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Research Article

Perceived Social Support and Impact on Coping of People Living with Cancer Undergoing Care at A Tertiary Hospital Level in Ibadan, Nigeria

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Abstract
Over the years, it has been documented that a strong relationship exists between social relationships and overall morbidity and mortality from all diseases especially chronic non-communicable diseases such as cancer. When the support system available to a cancer patient is not adequate, such a patient may have difficulty adjusting to the new clinical state of health. To assess the value of perceived social support and its effect on coping of cancer patients managed at the Oncology unit of the University College Hospital Ibadan – South West Ibadan. A totalof115cancer patients managed at the Oncology outpatient clinic of the University College Hospital, Ibadan were interviewed. Relevant data collected include age, sex, type of malignancy, treatment, duration of diagnosis, source(s) of support, type(s) of support and coping strategies. Social support is defined as the emotional support received from family friends and significant others and was measured with the multidimensional scale of perceived social support. Frequency tables were used to summarise the demographic and morbidity characteristics of the respondents. Mean social support score and coping score were computed and analysed across associated variables. The participants were predominantly females (103 females; 89.6%). Fifty (43.5%) had breast cancer, 43 (37.4%) had cervical cancer, and 22 (19.1%) had head and neck cancer. Majority of the respondents reported at least one source of support, which included: relatives {105 (91.3%)}, friends {29 (25.2%}, medical caregivers {(40 (34.8%)}, non-governmental organization {1 (0.9%)}, no source of support {5 (4.3%)}. Majority also reported at least one form of support which includes: financial {94 (81.7%)}, emotional {96 (83.5%)}, spiritual {90 (78.3%)} and assistance with tasks {61(53.0%)}. Ethnic group was found to be significantly associated with coping (F=8.90, p= 0.001). Notably, mean coping score did not differ significantly between the two groups of participants with good and poor perceived social support (38.33 ±5.48 vs 38.17 ±5.24, t = 0.16, p= 0.88). Provided social support might not actually be translated into coping measures. Cancer patients should be supported with every available means and by everyone around them.

Key Words: *Cancer, Social support, Coping.*

INTRODUCTION

Cancer diagnosis and treatment generates fears, uncertainties, distress and psychosocial needs (Chochinov *et al*, 1994). Thus Cancer diagnosis and treatment impose demands on patients which may vary with different stages of the illness. A strong association has been reported to exist between the quality of social relationships and overall cancer morbidity and mortality (Wortman, 1984). Social support functions in life include emotional support, provision of information and companionship. When the support system available to a cancer patient is not adequate, such a patient may have difficulty adjusting to the new clinical state of health. While cancer patients' uncertainties increase their need for support, the intense fear associated with the disease creates lots of problems that may decrease their access to required social support.

At diagnosis, cancer patients need clarification of their feelings and support (Sauer *et al*, 2019). Those around them may feel apprehensive and uncomfortable about the person's disease, and may therefore be unable to provide effective support (Peters-Golden, 1982). While the patient adjusts to the disease, problems such as miscommunication, misunderstandings, and conflict can mount, leading to a strain in the patient's interpersonal relationships. Thus, cancer may impair one of the best resources a person has available for

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coping with the disease- the social support system (Holland, 2002; Sauer *et al*, 2019). Because the function and nature of social relationships are subjectively defined by the recipients and perceived social support is a better predictor of individual ability to cope with a traumatic or stressful condition, caregivers understanding of patients' experience of social support is essential for the delivery of effective health care. This study therefore explores the effect of social support on the coping ability of cancer patients attending a tertiary health care facility in Ibadan, South-Western Nigeria.

MATERIALS AND METHODS

The study was conducted at the Radiation Oncology Department of the University of Ibadan, South-West Nigeria where the Cancer Registry is located, and majority of cancer patients are referred. A total of 114 patients participated. Data were collected through the means of a structured questionnaire constructed from socio-demographic and clinical questionnaires, Multidimensional Scale of Perceived Social Support (MSPSS) and the Cancer Coping Questionnaire (CCQ). Demographic information provided by the participants included age, gender, marital and occupational status, educational level, source and type of support. Patients' disease- and treatment-related characteristics regarding diagnosis (type of malignancy, duration of diagnosis, stage of disease and family history of cancer), prognosis, and treatment were obtained from respondents.

