INFLUENCE OF ANXIETY LEVELS, SPIRITUAL SUPPORT AND GENDER ON COPING STRATEGIES AMONG PEOPLE-LIVING-WITH-CANCERS IN SOUTH-EAST NIGERIA

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ABSTRACT

The study examined the influence of anxiety levels, spiritual support and gender on coping strategies among 150 people (81 males and 69 females) living with cancer drawn from Federal Tertiary Health Institutions (FTHI) in South-East Nigeria. Participants were selected using purposive sampling method and the cross-sectional survey design was adopted. Participants were 18 to 74 years with a mean age of 40.7 (SD = 15.08). Three instruments State-Trait Anxiety Inventory (STAI- Y1), Spiritual Support Scale (SSS) and Ways of Coping Questionnaire were used for data collection. Data was analyzed using Multivariate Analysis of Variance (MANOVA). The result showed that anxiety level significantly influenced both problem and emotion focused coping; spiritual support significantly influenced problem coping only, while gender had no significant effect on any of the coping strategies among people-living-with-cancers. Amajor implication of the findings of this study is that there is a high incidence of anxiety among people-living-with-cancers and anxiety affects how they cope. The finding also implied the importance of spiritual support in the use of problem coping style. The study recommends that management of people with cancer at FTHI, in South-East Nigeria should adopt a comprehensive treatment approach that would include psychotherapy to help treat and control anxiety among people-living-with-cancers.

KEY WORDS: Anxiety, Coping Strategies, Gender, People-Living-With-Cancers, Spiritual Support**.**

INTRODUCTION

Cancer is one of the most serious health challenges worldwide. It is a disease of cells, an abnormal growth of cells, which tend to proliferate in an uncontrolled way and in some cases to metastasize (spread). Cancer is not just one disease but a group of more than a hundred different and distinctive diseases which can involve any tissue of the body and can have different forms in each body area. Most cancers are named for the types of cells or organ in which they start. It affects different parts of the body. All cancer results from a dysfunction in Deoxyribonucleic Acid (DNA), that part of the cellular programming that controls cell growth and reproduction. Instead of ensuring the normal and regular slow production of new

cells, this malfunctioning DNA causes excessively rapid cell growth and proliferation. One of the most insidious aspects of cancer is the way it grows (Mona & Singh, 2010).

The process of the disease begins when an abnormal cell is transformed by the genetic mutation of the cellular DNA. This abnormal cell forms a clone and begins to proliferate abnormally, ignoring growth- regulating signals in the environment surrounding the cell. These abnormal cells acquire invasive characteristics and infiltrate the surrounding tissues thus gaining access to lymph and blood vessels, which carry the cells to other areas of the body (Smeltzer, Bare, Hinkle & Cheever, 2008). This phenomenon is called metastasis (cancer spread to other parts of the body). Agents and factors implicated in cancer formation include: viruses and bacteria, physical agents, chemical agents, genetic or familial factors, dietary factors, and hormonal agents. It may also arise spontaneously from a cause which is unexplained. Warning signs of cancer include: Change in bowel and bladder habits, area of sore that does not heal, unusual bleeding or discharge from anybody orifice, thickening or a lump in the breast or elsewhere, indigestion or difficulty in swallowing, obvious change in a wart or mole, and nagging cough or hoarseness.

Cancer affect all ages, and sexes and is the second most common cause of death in developed countries and among the three leading causes of death in developing countries (Abdulkareem, 2009). In Nigeria, some 100,000 new cases of cancer occur every year, with high case fatality ratio (Ferlay, Shin, Bray, Forman, Mathers & Parkin, 2010). The diagnosis of cancer does not only impact on the physical functioning of an individual, it also impacts on psycho-social functions and as such creates increased sense of discomfort. Locally in South-East Nigeria, among the core Igbos, cancer is generally perceived as a death signal or death sentence and this creates feelings of hopelessness, fearfulness and withdrawal from social engagements. There is a common sense of uncertainty regarding what causes cancer, how best to treat it and what the long term outcomes will be and its effect on body morphology as well as the likelihood of spiritual causes. Also, clinically diagnosed cancer is a chronic disease and stressor for sufferers. According to Madukwe (2018) increase in talk that expresses worry and/or anxiety is a major indication of stress and the development of anxiety disorder is a major health consequence of chronic stress.

