DOI: https://doi.org/10.53350/pjmhs22163193

ORIGINAL ARTICLE

Assessment of the Quality of Life of HIV Positive Individuals in Tertiary Care Hospitals using Whoqol-Bref Questionnaire

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ABSTRACT

Background: Harmonious balance in health depends upon the quality of life (QOL). QOL is the condition of life resulting from the combination of the effects of the complete range of factors such as those determining health, happiness, education, social and intellectual attainments, freedom of action, justice and freedom of expression.
Aim: To assess the QOL of people affected with HIV/AIDS, which is pertinent in countries like Pakistan, as it is on the rise and one of the leading causes of stigmatization in our society as far as disease is concerned.
Methods: This exploratory study by non-probability, convenient sampling was conducted on 139 selected HIV/AIDS positive and registered cases at the Voluntary Counseling Testing Centers (VCT centers) at Services and Jinnah hospitals Lahore, within 6 months in 2019. Data was collected using WHOQOL BREF Questionnaire. The SPSS software was used for data compilation and analysis. The investigator herself took the interviews, after an informed consent.
Results: A total of 139cases of HIV/AIDS positive registered individuals were taken. The mean age was 32.12 ± 8.54, with 78.4% males and 21.6% females. Quality of life (QOL) tables with domains were calculated; in the WHOQOL-BREF; higher score in the domains refers to good QOL. Results of the study depicted that the highest mean score was in Social relationships domain (64.75± 16.89) and lowest mean score in quality of life & general health (41.37± 30.28).
Conclusion: The study results demonstrated the dire need to explore the QOL in HIV/AIDS patients in Pakistan. There is an urge for measures to be taken, in regards to enhance the QOL. These results conclude that it is imperative to conduct health and vocational education, counseling sessions to augment awareness of the masses regarding QOL.
Keywords: Quality of life, HIV/AIDS cases, Lahore, Voluntary Counseling Testing Centers, People Living with HIV/AID's

INTRODUCTION

The Acquired Immune deficiency Syndrome (AIDS) has recently gained weight-age as a grave health and development challenge that is plaguing the world today and becoming a considerable global concern of public health. (GIobal Health Observatory Data, 2015)

In 2015, 36.7million people are suffering with AIDS and those who have lost their lives are 1.1million.[1] The HIV/AIDS report has predicted that all over the world, 2.1 million people are becoming freshly infected by HIV. [2]

It has been reported that there is a global prevalence of 0.8%, where as in countries like Pakistan prevalence is 0.1% which occurs mostly in inject able drug users. The report states that an estimated prevalence of 21% in their sexual contacts including, male and transgender hijra sex workers there is a rate of 2-3% and 4% respectively[3].

According to the UNAIDS fact sheet 2015, in Pakistan the figure of population indulging with HIV is 100,000 (77000-160,000), adults in the age group of 15-49 years prevalence rate is <0.1%, while adults aged 15 and greater than 15 years living with HIV is 100,000 (75000-160000)[4].

In Pakistan major emphasis should be to reduce HIV incidence. The hurdles and challenges prevailing in our country include stigmatization associated within the masses. This risk factor not only exists in the illiterate population but also encompasses the educated and the highly educated medical professionals. This related stigmatization is linked with lack of knowledge regarding the syndrome and its transmission as well as its under-reporting in the respective areas. Another additional risk factor includes inadequate blood transfusion screening and high levels of professional donors. This drawback in screening of professional blood donors has been reported by the World Bank to be 40% of the 1.5 million in Pakistan[5].

Pakistan is facing a widespread of HIV/AIDS in traditional risk groups which exceeds 5%. This widespread is far reaching among injecting drug users (IDUs) and their sexual contacts, including male and transgender (hijra) sex workers[3].

Received on 15-08-2021
Accepted on 25-02-2022

There is a widespread need for initiating educational programs highlighting on transmission of HIV infection and preventive measures in the youth population. Additional materials like brochures, pamphlets and posters should be distributed in health clinics, counseling centers and locations where youth gather, to motivate them to adapt safe sexual practices.[6] The determination of the QOL of people suffering with HIV/AIDS in Pakistan, will give valuable information, to provide care and support. This research aimed to assess the QOL of people affected with HIV/AIDS, which is pertinent in countries like Pakistan, as it is on the rise and one of the leading causes of stigmatization in our society as far as disease is concerned. Most of the researches are conducted in the developed countries and due to limited literature in countries like Pakistan it was relevant to conduct this study, in addition it will be an important resource to increase the awareness of masses.

