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A study to assess the problems and coping strategies among people living with HIV/AIDS at ART centre, Capital Hospital, Bhubaneswar, Odisha

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ABSTRACT

Background: HIV/AIDS is one of the worst pandemics in today's world that has a devastating physical and psychological effect. The virus has weakened the immune system of the body so much that they develop a number of different illnesses such as tuberculosis, pneumonia, persistent diarrhea and fever and skin infections.

Methods: A quantitative research approach, descriptive survey research design was undertaken to assess the problems and coping strategies among HIV/AIDS patients. Purposive sampling technique was adopted to select the 100 HIV/AIDS patients. The study was conducted was at ART centre, Capital hospital Bhubaneswar. Data was collected through questionnaire by interviewing method.

Results: The physical problems 76 (76%) had moderate problems and mean score (5.41 ± 1.28) , were psychological problems 60 (60%) had moderate problems and mean score (4.20 ± 1.17) and financial problems 57 (57%) had moderate problems mean score (2.97 ± 0.95) . The coping strategies mean score (67.27 ± 4.49) . Chi square test was performed to find out the association between problems and coping strategies.

Conclusions: The study was concluded with recommendation for descriptive study on large sample.

Keywords: Coping strategies, HIV/AIDS patients, Problems

INTRODUCTION

It is the immune system that normally fights off these microorganisms and keeps the body healthy. But over the last fifteen years a new disease spread by a family of viruses called HIV which has spread globally. It has been given this name because of its long-term effect to attack the immune system of the human body, making it weak and deficient. The virus has weakened the immune system of the body so much that they develop a number of different illnesses such as tuberculosis, pneumonia, persistent diarrhea and fever and skin infections. In 1981, the first case of new syndrome was recognized and reported by the Center for Disease Control (CDC), Atlanta, USA, a rare form of pneumonia caused by

Pneumocystis Carinii and Kaposi's sarcoma in an apparent by healthy person, who was a homosexual man and who died due to loss of immunity. AIDS is not a health problem, economic problem, cultural problem and also a political problem.² The first case of HIV in India was diagnosed among commercial sex workers in Chennai in 1986. HIV/AIDS progressively reduces the effectiveness of immune system and leave individuals susceptible to various opportunistic infections and tumors. HIV is transmitted through the direct contact of mucous membrane with a body fluid containing HIV such as blood, semen, vaginal fluid and breast milk. The mode of transmission is anal, vaginal and oral sex, blood transfusion, contaminated needles and exposure to any of the body fluids.³ Reduction of sexual transmission is

achievable through sexual abstinence, monogamy, condoms, treatment of concurrent sexually transmitted infections (STI) and HIV counseling and testing.⁴

An objective of the study was to assess the problems among HIV/AIDS patients, to identify the coping strategies among HIV/AIDS patients, to determine the relationship between problems and coping strategies among people living with HIV/AIDS patients and to find out the association between problems and coping strategies among HIV/AIDS patients with selected demographic variables.

METHODS

The descriptive survey research design was selected for the present study. The study was conducted between March 2020 to September 2020 at ART Centre, Capital Hospital, Bhubaneswar, Odisha. People living with HIV/AIDS patients who were receiving anti-retroviral therapy were selected by using purposive sampling technique from ART centre, Capital Hospital, Bhubaneswar, Odisha. The sample size (N=100) was calculated by taking 15% proportion of 5% margin error and 95% confidence level.

Inclusion criteria

HIV/AIDS patients more than six months of duration attending ART clinics. Those who were give their consent to participate in the study.

Exclusion criteria

HIV/AIDS patients who were not present at the time of data collection.

Data collection tool

Section A

It includes demographic variables of HIV/AIDS such as age, gender, education, occupation, marital status, total family income.

Section B

Checklist for assessing the problems of HIV/AIDS patients like physical, psychological and financial problems.

Section C

Brief cope to assess the coping strategies of people living with HIV/AIDS. In this study "brief COPE" was used which was developed by Eisenberg et al, in 2012. The brief COPE comprised of 28 items, which measures 14 conceptually differentiable coping reactions (avoidant coping and approach coping). They are active coping, planning, positive reframing, acceptance, humour, religion, using emotional support, using instrumental

support, self-distraction, denial, venting, substance use, and behavioural disengagement and self-blame.

Data collection

Data was collected by the investigator after obtaining permission from the concerned authorities of selected hospital. The investigator explains about the objectives of the study. The method of data collection was interviewing technique.