Anxiety is a psychological and physiological state characterized by somatic, emotional, cognitive and behavioural components. It is an emotion based reaction defined as a negative mood state characterized by apprehension about the future (Durand & Barlow, 2010). It is usually generated by the feeling that something may go wrong in the future and as such the sufferer tries to prepare for them. Anxiety is considered to be a normal reaction to stressor. It may help someone to deal with a difficult situation by prompting them to cope with it. However, anxiety is considered to be a huge and harmful problem when it is severe and out of control. Aside generalized anxiety other forms of anxiety include phobias, compulsive-obsessive disorder and panic attack. Symptoms of anxiety range from restlessness, acute alertness, muscle tension to decreased concentration (Stewart, 2013).

Cancer is a condition that needs adaptation and adjustment. This is important due to challenges associated with an individual being diagnosed as having cancer, the illness

itself, procedure of treatments and its side effects. Anxiety has been established to be linked to coping strategies (Cousson–Gelie, Bruchon-Schweitzer, Dilhuydy & Jutand, 2007; Noor JanNaing, NorAzillah, Nooriny, Tan, Yeow & Hamidin, 2010).

Coping is the use of thought and behaviours to adjust to life situations (Mona & Singh, 2010). Henderson, Davis and Condon (2003) also defined coping as the strategies that individuals use with the challenges of stressful events. It is also any behaviour of cognitive activity that is used to deal with stress. Psychological coping mechanisms are commonly termed coping strategies. Any way the term 'coping' is defined, the following stand out about coping strategies; it involves doing something tangible or active and also it involves emotions and mental activities. Thus one can say that coping strategies are the things individuals think, feel and do to adjust to life situations. Developing coping strategies can help a person living with cancer learn or change problem situation, manage emotional distress, and understand why cancer has happened and what impact cancer may have on his or her life. Although coping strategies are categorized in different ways, the meaning of these different conceptualizations is similar (Buaniam, 2009). But for the purpose of this study, Folkman and Lazarus (1994) category will be used. They categorized coping strategies into two groups namely problem focused and emotion focused. Problem focused strategies are efforts to do something actively to alleviate stressful circumstances while the Emotion focused coping strategies involve efforts to regulate the emotional consequence of stressful or potential stressful events. They further identified the following subcategories in the coping strategies: confrontive coping, distancing, seeking social support, accepting responsibility, escape avoidance, planful problem solving and positive reappraisal.

Another variable suggested to influence coping strategies of people-living-with-cancers (PLWC) is spiritual support (Balboni, Vanderwerker, Block, Paulk, Lathan, Peteet&Prigeson, 2007). Spiritual and religious needs are part of a patient's clinical history. The holistic approach in treating cancer- related suffering takes into consideration physical, emotional, social and spiritual domains during all phases of the cancer continuum, from diagnosis to death or survivorship (Surbone, Baider, Weitzman, Brames, Rittenberg& Johnson, 2010). According to Ai, Tice, Peterson and Huang (2005), the concept of spiritual support is defined as, "a form of perceived support that is derived from a deep connection with a higher power or a spiritual relationship in a faith, which encompasses intimacy, emotional, cognitive and resource aspects of this relation". Many people-living-with-cancers rely on spiritual or religious beliefs and practices to help them cope with their disease. Each person may have different spiritual needs, depending on cultural and religious traditions. It has also been suggested that spirituality increases well-being in patients, thus spiritual support has a relation with coping strategies among people-living-with-cancers (National Cancer Institute, America, 2011). However in Nigeria, there is paucity of research work linking spiritual support with coping among people-living-with-cancers.

Gender is another factor that has been seen to influence coping strategies among individuals/patients. Gender is defined by Philips (2008) as those socially constructed roles associated with being male or female in a given group or society. This shows that there are

biological, social and psychological differences between men and women. These differences might be expected to influence coping strategies among males and females probably because of sex role stereotypes and gender role expectations.