METHODOLOGY

This exploratory study by non-probability, convenient sampling was conducted on 139 selected HIV/AIDS positive and registered cases at the Voluntary Counseling Testing Centers (VCT centers) under the auspices of Punjab AIDS Control Program, of Jinnah and Services Hospital Lahore, within 6 months in 2019. A total of 139 male and female cases participated in this study. The data was collected after informed consent and was ensured. Permission was granted by IRB. Data was collected by the investigator herself, by self-interviewing with the help of a validated questionnaire World Health Organization Quality of Life Instrument (WHOQOL-BREF).

The WHO QOL-BREF questionnaire was used to assess the quality of life. It consists of four domain scores and two independently scored items which are linked to the participants overall perception of quality of life (QOL) and general health.

The four domain scores comprise of the physical health, psychological, social relationships and environment. The Physical domain describes pain and discomfort, energy and fatigue, sleep and rest, activities of daily living and work capacity. The Psychological domain describes positive feelings, concentration, self-esteem, bodily image and appearance and negative feelings. The Social relationships domain describes personal relationships, social support, sexual activity, social inclusion. The Environment

domain describes physical safety and security, home environment, financial resources, health and social care, recreation/leisure activities and transport.

The domains were scored and transformed for the comparison among domains. In the WHO QOL-BREF higher score in the domains indicates a good quality of life (QOL). Quality of life (QOL) tables with domains were calculated. Means were compared using student's t test and ANOVA where applicable. Games Howell Post Hoc test was used where needed.

RESULTS

A total of 139cases of HIV/AIDS positive registered individuals were taken. The mean age was 32.12±8.54, with 78.4% males and 21.6% females. The socio-demographic characteristics showed that 62.7% were married (married, living as married) 36.7% were illiterate and 63.3% educated (Elementary, High school & College) while 83.5% were working (Job, Business). The monthly income relates that 36% of the participants had a monthly income below 12000 rupees, 32.4% between 12000-24000, 13.7% between 25000-37000, 14.4% between 38000-50000 and 3.6% >50000 rupees.

The table describes the domain scores of Quality of life & General Health that is Physical Health, Psychological Health, Social relationships and Environment after transformation. The highest mean score was in Social relationships (64.75±16.89) followed by Environment (55.24±12.60) then Psychological mean score (49.04±15.18) Physical Health (42.29±19.20) and lowest mean score in Quality of life & General Health (41.37±30.28).

The table 2 reflect the quality of life scores versus education level of the respondents. As far as quality of life was concerned the overall p-value was significant, however the Post Hoc test did not reveal significant difference between the three groups (QOL, Psychological and Social relationships)

In this table the marital status of the respondents was reviewed against quality of life scores. In the Social Relationship domain the overall p-value was significant (p= 0.000), the Post Hoc test revealed that the score of group 1(marital status: single) was significantly lower than that of group 2 (Married/ Living as married) (53.13 versus 70.88) (p=0.000).

In the Psychological domain the overall p-value was significant (p= 0.02), the Post Hoc test revealed that the score of group 1 (single) was significantly lower than that of group 2 (Married/ Living as married) (44.79 versus 51.77) (p=0.020).

Table 1: Domain Scores after Transformation

Domains (Transformed)	N	Minimum	Maximum	Mean	St. Deviation
Quality of life& general health	139	0.00	100	41.37	30.28
Physical Health	139	0.00	96.43	42.29	19.20
Psychological	139	4.17	91.67	49.04	15.18
Social relationships	139	0.00	100	64.75	16.89
Environment	139	28.13	87.5	55.24	12.60

*transformation: each raw score was transformed to a 0-100 scale using the formula given in the questionnaire. (WHOQOL Manual-Body.doc)

Table 2: Education level of respondents and QOL scores

Domain	Education	N	Mean±SD		ANOVA p-value	Post Hoc p-value
Quality of Life	None at all (1)	51	33.09	31.80	0.03	Not applicable
	Elementary / Up-to high school (2)	67	44.40	27.97		
	College (3)	21	51.79	29.92		
	Total	139	41.37	30.28		
Physical Health	None at all (1)	51	35.29	17.98	0.001	Significant 1 versus 2 p = 0.010 1 versus3 p= 0.013
	Elementary / Up-to high school (2)	67	45.52	19.25		
	College(3)	21	48.98	17.54		
	Total	139	42.29	19.20		
Psychological	None at all (1)	51	45.34	14.69	0.03	Not applicable
	Elementary / Up-to high school (2)	67	49.75	14.72		
	College (3)	21	55.75	15.84		
	Total	139	49.04	15.18		
Social relationships	None at all (1)	51	65.20	16.31	0.96	Not Applicable
	Elementary / Up-to high school (2)	67	64.30	15.68		
	College(3)	21	65.08	22.15		
	Total	139	64.75	16.89		
Environment	None at al(1)	51	51.35	10.76	0.001	Significant 1 versus 3 p= 0.001 2 versus 3 p= 0.002
	Elementary / Up-to high school(2)	67	54.57	11.67		
	College(3)	21	66.82	13.28		
	Total	139	55.24	12.60		

*The Post Hoc test is not applicable where the ANOVA test is not significant.

