART centre Bagalkot by face to face structured interview schedule method. Formal permission was obtained from NACO, DHO office Bagalkot. Consent was taken from subjects after explaining them about the study. The researcher himself conducted face to face interview with the subjects sparing approximately 45 minute for each study. The data was collected from morning 9 am to 4pm.

➢ *Description of the tool*
The data for the present study was collected using following tools, divided into two sections.
Section 1: WHO quality of life instrument (WHOQOL-120). A set of 120 closed ended questions to estimate the quality of life people living with HIV/AIDS.
Section 2. Structured Closed ended questionnaire.
Section 2 was divided into two parts:
PART – I It consists of 10 items regarding to assess socio demographic information of the subjects such as Age, gender, occupation, average monthly income, educational status, marital status, family support and area of residence .
Part – II It consists of 9 items to assess level of clinical correlates such as route of transmission, CD_4 count, duration of treatment, any other disorder, taking any treatment, where was CD_4 undertaken and clinical staging(as per WHO Staging)and any person suffering from HIV in family.

➢ *Data Analysis.*
The data was analyzed by using both descriptive and inferential statistics.
• *Descriptive Statistics:* Numerical data obtained from the sample was organized and summarized with the help of descriptive statistics like frequency, percentage, mean, standard deviation and Karl Pearson's correlation coefficients.
• *Inferential Statistics:* Chi-Square test and One way analysis of variance (ANOVA).
Was used to find the relationship between quality of life, socio-demographical characteristics and clinical correlates.

IV. RESULTS

➢ *Organisation of Findings:*
The findings were organised into following 5 sections;

• *Section I: Description of socio-demographic characteristics of sample.*
• *Section II. Assessment of the quality of life living with HIV/AIDS.*
• *Section III. Assessment of level of clinical correlates among people living with HIV/AIDS.*
• *Section IV: To find the relationship between the quality of life and clinical correlates among people living with HIV/AIDS.*
• *Section V: To find the relationship between the quality of life and selected socio-demographic Characteristics among people living with HIV/AIDS.*

• *Section I: Description of socio-demographic characteristics of sample.*
    Percentage wise distribution of people living with HIV/AIDS according to age groups reveals that out of 100 subjects, (20%) of the subjects belong to the age group of 11 to 20 years, followed by (20 %) in the age group of 21-30 years, (30%) in the age group of 31-40 years ,(23%) in the age group of 41-50 years,(7%) . Percentage wise distribution of people living with HIV/AIDS according to occupation reveals that out of 100 subjects, 25 (25%) of the subject were occupation was coolie, (20%) of subject were occupation lorry driver, 39(39%) of the subject were occupation was sex workers and 1(1%),of the subject were occupation was unemployment and 15(15%) if the subject were occupation was Devadasi system. Percentage wise distribution of people living with HIV/AIDS according to income reveals that out of 100 subjects, 49 (49%) of the subject were income between 5000 -10000, 31 (31%) of subject were income between 10000-15000, 20 (20%) of the subject were income between 15000-20000.

    Percentage wise distribution of people living with HIV/AIDS according to gender reveals that out of 100 subjects, 45 (45%) of the subjects were male, 50(50%) of the subjects were female and transgender 5 (5%). Percentage wise distribution of people living with HIV/AIDS according to marital status reveals that out of 100 subjects, 72 (72%) of the subject were married and 28(28%) of subject were unmarried. Percentage wise distribution of people living with HIV/AIDS according family support that out of 100 subjects, 33 (33%) of the subject were have family support, 67(67%) of subject were no have family support Percentage wise distribution of people living with HIV/AIDS according area of residence that out of 100 subjects, 69 (69%) of the subject were registered to ART from rural areas and 31(31%) of subject were registered to ART from urban areas. Percentage wise distribution of people living with HIV/AIDS according education status that out of 100 subjects, 32(32%) of the subject were have primary school education, 24(14%) of subject were have high school education, 44(44%) of subject were illiteracy and only (2%) of subject were

degree level education. Percentage wise distribution of people living with HIV/AIDS according any person suffering from HIV / AIDS in family, that out of 100 subjects, 72(70%) of the subject were answer Yes, 28 (28%) of subject were answering No. Percentage wise distribution of people living with HIV/AIDS according Who accomplish you to this ART center that out of 100 subjects, 42(42%) of the subject .