Statistical analysis

After the data collection, responses were entered to the statistical package for Social Sciences (SPSS) software version 27.0.1. The level of significance were set at (p value <0.05). Through Pearson's correlation the relationship was finding and the association between the selected demographic variables with problems and coping strategies was done by using chi square test.

Ethical clearance and informed consent

The study was carried out after getting the approval from Institutional Ethical Committee of Kalinga Institute of Medical Sciences (KIMS), KIIT deemed to be University, Bhubaneswar. The participants were informed about the purpose of the study and the consent was taken from the participants and the investigator did not face any kind of problem

RESULTS

Characteristics of HIV and AIDS patients

The Most of the HIV and AIDS patients 39 (39%) belongs to the age group 18-30 year, 60 (60%) were male, had higher secondary education, 33 (33%), 50 (50%) were self-employed, 72 (72%) were married and 49 (49%) were range 29,199 to 39,032 (Table 1).

Table 2 reveal the physical problems in terms of mean and SD (5.41 ± 1.28) and 45.08 as a mean percentage, psychological problems in terms of mean and SD (4.20 ± 1.17) and 52.50 as a mean percentage and financial problems in terms of mean and SD (2.97 ± 0.95) and 37.12 as a mean percentage.

Mean and SD of the coping strategies of HIV and AIDS patients

It summaries of the 14 coping strategies studied, the mean and SD of the HIV/AIDS patients were self-distraction (5.41 \pm 1.50), followed by using positive reframing (5.26 \pm 1.42), active coping (5.16 \pm 1.35), substance use (4.98 \pm 1.70), venting (4.88 \pm 1.40), using emotional support (4.86 \pm 1.44), use of informational support (4.83 \pm 1.62), planning (4.77 \pm 1.50), acceptance (4.76 \pm 1.45), humor (4.43 \pm 1.57), denial (4.40 \pm 1.55), self-blame (4.35 \pm 1.44), behavioural disengagement

 (4.25 ± 1.70) and religion (2.93 ± 1.65) being used least frequently (Table 3).

Table 1: Distribution of HIV/AIDS patients with their characteristic (n=100).

Characteristics	N	%
Age (in years)		
18-30	39	39
30-40	21	21
40-50	21	21
≥50	19	19
Gender		
Male	60	60
Female	40	40
Education		
No formal education	6	6
Primary	8	8
Higher secondary	29	29
Senior secondary	33	33
Graduation	16	16
Above graduation	8	8
Occupation		
House wife	23	23
Self employed	50	50
Private service	25	25
Government employed	2	2
Marital status		
Married	72	72
Widow	3	3
Divorced	12	12
Separated	13	13
Total family income		
39,032 to 78,062	5	5
29,199 to 39,032	49	49
19,515 to 29,199	19	19
11,707 to 19,515	8	8
3,907 to 11,707	19	19

Table 2: Mean and standard deviation of study population of problems.

	Mean	Mean %	SD
Physical problems	5.41	45.08	±1.28
Psychological problems	4.20	52.50	±1.17
Financial problems	2.97	37.12	±0.95

Scoring key

In the physical problems total score was 12. Each yes responded were awarded with one score while no responded were given zero score. In the psychological problems and financial problems total score was 8. Each yes responded were awarded with one score while no responded were given zero score (Table 4).

Table 3: Finding related to coping strategies among HIV and AIDS patients (n=100).

Coping Strategies	Mean±SD
Self-distraction	5.41±1.50
Positive reframing	5.26±1.42
Active coping	5.16±1.35
Substance use	4.98±1.70
Venting	4.88±1.40
Emotional support	4.86±1.44
Use of informational support	4.83±1.62
Planning	4.77±1.50
Acceptance	4.76±1.45
Humour	4.43±1.57
Denial	4.40±1.55
Self-blame	4.35±1.44
Behavioural disengagement	4.25±1.70
Religion	2.93±1.65

Table 4: Percentage of score revealing the level of problems.

Level of problems				
Physical problems	Problems score in %	Problems score		
Mild problem	0-25	0-3 mark		
Moderate problem	>50	4-6 mark		
Severe problem	50-75	7-9 mark		
Very severe	<75	10-12 mark		
Psychological problems score in %				
Mild problem	0-25	0-2 mark		
Moderate problem	>50	3-4 mark		
Severe problem	50-75	5-6 mark		
Very severe	<75	7-8 mark		
Financial problems score in %				
Mild problem	0-25	0-2 mark		
Moderate problem	>50	3-4 mark		
Severe problem	50-75	5-6 mark		
Very severe	<75	7-8 mark		

Brief COPE

The brief COPE comprised of 28 items, which measures 14 conceptually differentiable coping reactions (avoidant coping and approach coping). They are active coping, planning, positive reframing, acceptance, humour, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, and behavioural disengagement and self-blame.

