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Full Length Research

Use of coping strategies among people living with HIV/AIDS in Kaduna Central Senatorial District, Kaduna State, Nigeria

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ABSTRACT: Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) is one of the most complicated and bewildering social challenges faced by contemporary societies due to its strong ties with sexual and societal stigmatized behavior. This study is aimed at assessing the use of coping strategies among people living with HIV/AIDS (PLWHA) in Kaduna central senatorial district. The study was a cross section descriptive design. The instrument used was Brief COPE (Coping Orientation to Problems Experienced). A sample of 407 participants attending antiretroviral clinic was drawn from four selected General Hospital from the district using multi stage sampling method. The sample size was calculated from the target population of 10,321 patients. Data were analyzed using descriptive statistics with the aid of IBM SPSS version 23. The major findings of the study revealed PLWHA use the problem focus coping strategy adequately with overall mean of 2.61 and specifically most of them have been taking action to try to make the situation better. The PLWHA also use the emotion focus coping strategy adequately with overall mean of 2.65 and specifically most of them have been getting emotional support from others. However, use of avoidance coping strategy was the highest with overall mean of 2.82, specifically most of them criticized themselves for the condition. The study then concluded that problem focus and emotion focus were adequately used while avoidance strategy was highly used. It was therefore recommended that health workers should adopt different methods of educating the PLWHA especially on their clinic days on how to adopt problem focus coping strategies in other to improve their quality of life.

Keywords: Coping, PLWHA, Kaduna, strategies.

INTRODUCTION

HIV/AIDS is one of the most complicated and bewildering social challenges faced by contemporary societies due to its strong ties with sexual and societal stigmatized behavior. Contracting HIV may lead to difficulties related to self-esteem, coping, social isolation, and poor psychological well-being (Asante, 2012). The objective of the study is to assess the use of the coping strategies adopted by people living with HIV/AIDS (PLWHA) in Kaduna central senatorial district of Kaduna State.

Coping refers to the behavioral or cognitive responses that people use to manage stress (Yusoff et al., 2010). Its goal is to maintain physical and psychosocial well-being. Coping strategy could be problem focused, emotion focused or avoidance coping. Problem-focused coping strategies aim to amend or eliminate the causes of stress while emotion-focused coping strategies are meant to get by with the affective effects of the hassle (Yusoff et al., 2011). Furthermore, avoidance coping, also known as avoidant coping, avoidance behaviors, and escape coping, is a maladaptive form of coping that involves changing of

behavior to try to avoid thinking or feeling things that are uncomfortable. In other words, avoidance coping involves trying to avoid stressors rather than dealing with them (Scott, 2019).

Theoretically, coping reactions are believed to be situational specific. For example, in conditions where an individual has the ability to control the stressor or resolve the problem, problem-centred approach will be more constructive; whereas when one is not capable of managing the stressors and forced to bear, it is more useful to employ emotional-centred approach (Yusoff, 2011).

There are events and occurrences which are known as stressors that can cause threat to one's coping strategies or resources. Stressor covers a whole range of situations – anything that is perceived as unpleasant can be called a stressor. It can be external factors like the physical environment, occupation, relationships, challenges and expectations of life encountered on a daily basis as well as internal factors like nutritional status, emotion, health and the amount of rest obtained. (Yusoff and Lin, 2013). Stressors are also not uncommon among PLWHA and it affects their stress coping capabilities from a number of studies conducted.

A person's coping behavior plays an important role in resolving difficult conflict situations that may arise in various spheres of life. In Heim's (1988) opinion, coping behavior shows itself in the cognitive and emotional actions that a person takes to overcome difficult situations and to adapt to existing circumstances.