The Multidimensional Scale of Perceived Social Support (MSPSS) measures subjectively assessed social support across cultures. It assesses the degree of satisfaction with perceived social support from family, friends and significant other(s). It is left to the respondent to define who the significant other(s) is. The minimum score is 9 and the maximum is 45. Higher scores correlate with higher levels of perceived social support. The original MSPSS Scale has twelve questions for family, friends and significant others (Zimet *et al*, 1988). It was however modified for this study to avoid duplicity in reporting sources of social support by the patients. A score of 28 and above on the MSPSS scale is considered as indicating good social support while scores below 28 are considered as indication poor social support in this study. Another section of the questionnaire gave respondents the opportunity to indicate their independent sources of support, which included family, friends, significant others. Significant others include: patients' doctors and other medical caregivers, religious bodies, the government and non-governmental organizations. The Cancer Coping Questionnaire is a brief, self-rating scale designed to measure coping strategies. It covers variety of coping skills and strategies in the areas of cognitive, emotional, behavioural and interpersonal domain (Moorey, Frampton & Greer, 2003). Higher scores indicate good cancer coping abilities. A score of 28 and above on this scale is considered as indication of good coping ability.

Frequency tables were used to summarize the demographic and morbidity characteristics as well as the sources and types of social support experienced by the patients. Descriptive statistics such as means and standard deviations were used to summarize quantitative variables. Independent Sample t-test was used to compare means across various groups of the study subjects. Statistical significance was set at 5% level of probability

RESULTS

Patients' ages ranged between 18 and 80 years with a mean of 49.2 ± 12.6 years. More than half of the participants were in the age group 40 – 59 years (53.9%). The participants were predominantly females {103 (89.6%)}. About two-thirds (64.3%) of the participants were married as of the time of this study. Majority of the respondents (89.6%) had at least a primary school education. The predominant religion of the respondents was Christianity (85.2%). The ethnic composition of the study subjects was such that 40.9% of the respondents were Igbo, 40.0% were Yoruba while 19.1% were from other ethnic groups. The majority (74.8%) was employed. (Table 1).

Table 1:
Socio-demographic Characteristics of Subject

Socio-demographic variables	Frequency (%)
Age (years)	
18 – 40	26 (22.6)
40 – 59	62 (53.9)
≥ 60	27 (23.5)
TOTAL	115 (100.0)
Gender	
Male	12 (10.4)
Female	103 (89.6)
TOTAL	115 (100.0)
Marital Status	
Married	74 (64.3)
Unmarried	41 (35.7)
TOTAL	115 (100.0)
Highest educational status	
No formal education	12 (10.4)
Low level education	34 (29.6)
High level education	69 (60.0)
TOTAL	115 (100.0)
Religion	
Christianity	98 (85.2)
Islam	17 (14.8)
TOTAL	115 (100.0)
Ethnic Group	
Yoruba	46 (40.0)
Igbo	47 (40.9)
0thers	22 (19.1)
TOTAL	115 (100.0)
Current Employment Status	
Employed	85(73.9)
Unemployed	30 (26.1)
TOTAL	115 (100.0)
Socio-economic status	
Professionals& Intermediate	10 (8.7)
Skilled workers	23 (20.0)
Semi-skilled workers	50 (43.5)
Unskilled	32 (27.8)
Total	115 (100.0)

Fifty (43.5%) of the subjects had breast cancer, 43 (37.4%) had cervical cancer, and 22 (19.1%) had head and neck cancer. Majority (73, 63.5%) had an advanced stage of cancer. The current cancer treatment that respondents were receiving includes chemotherapy (67, 58.3%) and radiotherapy (75. 65.2%). Additional therapy includes weekly psychotherapy (47, 40.9%). A large proportion of the participants (91.3%) recalled not having any family history of cancer. About half of the study subjects (51.3%) had been living with cancer ranging from a year to five years. (Table 2)

Table 2:
Morbidity Characteristics of Subjects (Cancer variables)

Characteristics		**Frequency (%)**
Diagnosis	Breast	50 (43.5)
	Cervical	43 (37.4)
	Head and Neck	22 (19.1)
	TOTAL	115 (100.0)
Duration of present illness	< 1	51 (44.3)
	1– 5	59 (51.3)
	>5	5 (4.3)
	TOTAL	115 (100.0)
Stage of Disease	Early	42(36.5
	Advanced	73(63.5)
	Total	115(100)
Current cancer treatment	Chemotherapy	67(58.3)
	Radiotherapy	75(65.2)
	Psychotherapy sessions	47(40.9)
	No longer on treatment	22(19.1)
	TOTAL	115(100)
Family history of cancer	Yes	10 (9.7)
	No	105 (91.3)
	Total	115 (100.0)

