



## Supportive care needs of women with advanced breast cancer in Ghana

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### ABSTRACT

**Purpose:** Most women with breast cancer in Ghana are initially diagnosed with advanced disease, however, there is limited research about Ghanaian women's experiences of living with advanced breast cancer. The study aimed to understand the perceived (felt) and expressed needs of women with advanced breast cancer.

**Methods:** Using a cross-sectional design, this study assessed the supportive care and spiritual needs, as well as the supportive care service use, of women diagnosed with advanced breast cancer ( $n = 176$ ) with the Supportive Care Needs Survey-Long Form, the Spiritual Need Assessment for Patients and the modified Client Service Receipt Inventory.

**Results:** Most participants (96.6%) had financial needs and needs in relation to having access to professional counselling. The most prevalent supportive care needs reported were related to health system issues and information needs (90.3%–96.6%). Compared to older women (51.7%), younger women (48.3%) reported greater psychological ( $p = 0.002$ ) and sexuality needs ( $p < 0.001$ ) and less religious needs ( $p = 0.048$ ). Most participants (92.1%) had at least one spiritual need. Many of the available outpatient services were not accessed by the majority of participants (>63%).

**Conclusions:** The study participants reported high supportive care needs even so, most did not access available relevant services. Study findings indicate that most of the participants were unaware of the health and supportive care services that were available to them or that these services were not easily accessible due to their financial status or geographical location. Targeted interventions are needed to assist the women to address their supportive care, spiritual and service needs.

### 1. Introduction

Breast cancer was by far the most commonly cancer diagnosed (11.7% of cancer incidence overall) and the leading cause of death in women worldwide in 2020 with Africa accounting for 8.3% of global incidence (Ferlay et al., 2021, International Agency for Research on Cancer, 2021). In Ghana in 2020, breast cancer was the most common cancer diagnosed, and was the second most common cause of cancer death (International Agency for Research on Cancer, 2021). Although screening for, and the diagnosis, of breast cancer is increasing in Africa, including in Ghana (International Agency for Research on Cancer, 2021), literature indicates that Ghanaian women continue to present late with advanced disease (Brinton et al., 2017, Der et al., 2013). Several factors are related to this late presentation and advanced breast cancer diagnoses, including low knowledge of the disease, poor recognition and appraisal of breast cancer symptoms, fear and denial,

sociocultural beliefs, health system impediments, and in some cases aggressive biological features of tumours (Agbokey et al., 2019; Akuoko et al., 2017; Bonsu and Ncama, 2019, Sanuade et al., 2018).

In the last three decades, the burden of breast cancer in women in Africa, including Ghana, has been rising due to population growth, ageing, adoption of unhealthy lifestyles, and insufficient public health policies and strategies to create awareness and to educate the populace about cancer risk factors and screening services (Sharma, 2020). Supportive care services and interventions will be required to manage and help improve the lives of these women. Women diagnosed with breast cancer also have to learn to live with the progressive effects of the disease, as the treatment for advanced breast cancer (ABC) generally not for curative intent (Fitch, 2008). Importantly, the management of ABC needs to focus on the alleviation of physical symptoms and to address psychological, emotional, social, economic and spiritual needs (Redig and Mcallister, 2013).

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Navigating the cancer trajectory brings about changes from both the disease and the effects of the treatments. These changes impact on the psychological and emotional wellbeing of women with ABC, which can negatively affect their quality of life. Psychological issues such as uncertainty about the future, fears about the cancer spreading, concerns about close relations, depression, and feelings of sadness, death and dying have been identified among this cohort (Aranda et al., 2005; Edib et al., 2016). Likewise, the women seek information around the disease and its treatment, the management of side effects, clinical trials being conducted, and their prognosis and symptom management to improve their condition by understanding the situation or interventions (Danesh et al., 2014). Consequently, the impact of a progressive and incurable condition such as ABC on physical function can be significant. Needs associated with coping with declining physical functioning, symptoms, side effects of treatments, and performing usual activities of daily living have been reported as areas of concern among the women (Cardoso et al., 2018; Lam et al., 2013). Furthermore, sexuality problems are challenging for the women, especially post treatment, and often elicit both emotional and physical symptoms which can worsen overtime if not addressed (McClelland et al., 2015, Ussher et al., 2014). In addition, unmet spiritual needs have been found to impact on the spiritual wellbeing and quality of life of patients with advanced cancer (Pearce et al., 2012). Hence, the holistic assessment of the needs of women with ABC is imperative to help prioritise and target appropriate supportive care interventions that effectively improve their quality of lives.