Coping involves cognitive and behavioral attempts to manage internal or external demands viewed or appraised as tasking or exceeding one's resources (Lazarus and Folkman, 1984). A distinction is made between coping strategies that are active (problem-focused) aimed at managing problems, or avoidant (emotion-focused) that help to ease emotional distress but that are not designed to confront the stressor directly (Stein and Rotheram-Borus, 2004). Lazarus and Folkman (1984) define coping as a process by which people use cognitions and behaviors to manage situations (stressors) that they consider demanding. These coping strategies are targeted to modify the relationship between the stressors and negative consequences that might result (stressor effects). Problem-focused coping involves goal-oriented, action-based strategies that are aimed at altering the cause of the stress. Emotion-focused coping strategies are focused at managing the emotions provoked by stressors. Emotion-focused coping involves internal restructuring of cognitions which consequently change the meaning assigned to a given situation, and therefore change the corresponding emotional reaction. (Abraham-Pratt, 2010).

Different individuals use different strategies for coping with negative affective state and associated life problems. Strategies are developed to identify means to reduce stress. Such coping mechanisms are important both in periods of acute stress/emergencies (such as hurricane disasters) as well as in patients suffering from chronic illnesses such as depression, breast cancer, and HIV/AIDS (Kasi et al., 2012).

Also, according to Krägeloh (2011), by early adulthood, most people would have faced considerable stress at some point in their lives, and it is likely that they would have developed some behavior patterns that are intended to reduce the impact of stressors. Such responses to environmental stressors are referred to as coping, which has been the subject of extensive investigations in psychological research during the past 40 years. Although the specifics of the coping responses naturally vary across individuals, researchers have attempted to group similar types of responses into categories of coping strategies. An influential distinction was proposed by Lazarus and Folkman and contrasts problem-focused with emotion-focused response strategies. While the former aimed to modify the relationship between the environment and the person through dealing directly with the source of the stress, the latter attempted to regulate emotional distress by altering one's own response to the stressor. What constitutes the most appropriate higher-order structure of coping is still being debated with researchers having put forward a number of alternative categorizations such as through the addition of avoidant coping or dysfunctional coping (Cooligde et al as cited in Krägeloh, 2011). At the lower-order level, in contrast, coping strategies are grouped into much more specific categories. Emotional support coping strategies, for example, could thus be defined as any set of responses emitted in the context of a stressful event that have the potential to mitigate the effects of stress by invoking the emotional support from other people, such as friends and family members. The variety of lower-order categories mentioned in the literature and used in empirical research is immense, and here the challenge is to determine which range of strategies and level of specificity allows for the most efficient assessment of people's use of coping responses. Coping is commonly assessed using self-report inventories, and questionnaire length is therefore a crucial practical consideration (Krägeloh, 2011).

According to Nigeria HIV/AIDS Indicator and Impact Survey (2019), among adults age 15-64 years, HIV prevalence varied by state across North West Zone, ranging from 1.1% in Kaduna State to 0.3% in Jigawa and Katsina States. Kaduna state has the highest prevalence rate in the north western zone of Nigeria. In this sense, the understanding and identification of coping strategies can help nurses and other health professionals to direct interventions to control stressors related to the disease, favoring the adaptive process to the therapeutic regimen. Therefore, studies with this theme are justified by their contribution to improving the quality of life of people living with aids (Silva et al., 2018). Hence the need to find out the use of the various coping strategies adopted by PLWHA in Kaduna central senatorial district because it is the most populated of the three senatorial districts in Kaduna state.

Table 1. Population of patients and Sample size from the selected hospitals.

Hospital	Number of patients	Sample from each hospital
Barau Dikko Teaching Hospital	2,729	107
General Hospital, Sabo	1,154	46
Yusuf Dantsoho Memorial Hospital	2,896	114
Dr. Gwamna Awan General Hospital	3,542	140
Total	10,321	407

Source: Hospital records.

MATERIALS AND METHODS

Setting and sampling

A cross section descriptive design was used for this study. A sample size of 407 patients from the estimated number of 10,321 patients attending the selected hospitals was used. This was calculated using Krejcie and Morgan (1970) formular for sample size.