Level of problems of HIV and AIDS patients

In the level of physical problems of study population, 76 (76%) had moderate problems, 19 (19%) had severe problems, 5 (5%) had mild problems. In psychological problems 60 (60%) had moderate problems, 32 (32%) had

severe problems, 4 (4%) had mild problems and 4 (4%) had very severe problems and financial problems 57 (57%) had moderate problems, 36 (36%) had mild problems, 7 (7%) had severe problems (Table 5).

Table 5: Frequency and percentage distribution of problems of the HIV and AIDS patients (n=100).

Level of problems					
Physical problems	N	%			
Mild problems	5	5			
Moderate problems	76	76			
Severe problems	ems 19 19				
Psychological problems					
Mild problems	4	4			
Moderate problems	60	60			
Severe problems	32	32			
Very severe problems	4	4			
Financial problems					
Mild problems	36	36			
Moderate problems	57	57			
Severe problems	7	7			

Findings related to relationship between problems and coping strategies of HIV and AIDS patients

The relationship between physical problems and coping strategies among HIV/AIDS patients which was analysed

by using Karl Pearson co-efficient correlation. The results reveals that "r" value =0.017, and p value =0.206 which indicates the there was no significant correlation between physical problems and coping strategies of HIV/AIDS patients. The psychological problems and coping strategies "r" value =0.011, and p value 0.916 which indicates the there was no statistical significant correlation between psychological problems and coping strategies of HIV/AIDS patients and financial problems and coping strategies "r" value =0.028, and p value 0.785 which indicates the there was no statistical significant correlation between financial problems and coping strategies of HIV/AIDS patients (Table 6).

Table 6: Relationship between problems and coping strategies of HIV and AIDS patients (n=100).

	Mean±SD	r value	P value	
Physical problems				
Physical problems	5.41±1.28	0.017	0.206	
Coping strategies	67.27±4.49	0.017	0.206	
Psychological problems				
Psychological	4.20±1.17			
problems	4.20±1.17	0.011	0.916	
Coping strategies	67.27±4.49			
Financial problems				
Financial problems	2.97±0.95	0.028	0.785	
Coping strategies	67.27±4.49	0.028	0.783	

Table 7: Association of selected demographic variables with problems and coping strategies.

Association of selected demog	raphic variables with	physical	problems		
Demographic variables	Category	N	(%)	(χ²) Physical problems	P value
Marital status	Married	72	72		0.008
	Widow	3	3	35.54	
	Divorced	12	12	33.34	
	Separated	13	13		
Association of selected demog	raphic variables with	psycholo	gical probler	ns	
Demographic variables	Category	N	(%)	(χ^2) Psychological problems	P value
Marital status	Married	72	72	_	0.019
	Widow	3	3	28.47	
Maritai status	Divorced	12	12		
	Separated	13	13		
Association of selected demog	raphic variables with	financial	problems		
Demographic variables	Category	N	(%)	(χ^2) Financial problems	P value
	39,032-78,062	5	5	23.56	0.009
	29,199 -39,032	49	49		
Total family income	19,515–29,199	19	19		
	11,707–19,515	8	8		
	3,907-11,707	19	19		
Association of selected demog	raphic variables with	coping st	rategies		
Demographic variables	Category	N	(%)	(χ^2) Coping strategies	P value
Marital status	Married	72	72		0.329
	Widow	3	3	61.16	
	Divorced	12	12	- 01.10	
	Separated	13	13		

Association between the selected demographic variables with problems and coping strategies

It reveals the association between the marital status and physical problems with χ^2 value =35.54 and p value = 0.008 which was highly significant, marital status and psychological problems with χ^2 value =28.47 and p value =0.019 which was highly significant, total family income and financial problems with χ^2 value =23.56 and p value =0.009 which was highly significant and marital status and financial problems with χ^2 value =61.16 and p value =0.329 which does not had statistical significant (Table 7).

