

Original Research Article

The quality of life and coping skills of patients with human immunodeficiency virus among different occupation

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ABSTRACT

Background: Nowadays, HIV and AIDS has become an important public health issue across the world. Quality of life (QOL) is an important tool to assess general wellbeing of HIV patients. Coping skills are the psychological skills to face the difficult situations like HIV or AIDS. The workplace plays an important role in determining general wellbeing and the psychological problems in HIV patients. Therefore, it is very important to assess the quality of life and coping skills of HIV patients among different occupations.

Methods: A cross-sectional study consisting of conveniently selected 200 HIV patients was conducted at ART center LLRM Medical College, Meerut. The study subjects were interviewed by using questionnaire consisting of WHOQOL HIV BREF (WHO quality of life questionnaire) and Brief-COPE scale questionnaires. Descriptive statistics and ANOVA test were used for analysis of the data.

Results: 36% of HIV patients were housewives and 26.5 % of HIV patients were drivers. The quality of life score was higher in HIV patients who were in unemployed (14.98) and farmers (14.49) whereas was lowest in all others category (10.73). The housewives, farmers, government jobs or service, drivers and other had maximum adaptive coping in religion and minimum adaptive coping in humour. There was no uniform pattern of maladaptive coping skills of HIV patients among different occupations.

Conclusions: Quality of life score was better in HIV patients who were unemployed and farmers as compared to HIV patients who were drivers, housewives, government jobs or service. Religion was most effective adaptive coping strategy and humour was least effective adaptive coping strategy in HIV patients.

Keywords: AIDS/HIV, QOL, Coping, ART, Occupation, Unemployment

INTRODUCTION

The first case of the Acquired immune deficiency syndrome (AIDS) was reported in 1981 in USA. Within a short period of time the spread of the Human immunodeficiency virus (HIV) and AIDS has reached a pandemic form.¹ India has become home to the world's third largest HIV population (2.1 million) after South Africa and Nigeria. UNAIDS (2017) shows that the prevalence of HIV among adult population of India is

0.28%.² The HIV or AIDS epidemic can have negative impacts on workers, industry, working years of life and the consequences will be most profound for labor-intensive industries.³

Since the majority of people living with or affected by HIV are of working age, therefore, HIV and AIDS has become an important labour related issue. HIV and AIDS affect the workplace in a variety of ways like workforce motivation, organizational behaviour and overall productivity.⁴ Stigma and discrimination often present

major challenges to the successful implementation of workplace HIV and AIDS programs.

Quality of life (QOL) is a term that is popularly used to convey an overall sense of well-being and includes aspects such as happiness and satisfaction with life as a whole. World Health Organization (WHO) has defined QOL as “individuals’ perceptions of their position in life in relation to their goals, standards, expectations and in the context of the culture and value systems in which they live.”⁵

The occupation plays a significant role in quality of life of HIV individuals as person spends at least 8 hours daily at the work place. Many of the HIV patients struggle with numerous social problems such as stigma, discrimination, depression, substance abuse etc., at workplace. These factors affect quality of life not only from the physical health aspect, but also from mental and social health point of view. Therefore, assessing quality of life of HIV patients among different occupations could be useful for assessing the their perceived burden of chronic disease, individual wellbeing and quantifying the return on health care investment.⁶

The HIV patients face lot of psychological issues like stress, anxiety, depression. Therefore, HIV patients need special psychological skills to deal with such stressful conditions. Coping skills are defined as cognitive and behaviour efforts to face/deal the difficult situation like HIV or AIDS.^{7,8} The workplace can play important role in increasing or decreasing the psychological problems in HIV or AIDS patients. Therefore, present study was conducted to assess the quality of life and coping skills of HIV patients in different occupations.

METHODS

Study design

A cross-sectional study was conducted at L. L. R. M. Medical College, Meerut, Uttar Pradesh.

Study period

The period of the study was one year from March 2017 To March 2018.

Study population

In our study, 200 HIV patients were selected conveniently to assess their quality of life and coping skills.

Inclusion criteria

Those on HAART and the duration of use was more than six months, participants above 18 years of age attending ART center of LLRM Medical College and can speak or understand Hindi or English.

Exclusion criteria

Participants not consenting for the study, patients on HAART but the duration of use was less than six months and patients with a diagnosis of severe mental disorder were excluded from the study.