A multi-stage sampling procedure was used for the study. Kaduna central senatorial district consist of Birnin Gwari, Chikun, Giwa, Igabi, Kaduna North, Kaduna South and Kajuru local government areas. First, four local government areas in Kaduna central senatorial district were randomly selected for the study. Considering the number of general hospitals in each local government, simple random sampling technique was used to select four hospitals for the study in the district as shown is Table 1. To select a representative sample size from each of the four hospitals, a proportionate sampling technique was done using the following formula:

$$R = \frac{N_s \text{ x } n}{N}$$

Where: n = total sample size; Ns = number of HIV patient in a particular hospital; N = total number of HIV patients and R = require sample size

Research instrument

The instrument for data collection consists of section A and B. Section A consists of socio demographic data which include age, gender, religion, marital, educational and employment status. Section B consists of the instrument adopted from a validated Brief COPE developed by Carver (1997), which consists of items representing 28 coping items/parameters and 14 domains (i.e. each domain contains 2 items). The domains in this study were grouped into problem-focused, emotion focused and avoidance coping. Problem focused strategy has 6 items, emotion focused strategy has 10 items and avoidant strategy has 12 items. Respondents were requested to rate the frequency that they have been doing in the described items by choosing from four responses which were scored 1 to 4 respectively: The responses to these questions are measured on a 4-point Likert-type scale with responses ranging from 1 (“I’ve not done this at all”) to 4 (“I’ve been doing this a lot”). The scores (ranging from 1 to 4) and the means for each of the 28 parameters that were grouped into problem focused, emotion focused and avoidance strategies were then calculated. A mean score less than 1.5 is low, 1.5 to 2.5 moderate and more than 2.5 indicates high use of the coping strategy. This decision rule was taken by the researchers considering the range of the overall mean.

The data obtained were subjected to test, re-test, reliability test using Pearson Product Moment Correlation Coefficient to test the internal consistency of the instruments. A coefficient of the coping strategies ranged from 0.72 to 0.84. Previous report to establish the reliability of the scale indicated a high Cronbach’s alpha values for some domains such as Religion (α = 0.82) and Substance use (α = 0.90) (Carver 1997).

Data collection

The questionnaire was the instrument used to obtain information from individuals that met the inclusion criteria. Eight research assistants were used for data collection. The research assistants were trained nurses from the selected hospitals. They assisted in explaining the content of the questionnaire to the illiterate respondents. The research assistants were instructed on the procedure of data collection. The copies of the questionnaire were administered to the participants on their clinic days. The administered questionnaires were collected immediately. Data collection process lasted for one month.

Data analysis

Item by item analysis was carried out using descriptive statistics of mean and standard deviation to show the response frequency and percentages of various categories of data generated from the research instrument. Statistical analysis was carried out with the aid of IBM SPSS version 23.

Ethical consideration

The study protocol was submitted to the Health Research

Table 2. Socio-demographic characteristics of respondents (n=407).

Socio-demographic characteristics	Parameters	Frequency	Percentage
Gender	Male	127	31.2
	Female	280	68.8
Age	18-27	162	39.8 Mean = 32.5
	28-37	134	32.9
	38-47	74	18.1
	48-57	23	5.6
	58 and Above	14	3.4
Religion	Christianity	196	48.2
	Islam	211	51.8
Marital status	Married	175	43.0
	Divorced/separated	21	5.2
	Widowed	63	15.5
	Single	148	36.4
Education status	No formal education	11	2.7
	Primary	52	12.7
	Secondary	127	31.2
	Tertiary	217	53.3
Employment status	Unemployed	164	40.3
	Self employed	21	5.2
	Civil servants	130	31.9
	Private employment	4	1.0
	Student	64	15.7
	Apprentice	3	7
	Retired	21	5.2
Total		407	100

Ethics Committee of Kaduna State Ministry of Health and Human Services, Independence way, Kaduna for approval of the study. Approval to conduct the study was obtained by the researchers from the committee. Written informed consent was also obtained from each participant prior to data collection. Anonymity and confidentiality of the information was assured and maintained.