Statement of the Problem

The diagnosis of cancer usually provokes a lot of psychological distress, as such a major concern of sufferers and their caregivers is how best to cope. It has been observed that with the diagnosis of cancer, sufferers usually develop high degree of worry about what the future holds for them. Among Igbos of South-East Nigeria, chronic ailments like cancer with unknown cause are sometimes considered to have spiritual underlining. Also, despite the increasing incidence of cancer in developing countries like Nigeria, there is still paucity of empirical literature linking anxiety and spiritual support to coping strategies among people-living-with-cancers in South-East Nigeria. Furthermore, the occurrence as well as strategies for coping with cancer across gender remains unknown in this ethnic group. Thus, the present study would investigate the impact of anxiety level, spiritual support and gender on coping strategies among people-living-with-cancers.

Purpose of the Study

This study examined the influence of anxiety levels, spiritual support and gender on coping strategies among people-living-with-cancers. Specifically, the study aims to:

1. Investigate the influence of anxiety levels on coping strategies among people-living-with-cancers.
2. Ascertain the influence of spiritual support on coping strategies among people-living-with-cancers.
3. Ascertain the influence of gender on coping strategies among people-living-with-cancers.

LITERATURE REVIEW

The emergence of problematic events ushers in a coping process that involves appraisal of the threats to one's health and utilization of coping strategies – problem-focused and emotion - focused coping inclusive - to protect and optimize one's wellbeing in the face of health threats. Lazarus & Folkman (1984) postulated that coping is not merely a response to tension but is rather influenced by an individual's cognitive appraisal of an event which subsequently influences emotional arousal. When confronted by a diagnosis of cancer, people typically engage in the cognitive process of appraising the nature of the stressor and whether they have the capabilities or resources to cope with it (Bowman, Deimling, Smerglia, Sage, & Kahana, 2003; Lazarus & Folkman, 1984). An individual's cognitive appraisal of the stressful circumstance plays an influential role in coping selection. Cognitive appraisal of one's diagnosis of cancer has been related to anxiety and adjustment in that the higher the perceived threat, the lower the level of well-being and the greater the level of distress (Hamana-Raz & Solomon, 2006). The appraisal process often involves seeking information about treatment options and the likelihood of their success.

In keeping with stress coping theory, research on cancer has often examined problem-focused coping and emotion-focused coping, and more recently, meaning-making (Park & Folkman, 1997). Problem-focused coping is aimed at managing or resolving the stressor. For cancer survivors, it may begin with

seeking a diagnosis, gathering information, seeking second opinions, and making treatment decisions. Emotion-focused coping is aimed at managing the internal aspects of the stressor and may include distancing or distracting oneself or positively reappraising a stressor. For cancer survivors, emotion-focused coping may help one to navigate emotional reactions, functional limitations, and changes in valued life roles. Positively appraising cancer has been related to more positive perceptions of oneself, one's social relationships, and one's life meaning as well as to greater effort in redirecting energy toward new goals when cancer makes previous goals unattainable (Schroevers, Kraaji, & Garnefski, 2011). Other positive appraisal strategies; including reframing cancer as a challenge with specific demands that must be overcome or as having the potential to make oneself stronger, have been positively related to well-being (Degner, Hack, O'Neil, &Kristjanson, 2003).

People-living-with-cancers often experience different levels of stress and emotional upsets as a result of fear of death, interruption of life plans, changes in body image and self-esteem changes in social role and life style (Foroogh, Ali & Ayatollah, 2012). The Rational Emotive Behavioral Therapy (REBT) by Ellis (1957) is used by therapists to deal with problems of human disturbances and is based on the concept that people primarily disturb themselves and therefore can take action to reduce the disturbances. REBT is based on the principle that whenever we become upset and/or anxious, it is not the events taking place in our lives that upset us or make us anxious but the beliefs we hold (Dryden, 2003). The basic process of change which REBT attempts to foster begins with the client acknowledging the existence of a problem and identifying any 'meta-disturbances' about that problem. The client then identifies the underlying irrational belief which caused the original problem and comes to understand both why it is irrational and why a rational alternative would be preferable. Thus, the client employs a variety of cognitive, behavioral, emotive and imagery techniques to strengthen their conviction in a rational alternative. They identify hindrances to progress and overcome them, and they work continuously to consolidate their gains and to prevent relapse.