DISCUSSION

Demographic variables relevant that most of the HIV and AIDS patients 39 (39%) belongs to the age group 18-30 year, 60 (60%) were male, had higher secondary education, 33 (33%), 50 (50%) were self-employed, 72 (72%) were married and 49 (49%) were range 29,199-39,032. The 76 (76%) HIV and AIDS patients were physical problems, 60 (60%) had moderate psychological problems and 57 (57%) had moderate financial problems and most coping strategies used by HIV and AIDS patients were self-distraction (5.41±1.50). There was no statistically significant correlation between problems and coping strategies of HIV/AIDS patients. The association between the marital status and physical problems χ^2 value =35.54 and p value =0.008 which is highly significant, association between the marital status and psychological problems χ^2 value =28.47 and p value =0.0019 which was highly significant and association between the total family income and financial problems χ^2 value =23.56 and p value = 0.009 which was highly significant.

A study was conducted by Amin et al on 100 HIV/AIDS patients. The HIV/AIDS patients were having psychological problems, anxiety (14% patients had moderate level, 59% had severe problems), stress (2% patients had mild, 35% had moderate problems and 63% had severe problems) and depression (26% had moderate problems, 74% had severe problems). The marital status was negatively significant correlated with psychological problems (anxiety, stress and depression). The correlation of marital status with psychological problems anxiety, stress and depression was 0.578, -0.237 and -0.284.9

A study was conducted by Kaur et al on 150 HIV/AIDS patients at ART centre Jalandhar, Punjab. The coping strategies mean and SD (138.97, 21.04). The relationship between quality of life and coping strategies 'r' value =0.275 and p value =0.0001, which indicate weak positive correlation.¹⁰

A cross-sectional study was conducted by Kanthan et al at ART clinic LLRM Medial College, Meerut among 200 HIV/AIDS patients. The coping strategies were used by the HIV/AIDS patients' self-distraction mean and SD (6.56 ± 1.54) . 11

CONCLUSION

In this present study the most of the HIV and AIDS patients were having the moderate problems of physical problems 76 (76%) and self-distraction (5.41±1.50) coping strategies were used.

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REFERENCES

- 1. Jeevani T. Symptoms of the AIDS related opportunistic infections and their effects on human body. J AIDS Clin Res. 2011;2(6).
- Chatterjee S, Akbar F, Das N, Ray K, Bandyopadhyay A, Singh MK. Quality of life of HIV/AIDS patients: the influence of CD₄ count on it. Nat J Community Med. 2016;7(11):859-63.
- 3. Dejman M, Ardakani HK, Mohraz M, Malekafzali B, Moradi G, Gouya M, et al. Psychological, social and familial problems of people living with HIV/AIDS in Iran. Int J Prevent Med. 2015;6(1):126.
- 4. Tran BX, Nguyen LT, Nguyen NH, Hoang QV, Hwang J. Determinants of antiretroviral treatment adherence among HIV/AIDS patients: a multisite study. Glob Health Action. 2013;6(1).
- 5. Rai P, Verma BL. A study on depression in people living with HIV/AIDS in south-west part of Uttar Pradesh, India. South East Asia J Public Health. 2015;5(1):12-7.
- Gebrezgiabher BB, Abraha TH, Hailu E, Siyum H, Mebrahtu G, Gidey B. Depression among adult HIV/AIDS patients attending ART clinic at Aksum, Ethiopia: a cross Sectional study. Depress Res Treat. 2019;1-8.
- 7. Suryakantha AH. Community medicine with recent advances. 3rd edn. New Delhi: Jaypee publication; 2014:471-89.
- 8. Wang W, Xiao C, Yao X, Yang Y, Yan H, Li S. Psychosocial health and suicidal ideation among people living with HIV/AIDS: a cross sectional study in Nanjing, China. PLoS One. 2018;13(2):1-17.
- 9. Amin M, Sankar R. Stress anxiety and depression among HIV/AIDS Patients. J Indian Health Psychol. 2017;12(1):87-97.
- 10. Kaur R, Kumar NC. Descriptive study to assess the quality of life and coping strategies among

- HIV/AIDS patients. Int J Health Sci Res. 2018;8(7):224-9.
- 11. Kanthan S, Pant B, Gupta M, Kumar D, Bansal R Naseer K. A cross sectional study on quality of life and coping skills of people living with HIV and AIDS in Meerut, UP. Nat J Integr Res Med. 2019;10(2):1-5.
- 12. Eisenberg S, Jiun Shen B, Schwarz ER, Mallon S. Avoidant coping moderates the association between anxiety and patient-rated physical functioning in

heart failure patients. J Behavioral Med. 2012;35(3):253-61.

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