Table 3: Marital Status of respondents and QOL scores

Domains	Marital Status	N	Mean±SD		AOVA p-value	Post Hoc p-value
Quality of Life	Single (1)	48	33.59	30.96	0.06	Not applicable
	Married/Living as married (2)	87	46.12	29.12		
	Separated/Divorced/ Widowed (3)	4	31.25	33.07		
	Total	139	41.37	30.28		
Physical Health	Single (1)	48	37.80	20.44	0.08	Not applicable
	Married/Living as married (2)	87	44.25	18.16		
	Separated/ Divorced/ Widowed (3)	4	53.57	19.12		
	Total	139	42.29	19.20		
Psychological	Single (1)	48	44.79	13.33	0.02	Significant 1 versus 2 p= 0.020
	Married/Living as married (2)	87	51.77	15.80		
	Separated/ Divorced/ Widowed (3)	4	40.63	7.12		
	Total	139	49.04	15.18		
Social	Single (1)	48	53.13	20.39	0.001	Significant
	Married/Living as married (2)	87	70.88	10.24		

relationships	Separated/ Divorced/ Widowed (3)	4	70.84	17.35		1 versus 2 p= 0.001
	Total	139	64.75	16.89		
Environment	Single (1)	48	53.45	12.85	0.40	Not applicable
	Married/Living as married (2)	87	56.36	12.45		
	Separated/ Divorced/ Widowed (3)	4	52.35	13.35		
	Total	139	55.24	12.60		

*The Post Hoc test is not applicable where the ANOVA test is not significant.

Table 4: Monthly Income and QOL scores

Monthly Income		**N**	**Mean±SD**		**ANOVA p-value**	**Post Hoc p-value**
Quality of Life	<12000	50	35.75	31.94	0.08	Not applicable
	12000 – 24000	45	39.17	28.28		
	25000 – 37000	19	41.45	30.35		
	38000 – 50000	20	56.25	27.05		
	> 50000	5	57.50	28.78		
	Total	139	41.37	30.28		
Physical Health	<12000	50	36.43	19.48	0.08	Not applicable
	12000 – 24000	45	43.89	17.44		
	25000 – 37000	19	46.05	18.93		
	38000 – 50000	20	47.68	20.44		
	> 50000	5	50.71	19.30		
	Total	139	42.29	19.20		
Psychological	<12000	50	46.17	13.90	0.32	Not applicable
	12000 – 24000	45	48.80	16.30		
	25000 – 37000	19	50.88	15.56		
	38000 – 50000	20	53.33	15.27		
	> 50000	5	55.83	13.69		
	Total	139	49.04	15.18		
Social relationships	<12000	50	60.33	19.60	0.13	Not applicable
	12000 – 24000	45	66.11	15.01		
	25000 – 37000	19	67.11	14.82		
	38000 – 50000	20	67.50	11.75		
	> 50000	5	76.67	22.36		
	Total	139	64.75	16.89		
Environment	<12000	50	50.88	10.62	0.001	Significant 1 versus 4 p= 0.001 2 versus 4 p= 0.001 3 versus 4 p= 0.028
	12000 – 24000	45	53.75	11.10		
	25000 – 37000	19	54.77	12.07		
	38000 – 50000	20	66.41	11.19		
	> 50000	5	69.38	18.80		
	Total	139	55.2410	12.60208		

*The Post Hoc test is not applicable where the ANOVA test is not significant.
This table reveals that the monthly income and quality of life scores were statistically significant in the Environment domain.

DISCUSSION

Pakistan is facing numerous hurdles in combating HIV/AIDS. It would be beneficial to take into account the QOL of HIV positive cases due to scarcity in the field of reporting, as well as research in regards to HIV/AIDS in Pakistan. Extensive literature search on HIV/AIDS stresses that no stone should be left unturned in relation to this disease. As observed in a descriptive study, the desire of elaborate reviews and meta-analysis along-with comprehensive expertise would be expected to be helpful in the domains of QOL in HIV/AIDS.[7]

The study results highlighted that, among the study participants the maximal transformed QOL grade appeared in the Social relationship region (64.75±16.89) followed by Environment (55.24± 12.60) then Psychological (49.04± 15.18) Physical health (42.29± 19.20) as compared to the lowest in the QOL and general health region (41.37±30.28). These results emphasize that the study participants showed an overall low QOL.

The current study results revealed no statistical significance regarding gender in QOL grades within all domains. The same findings were observed within male and females in a study in Georgia[8].

