

Original Research Article

Gender Differentials in Quality of Life Domains of Persons Living with HIV/AIDS: a Cross Sectional Study in South India

Sudhir¹, Deepa K², Ashok N.C³, Murali Dhar⁴

¹Assistant Professor, Department of Community Medicine, Mandya Institute of Medical Sciences, Mandya.

²Assistant Professor, Department of Biochemistry, Mysore Medical College and Research Institute, Mysore

³Professor and Head, Department of Community Medicine, J.S.S Medical College, Mysore

⁴Assistant Professor (Biostatistics), Department of Statistics, Manipal University, Manipal, India.

Corresponding Author: Sudhir

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ABSTRACT

Background: With the changing face of HIV into a chronic disease, quality of life research is of importance. Much of the previous research in this area has not included females in the samples. Women with HIV are becoming greater in number and are of increased concern to those involved in HIV surveillance.

Objective: To study gender related differences in QoL domains of patients living with HIV/AIDS.

Methodology: This cross sectional study was done in 255 HIV/AIDS patients at an ART centre of tertiary care Hospital, Mysore. Out of 255 patients 139 were male and 116 were female. WHO-QOL-BREF a summarized quality of life questionnaire was used to assess the Quality of life and various domains included for comparison were physical domain, psychological domain, social domain and environmental domain. Statistical analysis was done using SYSTAT 13 software. To test the significance, t test was applied.

Results: Out of 255 patients, 139 were men and 116 were women, most of the men patients were married (74.8%) and most of the women patients were widowed (48.3%). Employment status was better in men (92.8%) than in women (54.3%). Mean CD4 count was 315.7 for men and 376.1 was for women patients but mean QoL score for men was 53.8 and that for women was 50.8. Out of the four domains of QoL, men patients had better score in social and environmental domains.

Conclusion: The infection by the HIV in women deserves special attention, due to the high rate of incidence found over the last few years and the inequalities suffered regarding the socioeconomic, educational and gender contexts, which strengthen several aspects that may influence the QoL. Therefore, the evaluation of the quality of life of women with HIV/AIDS may contribute to the orientation of actions and interventions of health professionals, as well as public policies to promote the quality of life of this population.

Keywords: Quality of Life; CD4; ART; HIV/AIDS; Gender

INTRODUCTION

At the beginning of 2011, an estimated 34 million people were living with HIV globally.^[1] The total number of people living with HIV/AIDS (PLHA) in India was estimated to be 24 lakh in 2009 with a prevalence rate of 0.31%. The adult prevalence was 0.36% and 0.25% in men and women respectively.^[2]

In recent past, a large amount of money has been directed annually towards the study and treatment of HIV/AIDS. In view of HIV/AIDS affecting many aspects of an individual, treatment is multifaceted, requiring a multidisciplinary approach. Nurses, dieticians, multiple physicians, pharmacists, hospital staff, social workers, and physical therapy can all be involved in the regime designed for an HIV infected individual. The toll that HIV often takes on the health care delivery system is exponential.^[3]

Dealing with HIV is not only a drain on health care delivery systems; it also affects the infected person's quality of life. Considering the discomfort associated with the disease progression, the social impact of the diagnosis, the emotional consequences of dealing with the diagnosis and related stigma, and the economic hardships faced by many, HIV takes its toll on its victim's quality of life as well.^[3] HIV has become a chronic condition, requiring changes from previous approaches to the disease, both in research and clinical settings.^[4]

Because of enormous number of persons currently affected as a result of the alarming rate of increase in cases each year, this disease places on priority in our health care system. The survival and quality of life, the treatment of HIV patients has become an important health care issue. Ultimate goal of health care providers is to improve quality of life (QOL) and for the same, it may be essential to understand not only how HIV affects QOL, but also differences of QOL

between HIV positive men and women.^[3] There is not much quantitative data available comparing men and women with HIV with respect to their quality of life. Therefore, the purpose of this study was to explore gender differentials in the quality of life of HIV positive individuals.

MATERIALS AND METHODS

This was a cross-sectional study conducted on HIV/AIDS patients aged more than 18 years with no severe psychiatric or cognitive problems. Ethical committee clearance was taken from institution time bound research committee and informed consent from the patients.

