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Original Research Article

A cross sectional study on quality of life of PLHIV and their psychosocial correlates at tertiary care hospital, Lucknow

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ABSTRACT

Background: People living with HIV/AIDS (PLHIV) are prone to psychological illnesses. HIV/AIDS, not only affects physical health but also emotional and mental health, which affects quality of life (QoL). The aim of present study was to assess the psychosocial variables affecting QoL of PLHIV.
Methods: A cross sectional study was done at ART plus centre of a tertiary care hospital of Lucknow, among PLHIV. The questionnaire contained details of the socio-demographic, clinical characteristics, QoL and psychosocial factors including stress, depression, anxiety, stigma, coping and self-transcendence. To see any significant correlation Pearson's correlation was used to identify relationship between different domains of QoL and psychosocial factors associated with PLHIV. Logistic regression was also used to identify predictors of QoL by using SPSS version 23.0.
Results: QoL was rated as poor by 12.2% of the study subjects and 14.6% were dissatisfied with their overall health status. QoL score was highest in "physical health" and "level of independence" domain and the minimum mean score was in "psychological" domain. All the domains of QoL were found to be positively correlated with 'self-transcendence' and negatively correlated with 'stress, depression, anxiety and internalized stigma'.
Conclusions: Self-transcendence act as a healing role to improve QoL while depression, stress and anxiety negatively associated with QoL.

Keywords: Anxiety, Coping, Depression, HIV/AIDS, QoL, Self-transcendence, Stigma, Stress

INTRODUCTION

Human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) is a serious illness because it affects individual's mental and social health more as compare to physical health due to negative attitudes of the community.[1-3] Among different psychosocial factors associated with PLHIV, depression is the most common mental health disorder and it causes more disability and greater decrements in health than most other chronic illnesses.[4] One type of stigma, internalized stigma by which PLHIV tend to accept stigmatization from others, feel guilty and justify the discriminatory behavior of others towards them is quite common in Indian PLHIV.[5]

When experiencing these difficulties and significant challenges, self-transcendence can lead to personal transformation and improves QoL.[6] Self-transcendence refers to the person's capacity to expand self-boundaries intra-personally, inter-personally, and trans-personally, to acquire a perspective that exceeds ordinary boundaries and limitations.[6] Self-transcendence is a development process in which one takes on broader life perspectives and purposes to help make meaning of one's life.[7] The outcome of such a perspective includes a sense of well-being, self-worth, "connectedness," personal growth, purpose and meaning in life, and lastly a sense of being healed.[7]

Under these situations, QoL of these PLHIV needs to be well understood. In light of this, present study was conducted to assess the psychosocial variables affecting QoL of PLHIV.

METHODS

This study was questionnaire based cross sectional study on PLHIV attending ART plus centre of the tertiary care hospital in Lucknow. This study was conducted from August 2017 to July 2018. Sample size was calculated by using following formula $N=[(Z_{(1-\alpha/2)})^2 \times p\times(1-p)]/ d^2$. Value of Z statistic at 5% level of significance was 1.96, expected prevalence of poor QoL of PLHIV taken as 26.0% and assuming 6% margin of error, sample size was calculated to be 205.[8]

Inclusion and exclusion criteria

An inclusion criterion of the study was PLHIV aged >18 years and who were on HAART for at-least six months attending ART plus centre and those who were not able to give valid consent due to any psychiatric illnesses were excluded.

A written informed consent was taken from each individual before the interview, and to select cases, systematic random sampling was used.

Data collection

A pre-designed and pre-tested semi-structured questionnaire was used for collection of information regarding sociodemographic details, QoL and psychosocial factors. QoL was assessed by WHOQOL-BREF.[9,10] Psychosocial factors like depression, stress, anxiety and stigma was assessed by patient health questionnaire-9 (PHQ-9), perceived stress scale (PSS-10), generalized anxiety disorder scale (GAD-7) and Internalized AIDS-related stigma scale (IARSS-6) respectively while self-transcendence and coping were assessed by self-transcendence scale (STS-15) and coping strategies inventory short form (CSI-SF 16).[11-20]

Data analysis

Data analysis was done, using SPSS version 23.0. Pearson's correlation was used to identify relationship between different domains of QoL and psychosocial factors associated with PLHIV and a logistic regression was also done to identifying predictors of QoL. A p value of less than 0.05 was considered statistically significant.