RESULTS

The gender of the respondents as displayed on Table 2 showed that 127(31.2%) of the respondents were males and the remaining 280(68.8%) are females. On the age of the respondents, 162(39.8%) are between 18 to 27years while 134(32.9%) are within the ages of 28 to 37 years as against 74(18.1%) that are between the ages of 38 to 47 years. It has also shown that 23(5.6%) are between 48 to 57 and 14(3.4%) are between 58 years and above. This implies that most of the respondents fall within the age bracket of 18 to 27 and 28 to 37 years. 196 of the respondents representing 48.2% are of Christianity religion and the rest 211 representing 51.8% are of the Islam religion. Regarding the respondents' marital status as presented in the Table 2, a total of 175(43.0%) are married, while 21(5.2%) are divorced/separated as against 63(15.5%) that are widowed and the rest 148(36.4%) are single. On the respondent educational status, 11(2.7%) of the respondents have no formal education, a total of 52(12.7%) possess primary education while 127(31.2%) possess secondary education and the rest 217(53.3%) possess tertiary education. This implies that most of the respondents possess tertiary education. The respondents' employment status is displayed in the Table 2. A total of 164(40.3%) are unemployed, while 21(5.2%) are self-employed as against 130(31.9%) that are civil servants. A total of 4(1.0%) are privately employed as against 64(15.7%) that are students while 3(0.7%) are apprentices

Table 3. Use of problem focused coping strategy.

Parameters	Response category					
	Haven't been doing this at all	Doing this a Little bit	Doing this a Medium amount	Doing this a lot	Mean	Std. dev.
Been concentrating my effort on doing something about situation I'm in	127 (31.2%)	65 (16%)	42 (10.3%)	173 (42.5%)	2.64	0.453
Been taking action to try to make the situation better	107 (26.2%)	42 (10.3%)	64 (15.7%)	194 (47.6%)	2.85	0.672
Been getting help and advice from other people	121 (29.7%)	35 (8.5%)	145 (35.6%)	106 (26%)	2.58	0.574
Been trying to get advice or help from other people about what to do	105 (25.8%)	68 (16.7%)	22 (5.4%)	212 (52%)	2.84	0.309
Been trying to come up with strategy about what to do	191 (46.9%)	84 (20.6%)	68 (16.7%)	64 (15.7%)	2.01	0.578
Been thinking hard about what steps to take	106 (26%)	63 (15.4%)	68 (16.7%)	170 (41.8%)	2.74	0.302
Overall mean					2.61	0.481

and the rest 21(5.2%) are retired. By implication the unemployed are the dominant respondents in this study.

Table 3 Shows that most of the respondents have "been taking action to try to make the situation better" with the highest mean of 2.85. The overall mean of the use of problem focused coping strategy is 2.61. From the decision rule, the overall mean is greater than 2.5, the strategy is highly used.

Table 4 indicates that most of the respondents have "been getting emotional-support from others" with the highest mean of 3.08. The overall mean of the use of emotion focus strategy is 2.65. From the decision rule, the overall mean is greater than 2.5, the strategy is also highly used.

Table 5 Shows that most of the respondents have "been criticizing themselves" with the highest mean of 2.97. The overall mean of avoidant coping is 2.82. From the decision rule, the overall mean is greater than 2.5, the strategy is highly used. Besides, it is the most used of the three coping strategies.

DISCUSSION

The result of the study showed that a good number of the participants use problem focus coping strategy. The overall mean of 2.61 reveals that PLWHA in the district use this coping strategy highly. Specifically, most of the respondents have been taking action to try to make the situation better and this attracted the highest mean of 2.85. The most effective strategy is problem-solving if the individual has a realistic chance of changing the stressor or the aspects that lead to the stressor. This strategy relies on using active ways to directly tackle the situation that caused the stress. The respondents could have concentrated on the problem by paying attention and avoid taking on more responsibility than they can manage. This is all focusing on problem solving. The findings agree with Armiya'u et al. (2014), which showed that active coping which is a problem focus coping strategy was majorly used by PLWHA. The similarity with the present study could be attributed to the fact that both studies were carried out in urban areas where it is expected that the respondents are more enlightened. However, the same study revealed that they also use acceptance and turning to religion which are emotion focus coping as major coping strategies. Faria et al. (2014) also revealed that Brazilian pregnant women living with HIV use problem focus coping strategy.

