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Determinants of Coping Strategy among People Living with HIV/AIDS in Punjab–Pakistan

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Abstract: *This study found coping strategies used by people living with HIV/AIDS to deal with or avoid disease-related stress and explored factors that influenced their selection of coping strategies. A cross-sectional survey was done on HIV patients registered with PACP. A sample of 420 patients was conveniently selected from two treatment centres. Most of the respondents used positive coping (problem-solving and group support) frequently, while few people used negative coping (dysfunctional) in a small amount. The results showed that males used problem-solving most frequently, while transgender used dysfunctional coping most frequently. Age and employment did not significantly affect the selection of coping strategies. Educated people adopted group support coping most frequently, and people with higher incomes adopted both positive coping (problem-solving and group support) strategies. Recently diagnosed people commonly used dysfunctional coping, while people who had been diagnosed more than five years ago adopted it very little.*

Key Words: Coping Strategy, HIV/AIDS, Dysfunctional, Problem Solving, Group Support

Introduction

The goal of human existence is to have a happy and pain-free life. Anything that gets in the way of achieving this goal is generally addressed. As a result, humans utilise various tactics to secure the achievement of the goal in the face of such a risk. Coping refers to the tactics employed to guarantee that goals are accomplished. Individuals can describe coping as any activity they perform to decrease the impact of stress on them and get off from their difficulty. Any terminal disease is at the top of the list of such stressful situations. Because diagnosis with a terminal illness and knowledge that death is approaching at any time could be terrifying. HIV/AIDS is a contemporary example of such an awful, fatal disease. When diagnosed with HIV, they frequently make desperate efforts to refute this fact and then utilise various techniques to manage it (Haruna & Ago, 2014). Coping strategies could be emotional, like crying, unnecessary eating, and confrontation (Murgerg & Bru, 2005), avoidant, like isolation, mental disengagement, behavioural disengagement, drug use, suppressing competitive activities (Raheel, 2014), or adaptive, like seeking social support, problem-solving, positive reappraisal, acceptance, humour, religion (Folayan et al., 2016). Further, coping strategies can be positive or negative, depending on whether they increase or reduce well-being (Lazarus & Folkman, 1984). However, a coping strategy differs from person to person based on the stress they are experiencing.

Evidence from India suggested that HIV-positive people have a higher level of anxiety than the general population, adopting different coping tactics to manage their anxiety. More patients adopted problem-focused coping than emotion-focused coping styles. However, acceptance was the common coping strategy among most people. Religion and belief were among the highly used coping techniques by HIV-positive persons, with drinking alcohol/smoking being the least common. Sreelekshmi (2015) observed a significant negative correlation between anxiety and acceptance coping. In another study from India, Kaur and Kumar (2018) found that most people living with HIV employed moderate levels of coping in all spheres. The quality of life had a weak positive relationship with people with HIV/AIDS coping strategies. The study suggested that an information booklet on coping strategies can help HIV/AIDS patients improve their

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coping abilities and, consequently, their quality of life. Similarly, Negi, Zama, and Dushyanth (2019) conducted a study in Mysore, India, to inquire about the quality of life of HIV-infected people taking ART therapy. They found that self-distraction was the most used coping strategy, trailed by religion and spirituality, and the least common was humour.

Objectives of the Study

Following were the objectives of the present study

1. To know the coping strategy people living with HIV/AIDS use to deal with/avoid stress
2. To explore the factors affecting the selection of coping strategies used by people living with HIV/AIDS

Review of Literature

Deo et al. (2010) accomplished a descriptive study in Nepal. They found that HIV patients generally had psychological issues. The most used coping mechanisms were instrumental social support, active coping, planning, suppression of competitive activities, positive reinterpretation, and religious coping. Substance use, behavioural disengagement, and humour were the least adopted coping strategies. Most patients reported having a good quality of life in terms of physical health, while poor quality of life was reported in the domains of psychology and environment.

Orban et al. (2010) examined coping responses employed by HIV-infected youth in the United States. After thematic analysis, coping strategies were categorised as passive coping and active coping. Passive Coping involves passive emotional regulation, wishful thinking, withdrawal, cognitive restructuring, self-criticism, and blaming others. Active Coping comprises social support, problem-solving, and active emotional regulation. Behaviourally infected youth used passive coping more frequently than parentally infected youth.

Mutumba et al. (2015), in a qualitative study from Uganda (Africa), explored coping strategies used by adolescents living with HIV/AIDS. The common coping strategies included social comparison, rationalisation, treatment confidence, avoidance and distraction, limited disclosure, social support, spirituality, and religiosity. Similarly, Folayan et al. (2017) examined various coping approaches that Nigerian teenagers employ depending on their HIV status. The results found significant differences in coping strategies among teenagers living with and without HIV. The teenagers living with HIV used to deal with disease-related stressors through social support, mental disengagement, and religion. In contrast, adolescents living without HIV used positive appraisal and humour as coping strategies.