A very large percentage (92.2%) of the study participants lived with their families (nuclear and extended), 2.6% lived with their friends and significant others (such as members of their religious bodies), 5.2% lived alone. Majority of the respondents reported at least one source of support, which included: relatives {105 (91.3%)}, friends {29 (25.2%}, medical caregivers {(40 (34.8%)}, non-governmental organization {1 (0.9%)}, religious bodies {9 (7.8%)}. None received any form of support from the government while five people out of all the respondents said they did not have any source of support. Most of the patients reported at least one form of support which includes: financial {94 (81.7%)}, emotional {96 (83.5%)}, spiritual {90 (78.3%)} and assistance with tasks {61(53.0%)}.

Table 3:
Social Relationships of the Study participants

	Social Relationship variables	Frequency (%)
Living Status	Family	106 (92.2)
	Friends & Significant others	3 (2.6)
	Alone	6 (5.2)
	TOTAL	115 (100.0)
Main Social source of Support *	Relatives	105 (91.3)
	Friends	29 (25.2)
	Doctor/other medical caregiver	40 (34.8)
	Non-Governmental organization	1 (0.9)
	Religious bodies	9 (7.8)
	None	5 (4.3)
Type of Support	Financial	94 (81.7)
	Emotional	96 (83.5)
	Spiritual	90 (78.3)
	Assistance with tasks	61 (53.0)

Table 4:
Mean social support score by certain demographic and morbidity variables

Characteristic	**N**	**Mean social support score ± SD**	**Statistical test**	
			t	**P value**
Age group				
< 40 years	26	31.04 ± 9.70		
40-59 years	62	33.81 ± 7.40	5.33*	0.01
≥ 60 years	27	37.85 ± 5.08		
Gender				
Male	12	33.17 ± 8.66	0.45	0.63
Female	103	34.24±7.771		
Marital Status				
Married	74	34.28 ± 7.86	0.28	0.78
Not married	41	33.85 ± 7.87		
Religion				
Christianity	98	33.46 ± 8.16	2.25	0.03
Islam	17	38.0 ± 3.84		
Education				
No formal	12	37.25± 7.89		
Low/Primary	34	35.97 ± 5.87	3.19*	0.04
Secondary/Higher	69	32.67 ± 8.40		
Employment Status				
Employed	85	34.15±17.28	0.28	0.78
Not employed	29	33.69 ± 9.3		
Ethnic group				
Igbo	47	33.49 ± 8.57		
Yoruba	46	34.59 ± 7.09	0.26*	0.77
Other ethnic groups	22	34.55 ± 7.93		
Family History of cancer				
Yes	10	37.10 ± 4.28	1.26	0.21
No	105	33.85 ± 8.05		

* Test statistic is ANOVA

Mean perceived social support score was 34.13 ± 7.83. Perceived Social support was found to increase only with increasing age of the patient (F=5.53, p=0.01), and decrease with increasing levels of education (F=3.19, p= 0.04). Pairwise comparison revealed that the perceived mean social support score differs between those aged less than 40 years and those older than 60 years and between those aged 40-59 years and those aged 60 years. Thus, the older participants tend to have higher perceived mean social support score compared to those who were younger. However those with nil or lower educational attainment appears to have a higher perceived mean social support score compared to those with higher educational attainment. (Table 6). Mean coping score was 38.27 ± 5.37. There were statistically significant differences in the coping score of participants from different ethnic groups, (F=8.90, p=0.001) and those below 40 years of age appears to have better mean coping score (F= 3.2, p=0.04). Notably, coping score did not differ significantly between the two groups of participants with good and poor perceived social support (38.33 ±5.48 vs 38.17 ±5.24, t = 0.16, p= 0.88, Table 5).

In a pairwise comparison, the mean coping score of the participants differs only slightly between the age groups. The observed difference was between those aged 40 years and those aged 40-59 years. However the observed difference has only borderline statistical significance (Table 6). However there was a significant difference in the mean coping score between Igbos and Yorubas (40.32±5.15 versus 37.76±4.62; t= 2.5245, p= 0.0232) and also between Igbos and Other ethinc groups (40.32 ± 5.15 vs 34.95 ± 5.60; t= 3.8069, p=0.0003). The Yoruba participants in the study do not differ significantly in mean coping score from others. (Table 6).