WHOQOL-HIV BREF questionnaire⁹

In the present study, WHOQOL-HIV BREF (WHO quality of life questionnaire) was used. It consisted of six domains (physical health, psychological, level of independence, social relationships, and environment and spirituality or religion or personal beliefs). It consisted of total 31 items. The individual items were rated on a 5-point Likert scale where 1 indicated low, negative perceptions and 5 indicated high, positive perceptions.

The Brief-COPE scale¹⁰

Carver, 1997, a 28-item self-report measure of both adaptive and maladaptive coping skills was used in the present study. For the purpose of the present discussion, we grouped the 14 subscales under adaptive coping and maladaptive coping strategies. Adaptive coping strategies tended to be associated with desirable outcomes and maladaptive coping strategies tended to be associated with undesirable outcomes. The adaptive coping strategies included acceptance, planning, positive reframing, religion, instrumental support, emotional support active coping and humour. Maladaptive coping strategies included coping strategies such as denial, substance use, emotional venting, self-blame, distraction, and behavioural disengagement.

Data collection method

The study subjects were identified during study period at ART center, LLRM Medical College, Meerut. Every patient, who was fulfilling the inclusion criteria, was approached for the interview. All the subjects were informed about the purpose of the study. After obtaining the informed consent, they were interviewed separately in privacy, in a language understandable to the subjects, using a pre structured questionnaire.

Statistical analysis

Data were analyzed with SPSS 25.0 for Windows. The baseline variables were assessed using descriptive statistics of mean and frequency percentages. The association between multivariate variables and coping, QOL was analysed by one-way ANOVA.

Ethical consideration

The permission for collecting data was obtained from the Ethics Committee, Subharti Medical College, Meerut. A written informed consent from each study subject to

participate in the study was obtained before the start of work with assurance of confidentiality of the data.

RESULTS

In our study, out of 200 participants, 49% participants were in 26-35 years age group and 22% were in 36-45 years age group while 14% were in 46-55 years age group. 62.5% participants were males while 37.5% were females. Related to occupation, it was observed that 36% of the study subjects were house wife and 26% of the study subjects were drivers and only 5% of the study subjects were belonging to Government jobs or services.

In addition of this, the unemployed HIV patients constituted of 12.5% of total patients. The various other occupations like tailor, plumber, carpenter etc., were clubbed in a separate category as all others because HIV patients belonging to such occupations were very less in number (<5%). Regarding the socio-economic status classification, B. G. Prasad classification was used as the study subjects belonged to rural and urban areas. According to B. G. Prasad classification 36.5% belonged to upper middle class, 27.5% were from upper class and 27.5% were from middle class while 7% from lower middle class (Table 1).

Table 1: The distribution of HIV patient according to their socio-demographic characteristics.

S. No.	Characteristics	Range or variables	Numbers	%
1	Age groups (in years)	18-25	26	13
		26-35	98	49
		36-45	44	22
		46-55	28	14
		56-65	3	1.5
		66-75	1	0.5
2	Gender	Males	125	62.5
		Females	75	37.5
3	Type of family	Joint	111	55.5
		Nuclear	89	44.5
4	Education status	Illiterate	42	21
		Primary, middle and secondary	121	60.5
		Senior secondary	16	8
		Graduate and post graduate	21	10.5
5	Occupation	Government jobs or service	10	5
		Farmer or land holder	14	7
		House wife	72	36
		Unemployed	13	6.5
		Driver	53	26.5
		All others	25	12.5
6	Socio economic status (B. G. Prasad classification ¹²)	Upper class (≥ 6254)	55	27.5
		Upper middle class (3127-6253)	73	36.5
		Middle class (1876-3126)	55	27.5
		Lower middle class (938-1875)	14	7
		Lower class (<938)	3	1.5

The quality of life score of different domain according to occupation of HIV patients. The quality of life score was highest in SRPB in all occupation except unemployed participations. The unemployed, farmer or land holder, government jobs, drivers and housewives had minimum QOL score in social relationship domain whereas the HIV patients belonging to all other category showed the minimum score QOL in environment domain (Table 2).

HIV patients belonging to all other occupation category had maximum adaptive coping score, whereas HIV patients who were housewives, minimum adaptive coping score. The housewives, farmers, government jobs or service, driver, all others had maximum adaptive coping in religion. Whereas unemployed HIV patients had maximum adaptive coping score in active coping. All

HIV patients had minimum adaptive coping level score in humour irrespective of the occupation (Table 3).