Anima-Korang et al. (2018) from rural America found that people living with HIV/AIDS used diverse coping strategies depending on their characteristics. Two distinct coping strategies include *emotional* coping, such as isolation, damaging behaviours, encouraging oneself, and doing physical activities and problem-focused coping, like looking for social support, spiritual guidance, and advocacy. The most preferred coping strategy was self-isolation, and the least popular was looking for spiritual guidance.

Osamika (2019) identified coping strategies employed by people living with HIV/AIDS in Nigeria. People use various coping strategies depending on their personal situation, including self-distraction, active coping, denial, substance use, use of emotion, instrumental support, behavioural disengagement, venting, positive reframing, planning, humour, acceptance, religion, and self-blame.

Methodology

This study was a cross-sectional survey conducted on registered patients of the Punjab AIDS Control Program (PACP). A sample of 420 outdoor patients (18 years of age or older and taking ART) were chosen from 44,000 HIV patients by using a cluster and convenient sampling technique. Patients were proportionately chosen from two districts (Dera Ghazi Khan and Rawalpindi): 336 out of 3700 in Dera Ghazi Khan and 84 out of 950 in Rawalpindi. Frequencies, percentages, Chi-square, correlation coefficients, and post-hoc tests were used to analyze the data. The study investigated coping strategy as a dependent variable and evaluated gender, age, education, employment status, monthly income, and length of disease as independent variables. The Brief COPE (Carver, 1997) was used to measure the coping strategy, which had 28 items representing the 14 sub-scales with two items in each. Respondents were

asked to select how frequently they adopt a coping strategy on a 4-point Likert scale (1 = not doing at all, 2 = doing a little bit, 3 = doing a medium amount, and 4 = doing a lot).

The Brief COPE is not intended to provide an overall score, and its author recommended that users create factors to develop coping factors using their data (Carver, 1997). So, to find the factor structure of Brief COPE, the researcher used a principal component analysis using a varimax rotation (Promax, with $\kappa = 7$) method with Kaiser Normalization. The optimal fit for the Brief COPE was a 3-factor solution with a factor loading cut-off of more than .40 and an Eigenvalue of more than 1.00, which accounted for 41.2% of the original variance. In cases where an item had multiple loadings on different factors or a loading of less than (0.4), the item was assigned to the factor with the closest conceptual relationship. The principal component analysis identified three factors in the original scale. The first component was defined by six coping strategies: denial, substance use, behavioural disengagement, self-distraction, self-blame, and humour. The second component was reflected by six coping strategies, including active coping, positive reframing, venting, planning, acceptance, and religion. The third component was defined by two coping strategies: emotional support and instrumental support. In sum, 28 items of the Brief COPE produced three factors labelled as follows: 1) Dysfunctional, 2) Problem Solving, and 3) Group Support, and used as sub-scales in subsequent statistical analyses.

Results and Discussion

For this study, a total of 420 outdoor HIV patients were interviewed from two treatment centres of the Punjab AIDS Control Program, Pakistan. Among respondents, more than sixty per cent were male, more than thirty per cent were women and nearly six per cent were transgender. More than sixty per cent were illiterate, nine per cent completed their schooling, and only one per cent graduated from college. More than sixty per cent were in their middle ages (28-47), and more than twenty per cent were between ages (18-27). Almost half of them were partially employed, and almost forty per cent were unemployed. Around sixty per cent of respondents had a monthly income below ten thousand rupees, and more than thirty per cent had a monthly income from ten to twenty thousand rupees per month. The majority of respondents were living with their families, and almost half of them had been suffering from HIV for more than five years.

Table 1

Distribution of the respondents regarding coping strategy adopted

Coping Strategy	Not doing at all f (%)	Doing a little bit f (%)	Doing a medium amount f (%)	Doing a lot f (%)	Total f (%)
Dysfunctional	141 (33.6)	183 (43.6)	76 (18.1)	20 (4.8)	420 (100)
Problem-Solving	5 (1.2)	39 (9.3)	173 (41.2)	203 (48.3)	420 (100)
Group Support	51 (12.1)	110 (26.2)	119 (28.3)	140 (33.3)	420 (100)

Table 1 describes the results regarding the coping strategies adopted by people living with HIV/AIDS and their frequency. In response to dysfunctional coping (which represents negative coping), 43.6% of respondents said that they were doing it a little bit, 33.6% stated they were not doing it at all, 18.1% were doing a medium amount, and 4.8% were doing this a lot. In response to problem-solving coping (which is positive coping), 48.3% of respondents were doing it a lot, 41.2% were doing it a medium amount, 9.3% were doing a little bit, and 1.2% of respondents were not doing it at all. In response to group support (which is positive coping), 33.3% of respondents were doing it a lot, 28.3% of respondents were doing a medium amount, 26.2% were doing a little bit, and 12.1% were not doing it at all.