For the estimation of sample size, the expected value of mean and standard deviation of quality of life as reported by Nojami et al^[5] was taken. In order to estimate the difference in QoL according to gender, two sided test with significance level of 5% and power of 80%, the required sample size for each group was estimated at least 108. A list of all the patients according to gender registered at tertiary care hospital was obtained. Utilizing this list as a sampling frame, a simple random sample was done. In total 139 male and 116 female HIV/AIDS patients were interviewed from ART centre tertiary care Hospital, Mysore. For estimating Quality of life instrument used was a summarized quality of life questionnaire of World Health Organization (WHO-QOL-BREF) that included 26 questions; 24 questions covered the four main domains such as physical health, psychological health, social functions, and environmental domain. Two additional questions were included to assess the satisfaction of overall health.

The items under four domains were as following:

Physical health: dependence of treatment, energy and fatigue, mobility, presence of pain and discomfort, sleep and rest,

activities of daily living and perceived working capacity.

Psychological well being: affect, positive self concept, negative feelings, higher cognitive functions, body image and spirituality.

Social relations: social contacts, family support, sexual activity.

Environment: freedom, quality of home environment, physical safety and security, involvement in recreational activity, quality of health and social care and accessibility to services.

Each answer to the question was measured on likert scale of 1-5. Later each domain score was calculated which had a set of questions and the domain score was converted to a scale of 0-20, with minimum

possible score of domain was given score 0 and maximum possible score of domain was given score 20. Finally, the score were multiplied by 5 to obtain a score in the range of 0-100 for each domain. The mean of all the domain scores together gave the overall quality of life score in the range of 0-100.

Statistical Method: The data entry and all the statistical analysis were performed by using Microsoft Excel and SYSTAT 13 package respectively. Quantitative assessment of level of quality of life in men and women was done by estimating mean and standard deviation of overall as well as domain wise scores. To test the significance of differences in mean QoL and CD4 count by sex, Student's t- test and Chi square test were applied at 5% level of significance.

RESULTS

Table 1: Distribution according to sociodemographic characteristics and sex.

| Profile | Male No.(%) | Female No.(%) |
|-----------------------------------|-------------|---------------|
| Total | 139 | 116 |
| Marital status | | |
| Unmarried | 22(15.8) | 1(0.9) |
| Married | 104(74.8) | 50(43.1) |
| Divorced | 6(4.3) | 9(7.7) |
| Widowed | 7(5.0) | 56(48.3) |
| Education | | |
| Graduate | 8(5.8) | 2(1.7) |
| Intermediate | 18(12.9) | 8(6.9) |
| High school | 43(30.9) | 28(24.1) |
| Middle school | 21(15.1) | 18(15.5) |
| Primary school | 17(12.2) | 7(6.0) |
| Illiterate | 32(23.0) | 53(45.7) |
| Employment status | | |
| Yes | 129(92.8) | 63(54.3) |
| No | 10(7.2) | 53(45.7) |
| Socio economic status | | |
| I | 3(2.2) | 3(2.6) |
| II | 25(18) | 10(8.6) |
| III | 47(33.8) | 27(23.3) |
| IV | 54(38.8) | 57(49.1) |
| V | 10(7.2) | 19(16.4) |
| Residential classification | | |
| Urban | 67(48.2) | 57(49.1) |
| Rural | 72(51.8) | 59(50.9) |

were unemployed. Regarding socio economic status, it was lower in case of females (Table 1).

It was seen that women had significantly higher CD4 count than men, but the QoL score was found out to be significantly lower in the women than men.

Table 2: Mean and standard deviation (SD) of CD4 count and QoL score along with p-value for the test of significance.

| CD4 count | | | |
|----------------------|--------------|----------------|---------|
| Sex | No. | Mean±SD | p-value |
| Male | 139 | 315.7±192.27 | <0.05 |
| Female | 116 | 376.1±214.40 | |
| Overall QoL Score | | | |
| Male | 139 | 53.8±8.36 | <0.05 |
| Female | 116 | 50.8±8.58 | |
| Domain score of QoL | | | |
| Domains | Male Mean±SD | Female Mean±SD | p value |
| Physical domain | 57.7±6.99 | 57.6±7.02 | >0.05 |
| Psychological domain | 47.5±10.29 | 47.5±10.34 | >0.05 |
| Social domain | 48.8±17.56 | 40.7±17.01 | <0.05 |
| Environmental domain | 60.7±10.52 | 57.4±11.75 | <0.05 |

Out of 255 patients included in the study, 139 (54.5%) were men and 116(45.5%) were women. Most of the patients were married however, in the women; number of widowed patients was higher. Majority of the patients were illiterate with men being higher educated. Almost all the male patients were employed whereas most of the female patients

Out of the four domains, it was seen that women had almost same mean score as that of men with respect to physical and psychological domain but had significantly

lower mean score in social and environmental domains (Table 2).

