

QUALITY OF LIFE IN CO-INFECTION OF TUBERCULOSIS (TB) AND HUMAN IMMUNE DEFICIENCY VIRUS/ ACQUIRED IMMUNE DEFICIENCY SYNDROME HIV/AIDS POSITIVE PATIENTS

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ABSTRACT

OBJECTIVES

The objective of our study was to compare the quality of life of HIV/AIDS and TB co-infected patients visiting Family Care Center HMC, Peshawar.

METHODOLOGY

It was a descriptive cross-sectional study, carried out from 1st october to december 2021 at the Family Care Center department of Hayatabad Medical Complex (HMC), Peshawar. The study sample comprised of 46 participants who were selected by Non probability convenient sampling technique. Out of the total 46 participants 23 were HIV positive with TB co-infected and 23 were HIV positive patients only. Data were collected using World Health Organization Quality of Life WHOQOL-BREF validated structured questionnaires were filled from both male & female participants.

RESULT

31 study participants were males participants (67.4%) and 15 were females (32.6%). Which included on HIV/AIDS group 13 males (56.5%) and 10 females participants (43.5%) and HIV/AIDS with TB co-infected patients 18 males (78.3%) and 5 females (21.7%). The quality of life was poor in TB Co-infection HIV/AIDS positive patients than in only HIV/AIDS positive patients. The overall quality of life was < 60 % in which 8.6 % find out in HIV/AIDS +ve and 13.1 % in co-infection of Tb with HIV/AIDS.

CONCLUSIONS

The difference in the quality of life among the two groups was not significant. Although there was some difference in psychological, social and physical domains in HIV/AIDS with TB co-infection patients as compared to HIV/AIDS. We identified that stigmatization, lack of awareness, and early screening plus treatment were prominent issues.

KEYWORDS: QoL; Quality of life, HIV/AIDS, Tuberculosis, Co-infection

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INTRODUCTION

According to the World Health Organization

(WHO), quality of life is an individual point of view of their well being of life with regard to all aspects of life and worth and value frameworks in which they live their life. It is a wide-ranging idea affected in another way by the individual's physical health, mental domain, and level of freedom, public connection, individual's beliefs and their link to salient features of their environment.¹ Studies shows that patients with co infection of immune deficiency virus (HIV) and tuberculosis (TB) had a bad QOL in all domain names compared to HIV patients with out TB.^{2,3} According to published data, analysis, Sub-

Saharan Africa is the most affected region among HIV-infected countries. One out of twenty people were reported with HIV infections, an estimated 22 million (two-thirds of the world total) individuals living with the Human immune deficiency virus. According to published data, analysis, Sub-Saharan Africa is the most affected region among HIV-infected countries. One out of twenty people were reported with HIV infections, an estimated 22 million (two-thirds of the world total) individuals living with the Human immune deficiency virus.⁴ HIV/AIDS is one of the global big universal health problems because 34million people are infected with this fatal disease having profound social effects.⁵ The first case of HIV/AIDS was discovered in 1981. From the first detection to date, more than 27 million individual's deaths have been occurred due to HIV/AIDS. So, HIV/AIDS is amongst the major sources of death globally caused by a communicable disease.⁶ Pakistan is one among the eleven highest Tb disease burden countries and was one among the 6th countries, having the highest number of TB patients in 2014.⁷ In 2016, approximately 518,000 new TB patients were reported in Pakistan, among those, 51,000 were youngest patients aged ≤ 14 years old. Pakistan along with Philippines, India, China and Indonesia accounted for 56% of the worldwide total new patients in 2016.⁸ Pakistan has ranked as the 6th largest country by population in the globe and has the 5th highest burden of Tb patients. Worldwide; Pakistan ranks the 5th top TB disease heaviest country in the world and top second heaviest viral communicable disease outbreak country.⁹ Despite frequent endeavors to extremely decrease the heaviest load of TB it ranks among the countries with top ten diseases main sources of deaths globally and the epidemic of HIV/AIDS is among the main source of death from an irresistible infection "WHO Worldwide TB report 2018."¹⁰ Despite frequent endeavors to extremely decrease the heaviest load of Tb it ranks among the countries with top ten diseases main sources of deaths globally and the epidemic of HIV/AIDS is among the main source of death from an irresistible infection. TB is one of the contagious diseases to which immuno compromised patients are more prone than people with strong immune systems. HIV destroys the immune system so, it increases the risk of TB in HIV-positive persons.¹¹ HIV/AIDS with TB co -infection is known as one of the highest causes of death worldwide.¹² According to WHO (2016), most of the people migrated to Europe with HIV and TB

co-infection, had low socioeconomic status, different cultural background, separated from their sexual partners, language barrier and affected by sexual violence. Globally, little previous research has been conducted among people infected with HIV, but there is a lack of study about Quality of life (QOL) of HIV with TB co-infected individuals.¹³ To improve the well being of individual life it is very critical to know about the factors of quality of life. It is very difficult to measure the Quality of life of an individual. To define the quality of individual life, it is very helpful to study the detailed definitions of every perspective and terms of life to the feature of a person. In Khyber Pakhtunkhwa Pakistan, no study was done in this regard. In our research study, we correlated the Qol of HIV-infected individuals and co-infection of TB with HIV and recognize the determinants responsible for the poor Qol among the HIV/ AIDS with TB co-infection people.