Mona and Singh (2010) conducted a study to find out differences in the copying styles, levels of anxiety and depression level of people-living-with-cancers treated with chemotherapy and radiotherapy respectively and results revealed that anxiety level could play a role in the choice of coping strategy. Karabulutlu, Bilici, Cayir, Tekin and Kantarci (2010) performed a study to determine levels of depression and anxiety on strategies of coping with stress in people-living-with-cancers in Turkey and results on anxiety levels showed a positive statistically significant relationship between the avoidance strategy and anxiety. The result also showed that gender does not influence coping strategies. Priscilla, Hamidin, Azhar, Noor Jan Naing, Salmiah and Bahariah (2011) conducted a study to assess coping styles of people living with haematological cancer and investigate factors that influence them. The coping styles were found to be associated with major depressive disorder, socio-demographic profiles, and clinical factors, self-distraction, and positive reframing coping styles were significant predictors and related to major depressive disorder. The study also reported that female patients used more instrumental support, venting, and acceptance copying styles compared with their male counterparts. Güneri,

Cankaya, Sůrgevil and Boyacioglu (2009) conducted a study and explored anxiety levels among people living with oral cancer in Turkey. Eighty three (83) participants were enrolled consisting of fifty seven (57) males and twenty six (26) females. Fifty eight randomly selected participants (twenty four males and thirty four females) served as the healthy control group while twenty five (25) were people living with oral cancer. The State-trait Anxiety inventory form 2 (STAI -2) was applied to both groups. The scores of the groups were analyzed with independent sample t-test. The result revealed that STAI-2 scores were not different between oral cancer and control group. The study concluded that there were no significant differences in anxiety levels.

Spiritual support is suggested to influence coping strategies as various studies have been conducted to explore this variable. The National Cancer Institute, USA (2010) conducted a study on spirituality and health-related quality of life among low income men with prostate cancer, low scores in spirituality were associated with significantly worse physical and mental health compared with those with high scores in spirituality. Edwards, Pang, Shiu and Chan (2010) carried a qualitative research on the understanding of spirituality and the potential role of spiritual care in end-of-life and palliative care and the result of their study confirmed the substantial importance of spirituality and spiritual care, as a part of end-of-life and palliative care. Tocco (2009) noted that the popular Islam hadith "for every disease, Allah has given a cure" is being utilized in Northern Nigeria to assist HIV infected persons to enroll in HIV clinics, consume anti – retroviral drugs and improve the quality and length of their lives.

Priscilla, Hamidin, Azhar, Noor Jan Naing, Salmiah and Bahariah (2011) reported that female patients used more instrumental support, venting, and acceptance copying styles compared with their male counterparts.

Hypothesis

There will be no statistically significant difference in coping strategies between people-living-with-cancers with high anxiety level and those with low anxiety level.

There will be no statistically significant difference in coping strategies between people-living-with-cancers with high spiritual support and those with low spiritual support.

There will be no statistically significant difference in coping strategies between females living with cancer and their male counterparts.

METHOD

Participants

Participants in this study were one hundred and fifty (69 females and 81 males) people-living-with-cancersdrawn from three Federal Tertiary Health Institutions (FTHI) in the South-East geo-political zone of Nigeria using purposive sampling. The FTHIs are Teaching Hospitals and Federal Medical Centres in Nigeria and were chosen because they are tertiary referral centres, have more cancer patients and some of them serve as centres for cancer registry in Nigeria. There are five such hospitals in the five states that make up the south-east geopolitical zone. Out of the five, three were randomly selected for the main study while one of the remaining two was used for pilot study. The selected hospitals were University of Nigeria Teaching Hospital, Ituku

– Ozalla, Enugu, Nnamdi Azikiwe Teaching Hospital, Nnewi, and Federal Medical Centre, Umuahia. Participants' age ranged from 18 years to 74 years, with a mean age of 40.79 (SD = 15.08). Inclusion criteria: patients who were either on active treatment or on follow-up visits and/or receiving palliative treatment for cancer; patients who were conscious, strong enough to respond to questions and communicate verbally and/or in writing. Exclusion criteria: Patients who have not received official cancer diagnosis; patients whose prognosis was uncertain and those for whom death was likely; patients who were unconscious or unable to participate in an interactive sessionat the time of the study

Instruments

The 3 instruments used for the study were State-Trait Anxiety Inventory (STAI) Form Y-1, Spiritual Support Scale (SSS) and Ways of Coping Questionnaire. The State-TraitAnxiety

