Impact of active coping, religion and acceptance on quality of life of patients with breast cancer in the department of radiotherapy, UCH, Ibadan

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ABSTRACT

Background A breast cancer diagnosis as well as the treatment that follows has considerable consequences on women's physical functioning, psychological health and overall well-being, resulting in significant interference with patients' quality of life (QoL).

Purpose The study seeks to assess the impact of active coping, religion and acceptance on the QoL of patients with breast cancer.

Participants This study, which is descriptive in nature, assessed the QoL and coping mechanism of 110 patients with breast cancer receiving treatment at the radiotherapy clinic in the University College Hospital (UCH). The patients had an age range of 25–75, an average age of 46.82 and an SD of 10.55. Male patients were 4 (3.60%), while 106 (96.40%) were female. Currently married participants were 84 (76.40%), while 26 (23.60%) were not.

Methods Data was collected using the Functional Assessment of Cancer Therapy-Breast (FACT-B) V.4 QoL questionnaire and Carver's Brief Cope questionnaire.

Results Analysis of data showed that significant differences were found between participants who used active coping, religious coping and acceptance more than those who did not in the overall QoL ($p<0.05$) as well as in some of the QoL dimensions.

Conclusions Significant differences exist in the QoL of patients with breast cancer based on the coping style they adopt. Patients with breast cancer should be helped to adopt coping styles that would enhance their QoL.

BACKGROUND

Cancer of the breast is the most common cancer among women in Nigeria.[1] Until recently, treatment for this condition had been mostly concerned with the extension of life with little or no attention directed at quality-of-life (QoL) concerns. QoL has been defined as the patients' state of well-being characterised by their ability to perform daily tasks reflecting physical, psychological and social well-being as well as their satisfaction with their levels of functioning and disease control.[2] The QoL group of the WHO (WHO QoL) defined it in the context of an individual's perception of his situation in life vis-à-vis the prevailing culture and value systems in which he lives in light of his personal goals, prospects, standards and concerns.[3] This far-reaching concept impinges, in a multifaceted manner, on a person's physical health, emotional state, independence level, relationship with significant others as well as with salient aspects of their environment.[4] Though several negative outcomes may follow breast cancer diagnosis and treatment, patients or survivors reporting positive consequences of the cancer experience, such as valuing intimate relationships more, re-ordering of priorities and having a better appreciation for life, is not a rare occurrence.[5–8] Patients living with cancer no doubt have divergent opinions about what constitute a good QoL and the suitable coping styles adopted when dealing with daily hassles. Coping describes the manner in which patients build up resistance and the measures they take to sustain their stability and remain in control in order to withstand cancer-induced stress.

A feature common to patients attempting to cope with a life with cancer in spite of different coping styles is the

readiness to make compromises so as to accomplish either a remission or a cure. In the process, every patient creates his personal awareness of the disease, together with its affective and mental attributes, which in turn influences the patient's choice of coping method. The coping style adopted has implication for the patient's physical and emotional health, but there is no common voice on which of the coping styles are more successful for problem solving,[9][10] averting prospective difficulties or providing respite from emotional distress. Studies have however shown that patients with a penchant for an active rather than, avoidant, emotional or a passive coping style, demonstrate greater progress in their daily activities of living.[11]

There are empirical evidences that a relationship exists between the coping styles of patients with certain chronic health conditions and their QoL. For instance, it was reported that the mental and physical components of health-related QoL of patients with epilepsy was influenced by a passive coping style.[12] Also, passive coping style was related with poorer scores on the cognitive domain of health-related QoL in patients with a subarachnoid haemorrhage.[13] QoL was also found to be positively impacted on by active coping and positive attitudes in patients having Parkinson's disease.[14]

QoL concerns and coping strategies within oncology settings have seldom been assessed in developing countries with a reported growing incidence of cancers.[15] Not much is known regarding how the coping mechanisms adopted by Nigerian patients with breast cancer could influence their QoL. This study thus assessed the impact of active coping, religion and acceptance on the QoL of patients with breast cancer in the Department of Radiotherapy, University College Hospital (UCH), Ibadan.