The result also reveals that PLWHA highly used emotion focus coping strategy; this is because the overall mean of 2.65 is greater than the decision mean of 2.5. Specifically, the respondents indicated that they have been getting emotional-support from others, this has the highest mean of 3.08. The possible reason for the use of this strategy could be attributed to the religious or cultural belief of the respondents. As there is the general belief that whatever happens to someone whether good or bad should be all heartedly accepted as an act of God without any complains. This belief could make PLWHA learn to live with the

Table 4. Use of emotion focused coping strategy.

Parameters	Response category					Std. dev.
	Haven't been doing this at all	Little bit	Medium amount	Doing this a lot	mean	
Been accepting the reality of the fact that it has happened	106 (26%)	85 (20.9%)	64 (15.7%)	152 (37.3%)	2.64	0.724
been learning to live with it	85 (20.9%)	147 (36.1%)	22 (5.4%)	153 (37.6%)	2.60	0.335
Been getting emotional-support from others	40 (9.8%)	30 (7.4%)	195 (48%)	142 (34.9%)	3.08	0.212
Been getting comfort and understanding from someone	128 (31.4%)	64 (15.7%)	63 (15.5%)	152 (37.3%)	2.59	0.133
Been trying to see it in a different light, to make it more positive	106 (26%)	128 (31.4%)	21 (5.2%)	152 (37.3%)	2.54	0.342
Been looking for something good in what is happening	85 (20.9%)	106 (26%)	22 (5.4%)	194 (47.7%)	2.80	0.671
Been trying to find comfort in my religion or spiritual beliefs	106 (26%)	42 (10.3%)	107 (26.3%)	152 (37.3%)	2.75	0.182
Been praying or meditating	169 (41.5%)	21 (5.1%)	21 (5.1%)	196 (48.2%)	2.60	1.007
Been saying to myself "this isn't real"	133 (32.6%)	42 (10.3%)	43 (10.5%)	189 (46.4%)	2.71	0.161
Been refusing to believe that it has happened	196 (48.2%)	42 (10.3%)	63 (15.5%)	106 (26%)	2.19	0.651
Overall mean					2.65	0.442

Table 5. Use of avoidance coping strategy.

Parameters	Response category					Std. dev.
	I haven't been doing this at all	Been doing this a Little bit	Been doing this Medium amount	Been doing this a lot	Mean	
Been turning to work or other activities to take my mind off things	127 (31.2%)	148 (36.4%)	90 (22.1%)	42 (10.3%)	2.12	0.12
Been doing something to think about it less such as movies, TV, daydreaming, sleeping or shopping	84 (20.6%)	85(20.9%)	89 (21.9%)	149 (36.6%)	2.74	0.463
Been criticizing myself	111 (27.3%)	21 (5.1%)	43 (10.6%)	232 (57%)	2.97	0.871
Been blaming myself for things that happened	43 (10.6%)	196 (48.2%)	21 (5.1%)	147 (36.1%)	2.67	0.722
Been using alcohol or other drugs to make myself feel better	87 (23.4%)	189 (46.4%)	11 (2.7%)	120 (29.5%)	2.41	0.725
Been using alcohol or other drugs to help me get through it	173 (42.5%)	106 (26%)	85 (20.8%)	43 (10.6%)	2.00	0.190

Table 5. Contd.