Inventory (STAI) form Y-1 was developed by Spielbeger (1983) to measure specific or situational anxiety. It is a 20 item questionnaire that measures state anxiety which is a situation-specific emotion characterized by feelings of tension, apprehension and autonomic arousal. Items score ranges from 1 (not at all) to 4(very much so)) with 10 items (1, 2, 5, 8, 10, 11, 15, 16, 19, 20) scored in reverse direction. Omoluabi (1997) provided the Nigerian norm for interpreting scores; males 35.72, females 33.59. Scores higher than the norms indicate typical manifestation of anxiety while scores lower indicates lower or normal level of anxiety. It has a test-retest reliability of .61 for males and females (Omoluabi, 1997), Concurrent validity of .69 when correlated with Multiple Affect Adjective Check List (MAACL) (Zuckerman & Lubin, 1965). This questionnaire was revalidated and a Cronbach alpha reliability estimate of .83 was obtained. When compared to Duke Functional Social Support Scale FSSQ (Broadhead, GEHLBACH DEGURY & KAPLAN 1988), STAI-Y-1 had a very low positive correlation *r* = .07 with the scale showing adequate discriminate validity. Spiritual Support Scale (SSS) developed by Ai, Tice, Peterson and Huang (2005) contains 12 items designed to assess the extent to which an individual experiences a form of perceived support that derives from a deep connection with a supreme power or a spiritual relationship in a faith. This relationship encompasses intimacy, emotional, cognitive and resource aspects. The items are scored on a 4-point likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Full scale scores ranges from 12 to 48 with higher scores indicating higher level of spiritual support. Revalidation using 40 adult cancer patients yielded a Cronbach alpha of .91. The scale demonstrated adequate discriminate validity (r = .20) when compared to Perceptions of Stigmatization by Others for Seeking Help Scale.

The Ways of Coping Questionnaire (WCQ) was originally developed by Lazarus and Folkman (1984) to identify the thoughts and actions an individual has used to cope with a specific stressful encounter but was tested on healthy individuals living in a community. Mishel and Sorenson (1993) shortened and refined the questionnaire to be validly implemented in the clinical setting. It is a 30-item questionnaire which includes 14 problem-focused coping items and 16 emotion-focused coping items. The items are scored on a 4-point Likert scale ranging from 1 (not at all) to 4 (always). Total scores ranged from 14-56 for problem-focused coping strategies and 16-64

for emotion-focused coping strategies. High score on the scale indicates higher application of that particular coping strategy. Yang (1998) reported a reliability coefficient alpha of .86. Kim, Yeom, Seo, Kim, and Yoo (2002) reported a Cronbach alpha reliability of .88 for the questionnaire. Revalidation using 40 cancer patients yielded a Cronbach alpha of .66 for the full scale, and .55 and .58 for problem-focused and emotion-focused subscales respectively. Ways of Coping Questionnaire also demonstrated adequate discriminate validity when compared with Rosenberg's self - esteem scale. It was found that WCQ had a low negative correction r = -.04 with the self - esteem scale.

Procedure

The researcher obtained ethical clearance from the Health Research Ethics Committees of the various hospitals that the study participants were drawn from and informed consent was obtained from the participants. The researcher solicited for the assistance and cooperation of the nurses who work in the selected out-patients departments and wards that were used for the study. In each hospital, seventy five (75) people-living-with-cancers were sampled. The clinical record files of those that have filled the questionnaire on a particular clinic day were asterisked to prevent giving the same patient another questionnaire to respond to. This served as a control to eliminate duplication. The researcher, working together with the assistants, distributed the questionnaires, guided patients on how to complete the questionnaire, and patients who were unable to write were assisted to write down their responses. Each patient was given the three questionnaires (Ways of Coping Questionnaire, State-trait Anxiety Inventory (STAI) Y-1, Spiritual Support Scale after establishing rapport with the patients and patients indicating willingness to participate in the study. They were encouraged to respond to all the items. Since some of the patients suffer bouts of fatigue, nausea and vomiting as side effects of treatment regimen, the researcher allowed the patients to respond to the questionnaire at their convenience. The questionnaires were collected after completion. After responding to the questionnaires, the researcher gave the respondents free counselling sessions. The completed questionnaires were scored for data analysis.