Purpose of the study

This study seeks to assess the impact of active coping, religion and acceptance on the QoL of patients with breast cancer in the Department of Radiotherapy, UCH, Ibadan. Specifically however, this study seeks to:

1. Assess differences in the QoL dimensions between patients with breast cancer who used active coping more and those who did not;
2. Assess differences in the QoL dimensions between patients with breast cancer who used religious coping more and those who did not;
3. Assess differences in the QoL dimensions between patients with breast cancer who used acceptance more and those who did not.

MATERIAL AND METHODS

This is a prospective descriptive study carried out on consenting patients with breast cancer attending radiotherapy clinic. One hundred and ten patients took

part in the study. All instruments were administered by the investigators. Study period was between 24 November 2011 and 30 June 2012.

Instrumentation

Two instruments were used in this study. They are the Functional Assessment of Cancer Therapy-Breast (FACT-B) and Brief Cope by Carver. Sociodemographic and other disease-related information were collected through an additional personal data form.

Functional assessment of cancer therapy-breast

This 36-item breast cancer-specific instrument was employed in the assessment of the QoL of the patients with breast cancer. The scale consists of five subscales assessing patients' physical well-being, functional well-being, emotional well-being, social/family well-being and breast cancer-specific concerns. The scale uses a five-point likert scale of 0–4, corresponding to the phrases: not at all, 0; a little bit, 1; somewhat, 2; quite a bit, 3; and very much, 4. Patients choose the number corresponding to how true each statement has been for them during the last 7 days. The breast well-being subsection has nine items with a score range of 0–36 with the higher scores indicating the severity of the adverse effects of breast cancer treatment. The six-item emotional well-being subsection asks questions regarding sadness, health outlook and mental health and has a score range of 0–24. The seven-item functional well-being subsection with a score range of 0–28 assesses a woman's ability to perform and derive fulfilment from her daily routine activities. The seven-item physical well-being subsection focuses on the physical adverse effects of treatment and has a score range of 0–28. The seven-item social well-being subsection assesses a woman's satisfaction with the quality of her social relationships and support system and has a score range of 0–28. The total FACT-B score has a range of 0–144, with a higher number correlating to a more favourable QoL. Quality-of-life measurements as assessed by the FACT-B survey were scored and interpreted in accordance with the standardised scoring protocol. Brady et al[16] have reported a high-internal consistency of 0.90 for the FACT-B, with α coefficients of the subscales ranging from 0.63 to 0.86.

Brief Cope

The Brief Cope by Carver[17] was the instrument used in this study to assess coping. The instrument has 14 subscales but only three of the subscales (active coping, acceptance and religious coping subscales) were used in this study. They have α coefficients of: 0.68, 0.72, 0.69, respectively. The response format is a four-point format ranging from 0 for not at all to 3 for a lot.

Data collection procedure

Ethical approval for the study was obtained from the UI/UCH Institutional Review Board (UI/UCH IRB). Patients breast cancer were recruited based on their willingness to take part in the study after the normal weekly counselling session in the radiotherapy clinic. They were educated on the reason for the study as well as their right to refuse to be involved in the study. Those who agreed to participate were given the informed consent form to fill after which they were given the questionnaires. The questionnaires were collected immediately from them on completion.

Method of data analysis

Data collected was analysed using simple percentages and t test analysis on SPSS V.17.0.

RESULT

This study is made up of 110 patients with breast cancer consisting of 4 males and 106 females. Their ages range between 25 and 75, with a mean of 47.04 and an SD of 10 510. Of the respondents 24.50% were below the age of 40 while 75.50% were 40 and above; 4.60% had no formal education, 19.30% had only primary education, 31.20% had secondary education while 45% had tertiary education; 12.80% were unemployed, 16.50% were self-employed, 30.30% were civil servants, 33.90% were traders, while 6.40% were business men/women. With regard to marital status, 6.40% of the respondents were single, 0.90% cohabiting, 77.10% married, 3.70% separated and 11.90% were widowed; 12.70% were in stage 1, 10.90% in stage 2, 7.30% in stage 3, 6.40% in stage 4 and 62.70% did not know their breast cancer stage. Of the respondents 12.90% had not started any radiotherapy treatment while 87.10% had started radiotherapy treatment.

The participants' personal and disease-related characteristics are as shown in table 1. Participants aged 40 years and above made up 75.50% of the respondents; 4 (3.60%) were men and 106 (96.40%) were women. Also, 84 (76.40%) were currently married while 26 (23.60%) were not married. A larger proportion of the respondents (55.90%) had below tertiary education. With regard to employment status, 95 (86.40%) were employed while 15 (13.60%) were not employed. More respondents (59.10%) had either stage 3 or 4 cancer while 40.90% had stage 1 or 2 cancer. On treatment status, 80% had started treatment while 20% were yet to start treatment.