The needs and unmet needs of women with ABC in the developed world have been explored widely (Aranda et al., 2005, Au et al., 2013, Cardoso et al., 2013; Cardoso et al., 2016, Uchida et al., 2010) however, there is limited research about Ghanaian women's experiences of living with ABC. One qualitative study examined the emotional and psychological experiences of women living with ABC in Ghana (Bonsu et al., 2014). While this study identified psychological and emotional symptoms such as fear, anxiety, sadness, feeling of lost hopes, maladaptation, and suicidal ideations among the women, it did not seek to assess the broader range of supportive care needs the women experience. Obtaining a better understanding of these experiences is important to inform the planning and establishment of tailored health services and interventions that will address the needs of these women. Cardoso et al. (2017) examined research needs in breast cancer and recommended that research be conducted into survivorship issues, supportive care needs, and quality of life concerns, particularly for those with advanced breast cancer. Therefore, the aim of the study was to examine the perceived supportive care needs (felt needs) and health service needs (expressed needs) of women with ABC. The barriers women with ABC experience when accessing and utilising health and supportive care services were also explored.

### 1.1. Conceptual framework

The conceptual frameworks that underpinned this study included Bradshaw's taxonomy of social need, classified into 4 interrelated categories: normative need, felt need, expressed need and comparative need (Bradshaw, 1972) and Fitch's supportive care needs framework, which is based on philosophical and theoretical approaches (Fitch, 2008). This framework includes seven domains of needs: psychological, emotional, physical, social, practical, informational, and spiritual that are explored in this study (Fitch, 2008). Fitch's supportive care framework (Fitch, 2008) helps to contextualise the needs perceived by patients with cancer that operate within Bradshaw's needs categories (Bradshaw, 1972). This paper reports findings related to what Bradshaw classified as felt need, the subjective desire for things, and expressed needs, when such desires are turned into actions.

## 2. Methods

### 2.1. Study design

This is a cross-sectional study that explored the comprehensive supportive care and health service needs of women with ABC in Ghana.

### 2.2. Setting

The study was conducted at two health institutions, one public hospital and a private health institution in Kumasi, Ghana that are involved in the treatment of women with breast cancer.

### 2.3. Participants

A sample of 190 women with ABC who were attending outpatient oncology clinics between May and August 2019 were screened against the study's eligibility criteria of which 176 consented to participate. Eligible participants had to be aged 18 years and over, have a confirmed diagnosis of ABC (stage III and IV), had commenced treatment, and speaks and understands English or Twi. Potential participants who were experiencing extreme distress, as identified by clinicians, were excluded. The sample size was based on a suggested formula:  $N > 50 + 8m$  (where  $m$  is the number of independent variables) for testing multiple correlations and with 15 independent variables, more than 170 participants were required to undertake correlation or regression analysis using this approach (Green, 1991).

### 2.4. Recruitment

The researcher (deidentified for review) discussed the study purpose and selection criteria with the clinicians who identified potential participants from their clinical lists to provide a convenience sample for this study. Upon clarification that the potential participant met the study's selection criteria, informed written consent was sought and received. Verbal consent was obtained from participants who were unable to provide written consent due to literacy issues; their thumbprint was also embossed on the consent form. Verbal and thumbprint consents were witnessed, in writing, by a family member who had adequate literacy capabilities. Consent was received to access medical records for the purpose of collecting data related to their disease profile and treatments details.

### 2.5. Ethical considerations

Ethics approval was granted by the Committee on Human Research, Publications and Ethics Kwame Nkrumah University of Science and Technology (February 5, 2019, CHRPE/AP/032/19) and Komfo Anokye Teaching Hospital (January 2, 2019, reference K/17/04479064), the Peace and Love Hospital/Breast Care International Ethical and Protocol Review Committee (February 28, 2019; reference CPA001/PLH19), and the Queensland University of Technology Human Research Ethics Committee (May 29, 2019; reference 190000105).

### 2.6. Data collection and study measures

The researcher (deidentified for review) and trained research assistants collected data from the women (either self- or interviewer-administered) in both English and Twi, during their clinic visits, using a survey made up of the Supportive Care Needs Survey-Long Form (SCNS-LF) (McElduff et al., 2004), the Spiritual Need Assessment for Patients (SNAP) (Sharma et al., 2012) and the Client Service Receipt Inventory (CSRI) tool (Beecham and Knapp, 2001). Participants who needed assistance with reading and/or writing were assisted by having the questionnaire questions and possible response categories read to them, upon which the interviewer recorded their responses.

Demographic variables were added to the survey to capture the women's demographic profile. A proforma was developed to ensure all relevant disease and treatment information and comorbidities from participants' medical records were captured.

**SCNS-LF:** The SCNS-LF, which has 59 items across five domains of need: psychological (22 items), health system and information (15 items), physical and daily living (7 items), patient care and support (8 items), and sexuality (3 items), has good face and content validity and high internal reliability (Cronbach alpha = 0.87 to 0.97) (McElduff et al., 2004). This instrument also has four additional items that assess acceptance, communication, financial, and transport needs. Participants rated the intensity of each need over the previous month using a five-point Likert Scale; 1 = no need to 5 = high need. Scores were converted to standardised Likert summated scores ranging from 0 to 100 when calculating domain scores, with higher scores indicating greater perceived need.