Design and statistics

The design of the study is a cross-sectional survey due to the fact that data were collected across a population of both males and females, from different locations and in different hospitals and participants were also of different age brackets. A three-way Multivariate Analysis of variance (MANOVA) was used to test the hypotheses of the study because two different styles of coping (problem coping and emotional coping) were measured as the dependent variables.

RESULTS

Table I: Distribution of Socio-demographic Characteristics of Participants in this Study

Variable	**Respondents N= 150 n**	**%**
Gender		
Male	81	54.00
Female	69	46.00
Marital Status		
Single	63	42.00
Married	76	50.67
Divorced	2	1.33
widowed	9	6.00
Religion		
Christian	133	88.67
Muslim	10	6.67
Traditional Rel.	7	4.66
Educational Level		
No Formal Edu.	6	4.00
Primary/Senior Sec.	64	42.67
Tertiary	80	53.33
Employment Status		
Government employed	29	19.34
Private Sector	8	5.33
Self-employed	48	32.00
Unemployed	56	37.33
Retired	9	6.00

Socio-demographic characteristics of respondents shown in Table I above indicates that majority of the participants were males (54%), married (50.67%), of Christian religion (88.67%), had tertiary level of education (53.33%) and unemployed (37.33%).

Table II: Means and Standard Deviations for the Levels of the Independent Variables on Problem-Focused and Emotion-Focused Coping Strategies

		Problem - focused		Emotion -focused		
		M	SD	M	SD	n
Anxiety level						
	High	38.20	5.87	42.65	7.25	74
	Low	35.68	5.78	39.11	6.76	76
Spiritual support						
	High	37.86	6.08	40.70	7.30	76
	Low	35.97	5.68	41.01	7.16	74
Gender						
	Males	37.28	6.52	40.12	7.77	81
	Females	36.51	5.20	41.71	6.43	69

With respect to problem-focused coping strategies, Table II showed that those with high level of anxiety had a higher mean score (M = 38.20, SD = 5.87) than those with low anxiety level (M = 35.68, SD = 5.78). Similarly, participants with high spiritual support obtained a higher mean score (M = 37.86, SD = 6.08) than their counterparts with low spiritual support (M = 35.97, SD = 5.68) in their use of problem-focused strategies. Table II further showed marginal mean difference between males (M = 37.28, SD = 6.52) in the employment of problem-focused coping strategies than females (M = 36.51, SD = 5.20).

With respect to emotion-focused coping strategy, participants with high anxiety level equally obtained a higher mean score (M = 42.65, SD = 7.25) than those with lower level of anxiety (M = 39.11, SD = 6.76). Participants with low spiritual support were observed to have had a higher mean (M = 41.01, SD = 7.16) than those with high spiritual support (M = 40.70, SD = 7.30). However, the difference in mean score appears negligible. Further, Table II equally showed a marginal difference between males (M = 40.71, SD = 7.77) and females (41.71, SD = 6.43) on emotion-focused strategies.

Table III: Summary of a Three –Way (2x2x2) Multivariate Analyses of Variance (MANOVA) Showing the Influence of Anxiety Level, Spiritual Support and Gender on Problem-focused and Emotion-focused Coping Strategies

Source	Dependent Variable	Type III Sumof Squares	df	Mean Square	F	Sig.
ANXIETY LEVEL (A)	Problem-focused coping	271.975	1	271.975	8.489	.004**
	Emotion-focused coping	399.655	1	399.655	7.984	.005**
SPIRITUAL SUPPORT (B)	Problem-focused coping	195.087	1	195.087	6.089	.015*
	Emotion-focused coping	2.114	1	2.114	.042	.837^{NS}
GENDER (C)	Problem-focused coping	26.192	1	26.192	.817	.367 ^{NS}
	Emotion-focused coping	55.019	1	55.019	1.099	.296 ^{NS}
A x B	Problem-focused coping	39.477	1	39.477	1.232	.269 ^{NS}
	Emotion-focused coping	19.533	1	19.533	.390	.533 ^{NS}
A xC	Problem-focused coping	59.030	1	59.030	1.842	.177 ^{NS}
	Emotion-focused coping	33.387	1	33.387	.667	.415 ^{NS}
B x C	Problem-focused coping	121.010	1	121.010	3.777	.054 ^{NS}
	Emotion-focused coping	2.540	1	2.540	.051	.822 ^{NS}
A x B x C	Problem-focused coping strategy	1.820	1	1.820	.057	.812 ^{NS}
	Emotion-focused coping strategy	32.971	1	32.971	.659	.418 ^{NS}
Error	Problem-focused coping strategy	4549.733	142	32.040		
	Emotion-focused coping strategy	7108.014	142	50.056		