Hypothesis 1: There is no significant difference in the quality of life dimensions between participants who used active coping more and those who did not.

The results of the independent t tests on table 2 showed that there were significant differences between participants who used acceptance coping more and those who did not. The results for each

Table 1 Demographic characteristics of participants

Group	Subgroups	Frequency	Percentage
Age (years)	<40	27	24.50
	≥40	83	75.50
Gender	Male	4	3.60
	Female	106	96.40
Marital status	Currently married	84	76.40
	Currently unmarried	26	23.60
Educational level	Tertiary Education	49	44.10
	Below tertiary Education	61	55.90
Employment status	Currently employed	95	86.40
	Currently unemployed	15	13.60
Cancer stages	1 and 2	45	40.90
	3 and 4	65	59.10
Treatment status	Started	88	80.00
	Yet to start	22	20.00

dimension for those who reported using little/no active coping and those who reported using it somewhat/very much (the mean and SD are presented, respectively), for physical well-being (M=13.91, SD=8.98 and M=17.80, SD=7.60), p=0.038, 95% CI (−7.56 to −0.22); social/family well-being (M=12.57, SD=10.11 and M=20.45, SD=5.55), p<0.001, 95% CI (−11.01 to −4.75); emotional well-being (M=14.13, SD=7.56 and M=17.07, SD=5.70), p=0.043, 95% CI (−5.79 to −0.09); functional well-being (M=11.48, SD=9.63 and M=17.87, SD=7.97), p=0.001, 95% CI (−10.27 to −2.52); breast cancer-specific concerns (M=17.83, SD=11.03 and M=22.61, SD=7.13), p=0.013, 95% CI (−8.54 to −1.03); FACT-B (M=68.91, SD=36.93 and M=95.85, SD=36.93), p<0.001, 95% CI (−39.33 to −14.54). The results indicated that patients with breast cancer who reported using little or no active coping experienced significantly lower mean scores in the five QoL dimensions and overall QoL compared to those who reported using it somewhat to very much.

Hypothesis 2: There is no significant difference in the quality-of-life dimensions between participants who used religious coping more and those who did not.

Table 3 showed that there were significant differences between participants who used religious coping more and those who did not in the social/family well-being (M=19.58, SD=6.72 and M=14.83, SD=9.64 for more and less use of religious coping respectively), p=0.013, 95% CI (−8.45 to −1.03); functional well-being (M=17.32, SD=7.91 and M=12.56, SD=11.41 for more and less use of religious coping, respectively), p=0.033, 95% CI (−9.13 to −0.39); breast cancer-specific concerns (M=22.53, SD=7.08 and M=16.89, SD=11.92 for more and less use of religious coping, respectively), p=0.008, 95% CI

Research

Table 2 t Test of difference in QoL dimensions based on active coping

Variables	Use of active coping	N	Mean	SD	Mean difference between the domains (95% CI)	p Value
Physical well-being	Not at all or a little bit	23	13.91	8.98	−3.89 (95% CI −7.56 to −0.22)	0.038
	Somewhat to very much	87	17.80	7.60		
Social/family well-being	Not at all or a little bit	23	12.57	10.11	−7.88 (95% CI −11.01 to −4.75)	<0.001
	Somewhat to very much	87	20.45	5.55		
Emotional well-being	Not at all or a little bit	23	14.13	7.56	−2.94 (95% CI −5.79 to −0.09)	0.043
	Somewhat to very much	87	17.07	5.70		
Functional well-being	Not at all or a little bit	23	11.48	9.63	−6.40 (95% CI −10.27 to −2.52)	0.001
	Somewhat to very much	87	17.87	7.97		
Breast cancer-specific concerns	Not at all or a little bit	23	17.83	11.03	−4.78 (95% CI −8.54 to −1.03)	0.013
	Somewhat to very much	87	22.61	7.13		
FACT-B	Not at all or a little bit	23	68.91	36.93	−26.94 (95% CI −39.33 to −14.54)	<0.001
	Somewhat to very much	87	95.85	23.34		

FACT-B, Functional Assessment of Cancer Therapy-Breast; QoL, quality of life.