- *Section II. To assess the quality of life of people living with HIV/AIDS.*

Domains	Level of quality of quality life				
	Very poor	Poor	Average	Good	Excellent
Physical	12	41	38	9	0
Psychological	13	53	27	5	2
Level of independence	8	30	44	17	1
Social	2	7	63	23	5
Environment	14	39	26	13	0
Religion/Spiritual/Personal beliefs.	11	68	15	6	0

Table 1:- Domain wise distribution of study subjects according to quality of life; N=100

Table 1 reveals percentage distribution of study subjects based on Physical Domain of quality of life living with HIV/AIDS. 12 (12%) subjects had very poor quality of life, 41(41%) poor,38(38%) had average ,9(9%) had good and no one have excellent quality of life living. Based on Psychological Domain, 13(13%) subjects had very poor quality of life, 53(53%) poor, 27(27%), had average, 5(5%) had good and 2(2%) had excellent quality of life living. Based on level of independence Domain 8(8%) of subjects had verypoor quality of life,30(30%) poor, 44(44%) had average,17(17%) had good and 1(1%) had excellent quality of life living with HIV/AIDS. Based on Social Domain 2(2%) subjects had very poor quality of life,7(7%) poor, 63(63%) had average, 23(23%) had good and 5(5%) had excellent quality of life Based on Environmental Domain 14(14%) subjects had very poor quality of life, 39(39%) poor, 26 (26%) had average,13(13%) had good and no one had excellent quality of life. Based on Religion/Spiritual/Personal Domain, 11(11%) were had very poor quality of life,68(68%) poor 15 (15%) had average,6(6%) had good and no one had excellent quality of life.

- *Section III. To assess the level of clinical correlates among people living with HIV/AIDS.*

Mode of transmission of HIV/AIDS	Frequency	Percentage
Mother to child	37	37%
Homosexual	5	5%
Heterosexual	58	58%

Table 2:- Frequency and Percentage wise distribution of people living with HIV/AIDS based on mode of Transmission of HIV/AIDS; N=100

Reveals the Frequency and Percentage distribution of study subjects based on mode of transmission of HIV infection among PLWHIV. 37(37%) subjects had mother to child transmission, Homosexual 5(5%) and Heterosexual 58(58%).

Duration of illness	Frequency	Percentage
1-2 years	17	17%
2-3 years	18	18%
3-4 years	39	39%
4-5 years	26	26%

Table 3:- The Frequency and Percentage wise distribution of people living with HIV/AIDS based on Duration of illness; N=100

Reveals the Frequency and Percentage distribution of study subjects based on Duration of illness. 17(17%) had illness since 1-2 years, 18(18%) had since 2-3 years , 39(39%) had 3-4 years and 26(26%) 4-5yeras.

Are you taking ART medication regularly	Frequency	Percentage
Yes	76	76
No	24	24

Table 4:- The Frequency and Percentage wise distribution of people living with HIV/AIDS based on regular compliance to AR; N=100

Reveals the frequency and Percentage distribution of study subject based on taking ART medication regularly among PLWHIV. About 76 (76%) of maintained regular compliance to treatment but 24(24%) did not maintain the treatment regularly.

Are you taking any other treatment	Frequency	Percentage
Yes	48	48
No	52	52

Table 5:- Frequency and Percentage wise distribution of people living with HIV/AIDS based on taking any other treatment; N=100

Reveals the Frequency and Percentage wise distribution of people living with HIV/AIDS based on taking any other treatment among PLWHIV. About 48(48%) were reported taking treatment other than ART and about 52(52%) were taking only ART treatment.