Table 5:
Mean coping score by mean social support score, certain demographic and morbidity variables

Characteristic	N	Mean coping score ± SD	Statistical test	P value
Perceived Social Support Score				
Good	61	38.33 ± 5.48	0.16	0.88
Poor	54	38.17 ± 5.24		
Age group				
< 40 years	26	40.58 ± 6.05	3.2*	0.04
40-59 years	62	37.61 ± 5.02		
≥60 years	27	37.56 ± 5.03		
Gender				
Male	12	38.92 ± 3.61	0.439	0.66
Female	103	38.19 ± 5.55		
Marital Status				
Married	74	37.82 ± 5.23	1.20	0.23
Not married	41	39.07 ± 5.59		
Religion				
Christianity	98	38.34 ± 5.21	0.321	0.75
Islam	17	37.88 ± 6.41		
Education				
Nil formal	12	38.08 ± 6.43	1.56*	0.22
Low/Primary Secondary/Higher	34	36.9 ± 5.72		
Education	69	38.94 ± 4.95		
Employment Status			0.29	0.78
Employed	85	38.19 ± 4.74		
Not employed	29	38.52 ± 7.0		
Ethnic group				
Igbo	47	40.32 ± 5.15	8.9*	0.001
Yoruba	46	37.76 ± 4.62		
Others	22	34.95 ± 5.60		
Family History of cancer				
Yes	10	38.10 ± 4.07	0.1	0.92
No	105	38.27 ± 5.37		

* Test statistic is ANOVA

Table 6:
Pairwise comparison of variables significantly differing in mean perceived social support score and mean coping score

Variable	Mean social support score	T	P value
Age group			
<40 years vs 40-59 years	31.04±9.70 vs 33.81± 7.40	1.3000	0.3835
<40 years vs ≥ 60years	31.04 ± 9.70 vs 37.85 ± 5.08	3.1840	0.0029
40-59 years vs ≥ 60years	33.81± 7.40 vs 37.85 ± 5.08	2.9791	0.0038
Education			
Nil formal vs low/Primary	37.25 ± 7.89 vs 35.97 ± 5.87	0.5140	0.6072
Nil formal vs low/ Secondary.Higher	37.25 ± 7.89 vs 32.67 ±8.40	1.8378	0.1322
low/Primary vs / Secondary.Higher	35.97 ± 5.87 vs 32.67 ±8.40	2.3127	0.0415
Variable	**Mean coping score**		
Age group			
<40 years vs 40-59 years	40.58 ± 6.05 vs 37.61 ± 5.02	2.2050	0.0549
<40 years vs ≥ 60years	40.58 ± 6.05 vs 37.56 ±5.03	1.9722	0.0972
40-59 years vs ≥ 60years	37.61 ± 5.02 vs 37.56 ±5.03	0.0431	0.9656
Ethnic Group			
Igbo vs. Yoruba	40.32 ± 5.15 vs 37.76 ± 4.62	2.5245	0.0232
Igbo vs Others	40.32 ± 5.15 vs 34.95 ± 5.60	3.8069	0.0003
Yoruba vs. Others	37.76 ± 4.62 vs 34.95 ± 5.60	2.0443	0.0819

DISCUSSION

The participants were predominantly females. This is because of preponderance of cases of breast and cervical cancer in the study subjects who were predominantly and exclusively of the female sex, respectively. Breast cancer was the most common malignancy among those studied. This is consistent with previous studies that considered homogenous samples of cancer patients (Akechi *et al*, 2001). It is the commonest cancer in females in this environment (Rubin *et al*, 2004;

Ohaeri *et al*, 1998). Over-representation of females in psychosocial studies of cancer studies in this environment has also been noted in advanced countries (Liang, 1990). This further corroborates data on an increase in cases of breast and cervical cancers in the country (Ohaeri *et al*, 1998).

Most of the subjects (95.7%) reported that they received support (ranging from financial, emotional, spiritual and assistance with tasks) in the treatment of their illness. It is observed that respondents received support from multiple sources although the majority of them received support from their families (91.3%). Other sources of support are friends (25.2%) while the significant others include: support from doctors and other medical caregivers (34.8%), non-governmental organizations (0.9%), religious bodies (7.8%). This is consistent with reports from previous studies that relatives care for their patients and they are very supportive (Ohaeri *et al*, 1993 and 1998).