RESULTS

Table 1 shows that about two-fifth (42.4%) of PLHIV were in age group of more than 40 years, 63.4 percent of PLHIV were married followed by 21.5 percent who were widow/widower, 82.4 percent were Hindus, 52.7 percent belonged to unreserved category, about one-third (31.2%) of PLHIV had education up to college or above followed by 28.3 percent who were illiterate, three-fourth of female PLHIV were housewives where one third males were daily wage workers. 23.4 percent belonged to lower middle socioeconomic class.

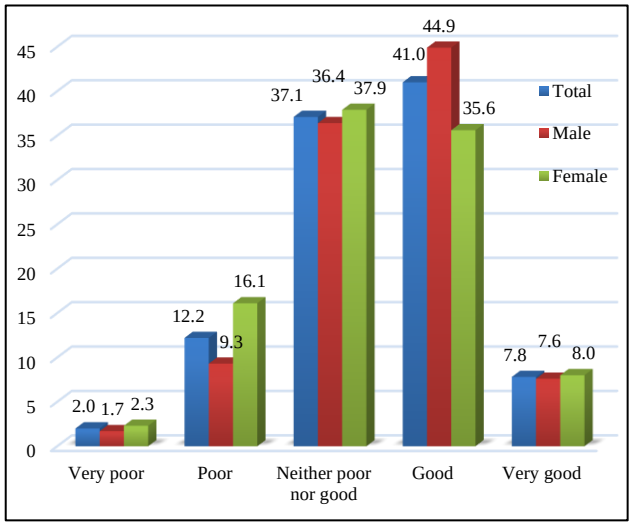

Figure 1: Overall perception of PLHIV about their quality of life (n=205).

*Graph shows figures in percentage.

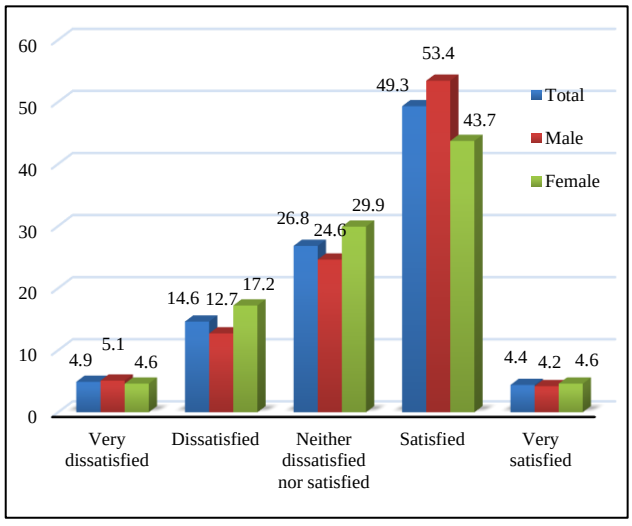

Figure 2: Overall perception of PLHIV about their health (n=205).

*Graph shows figures in percentage.

As shown in Figures 1 and 2, about two fifth (41.0%) of PLHIV thought that their QoL was good and about half (49.3%) of PLHIV were satisfied with their health and a minimum (4.9%) of PLHIV were very dissatisfied with their health respectively.

Table 1: Distribution of PLHIV based on their sociodemographic characteristics.

Sociodemographic characteristics (n=205)		Total	Male (n=118)	Female (n=87)
		N (%)	N (%)	N (%)
Age (in years)	≤30	54 (26.3)	27 (22.9)	27 (31.0)
	>30-40	64 (31.2)	44 (37.3)	20 (23.0)
	>40	87 (42.4)	47 (39.8)	40 (46.0)
Marital Status	Unmarried	21 (10.2)	19 (16.1)	2 (2.3)
	Married	130 (63.4)	83 (70.3)	47 (54.0)
	Widow/widower	44 (21.5)	9 (7.6)	35 (40.2)
	Separated/divorcee	10 (4.9)	7 (5.9)	3 (3.4)
Religion	Hindu	169 (82.4)	108 (91.5)	61 (70.1)
	Muslim	36 (17.6)	10 (8.5)	26 (29.9)
Category	Unserved	108 (52.7)	65 (55.1)	43 (49.4)
	OBC	54 (26.3)	29 (24.6)	25 (28.7)
	SC/ST	43 (21.0)	24 (20.3)	19 (21.8)
Education	Illiterate	58 (28.3)	20 (16.9)	38 (43.7)
	Up to primary	48 (23.4)	30 (25.4)	18 (20.7)
	Up to secondary	35 (17.1)	25 (21.2)	10 (11.5)
	College and above	64 (31.2)	43 (36.4)	21 (24.1)
Occupation	Housewife	69 (33.7)	0 (0.0)	66 (75.9)
	Service (government/private)	36 (17.6)	30 (25.4)	6 (6.9)
	Transport worker	11 (5.4)	11 (9.3)	0 (0.0)
	Daily wage workers	89 (43.4)	77 (65.3)	15 (17.2)
Residence	Rural	54 (26.3)	30 (25.4)	24 (27.6)
	Urban	151 (73.7)	88 (74.6)	63 (72.4)
Socioeconomic status	Upper class	35 (17.1)	21 (17.8)	14 (16.1)
	Upper middle class	33 (16.1)	20 (16.9)	13 (14.9)
	Middle class	43 (21.0)	28 (23.7)	15 (17.2)
	Lower middle class	48 (23.4)	28 (23.7)	20 (23.0)
	Lower class	46 (22.4)	21 (17.8)	25 (28.7)