Been saying things to let my unpleasant feelings escape	**85 (20.8%)**	**257 (63.1%)**	**22 (5.4%)**	**43 (10.6%)**	**2.06**	**0.463**
Been expressing my negative feelings	107 (26.3%)	152 (37.3%)	22 (5.4%)	126 (40%)	2.41	0.862
Been making jokes about it	148 (36.7%)	132 (32.4%)	21 (5.2%)	106 (26%)	2.21	0.721
Been making fun of the situation	154 (37.8%)	105 (25.8%)	21 (5.2%)	127 (31.2%)	2.30	0.722
Been giving up trying to deal with it	196 (48.2%)	106 (26%)	21 (5.2%)	84 (20.6%)	1.98	1.067
Been giving up the attempts to cope	64 (15.7%)	217 (53.3%)	42 (10.3%)	84 (20.6%)	2.36	0.731
Overall mean					2.82	0.578

condition or try to find comfort in their religion or spiritual beliefs, and these are emotion focus strategies. This is in agreement with a study by cherayi (2013) which showed that HIV discordant couples use much of denial and have been turning to religion, these are ways ofemotion focus coping strategy. Similarly, Rani and Batra (2015) in a study on ways of coping strategies in HIV/AIDS patients revealed that most of the HIV/AIDS patients were going more with emotion focused coping than with problem focused coping. The emotion focus strategies used were accepting the reality of the fact that it has happened, trying to see it in different light to make it seem positive and trying to find comfort in religion and spiritual belief. This also concurred with Chen et al. (2019) who reported that participants who were females, unemployed, annual income less than 1000 yuan, had lived with HIV for a longer period, and had disclosed their infection status to their family members were more likely to adopt the acceptance-resignation coping strategy which is also emotion focus strategy in response to HIV/AIDS.

Result on avoidant coping strategy showed that PLWHA highly use this strategy with an overall mean of 2.82. It also showed that this coping strategy has the highest overall mean score compared with the other coping strategies; hence it is used more than the other coping strategies. Specifically, most of them have been criticizing themselves as this coping strategy attracted the highest mean response of 2.97. The possible reason for the result could be because most of the respondents are young and unemployed. This could be so because in avoidant coping, the individual tries to think or act in situation that can take his/her mind away from the problem, instead of finding a solution to the problem. Young and unemployed PLWHA could easily engage themselves in using alcohol or other drugs to make them feel better, saying things to make the unpleasant feelings escape or making fun of their situation. These are all avoidant coping strategies. However, such coping strategies may be termed to be “maladaptive” and may result in poorer health outcomes for the patient. The result is in accordance with Kotze et al. (2013) who reported that women recently diagnosed HIV positive during pregnancy use avoidant coping strategy. Similarly, Brown et al. (2019) in a study of ways of coping and HIV disclosure among people living with HIV: mediation of decision self-efficacy and moderation by sex, reported the use of avoidance coping strategy. Also, Folayan et al. (2017) in study of psychological stressors and coping strategies used by adolescents living with and not living with HIV infection in Nigeria, reported the use of mental disengagement by HIV positive participants and this is also known as avoidance coping.

Conclusion

The PLWHA highly used the problem focused coping strategy and specifically most of them have been taking action to try to make the situation better. The PLWHA also highly use the emotion focused coping strategy and specifically most of them have been getting emotional-support from others. PLWHA use of avoidance coping strategy is also high. Specifically, most of them criticized themselves for the condition. This is the most used of the three coping strategies. Most of the PLWHA in the district are young and unemployed who can be easily influenced by their friends. This easily makes them adopt the use of avoidant coping strategy which may in turn aggravate their situation.

Recommendations

Health policy makers and government should design appropriate programmes that will assist to improve the well-being of PLWHA in the district and the state at large, bearing in mind the psychological trauma encountered by the PLWHA. Psychologist,

nurses and counselors should adopt proper methods of educating the PLWHA especially on their clinic days on how to adopt problem focus strategy which is more beneficial coping strategy that will focus on providing solutions and not avoiding the problem in other to improve their quality of life. The mass media should provide programmes that will enlighten the PLWHA and the general public on the implication of mal adaptive coping such as avoidance as this affects their wellbeing. NACA, WHO, etc should strategize on guideline and program designs yearly that will improve the physical and psychological well-being of PLWHA, especially in Kaduna state.

CONFLICT OF INTEREST

The authors declare that they have no personal or financial relationship(s) that may have influenced them in writing this article.

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