(−9.75 to −1.54) and the overall FACT-B QoL (M=93.53, SD=24.26 and M=73.28, SD=42.21 for more and less use of religious coping, respectively), p=0.006, 95% CI (−34.49 to −6.02). Participants who used religious coping more had a superior QoL than those who did not.

Hypothesis 3 There is no significant difference in the quality of life dimensions between participants who used acceptance coping more and those who did not.

Table 4 shows that there were significant differences between participants who used acceptance coping more and those who did not in the social/family well-being (M=20.70, SD=5.97 and M=16.26, SD=8.45 for more and less use of acceptance coping, respectively), p=0.002, 95% CI (−7.17 to −1.72); functional well-being (M=18.24, SD=7.99 and M=14.26, SD=9.15 for more and less use of acceptance coping, respectively), p=0.017, 95% CI (−7.23 to −0.73); and the overall FACT-B QoL (M=94.97, SD=23.58 and M=83.85, SD=33.70 for more and less use of acceptance coping, respectively), p=0.044, 95% CI (−21.94, −0.29). Participants, who used acceptance coping more, had higher QoL than those who did not.

DISCUSSION

Overall, participants who employed active coping, acceptance coping and religious coping styles more fared better in FACT-B total QoL than those who did not. Using active coping more however affected all the dimension of QoL while acceptance and religious coping registered significant differences in social/family well-being and in functional well-being. Using active coping implies altering ones perception of the stressful event as opposed to avoidant coping approaches that are actions taken to deliberately avert confronting the stressful events directly. Active coping thus involves taking charge of one's own destiny by making the right decisions and doing what ought to be carried out to make the situation better without waiting for others or providence to make the necessary desirable change happen. Studies have shown that patients who actively sought and got comfort and understanding from someone or took active involvement in their treatment often report higher QoL.[18]

Religious coping yielded better QoL scores among the patients with breast cancer in the social/family well-being, functional well-being and the overall QoL. This finding has been corroborated by the findings of a similar study in which 50% of the women indicated

Table 3 t Test of difference in QoL dimensions based on religious coping

Variables	Use of religious coping	N	Mean	SD	Mean difference between the domains (95% CI)	p Value
Physical-well-being	Not at all or a little bit	18	15.50	9.28	−1.78 (95% CI −5.89 to −2.32)	0.391
	Somewhat to very much	92	17.28	7.78		
Social/family well-being	Not at all or a little bit	18	14.83	9.64	−4.74 (95% CI −8.45 to −1.03)	0.013
	Somewhat to very much	92	19.58	6.72		
Emotional well-being	Not at all or a little bit	18	13.78	7.85	−3.20 (95% CI −6.33 to −0.07)	0.045
	Somewhat to very much	92	16.98	5.75		
Functional well-being	Not at all or a little bit	18	12.56	11.41	−4.76 (95% CI −9.13 to −0.39)	0.033
	Somewhat to very much	92	17.32	7.91		
Breast cancer-specific concerns	Not at all or a little bit	18	16.89	11.92	−5.64 (95% CI −9.75 to −1.54)	0.008
	Somewhat to very much	92	22.53	7.08		
FACT-B	Not at all or a little bit	18	73.28	42.21	−20.26 (95% CI −34.49 to −6.02)	0.006
	Somewhat to very much	92	93.53	24.26		

FACT-B, Functional Assessment of Cancer Therapy-Breast; QoL, quality of life.

Table 4 t Test of difference in QoL dimensions based on acceptance coping

Variables	Use of acceptance coping	N	Mean	SD	Mean difference between the domains (95% CI)	p Value
Physical well-being	Not at all or a little bit	47	16.47	8.23	−0.91 (95% CI −3.99 to −2.16)	0.557
	Somewhat to very much	63	17.38	7.91		
Social/family well-being	Not at all or a little bit	47	16.26	8.45	−4.44 (95% CI −7.17 to −1.72)	0.002
	Somewhat to very much	63	20.70	5.97		
Emotional well-being	Not at all or a little bit	47	16.23	6.74	−0.39 (95% CI −2.77 to −1.99)	0.749
	Somewhat to very much	63	16.62	5.84		
Functional well-being	Not at all or a little bit	47	14.26	9.15	−3.98 (95% CI −7.23 to −0.73)	0.017
	Somewhat to very much	63	18.24	7.99		
Breast cancer-specific concerns	Not at all or a little bit	47	21.26	9.08	−0.62 (95% CI −3.79 to 2.56)	0.700
	Somewhat to very much	63	21.87	7.68		
FACT-B	Not at all or a little bit	47	83.85	33.70	−11.12 (95% CI 21.94 to −0.29)	0.044
	Somewhat to very much	63	94.97	23.58		