Of all 115 subjects studied, about two-thirds (63.5%) presented late when their illness was already advanced and metastases had occurred. This is consistent with some studies done in cancer populations (Lloyd-William, 2000; Akechi *et al*., 2001). The possible explanation for this finding is that, based on the spiritual belief of people in this environment, when most people are sick, they will first of all seek non-orthodox treatment from herbal homes, traditional healers and spiritualists who claim to offer total cure. Also, some patients would have visited private practitioners and would only reluctantly present at tertiary/specialist treatment centres when the illness is advanced, symptoms become persistent or disturbing and usually when metastases would have occurred (Nuhu *et al*., 2009).

Religion, marital status and cancer diagnosis were not significantly associated with perceived social support. This was also found out by Kroenke *et al* (2006), that religious participation, participation in other group and community activities and marital status were unrelated to coping. They also found out that the level of social networks did not appear to change markedly across diagnosis.

Cancer treatments ranging from external radiotherapy, brachytherapy and various chemotherapy combinations are known to be quite expensive. Thus, when cancer patients are financially supported, they perceive it as a great source of help that can immensely affect their prognosis. The notion of illness as being entirely a spiritual problem or one that has a spiritual undertone, and that such problems should therefore be solved spiritually is prevalent in this locale and generally in African societies (Ohaeri *et al*., 1993). Generally, Nigerians are known to be religious, so almost all of life’s issues are assumed to be controlled spiritually. So, when a person is diagnosed of having a dreaded illness such as cancer, any form of spiritual support will be perceived as a strong type of social support. This is consistent with the previous body of knowledge. A study found out that those who are identified as being religious typically report higher social support scores compared with individuals who are not (Spinale *et al*., 2008).

In this study, perceived social support did not predict the coping ability of the study participants. Although a few studies have typically found elevated associations between low social networks or lack of social support and overall adjustment, morbidity and mortality, these associations have often been non-significant. (Reynolds *et al*., 1994; Ell *et al*., 1992; Butow *et al*., 2000; Vigano *et al*., 2000; Goodwin *et al*., 1996; Maunsell *et al*., 1995; Gellert GA *et al*., 1993; Waxler-Morrison *et al*, 1991; Reynolds *et al*., 2000).Also, a number of studies have shown that cancer patients, in contrast with those suffering from diabetes, heart disease or rheumatic disorders, benefit relatively briefly from social support (Fitzpatrick *et al*., 1991; Brown *et al*., 1989; Irwin & Kramer, 1988; Northouse, 1988). This may be explained by the sudden onset and acute progress of many types of cancer.

The association of ethnicity with coping abilities proves the fact that social cohesion has an effect on health. Cancer patients from the Igbo ethnic group significantly had higher perceived social support than Yorubas and patients from other ethnic groups. Studies have shown that in Nigeria, Igbo people are known to have a great and functional social network (Smith, 2005).

In conclusion, it appears that only financial support and spiritual support are recognized as forms of social support among patients in this environment. Perhaps this is related to the cost of health care which is usually astronomical and provided through out-of-pocket expenses for majority of our patients, who are engaged in informal sector of occupation rather than the formal sector and thus not covered by the national health insurance. Despite the report of various sources and types of support, could not correlate these forms of support as strategies for coping with the illness. This may be associated with the additional acute stress that may be induced by the cumbersome process of receiving care in a tertiary hospital, which is often characterized by inability to access due care resulting from machine breakdowns as experienced during the data collection for this study. Thus an additional stressful life situation may hinder the social support that hasbeen provided being translated into coping measures. Cancer patients should be supported with all available means and by everyone around them.

Medical caregivers should provide enough support for their patients, for example upgrading the psychotherapy sessions so that they will be able to deliver the desired therapeutic effect. When the patients are assured by their medical care-giver, they are reassured of a better outcome or prognosis and this greatly aids their coping abilities. Furthermore, policy makers should articulate measures and schemes to make cancer treatments timely and cost effective. Cancer treatment should be subsidized as a form of support from the appropriate authorities. In addition, cancer treating equipment should be maintained, repaired and replaced as necessary.

This is a one-center study and is therefore not representative of the general population of cancer patients. Hence, generalization of the result is limited. Also, based on the cancer types studied, there was incomparable number of both sexes. Future studies should accommodate more cancer types that affect both sexes so as to understand the effect of cancer types and gender on coping abilities of those on cancer therapy. In addition, this study does not attempt to explain the factors affecting the social support of the participants in this study. In like manner there was no attempt to explore the reasons for the coping ability of the participants beyond the effect of social support. Future studies are recommended to explore the various reasons for these findings

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