In the field of QOL educational level plays a paramount in effecting healthfulness. The present study highlights that education has shown a statistical significance in physical (p=0.00) and environment (p=0.001) domains. The applied test revealed that the score of batch 1(education: none at all) was significantly lower than that of group 2 (Elementary/ Up-to high school) (35.29 versus 45.52) (p= 0.010) and that the score of group 1(none at all) was significantly lower than that of group 3 (College) (35.29 versus 48.98) (p= 0.013).In the Environment domain overall p-value being significant (p=0.001), the applied test revealed that the score of batch 1(education: none at all) was significantly lower than that of group 3 (None at all versus College) (51.35 versus 66.82) (p=0.000) and that the score of group 2 (Elementary/ up-to high school) was significantly lower than that of group 3 (college) (54.57 versus 66.82) (p=0.002).

In Georgia, highly educated individuals compared with less educated, enjoyed a good QOL grades within physical, environment and level of independence regions. Literacy inculcates independence and self-sufficiency enabling favorable circumstances for attaining employment, as well as enhances QOL[8,9]. Hence education plays a pivotal role in QOL.

Job performance seems to play a role in one's life, but within the present study the working status and QOL scores were not statistically significant in all domains. This was endorsed in a research in Ethiopia which also showed that job status was not statistically significance in the QOL[10].

The present research showed marital status and QOL scores were statistically significant in the psychological and social relationship domains. In the social relationship domain, the Post Hoc test revealed that the score of group 1 (Marital status: single) was significantly lower than that of group 2 (Married/living as married) (53.13 versus 70.88) (p=0.000). In the psychological domain, the Post Hoc test revealed that the score of group 1 (Marital status: single) was significantly lower than that of group 2 (Married/living as married) (44.79 versus 51.77) (p=0.020). So the intimacy and bonding in marriage has complimented QOL in the study participants.

In a study in Nepal, marital status revealed that it had a strong interrelation with QOL. Those whom were married showed good scores whereas divorced/separated showed bad scores.[11]In a study in Rwanda it was related that categorically being unmarried significantly revealed poor QOL grades among physical along-with mental fields.[12] These studies give evidence that marriage has a positive effect on QOL. Marriage is more than a physical union; it is a divine and sacred union. This relationship has a clear impact on QOL.

Thorough reviews of different studies support the fact of scarcity of literature in relation to QOL in HIV/AIDS in Pakistan. The current study may be considered important in updating the existing data in regards to HIV/AIDS. The researcher hopes that this document is useful for providing a platform in the QOL in HIV/AIDS patients and it may be of assistance to future researchers, health policy planners and formulators. In Pakistan extensive research is needed in this field to reduce the fear and stigma associated with this disease especially in the general public and also in healthcare professionals. There is a need for the alliance of mental health, social support and vocational interventions to target the affiliated stigma and cater the threats faced by persons having HIV/AIDS. Provision with good QOL would bring an innovation for the people suffering from this disease in Pakistan.

CONCLUSION

The study results demonstrated the lowest mean score in QOL and everyday well-being, thus emphasizing the dire need to explore the QOL in HIV/AIDS patients in Pakistan. It infers that education, marital stature and monthly income influence the QOL. The research being the initial in Pakistan is novel and will be the first to address the neglected avenue of QOL in HIV/AIDS research. It will prove to be a benchmark in providing data for future research and in introducing interventions to upgrade the QOL. There is an urge for measures to be taken, in regards to improve these factors to enhance the QOL. Thus the need of today is a good QOL.

Conflict of interest: Nil

Limitations: The associated stigma with HIV/AIDS makes it difficult to obtain a truly representative sample, therefore convenience sampling was selected. To attain more authentic results, a larger sample size should have been taken into account. The research being an exploratory design considers new aspects on which little or no previous research has been done. In Pakistan there is lack of available literature about QOL in HIV/AIDS. HIV/AIDS is a difficult research to be addressed, due to lack of available or reliable data, especially in Pakistan. People living with HIV/AID's (PLWHA) are extremely stigmatized so they do not disclose themselves and therefore are not accessible. Lack of resources and time restrained the extent of the study in only two voluntary counseling testing centers (VCT). The study results can be biased as no random selection of study participants was conducted.

Recommendations: To initiate screening of mental problems in HIV/AIDS patients, enabling early detection and treatment. To increase health information in regards towards the transmission of HIV/AIDS is still of pivotal importance as decreased literacy level and absence of knowledge in relation to HIV/AIDS still prevails in Pakistan. Health education about the disease by using media to create an impact in the public as majority of our public is illiterate. To update HIV/AIDS program services with new technology and practices like pre- exposure testing and self-testing measures.

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