HIV patients who were farmers had maximum maladaptive coping score, whereas unemployed HIV patients had minimum maladaptive coping level score. Whereas government jobs or service, driver, unemployed and all others have maximum score in behavioural disengagement. While HIV patients belonging to farmer and land holder and house wife category had maximum maladaptive coping in self-distraction. It was seen that government jobs or service, farmer or land holder had minimum maladaptive coping denial and HIV patients who were housewives, unemployed and all others have minimum score in substance use. On the other end drivers had minimum maladaptive score in venting (Table 4).

Table 2: Association between quality of life domains and occupational status.

S. No.	Name of domain	Government jobs or service (10)	Driver (53)	Farmer or land holder (14)	House wife (72)	Unemployed (13)	All others (25)	P-value (one way ANOVA)
1	Physical	15.69±3.34	15.41±2.67	15.71±3.15	15.13±2.79	17.15±1.77	14.40±3.35	0.121
2	Psych ological	13.77±3.14	13.82±2.81	14.29±2.66	13.83±2.52	15.08±1.75	13.79±2.81	0.710
3	Level of independence	15.13±3.83	14.60±2.96	16.07±2.46	14.75±3.07	16.38±2.10	5.40±3.47	0.310
4	Social relationship	10.26±3.4	10.90±2.54	11.29±2.52	10.61±3.34	10.85±3.46	11.40±4.35	0.837
5	Environment	13.52±2.66	12.28±2.43	13.32±1.97	12.82±2.36	13.73±2.26	3.56±2.59	0.124
6	SRPB	16.08±1.85	16.32±2.82	16.29±1.86	16.32±2.80	16.69±3.07	15.84±3.76	0.962
	Total	14.07	13.88	14.49	13.91	14.98	10.73	

Table 3: The association between adaptive coping and occupation of HIV patient.

S. No.	Coping	Government jobs or service (10)	Driver (53)	Farmer or land holder (14)	House wife (72)	Unemployed (13)	All others (25)	P-value (one way ANOVA)
1	Active coping	6±1.31	5.79±1.31	5.5±1.61	5.81±1.34	6±1.47	6.48±1.50	0.275
2	Use of emotional support	3.35±1.80	3.06±1.38	3.21±1.63	3.28±1.39	4±1.68	3.92±2.1	0.186
3	Use of instrumental support	3±1.45	3.04±1.43	3.36±1.39	3.36±1.45	3.69±1.7	3.64±1.78	0.438
4	Positive reframing	5.26±1.39	5.13±1.14	5.14±1.10	4.92±1.17	4.77±1.09	5.52±1.36	0.298
5	Planning	5.48±1.41	5.64±0.129	4.79±1.72	4.86±1.28	5.46±1.61	5.88±1.62	0.307
6	Humor	2.35±.83	2.36±.942	2.21±.43	2.58±1.14	2.62±1.19	2.52±1.21	0.711
7	Acceptance	6.00±1.35	5.83±1.33	5.5±1.56	5.45±1.43	5.85±1.68	6.20±1.66	0.256
8	Religion	6.26±1.98	6.25±2.21	6.36±2.02	6.35±2	5.69±2.02	6.66±2.06	0.883
	Total	4.73	4.63	4.50	4.49	4.76	5.10	

Table 4: The association between maladaptive coping skills and occupation status of HIV status

S. No.	Coping	Governemnt jobs or service (10)	Driver (53)	Farmer or land holder (14)	House wife (72)	Unemployed (13)	All others (25)	P-value (one way ANOVA)
1	Self-distraction	3.22±1.04	3.28±0.928	6.79±1.53	6.5±1.38	3.62±0.650	3.44±0.961	0.685
2	Denial	2.40±0.54	2.50±.71	2.86±1.1	3.08±1.06	2.4±0.55	3.50±0.707	0.247
3	Substance use	2.48±1.38	2.47±1.12	3.07±2.16	2.43±1.03	2.08±0.28	2.24±0.723	0.280
4	Behavioral-disengagement	4.91±1.73	5±1.51	4.64±1.39	4.71±1.72	5±1.35	5.28±1.90	0.719
5	Venting	2.57±1.03	2.45±.93	3.21±1.19	3.14±1.37	2.69±1.18	3.16±1.65	0.022*
6	Self-blame	3.52±2.06	2.85±1.60	3.93±2.4	3.13±1.40	2.62±1.19	3.08±1.63	0.194
	Total	3.18	3.09	4.08	3.83	3.06	3.45	