METHODOLOGY

This used descriptive cross-sectional study design. Study sample comprised of 46 participants out of which 23 participants were HIV positive with TB co-infection whereas 23 were HIV positive only without TB co-infection. The sample was selected from the total population of 3700 people visiting at Family Care Center Department Hayatabad Medical Complex Peshawar in the specified period. The total patients outcomes in the Family Care Center per day were 6-8 patients. Data were collected from 6-8 patients visiting FCC HMC on daily basis for 3 months. Interviews QoL Brief WHO validated questioners were filled from both male & female participants. The study duration was from 10 September to 31 December 2020. The sample size was calculated using Open-Epi sample size calculator by taking a confidence interval of 95%, with a power of 80, ratio of co-infected to HIV as 1 ratio 1, standard deviation of 6 and the mean difference between the two groups taken as 5. Non-probability convenient sampling technique was used for data collection. Ethical approval was obtained from the Ethical review committee. Data was collected from all HIV/AIDS and TB co-infected patients of Family Care Center HMC for three months. The purpose of data collection was explained to the participants. Written Informed consent was taken from the participants. A standardized, predesigned and validate structured questionnaire of WHO Urdu version QOL Bref was used for data collection from participants. The participants data was recorded and kept

confidential. After data collection, the data was entered into the computer in a predesigned excel sheet. Data was analyzed by using SPSS 23 version. For categorical variables i.e. gender, social economic status, education status, QoL, etc. frequency and percentages was calculated and t test was calculated for quality of life between the two groups.

RESULTS

Demographic characteristics of study participants are shown in table 1. Gender wise the data showed that out of 23 HIV/AIDS positive patients 13 were males (41.9%) and 10 were females (66%) and the 2nd group of HIV/AIDS with TB co-infection out of 23 males were 18 (58.1%) and females were 5 (33.3%). In both groups total of 46 persons which included 31 males and 15 females. Out of the total infected patients in both groups of HIV/AIDS and HIV/AIDS with TB co-infection, only 7 (15.2 %) primary education, 10 (21.7%) secondary education and 2 (4.3%) tertiary so a total of 41.3 % were found to be low level literate. While about 27 (58.7%) of infected patients were illiterate. So in both groups, the number of infected patients were high in illiterate persons. In both groups of HIV/AIDS and HIV/AIDS with TB co-infection 34 were married, 8 single and 4 widowed patients. So the number of married persons were high in both groups. The quality of life was not significant between the two group of Co-infection of Tb in HIV/AIDS positive patients and HIV/AIDS positive patients with a P value of .723. The option neither poor nor good was not ticked by any participant. A P value is less than 0.05 is considered statistically significant in which null hypothesis is rejected. It was found out that the Quality of life <60 was more calculated in HIV/AIDS with TB co-infection as compared to HIV/AIDS patients.

Table 1 : Demographic Characteristics of Study Participants

Gender:	HIV/AIDS	HIV/AIDS with TB co-infection
Male and Female	41%	66%
Education level for both group		
level of education	41.3 % in both groups	
Illiterate	58.7% +41.3 % in both groups	
Marital status:		
Married	34 in both groups	
Unmarried	8 in both groups	
Widowed	4 in both groups	
Age Ranged from	16 to 70 years old	

