Original Article

Effect of highly active antiretroviral therapy (HAART) in coping the psychiatric patterns in a tertiary care hospital in Raichur

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Abstract

Coping is defined as the cognitive or behavioural strategies used to manage demands that are perceived to exceed existing resources. They further described coping strategies as either problem-focused (aimed at removing, confronting, circumventing the stressor) or emotion focused (lessening impact of stressor, without changing the stressor itself). Unfortunately HIV positive subjects are found to use more maladaptive coping strategies like escaping, avoiding, controlling self and others, and fail to use adaptive coping styles like positive reappraisal, planning and problem solving. A follow up study of 64 patients above the age of 18 years, both male and female, with HIV/AIDS, attending the Anti-Retroviral Treatment Centre (ART) of the NMC Raichur was undertaken. Active–Behavioural, Active-cognitive and Avoidance coping strategies questionarrie was used to collect the data. In PREHAART Mean coping scores prior to onset of medication was 30.7. In POSTHAART the Mean coping scores increased over all coping categories from a mean of 30.7 to 40.89, a statistically significant finding. The maximum increase was in Cognitive coping strategies, followed by Behavioural strategies. There was a reduction in the Avoidance pattern of coping.

Key Word: AIDS, HARRT, PLWHA, CD4.

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INTRODUCTION

The chronicity of HIV/AIDS, its myriad of systemic complications, and the financial and emotional burden it causes, imposes immense psychological stress on the individual, resulting at times in psychiatric morbidity. Coping is defined as the cognitive or behavioural strategies used to manage demands that are perceived to exceed existing resources. They further described coping strategies as either problem-focused (aimed at removing, confronting, circumventing the stressor) or emotion focused (lessening impact of stressor, without changing the stressor itself). Unfortunately HIV positive subjects are found to use more maladaptive coping strategies like escaping, avoiding, controlling self and others, and fail to use adaptive coping styles like positive reappraisal, planning and problem solving. (Lazarus and Folkman)[1] Issues that cause stress in HIV positive individuals are varied. They include dealing with spouse, family, the parenting role, health management, and discrimination more so in the working environment, health care related expenses, and the threat of being unable to provide for his own livelihood and that of the family. HIV patient's experiences, attitudes and behaviour are influenced by stressors faced by him, and compounded by factors such as cultural beliefs, blame, guilt, anger, and fear and trust issues. Anger and blame are linked to how the infection was contracted. Fear is attached to discrimination and stigmatization. Due to fear of discrimination patients find it difficult to disclose their sero positive status to their wife, children, friends and workmates. Cultural belief

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systems, of which traditional cultural beliefs and religious and spiritual beliefs are at the forefront, play an important role in patients behaviour with regard to coping. In order to cope with stress, HIV patients employ various coping strategies. Coping skills are partly influenced by the type of support system they have. Patients receive the most support from their partners and family because they tend to disclose most issues to them. Some of them, however, also receive professional support from social workers, nurses, psychologists, dieticians and doctors. Coping consisted of [8]types -confrontative coping, Distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, painful problem solving and positive reappraisal. The subtypes in coping indicate that HIV positive subjects use more maladaptive coping strategies like escaping, avoiding, controlling self and others, and fail to use adaptive coping styles like positive reappraisal, planning and problem solving. Gender tends to influence coping patterns, wherein men tend to escape or avoid circumstances, while women tend to seek more social support.[1]

MATERIALS AND METHODS

A prospective study was conducted in Navodaya Medical College, Raichur. All the Patients who atteneded HIV/AIDS Anti-Retroviral Treatment Centre (ART) of the NMC between February 2014 to January 2015 were included in the study. A total of 64 patients were registered during the study period after obtaining the consent from the particiapnts and ethical clearance from the concerned institution. Individuals who are aged between 18-60 years and are HIV positive (or AIDS), who are to be initiated on ART and are in clear sensorium were included in the study Data was collected in the below said questionnaire format. Active–Behavioural, Active-cognitive and Avoidance coping strategies (Billings Moose, 1981)² It is a questionnaire containing 32 items rated on a four point Likert scale response format developed by Billings Moose. The items of the checklist can be grouped into 3 methods of coping- A) active-cognitive B) active-behavioral C) avoidance. The 34 functions were – a) problem focused coping and b) emotion focused coping. Each of the items fits into one of the methods and one of the functions. The items are rated from 0-3 and then total score of a method used is achieved by adding the scores of items in that method. The final scores give an idea about the method of coping used and also help in planning interventions to rectify any harmful way of coping. Generally avoidance coping and emotion focused coping are considered as negative coping methods. The instrument is based on a rational construction and is in line with other theories. The internal consistencies are also quite satisfactory.

RESULTS

Table1: Distribution of patients based on their coping checklist scores

CCL pre ART	Frequency	Percentage
0-30	6	9.4
31-60	49	76.6
>60	9	14.1
Total	64	100.0

Most of the people in this study had a coping score total in the range of 31-60(76.6%). 9 out of 64 (14%) patients had a better score of more than 60.