FACT-B, Functional Assessment of Cancer Therapy-Breast; QoL, quality of life.

that their cancer diagnosis provoked a greater emphasis in their lives on religion and spirituality by intensifying their faith in God with almost all of them agreeing that spiritual faith can facilitate the recovery of patients with cancer.[19] Though religion and spirituality are subjective and difficult to convey verbally, the experiences and ways in which religion and spirituality shape people's lives can be fascinating. This is so because of the subjective nature of religion and the differences in the ways in which people experience religion, there can be both positive and negative religious coping. The way in which one views God (or a higher being) is the baseline for determining whether one's coping style is positive or negative. Positive religious coping is characterised by faith in God and believing that God is faithful in loving and caring, as well as actively working with one to strengthen and overcome hard times or illnesses. Negative religious coping, on the other hand, is characterised by feeling that negative events or illnesses are a result of God's punishment or abandonment and based on the person's sinful behaviour or disbelief. Positive religious coping, naturally, has been associated with more positive health outcomes and illness course, whereas negative religious coping has the opposite effect and may increase depression and anxiety.[20]

Patients react in diverse ways to the information of carrying a potentially fatal illness like cancer. Generally, nearly every patient goes through different stages of acceptance when diagnosed of a disease like cancer. The first of which is disbelief involving feelings of anxiety, shock, despair, anger, guilt feeling, followed by depression and finally acceptance.[21] Acceptance of a chronic health condition is a coping strategy that includes both direct action and passive components. This strategy involves the acceptance that it is doubtful that medical/behavioural therapies will totally eradicate the health condition as well as acceptance of the necessity to shift focus from pain and other concomitants of their state of health to other non-pain facets of their lives. It is not synonymous with resignation to fate but rather it is a point at which the patient no longer struggles with the reality of the illness, but rather learns to live with it. Though acceptance was associated with better QoL in the current study, Carver et al,[22] have observed that disease acceptance often suggests resignation and fatalism. For instance, anxiety and depression have been found to be significantly predicted in rheumatoid arthritis patients by illness acceptance beliefs.[23]

Clinicians would benefit from these findings if they could incorporate screening for the coping styles that patients adopt to deal with their health challenges during consultation by listening to the patients and asking direct questions on how they are coping with their health condition. This would likely elicit enough information to determine the patient's coping style. An understanding of the underlying indices of the identified coping style could then aid in its being integrated into the patient's treatment plan where they are healthy coping styles. For instance, patients who seek to be actively involved in their own treatment evidenced in their information-seeking behaviours should not be shunned. Rather, they should be given enough information to enable them to participate in their treatment plan as patients have expressed the need for more information concerning their health condition and the care they are receiving.[24] The receiving of such relevant information will give the patients a sense of being in charge and lessen the sense of helplessness.

Patients who use more of religious coping could be helped to find strength and courage to undergo radiotherapy or any of the other treatments by making the options of accessing a priest, pastor, imam or other religious leaders available if required. Also religious symbols like the crucifix, the rosary, the Bible or Quran could also be made to be within the reach of any patient that may need them. Sometimes also, all the patient may need is being able to pray in the presence of the physician without being judged. This emphasises the need for chaplaincy in most of our

oncology clinics in Africa as revealed by patients with cancer in an unpublished focus group discussion.

Further studies are required to empirically establish differences in styles of coping usually adopted by patients with cancer and the general populace. If ineffective coping styles are found to be more prevalent among patients with cancer compared to the general population, then it should trigger the need to develop effective interventions that could enhance the QoL of patients with cancer.

CONCLUSION

Since coping strategies significantly influence QoL, patients should be taught either through regular individual or group psychotherapy sessions, to mindfully learn to identify their useful and dysfunctional coping strategies and their sources. This will enable the patients to further enhance the use of functional coping strategies while discarding dysfunctional ones.

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