DISCUSSION

Most studies that combine HIV and health related QoL are composed primarily of male subjects. Very few make mention of women, disregarding their growing numbers. Studies that did make mention of the female cohort, seem to agree that HIV females tend to have decreased health related QoL measures regardless of the instrument used.^[6] One study demonstrated the opposite findings however, stating HIV positive women possessed higher QoL than infected men. Holzemer et al concluded that women demonstrated higher total scores, thus meaning, HIV infected women had an increased positive health related QoL than HIV positive males. Thus there is ambiguity in the findings of previous studies, highlighting the need for carrying out more research to look into the QoL of men and women.^[7]

The findings in this report suggest that women have lower scores on several areas of QoL compared to men. This finding is corroborated by other studies from the West and India.^[8-10] Gender differences emerged significantly in two domains, social and environmental domains of QoL. Social domains with score less than that of men indicates that the patient's social contacts, family support and sexual activity were affected markedly to a great extent.

More of the men patients in our study were married as compared to women. This may be a reason for finding better QoL score than women because a married person has got family members to take care of him and to give him moral as well as financial support as reported by Kristi et al.^[11]

It was also found in our study that men were better educated and most of them were employed when compared to women. This difference also may have contributed to

higher QoL score in men than in women. This can be attributed to the fact that patients who are employed have got a constant source of income and are financially independent; moreover they are able to spend for their illness. Educated patients are in a position to understand their illness better and the chances of following the instructions of the physician will be better as reported by Wig et al in his study.^[12]

Cederfjall et al hypothesized that women with HIV do not possess the support given to HIV positive men and thus have decreased QoL. Perhaps women also blame themselves for not protecting themselves from HIV contraction, causing feelings of guilt that could also account for the discrepancy by gender QoL.^[6]

A study conducted in South Africa addressed a gender difference in the QoL in HIV patients. In addition to assessing gender, differences in race were explored. Findings concluded black females possessed the lowest scores on all scales except physical functioning.^[13]

Gender and economic inequalities have been implicated in marital violence, including sexual violence.^[14] However, systematic reports on gender differences in sexual satisfaction among the HIV infected individuals are absent. This is an area that needs further research particularly in contexts where women's sexual needs and concerns are not addressed adequately. Women living with HIV in India, tend to be more accepting and forgiving compared to men, which is also corroborated by studies in the West.^[15] This finding is of relevance, as a significant number of women in the present sample were married at some point in their life, and are likely to have contracted the HIV infection from their spouse. HIV literature on women particularly in developing countries emphasize that women are often at risk for secondary

transmission.^[16] In India, in majority of the cases, HIV infection in men is a consequence of risk taking while in women the infection is acquired through a spouse or partner. Most women from disadvantaged backgrounds continue to remain in their marriage despite the spouse's probable infidelity, risk of contracting the infection and even after acquiring the infection from their partner. Although the spouse is assured of continuing emotional support, it may have greater emotional consequences for the woman.^[17,18]

In India, extended and joint family systems are a popular informal support network for all its members^[19,20] Women therefore, may be more likely to forgive their spouse and choose to remain married as they feel that the family elders will provide instrumental and/or emotional support for them and their children. In patriarchal societies,^[21] preserving a marriage becomes a woman's responsibility and it is implicitly or explicitly expected of the woman to accept and forgive her spouse.

Men have reported higher scores on the environmental domain, which includes facets pertaining to leisure, environment, transport, finance, information, home, care and safety. This again is expected as their role is that of primary bread winner in a patriarchal society and men have greater access to the above resources compared to women.

CONCLUSION

Findings of this study have highlighted gender differences in QoL among men and women, indicating that men have significantly better QoL than women. The difference was statistically significant in social and environmental domains. More studies are required to be done in larger scale to establish various factors determining the difference in QoL by sex.

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