Table 2

Crosstab of gender and dysfunctional coping strategy

The gender of the respondents	Dysfunctional Coping Strategy				Total
	Not doing it at all	Doing a little bit	Doing a medium amount	Doing a lot	
Male	73	118	51	14	256
Female	64	53	19	4	140
Transgender	4	12	6	2	24
Total	141	183	76	20	420

Chi-Square=16.458* df=6 Sig= 0.011 Gamma=0.162 Sig= 0.032



In Table 2, the Chi-Square value (16.458) shows a significant association (0.011) between the gender of the respondent and dysfunctional coping strategy. The Gamma value (0.162) shows a weak and positive relationship between both variables. This means that females and transgender people living with HIV/AIDS adopted dysfunctional coping more than males.

Table 3

Crosstab of gender and problem-solving coping strategy

The gender of the respondents	Problem-Solving Coping Strategy				Total
	Not doing it at all.	Doing a little bit	Doing a medium amount	Doing a lot	
Male	4	29	112	111	256
Female	0	10	53	77	140
Transgender	1	0	8	15	24
Total	5	39	173	203	420

Chi-Square=12.560* df=6 Sig= 0.049 Gamma=-0.243 Sig=0.003

In Table 3, the Chi-Square value (12.560) shows a significant association (0.049) between the gender of the respondent and problem-solving coping. The Gamma value (-0.243) shows a weak and inverse relationship between both variables. This means that males living with HIV/AIDS used problem-solving coping more than females and transgender people.

Table 4

Crosstab of gender and group support coping strategy

The gender of the respondents	Group Support Coping Strategy				Total
	Not doing it at all.	Doing a little bit	Doing a medium amount	Doing a lot	
Male	26	66	76	88	256
Female	23	41	36	40	140
Transgender	2	3	7	12	24
Total	51	110	119	140	420

Chi-Square=9.029 df=6 Sig=0.172 Gamma=-0.059 Sig=0.417

The Chi-Square (9.029) shows a non-significant (0.172) association between gender and group support coping, and both variables were independent. This means that people living with HIV/AIDS used group support as coping almost equally, irrespective of gender.

In dysfunctional coping, the findings of Chi-Square (Table 2) show a significant (0.011) and positive association between the gender of the respondent and dysfunctional coping. In the post-hoc test for gender, male respondents used dysfunctional coping less, while transgender respondents adopted dysfunctional coping most frequently. In problem-solving coping, the findings of Chi-Square (Table 3) show a significant (0.049) and negative association between the gender of the respondent and problem-solving coping. In the post-hoc test for gender, male respondents used problem-solving coping most frequently, while transgender respondents used it very little. The results show that male patients used problem-solving coping more, which is inconsistent with a previous study, while females used dysfunctional coping more frequently (Haruna & Ago, 2014).

Table 5

Correlation coefficient of demographic characteristics and perceived social support

Variables	Spearman's Correlations	Age	Education	Employment Status	Monthly Income	Length of Disease
Dysfunctional Coping	Correlation Coefficient	-.093	-.091	-.054	-.099*	-.134**
	Sig.(2-tailed)	.056	.061	.270	.042	.006
Problem-solving Coping	Correlation Coefficient	.023	.016	.080	.134**	-.024
	Sig.(2-tailed)	.635	.745	.103	.006	.618
Group support coping	Correlation Coefficient	-.014	.136**	.078	.253**	-.107*
	Sig.(2-tailed)	.776	.005	.109	.000	.028

Table 5 represents the correlation coefficient of demographic variables with different coping strategies. Age had a positive but nonsignificant relationship with problem-solving coping ($r = .023$, $P = .635$), showing that an increase in age increases the use of problem-solving coping, but that effect was not significant. Age had a negative and nonsignificant relationship with dysfunctional coping ($r = -.093$, $P = .056$) and group support coping ($r = -.014$, $P = .776$), representing that an increase in age decreases the use of dysfunctional and group support coping, but that effect was not significant.