Table 2: Statistical parameter of quality of life and psychosocial factors among PLHIV.

Variables (n=205)		Mean±SD
Quality of life	Physical health (range=4-20)	15.0±3.4
	Psychological (range=4-20)	12.6±3.3
	Level of independence (range=4-20)	15.0±3.2
	Social relationships (range=4-20)	13.6±2.9
	Environment (range=4-20)	13.5±2.6
	SRPB[$] (range=4-20)	13.9±3.6
	Total QOL	13.9±2.7
Coping	Problem focused engagement (range=4-20)	11.3±2.2
	Problem focused disengagement (range=4-20)	10.3±3.7
	Emotion focused engagement (range=4-20)	10.4±3.9
	Emotion focused disengagement (range=4-20)	11.2±3.3
	Total engagement (range=8-40)	21.8±4.8
	Total disengagement (range =8-40)	21.6±5.2
Self-transcendence (range =15-60)		39.8±8.2
Depression (range =0-27)		8.8±5.9
Generalized anxiety (range =0-21)		7.4±5.0
Perceived stress (range =0-40)		19.9±9.6
Internalized stigma (range =0-6)		3.4±1.7

[$]Spirituality/religion/ personal beliefs.

Table 3: Correlation among different domains of QOL and psychosocial variables.[#]

Psychosocial variables		Correlation coefficient						
		Domains of QoL						
		Physical health	Psychological	Level of independence	Social relationships	Environment	SRPB[$]	Total QoL
Self-transcendence		0.621**	0.711**	0.565**	0.648**	0.702**	0.641**	0.771**
Coping	Problem focused engagement	0.319*	0.358*	0.362*	0.498**	0.439**	0.309*	0.414**
	Problem focused disengagement	-0.281*	-0.360*	-0.477**	-0.225*	-0.346*	-0.398**	-0.507**
	Emotion focused engagement	0.023	0.232*	0.097	0.259*	0.196	0.228*	0.154*
	Emotion focused disengagement	-0.103	-0.307*	-0.216*	-0.226*	-0.274*	-0.177	-0.129
	Total engagement	0.224*	0.283**	0.287**	0.338**	0.311**	0.198*	0.321**
	Total disengagement	-0.364**	-0.400**	-0.458**	-0.345**	-0.372**	-0.332**	-0.451**
Perceived stress		-0.579**	-0.643**	-0.498**	-0.458**	-0.553**	-0.609**	-0.668**
Depression		-0.719**	-0.718**	-0.675**	-0.514**	-0.567**	-0.543**	-0.747**
Generalized anxiety		-0.566**	-0.585**	-0.537**	-0.448**	-0.516**	-0.620**	-0.656**
Internalized stigma		-0.259**	-0.308**	-0.278**	-0.188*	-0.177*	-0.200*	-0.283**

#Pearson's correlation *p value <0.05 statistically significant **p value <0.001 highly statistically significant $Spirituality/Religion/ Personal Beliefs.

Table 4: Logistic regression analysis for predictors of quality of life.