Key: ** = p<.01, * = p<.05, ^{NS} = Not significant

Table III showed that anxiety level had a significant main effect on cancer patients' use of problem-focused coping strategies. Patients high in anxiety differed significantly from those low in anxiety in their use of problem-focused coping F (1,149 = 8.49, p<.01). The results also showed that patients high in spiritual support differed significantly from those low in spiritual support in problem-focused coping F (1,149 = 6.09, p<.05). Further, males did not differ significantly from females in their use of problem-focused coping strategies.

Table III equally showed that a significant main effect for anxiety level on emotion-focused coping. Those with high anxiety level differed significantly from those with low anxiety level, F (1,149 = 7.98, p<.01). The result also showed that patients with high spiritual support did not significantly differ from those with low spiritual support on emotion-focused coping. There was equally no significant main effect found for gender. Males and females did not differ significantly in their use of emotion-focused coping strategies.

The result did not show a significant interaction effect for anxiety level and spiritual support on both problem-focused and emotion-focused coping strategies. Similarly there was no significant interaction effect between anxiety level and gender on the different coping strategies. However, the result revealed a significant two-way interaction effect between spiritual support and gender on problem-focused coping, F (1,149 = 3.77, p<.05) but no significant interaction was found for the two variables on emotion-focused coping strategies.

DISCUSSION

This study examined the influence of anxiety levels, spiritual support and gender on coping strategies among people-living-with-cancers. The result of multivariate analysis of variance revealed that anxiety levels significantly influenced the use of coping strategies by people-living-with-cancers. This implies that the level of anxiety in such people goes a long way to influence the use of a particular coping strategy in handling their condition. Patients with high anxiety levels employed more problem-focused or emotion-focused coping strategies depending on the patients' disposition toward the particular strategy. Hence, the first hypothesis which states that there will be no statistically significant difference in coping strategies between people-living-with-cancers with high anxiety level and those with low anxiety level was rejected. This finding confirms some previous findings. For example, the following researchers (Mona & Singh, 2010; Karabulutlu, Bilici, Cayir, Tekin & Kantarci, 2010); all found a significant relationship between a patient's anxiety level and their coping strategy. The finding on anxiety in this present study suggests that anxiety is a factor in coping with a disease condition like cancer and its level can affect the choice of coping strategy the individual adopts. This pattern could be as a result of the fact that the diagnosis of cancer affects not just the physical aspect of an individual but also the psycho-social aspect.

The second hypothesis that there will be no statistically significant difference in coping strategies between people-living-

with-cancers with high spiritual support score and those with low spiritual support was rejected. Spiritual support was found to significantly influence the patients' use of problem - focused coping but did not influence their use of emotion - focused strategies. The result of the present study agrees with some previous findings (Edwards, Pang, Shiu & Chan, 2010; National Cancer Institute, America, 2010) which reported that spiritual support was an important variable in coping strategies. One possible explanation for the result of this study is that the patients' spiritual support and their finding meaning in life and the strengthening of their relationship with God/higher supreme being gave them the sense of hope which in turn motivated them to adopt active coping which entails seeking how they can objectively or actively solve their health challenge. Also their understanding of God's care to them must have contributed to the issue of more use of problem focused coping strategy. This care may have also removed hopelessness and helplessness from them and given them a sense of worth hence problem focused coping. Furthermore, the support from religious community and members of their religious faith formed a spring board for their spiritual support which may have affected their use of problem focused coping strategy. The present study however found that spiritual support did not influence their use of emotion focused strategy. A possible explanation could be that since negativity is more related to emotion focused strategy and the patients' beliefs about spiritual support are positive, and then their preferred coping strategy is more problem-focused, seeking help from appropriate quarters. It may also be probably due to behaving in a way that will be acceptable to the society and environment including the spiritual environment surrounding that individual.