DISCUSSION

A total of 200 adults aged 18-75 years were studied by using convenience sampling. According to occupational status in the current study, 36% of HIV patients were housewives and 26% were drivers by profession. Similarly, Bakiono et al in a study reported that 23.6% were housewives and 50% were traders.¹¹ Whereas Munsawaengsub et al reported that 57.2% patients were labourer and 7.3% remained unemployed.¹²

In our study, the quality of life score was higher in unemployed and farmers whereas was lower in drivers, government jobs, all other category. These finding suggested that HIV patients faced enormous problems like discrimination, lack of colleague support at the workplace. Due to this reason the unemployed HIV patients had better quality of life. Basavaraj et al (2010) had also reported that HIV patients suffered from various occupational dilemmas.⁶ Many HIV patients had to leave their jobs whereas many HIV patients who remain employed had to face limited functioning.

On the contrary, it had been also observed that unemployment had resulted in psychiatric problems like depression, suicide and anxiety etc. Kelly et al, Dickey et al had reported that unemployment had led to psychiatric problems in HIV patients.^{13,14} The unemployment also had imposed various financial challenges to HIV patients. Therefore, we need to reorient occupational environment in order to improve quality of life among HIV patients.

It had been observed that the coping skills were helpful in solving problems and reducing stress in HIV or AIDS.^{7,8} In our study, HIV patients who were housewives, farmers, government jobs or service, driver and others had shown maximum adaptive coping in religion because people find solace in religion when they are confronted with issues that are beyond their controls. The high coping skill in religion were also reported by Catunda et al, Cherayi et al.^{15,16} Similarly, McIntosh et al (2012) reported that the religious-based coping practices such as prayer are had provided psychological relief from aversive experiences in women living with HIV or AIDS.¹⁷

The HIV patients who were unemployed had maximum adaptive coping score in active coping. Kraaij et al and Trevino et al had found that active coping strategies were associated with positive psychosocial and health outcomes in people living with HIV.^{18,19} These findings suggested that unemployed HIV might had more positive psychology compared to HIV patients were working in different occupations because HIV patients, who were working, might had faced more social stigma and discrimination in working environment.

Our study shows minimum adaptive coping level in humour because the level of humour decreased in HIV

patients with the decrease in hope of recovery from the disease. Catunda et al also reported lower coping skill in humour among HIV patients.¹⁵ Therefore, the laughter medicine can become effective strategy to improve coping level of HIV patients among different occupation.

The housewives, farmers had maximum maladaptive coping in self-distraction because of lack of support from family members and relatives. Skinner et al reported that HIV patients dealt the stress of HIV by engaging in an alternative pleasurable activity.²⁰ Similarly, Nemeroff et al; Pittiglio et al had reported that self-distraction was a tension-reducing coping strategy in HIV patients in different occupations.^{21,22}

The patients belonging to government jobs or service, unemployed and all others have maximum score in behaviour disengagement. It happened because the negative emotions like shame or embarrassment decreased after joining job again.²³

The HIV patients belonging to government jobs or service and landholder category had minimum score in denial. The denial represented the failure to disclose one's HIV-positive status and living as if one is HIV negative could be seen as an attempt to distance oneself from the reality of being HIV positive. Hackl et al reported that denial prevented the individual from confronting the stressor directly.²⁴

HIV patients who were housewives, unemployed and all others have minimum score in substance use. These individuals got engaged in substance use behaviour because they believed that it could help them cope with negative life events and/or deregulated emotional states. On the other hand, Gonzalez et al (2012) observed that using substances actually perpetuated both negative moods in HIV patients.²⁵

CONCLUSION

In the current study, 36% of HIV patients were housewives and 26% were drivers by profession. The quality of life score was higher in unemployed and farmers whereas was lower in drivers, government jobs, all other category. It had been also observed that unemployment had resulted in psychiatric problems like depression, suicide and anxiety etc. Therefore, we need to reorient occupational environment in order to improve quality of life among HIV patients.

The HIV patients belonging to government jobs, driver, farmers or land holders had minimum QOL score in social relationship domain. Therefore efforts should be made to decrease social stigma, discrimination of HIV patients at the work place. Such efforts will not only help in improving the QOL of HIV patients but also in increasing the productivity of the work force.

The housewives, farmers, government jobs or service had maximum adaptive coping in religion. The study indicates that religious-based coping practices provide psychological relief from aversive experiences in living with HIV or AIDS among different occupations. HIV patients in different occupation displayed minimum adaptive coping in humour. Therefore, laughter medicine can become an effective coping strategy in improving quality of life of HIV patients among different occupations.

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