Variables		OR	95% CI	P value
Self-transcendence	Low	0.14	0.08 – 0.28	<0.001
	High	-Reference-		
Coping- engagement	Low	0.42	0.24 – 0.74	0.003
	High	-Reference-		
Coping- disengagement	Low	2.75	1.55 – 4.89	0.001
	High	-Reference-		
Perceived stress	Low	113.45	23.92 – 538.23	<0.001
	Moderate	3.21	1.48 – 6.97	0.003
	High	-Reference-		
Depression	No	68.54	16.95 – 277.18	<0.001
	Mild to moderate	10.11	2.94 – 34.81	<0.001
	Severe	-Reference-		
Anxiety	No	35.18	7.50 – 164.93	<0.001
	Mild	12.14	2.69 – 55.23	0.001
	Moderate	4.26	0.85 – 21.46	0.079
	Severe	-Reference-		
Internalized stigma	Low	2.16	1.24 – 3.78	0.007
	High	-Reference-		

Table 2 shows that among different domains of quality-of-life mean scores of physical health and level of independence were found higher while the minimum mean score was in "psychological" domain.

Table 3 shows that, all the domains of QoL were found to be significantly positively correlated with 'self-transcendence' and significantly negatively correlated with 'perceived stress', depression', 'generalized anxiety' and 'internalized stigma'. Among coping strategies engagement components were found positively correlated and disengagement components were negatively correlated with all domains of QoL.

Table 4 shows that in the logistic regression model, high self-transcendence, high coping strategies (engagement component), low perceived stress, low depression, low anxiety and low internalized stigma were significantly predicted good quality of life.

DISCUSSION

Most of the study participant's perception towards their QoL was good (41.0%) and similarly about 49.3% study participants were satisfied with their health. Kumar et al in their study showed that 22.0 percent of the participants rated their QoL as good and about 24.0 percent of the participants were satisfied with their health status.[8] In the present study it was found that among different domains of QoL, the maximum mean score was in the "physical health" and "level of independence" domain and the minimum mean score was in "psychological" domain. Mean score of different domains of QoL among males were statistically significantly higher as compared to females. Arjun BY et al. in their study showed that physical domain of QoL among PLHIV showed a maximum score of 16.4±2.2 and social relationship domain showed a minimum score of 12.2±1.7.[3] Similarly Subramanian et al in their study showed that more than half of the PLHIV expressed poor QoL in social domain, while significantly more males reported poor QoL in psychological domain and females reported poor QoL in physical domain. Better quality of life in the physical domain was reported by males.[21]

It was observed that mean score of generalized anxiety among total PLHIV in the present study was 7.35±4.9 and Rane et al reported 9.0 percent prevalence of generalized anxiety disorder in PLHIV.[22] In the present study, it was observed that the mean score of internalized stigma among total PLHIV was 3.43±1.6, similar results was reported by Chan et al in their study with mean of IARSS score to be 2.4 among PLHIV.[15]

In the present study all the domains of QoL were found to be positively correlated with self-transcendence and engagement component of coping strategies, and negatively correlated with disengagement component of coping. Mellors et al reported a significant moderate positive correlation between self-transcendence and QoL for Clinical Category C ($r=0.54$, $p<0.01$) and for the total group ($r=0.46$, $p<0.01$) of PLHIV.[23]

In the present study, it was observed that all the domains of QoL were found to be negatively correlated with perceived stress. Weaver et al showed that PSS scores among PLHIV were significantly related to poorer QoL ($B=-0.56$, $p<0.01$).[24]

In the present study all the domains of QoL were found to be negatively correlated with depression. Similar results were reported by Shrestha et al status that depression was negatively associated with QoL ($B=-0.8392$, $p<0.001$).[25] Similarly Charles et al showed that PLHIV who experienced severe depression were 1.4 (1.0-1.8, $p=0.07$) and 1.5 (1.1-2.1, $p<0.05$) times more likely to have experienced poor psychological and environmental QoL respectively.[26]

In the present study, it was observed that all the domains of QoL were found to be negatively correlated with internalized stigma. Nobre et al in their study showed that among PLHIV self-stigma had lower scores in all the six QoL domains of the WHOQOL-HIV-BREF.[27]

Despite the important implications of these findings, this study has limitations. Because the current sample consisted of participants from one ART plus centre, findings may not generalize to other PLHIV.

CONCLUSION

As HIV disease is among the most devastating of illnesses, having multiple and profound effects upon all aspects of life, hence the evaluation of QoL is very important. In the present study, two-fifth of PLHIV thought that their quality of was good and about half of the males (44.9%) thought their QoL was good while about one third (37.9%) of female's perceived that their QoL was neither poor nor good. Depression, anxiety and stress were associated with negative outcomes as poor QoL while self-transcendence was associated with better QoL. Engagement components of coping were positively associated with QoL while disengagement components were negatively associated with QoL. In present study, it was concluded that self-transcendence and engagement components of coping acts as healing role for better QoL.

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