The Third hypothesis which states that there will be no statistically significant difference in coping strategies between females living with cancer and their male counterparts was confirmed. The present study contradicts some previous findings (Kim, Yeom, Seo, Kim & Yoo, 2002; Priscilla, Hamidin, Azhar, Noor Jan Naing, Salmiah & Bahariah, 2011) which reported differences in coping strategies between males and females living with cancer. The findings of this present study agreed with the findings of the study by Karabulutlu, Bilici, Cayir, Tekin & Kantarci (2010) which revealed no significant differences in coping strategies among males and females living with cancer. A possible explanation could be that both males and females viewed coping in a disease condition like cancer in the same way. They considered cancer to be a life threatening disease and view it as one that needs adaptation. Another possible reason could be that both gender accessed the health facility to receive treatment without considering if they were males or females. There is no restriction to treatment to any gender so both genders were given access to health services.

Again both genders saw themselves as being supported by the family members, religious community and healthcare workers to adapt to their new diagnosis and mode of treatment (physical, psychological, social and spiritual). There was a significant two-way interaction effect

between spiritual support and gender on their use of problem focused coping strategy but no significant interaction found for the two variables on emotion focused coping strategy. The present study showed that under high spiritual support, females scored higher than males in their use of problem focused coping strategy. Therefore, for females in this study to use problem focused strategy, it has to be spurred on or influenced by high scores in spiritual support. Secondly, observation in our environment shows that more females engage in religious / spiritual activities more than males and hence they strengthen their relationship with God and in finding meaning in life.

The two-way interaction effect shows that under low spiritual support, males scored much higher on problem-focused coping than females, while under high spiritual support, females employed more problem-focused strategies than their male counterparts. While women generally are more spiritual and religious than men, it is common belief that both males and females may increase their reliance on spiritual and religious resources as they face increased illness or disability. A possible explanation for the present finding could be that females benefit more from spiritual support probably because they devote more time to spiritual activities than males. It may also be possible that males are more liable to use problem – focused strategy than females.

Implications of the study

1. This study has a major implication for people-living-with-cancers and their caregivers as regards the patients' ability to cope. The fact that people-living-with-cancers in south-east Nigeria predominantly use emotion based coping strategies implies that they might not be actively involved in seeking out solutions to the challenges that may come with cancer diagnosis and treatment like finance and self-management.

2. The findings that people-living-with-cancers use more emotion based coping and that this coping style is affected by anxiety and spiritual support has implication for cancer treatment providers in the region. This means that an effective treatment of people-living-with-cancers must make provision for techniques or experts in anxiety management and spiritual upliftment.

3. The finding that anxiety affects problem focused coping has implication for announcement of diagnosis, treatment, and follow-up stages in the management of people-living-with-cancers. The hospitals, doctors, nurses and other healthcare providers need to understand that ability to understand and think through a cancer diagnosis, be willing to undertake treatment and also stay committed to follow-up processes are greatly hindered by the feelings of anxiety in a patient.

CONCLUSION

The purpose of the study was to examine the influence of anxiety levels, spiritual support and gender on coping strategies among people-living-with-cancers. Results showed that anxiety levels significantly influenced their use of both problem -

focused and emotion - focused coping strategies. Spiritual support also significantly influenced the patients' use of problem – focused coping but did not influence their use of emotion – focused strategies. Gender did not influence their use of coping strategies. There was a significant two – way interaction between spiritual support and gender on problem – focused coping strategies. The findings of this study are of great importance because the gap in the treatment of PLWC especially in Nigeria which include psychological and counselling services will adequately address the issue of coping strategies and variables that influence it among this group (PLWC). Learning and adopting positive coping strategies will help them achieve better quality of life and increase survivorship.

RECOMMENDATIONS

1. Pre-diagnosis counselling: Counselling focused on providing information about cancer causes, treatment, health related changes, recovery and the role of support groups should be offered to potential patients before announcing or presenting their diagnosis. This would help to reduce anxiety and other negative emotion-based reactions as well as help them develop problem focused copying strategies.

2. Use of Psychologists as part of the Oncology Team: We recommend that counselling psychologists and others with professional training in psycho-oncology be employed as part of the Oncology team in Nigerian Federal Tertiary Health Institutions (FHTIs).

3. The study recommends that in the management of people-living-with-cancers in south-east Nigeria, hospital administration should make provision of spiritual support for the patients as part of their treatment enable.

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