Table 2: CCL scores of pre and post HAART patients obtained from CCL scale (n=64)

CCL domains	Mean CCL score ± SD	
	Pre HAART	Post HAART
C	14.75 ± 4.684	21.68 ± 4.587
AB	11.23 ± 4.268	14.84 ± 4.165
AA	4.72 ± 2.908	4.54 ± 2.599
Total	30.70 ± 8.398	40.89 8.002

CCL improvement seen in those who used cognitive and active behavioural coping techniques with majority of improvement seen in those with cognitive coping techniques

Table 3: comparison of coping in pre and post HAART group

CCL	Mean ± SD
Post HAART	40.89
Pre HAART	30.70
t=8.542 df =56 *P* value= <0.001	

There is significant change in coping checklist scores from pre HAART to post HAART. There is a an improvement by 11 points in total score and also it is statistically significant (P< 0.001).

DISCUSSION

Various studies have looked at the coping strategies employed by HIV positive individuals. A.G. Shanti *et al*[3] assessed depression and coping strategies in a study on HIV positive men and women, using 8 types of coping- confrontative coping, Distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, painful problem solving and positive reappraisal. The subtypes in coping indicate that HIV positive subjects use more maladaptive coping strategies like escaping, avoiding, controlling self and others, and fail to use adaptive coping styles like positive reappraisal, planning and problem solving. Gender tends to influence coping patterns, wherein men tend to escape or avoid circumstances, while women tend to seek more social support. Friedl and *et al* examined coping, social support and QOL in 120 HIV positive individuals. Analysis of data revealed that problem oriented and perception

oriented coping were positively related to QOL.[4]Fukunishi *et al* examined the influences of coping strategies and social support on mood states on 47 HIV positive individuals in Japan. The analysis showed that depressive symptoms were significantly and positively correlated with avoidance coping behaviours.[5]A study by David C. Tate *et al* examined the relationship between race, social support and coping strategies among HIV positive gay and bisexual men. The analysis showed that high levels of perceived social support were related to greater use of positive coping and seeking support, whereas lower levels of social support were related to greater use of self-destructive coping.[6]A study by James Alan Neff *et al* examined the psychological adaptation and distress in HIV positive Latina women in South Texas. The coping strategies assessed were self-control, problem solving and cognitive appraisal based on Folk man's 19 item coping scales. Analysis showed that use of an active coping strategy such as problem solving was negatively related to indicators of emotional distress, i.e. depression and anxiety. An unexpected finding was that an emotion focused coping strategy such as keeping ones feelings to one self-seemed to protect against anxiety.[7]Moore *et al* assessed the depressive symptoms and coping strategies among HIV infected and uninfected women in four urban centres. Three coping strategies were identified for dealing with HIV: disengagement, positive cognitive or behavioural coping, and seeking social support for emotional expression. Positive coping strategies were associated with fewer depressive symptoms, for most women disengagement was associated with more depressive symptoms, however for symptomatic women disengagement was related to lower levels of depressive symptomatology.[8] A study by Luigi Grassi *et al* examines the relationship between coping and psychosocial variables among 108 HIV infected individuals. Analysis showed that patients who were adjusting well to their HIV positive status tended to have a higher level of fighting spirit and lower level of hopelessness than those who were not adjusting well to their HIV positive status. A coping style based on incapacity to face and confront HIV infection was associated with symptoms of psychological stress, repression of anger, external locus of control, and low social support in the non-adjusted group. These patients showed symptoms indicating maladjustment to HIV infection and differed from the well-adjusted patients in that the former group reported inadequate coping responses and poorer social support, and had a greater tendency to repress anger and express sadness. The data supported the hypothesis that coping with HIV is a complex phenomenon involving multiple and interacting variables.[9] In the current study, the HIV/AIDS individuals used a mean of 30.70 coping strategies in the pre HAART group as opposed to a mean of 40.89 posts HAART, a statistically significant finding. There was an increase in all forms of coping, with the maximum increase being in the cognitive domain, followed by the behavioural domain. The use of active avoidance as a coping strategy was reduced in the post HAART group indicating a trend of improvement An increase in cognitive coping strategies from 14.75 during the per HAART period to 21.68 in the post HAART period, would indicate that the individual would use strategies like trying to see the positive side of a situation, accept and look for alternatives in handling a situation, reassurance, prepare for the worst etc. These strategies have been found to be used to a larger extent post treatment with HAART, helping the individual to cope better with all aspects of the illness. This probably led to the reduction in psychiatry morbidity and helped improve the quality of life of these patients. An increase in the use of behavioural coping strategies was found post treatment with HAART. These would include the use of strategies such as letting one's feelings out, getting away from things, trying to find out about a situation, discuss issues with a friend, spouse or professional, get busy with other things or make a plan of action. The use of these strategies would help in tolerating difficult situations and coping better as well as improving one's quality of life. There was a reduction (from .4.72 to .4.54) in the use of the active avoidance patterns of coping. This includes the reduction in denial, use of substances, avoiding the company of others, displacement, bargaining, etc. factors which would help him to cope in a healthier manner.

CONCLUSION

There was a significant reduction in the prevalence of psychiatric morbidity following HAART. There was a significant increase in the number of coping strategies used by the subjects post HAART as opposed to pre HAART. The strategies that were increasingly employed were Cognitive, followed by Behavioural. There was a reduction in the use of Avoidance coping strategies. In PREHAART Mean coping scores prior to onset of medication was 30.7. In POSTHAART the Mean coping scores increased over all coping categories from a mean of 30.7 to 40.89, a statistically significant finding. The maximum increase was in Cognitive coping strategies, followed by Behavioural strategies. There was a reduction in the Avoidance pattern of coping.

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