Clinical stages (As per WHO)	Range	Frequency	Percentage
Stage I	520-620	5	5%
Stage II	420-520	29	29%
Stage III	320-420	32	32%
Stage IV	220-320	34	34%

Table 6:- The Frequency and Percentage wise distribution of people living with HIV/AIDS based on Clinical stages (As per WHO). N=100

Reveals the Frequency and Percentage distribution of study subjects based on Clinical stages. 5(5%) were in Stage I, 29(29%) were in Stage II, 32(32%) were in Stage III and 34(34%) were in Stage IV.

Any other disorder	Frequency	Percentage
Yes	65	65
No	35	35

Table 7:- The Frequency and Percentage wise distribution of people living with HIV/AIDS based on any other disorder. N=100

Reveals the Frequency and Percentage distribution of study subjects based on any presence of other disorder among PLWHIV. About 65 (65%) of were suffering from some other disorder and 35(35%) didn't suffer from any other disorder.

CD_4 count	Frequency	Percentage
420-520	16	16
320-420	27	27
220-320	47	47
120-220	10	10

Table 8:- The Frequency and Percentage distribution of study subject in quality of life and CD_4 among PLWHIV; N=100

Reveals the Frequency and Percentage distribution of study subjects based on CD_4 count among PLWHIV. 10% subjects had CD4 count between 120-220, 47% between 220-320, 27% between 320-420 and remaining 16% between 420-520

- *Section IV: To find the relationship between the quality of life and clinical correlates among people living with HIV/AIDS.*

Mode of transmission	Physical	Psychological	Level of independence	Social	Environment	Religion/ Spiritual/Personal Beliefs
Homosexual	11.29±0.99	10.21±0.86	11.23±1.86	9.12±0.89	16.86±1.86	14.33±1.02
Heterosexual	14.28±1.52	16±1.86	14.03±2.12	13.11±0.83	14.53±0.86	10.23±0.86
Mother to child	10.23±0.56	10.56±0.86	11.23±1.86	9.12±1.01	8.23±0.89	9.45±0.88
Duration of illness						
1-2 years	10.29±1.21	09.21±0.96	12.23±2.86	8.12±1.89	14.70±1.26	12.33±2.02
2-3 years	13.2±2.52	11±0.86	12.03±2.18	13.11±1.23	12.53(2.16)	10.23±1.87
3-4 years	10.32±0.56	8.76±0.55	11.23±1.01	10.12±2.01	13.23±0.89	10.45±1.10
4-5 years	12.28±1.28	16±1.86	14.03±2.12	13.11±0.83	14.53±0.86	10.23±0.86
Regularly ART treatment.						
Yes	14.29±2.1	16.31±2.96	13..23±2.21	13.25±1.89	14.70±2.06	13.07±2.02
No	13.22±2.52	11.89±1.53	13.03±1.18	14.11±2.01	13.53±2.06	13.36±2.53
Taking other any treatment.						
Yes	12.29±2.1	11.31±2.96	10.22±2.21	09.11±1.89	10.70±2.06	11.07±2.02
No	10.22±2.52	12.89±1.53	10.03±1.18	11.11±2.01	12.53±2.06	9.36±1.53
Any other disorder						
Yes	11.29±2.1	10.31±2.96	9.22±2.21	9.33±1.89	11.70±2.06	10.07±0.96
No	10.22±2.52	10.13±1.89	10.03±0.89	12.85±1.21	10.53±1.06	8.36±0.92

CD_4 count	Physical	Psychological	Level of independence	Social	Environment	Religion/ Spiritual/Personal Beliefs
420-520	10.23±1.02	11.42±1.86	10.92±1.23	9.83±0.92	10.23±1.32	9.23±1.03
320-420	11.3±1.36	10.51±1.02	10.23±1.01	9.83±1.23	13.58±1.96	9.48±0.96
220-320	11.23±1.08	12.46±1.86	11.21±1.23	11.03±1.24	10.47±1.23	9.24±1.04
120-220	10.2±1.04	11.01±1.01	11.35±1.24	11.01±1.56	10.23±1.52	13±1.96
On ART treatment						