Education had a positive and significant correlation with group support coping ($r = .136^{**}$, $P = .005$), depicting that as the level of education increased, the use of group support as a coping also increased. This means that more educated people living with HIV/AIDS used group support more as a coping strategy than people with lower education. The posthoc test shows that illiterate respondents used group support coping very little, while respondents educated above graduation used group support coping very frequently. The relationship of education with problem-solving coping was positive but nonsignificant ($r = .016$, $P = .745$), showing that an increase in the level of education increases the use of problem-solving coping, but that effect was not significant. Further, education had a negative and nonsignificant relation with dysfunctional coping ($r = -.091$, $P = .061$), reflecting that as the education level of people increases, they use dysfunctional coping less, but that effect was not much to be significant.

Employment status had positive and nonsignificant relation with problem-solving coping ($r = .080$, $P = .103$) and group support coping ($r = .078$, $P = .109$), reflecting that an increase in employment status causes an increase in doing problem-solving and group support coping though that effect was not significant. Employment status had a negative and nonsignificant relation with dysfunctional coping ($r = -.054$, $P = .270$), representing that as employment increases, the use of dysfunctional coping decreases. This means that partially or fully employed people adopted dysfunctional coping less than unemployed people living with HIV/AIDS.

Monthly income had a positive and significant correlation with problem-solving coping ($r = .134^{**}$, $P = .006$) and group support coping ($r = .253^{**}$, $P = .000$), representing that an increase in monthly income is related to an increase in doing problem-solving and group support coping. This means that people living with HIV/AIDS who had higher incomes also adopted problem-solving and group support coping more than people with lower incomes. On the other hand, monthly income had a negative and significant correlation with dysfunctional coping ($r = -.099^{**}$, $P = .042$), depicting that as income increased, the use of dysfunctional coping decreased. This means that people with higher monthly incomes adopted dysfunctional coping less than those with lower incomes. The post-hoc test shows that respondents in the income category (Up to 9,999) used problem-solving and group support, coping very little, while dysfunctional coping a lot. The respondents in the income category (40,000 & above) used problem-solving and group support coping a lot, while dysfunctional coping very little.

Length of disease had a negative and significant correlation with dysfunctional coping ($r = -.134^{**}$, $P = .006$) and group support coping ($r = -.107^{**}$, $P = .028$), depicting that an increase in length of disease was related to decrease in adoption of dysfunctional and group support coping. This means that people who had been diagnosed a long time ago adopted dysfunctional and group support coping less than people recently diagnosed with HIV. In the post-hoc test, respondents in the category (more than five years) used dysfunctional and group support coping very little, while respondents in the category (less than one year) used dysfunctional coping a lot. Further, the length of disease had a negative and nonsignificant relation with problem-solving coping ($r = -.024$, $P = .618$), reflecting that an increase in the length of disease was related to a decrease in the use of problem-solving coping but that effect was not significant.

To sum up, the majority of respondents (77.2%) used dysfunctional coping in some small amount (43.6%) or did not use it at all (33.6%). Among dysfunctional coping strategies, only self-distraction was commonly and frequently used. Other techniques, like denial, substance use, behavioural disengagement, self-blame, and humour, were either used a little bit or not used at all by the majority of respondents. On the other hand, the majority of respondents used problem-solving coping either a lot (48.3%) or a medium amount (41.2%). More than 90% of respondents used all positive coping strategies in problem-solving coping. The most frequent coping strategy used by respondents was acceptance. Further, active coping, acceptance and religion were used by respondents a lot, and positive reframing, planning and venting were



used in a medium amount. Similarly, group support coping strategies were common and frequent among most of the respondents. The majority of respondents were getting emotional and instrumental/informational support, either a medium amount or a little bit. The most commonly used coping strategies were self-distraction, acceptance, and religion, also consistent with previous studies (Deo et al., 2010; Sreelekshmi, 2015; Gelaw et al., 2018; Negi et al., 2019) but contrary to (Anima-Korang et al., 2018). While the least common were substance use, behavioural disengagement, and humour, also evidenced by (Deo et al., 2010; Folayan et al., 2017; Negi et al., 2019).

Conclusion

Coping is a continuous process, changing from time to time, demanding a reassessment of the stressor, whether it is a threat, harm, or challenge, as well as whether enough resources are available to deal with it. So, a person may adopt one coping strategy at a time and some different coping at any other time. Positive coping (problem-solving and group support) was commonly and frequently adopted by respondents of the study, while negative coping (dysfunctional) was adopted by a few people and in a small amount. Males living with HIV/AIDS frequently used problem-solving coping, while females and transgender frequently adopted dysfunctional coping and group support coping was used by all people living with HIV/AIDS irrespective of their gender. Educated people used group support to cope more than less educated or uneducated people. People with higher incomes frequently used problem-solving and group support coping and dysfunctional coping very little. People recently diagnosed with HIV frequently used dysfunctional and group support coping while problem-solving coping in a small amount.

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