Table 2: Quality of Life in Co-infection of TB and HIV/AIDS patients

Physical pain: The physical pain was not significant between the two group of Co-infection of Tb in HIV/AIDS positive patients and HIV/AIDS positive patients with a P value of .545.
* Enjoy life: We find out that the HIV/AIDS with TB co-infected patients were enjoyed their life in a moderate amount than HIV/AIDS patients with a P value of .047 which is less than .05.
* Enough energy for everyday life: We find out that there is no significant between the two group of Co-infection of Tb in HIV/AIDS positive patients and HIV/AIDS positive patients with a P-value of .483.
Enough money to meet your needs: I we find out that both groups of HIV/AIDS and HIV/AIDS with TB co-infection patients had a low-income source to fulfil their daily basic needs of life with a P-value of .442.
Available information that you need in your day-to-day life: It was found that both groups of HIV/AIDS and HIV/AIDS with TB co-infection patients had more information about their disease transmission and prevention with a P-value of .464.
Opportunity for leisure activities: It was found out that the HIV/AIDS with TB co-infected patients were getting a very lower opportunity for leisure activity in their life as compared to HIV/AIDS patients with a P-value of .723.
* Satisfied with your ability to perform your daily living activities: It was found out that the HIV/AIDS with TB co-infected patients were very less satisfied with their performance of daily activities as compared to HIV/AIDS patients with a P value of .091.
* Satisfied with your work capacity: It was found out that the HIV/AIDS with TB co-infected patients were very dissatisfied with their capacity for daily work as compared to HIV/AIDS patients with a P-value of .01 or <.05.
* Satisfied with yourself It was found out that some HIV/AIDS with TB co-infected patients were very less satisfied with themselves as compared to HIV/AIDS patients with a P value of .112.
* Satisfied with your relationships: It was found out that the HIV/AIDS patients were less satisfied with their relationship as compared to HIV/AIDS with TB co-infected patients with a P value of .164.
* Satisfied with your sex life: It was found out that the HIV/AIDS with TB co-infected patients were very less satisfied with their sexual relationship with their couple as compared to HIV/AIDS patients. The numbers of married persons were 34 and 8 were single and 4 were widowed out of 46 with a P-value of .332.
* Satisfied with the support you get from your friends: It was found out that the HIV/AIDS with TB co-infected patients were very dissatisfied with their family and friends financial support as compared to HIV/AIDS patients with a P-value of .006
Negative feelings such as blue mood, despair, anxiety, depression: It was found out that both groups of HIV/AIDS and HIV/AIDS with TB co-infection patients were feeling such a blue mood, despair anxiety and depression very often with a P-value of .028 or <.05.

Table 3: Quality of Life Scores in HIV/AIDS with TB Co-infection

<60	>60	Total
8.6%	91.4%	23
13.1%	86.9%	23

DISCUSSION

This study compared the QoL of individuals with HIV infection and HIV with TB co-infection. The result of the study showed that difference in the quality of life among the two groups was not significant. Although there was some difference in psychological, social and physical domains in HIV/AIDS with TB co-infection patients as compared to HIV/AIDS only. The literacy rates of KPK are lower than those of Punjab and Sindh. Because of these low literacy rates, there is less awareness among the people of KPK about the nature of the virus and how the disease spreads. In our finding the QoL was good in secondary and tertiary level educated participants as compared to the lower educational level or illiterate individuals. There is a similar finding of a study that was conducted in Nigeria.⁴ But the worrying thing was that even the educated people had no idea about the high-risk groups and how the virus spreads as indicated by a survey, in which most of the patients had some educational background. Medicine has advanced for HIV and TB where the infected patients can live similar lives like healthy individuals. So the best way to control the spread of this specific disease is by halting its transmission. According to our study findings, we find out that the HIV/AIDS patients were less satisfied with their relationship as compared to HIV/AIDS with TB co-infected patients. According to our study finding revealed that married male persons were affected more by HIV/AIDS and HIV/AIDS with TB co-infection in both groups. While in the other studies HIV and co-infection of Tb with HIV were more commonly found among females than males persons and significantly associated with age and gender. According to study conducted in Venezuela age-wise, 16 -58 years persons were more affected in both groups while age 60 and above were less affected in both groups. In this study the age groups range from 21 to 60 years and above 60 years were similar to our study less affected.¹⁴ According to our study finding the well being of life in HIV/TB co-infected persons have a very poor level in psychological and social domains of life as compared to HIV/AIDS patients only. According to study conducted in Ethiopia

comparing the quality of life in both groups of HIV/AIDS and HIV/TB co-infection so the quality was found lower in some domains in HIV/TB co-infection patients.¹⁵ In some studies, the well-being of life was similar in some domains of quality of life. A study was conducted in India to find out that treatment duration or phase was effect HIV and TB patients well-being of life.¹⁶ According to our study finding the people in both groups were more satisfied with their living place and environment. To improve the QOL of HIV-infected persons, it is critical to recognize the determinants of QOL. HIV and TB management control programs should design strong strategies to improve the QOL of HIV with TB co-infection patients. Interventions are necessary to improve the QOL by increasing the education and family support of the patient in the community.

LIMITATION

Limitations of our study was small sample, descriptive nature of study. This study was conducted in only one HIV/AIDS family care center Peshawar at KPK which was not generalized as a true representative to assess the quality of life in the whole province of HIV/AIDS and HIV/AIDS with TB co-infection patients.

CONCLUSION

this study showed that difference in the quality of life was not significant in both groups. Although the HIV with TB co-infected individuals had some difference in psychological, social and physical domains of life. The HIV patients had good quality of life in more domains. Income and family support were strongly related to QoL. HIV-infected individuals with TB co-infection had lowest QOL in social relationship, physical activities as compared to HIV-infected patients without TB of the WHO QOL-HIV instrument. Education level, family support were found related to quality of life.

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