6 months-1 year	11.12±1.03	10.32±1.31	11.22±1.93	9.54±1.02	9.88±0.90	9.42±0.89
1 year-2 year	10.2±1.06	9.21±1.57	11.21±1.02	9.21±0.69	12.13±1.58	11.47±1.54
2 year-3 year	10.63±1.08	12.01±1.02	10.63±1.08	10.58±0.89	10.53±1.06	8.36±0.92
3 year-4 year	12.29±2.1	11.31±2.96	10.22±2.21	09.11±1.89	10.70±2.06	11.07±2.02
WHO stages						
Stage I	11.54±1.40	14.13±1.04	11.33±1.02	14.12±1.05	13.17±0.89	14.12±1.31
Stage II	11.45±1.85	12.88±1.25	11.18±0.86	12.08±1.22	12.25±0.93	12.23±1.32
Stage III	11.48±1.24	14.10±1.24	11.36±1.52	11.89±1.04	11.24±0.93	12.53±1.63
Stage IV	11.17±1.56	12.04±1.70	11.54±1.08	12.04±1.21	11.57±1.05	14.12±1.23

Table 9:- The domain wise mean and standard deviation distribution of study subject in quality of life on the basis of following; N=100

Reveals the mean and standard deviation of Quality of life scores of subjects with reference to clinical correlates for finding the relation between quality of life and clinical correlates.

Clinical correlate	Degree of Freedom		Calculated variance	Table value	Association
Mode of Transmission	12	5	4.44	8.17	Not Significant
Regular compliance to ART	6	5	9.51*	8.74	Significant
WHO Staging of HIV/AIDS	6	5	4.58	10.67	Not Significant
Presence of any other disorder	6	5	2.71	10.67	Not Significant
Taking any other Treatment	6	5	1.23	10.67	Not Significant
Duration of Illness	18	5	1.11	4.24	Not Significant
CD4 count	18	5	2.23	4.24	Not Significant
Duration of Treatment	18	5	4.83*	4.24	Significant

Table 10:- Relationship between quality of life and clinical correlates among people living HIV/AIDS by using ANOVA as follows; N=100

Analysis of variance. depicts the calculation of ANOVA to find the relationship between quality of life and clinical correlates at 5% level of significance. For clinical correlates; mode of transmission, WHO staging, presence of any other disorder, taking any other treatment, duration of illness, CD4 count the calculated values were less than the respective table values at 5% level of significance, thus no association was found between clinical correlates; mode of transmission, WHO staging, presence of any other disorder, taking any other treatment, duration of illness, CD4 count and Quality of life of people living with HIV/AIDS. For clinical correlates; regular compliance to ART and Duration of treatment the calculated values were more than the respective table values at 5% level of significance thus there a significant association was found between the clinical correlates; regular compliance to ART and Duration of treatment and the Quality of life of people living with HIV/AIDS.

Thus H1: there is significant relationship between the quality of life of people living with HIV/AIDS and clinical correlates was accepted.

- *Section V: To find the relationship between the quality of life and selected socio-demographic Characteristics among people living with HIV/AIDS.*

Socio-demographic variable	Df	Calculated value of Chi-square	Table value	Level of significance	Association
Age	2	0.96	5.99	0.05	Not Significant
Gender	1	1.11	3.84	0.05	Not Significant
Occupation	2	5.67	5.99	0.05	Not Significant
Monthly income	2	2.26	5.99	0.05	Not Significant
Educational status	2	2.56	5.99	0.05	Not Significant
Marital status	2	5.89*	5.59	0.05	Significant
Family supporting	2	5.71*	5.59	0.05	Significant
Area of residence	1	1.23	3.84	0.05	Not Significant
Any person suffering from HIV in the family	2	4.28	5.99	0.05	Not Significant
Who accomplish to you to this ART centre	1	1.59	3.84	0.05	Not Significant

Table 11 (N=100)

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