**SNAP:** The SNAP instrument comprises 23 items across three needs sub-scales: psychological (5 items), spiritual (13 items), and religious (5 items) (Sharma et al., 2012). The response options for this tool range from 1 = not at all to 4 = very much. This instrument has seven additional items of which two require a dichotomous (yes/no) response. The psychometric properties (Cronbach alpha = 0.95, Test-retest correlation coefficient = 0.69) of the SNAP instrument have been established (Sharma et al., 2012).

**CSRI:** To collect information about the participants' health service usage, the CSRI instrument was adapted and modified to suit the purpose of the study and the target population. The CSRI modified instrument consists of 5 groupings of items: inpatient services (6 items), outpatient services (9 items), day activity services (8 items), community care services (6 items) and 'other' community care services (9 items) (Beecham and Knapp, 2001). The response options include not at all, 1–2 times, 3–5 times, more than 5 times, and not available. Furthermore, open-ended questions on health service usage and of the barriers the participants may have experienced when trying to access and when utilising these services were added to the CSRI to capture additional expressed needs of the women.

The instrument (the suite of questionnaires that comprise the study survey) was translated into Twi according to the steps described by Sousa and Rojjanasrirat (2011). The internal reliability and validation process were undertaken. The wording, sentence structure, meaning (clarity), and relevance of the instrument was examined by an expert panel; an oncology nurse and a medical officer (oncology resident). The validation of the instrument was done by pilot testing it with 10 participants. Each participant was asked to rate each item using a dichotomous scale (1 = clear, 2 = unclear). Any item found to be unclear by 20% of the participants was rewritten. Hence, the minimum inter-rater agreement among the sample was set at 80% (Mchugh, 2012).

## 2.7. Statistical analyses

Descriptive statistics of supportive care needs were computed using SPSS version 25 (IBM SPSS Statistics for Windows, 2020). Tests of difference (i.e., independent *t*-test and ANOVA) were used to determine the influence of selected demographics on the perceived supportive care needs. Statistical significance was reported at  $p \leq 0.05$ .

**SCNS-LF:** The summary response rate for the overall SCNS items, the five domains plus the additional items were computed for comparison (McElduff et al., 2004). The response categories of 'low', 'moderate', and 'high' need were summated to form one category named 'supportive care needs'. Participants reporting scores of three or above (low to high need) were considered as having supportive care needs. The supportive care needs were then ranked into the 10 most prevalent needs in descending order according to the numbers of the selected scores of three or above (low, moderate, and high) to report the most prevalent need items and the domain in which most reported needs were situated. The scores from the SCNS were converted to the standardised Likert

score (linearly transformed).

**SNAP:** The response frequency, and the mean (standard deviation) for each SNAP item and subscale, was tabulated with higher scores indicating higher need (Sharma et al., 2012). The total score for each subscale was obtained by summing the total items within the subscale. The SNAP items were then ranked in descending order to identify the participants' most prevalent spiritual needs, and the subscale that reflected their most reported needs. The overall SNAP items and items in each subscale (i.e., psychological, spiritual, and religious) were then computed.

**CSRI:** The modified CSRI, which was used to capture the expressed needs of the women, assessed the availability of health services from the perspective of the women as well as their usage of such services. In order to achieve this, the expressed needs of the participants were described according to the participants' use of the individual services over the three months prior to study entry. The total number of individual inpatient services, outpatient services, day activity services, community services, and other health professionals accessed during this period were described as frequencies and percentages. The open-ended questions were analysed using inductive content analysis (Hsieh and Shannon, 2005). The responses were grouped into categories and number of responses in each category tabulated.

## 3. Results

### 3.1. Participants

Of the 190 eligible women with ABC identified by clinicians and approached by the researcher (deidentified for review), 176 consented to participate (92.6% response rate). The mean age of the participants was 50.82 years (SD = 11.81). Around half of the participants (52.3%) were married and 78 participants (44.3%) were living with a partner, with or without children. At the time of survey, a little over half of the participants (54.5%) were not working, of which most (71.9%) were not employed due to having ABC and going through cancer treatment. Table 1 summarises the characteristics of the included participants.

The median time since diagnosis was 24 months (range 3–120 months). The most common breast cancer diagnosis was ductal carcinoma (85.8%) and almost half (48.3%) of the participants had stage IV disease. Participants' medical history is presented in Table 2.

### 3.2. Felt needs

#### 3.2.1. SCNS-LF: most frequently reported need

Most participants (84.1%) had experienced needs of one kind or another in the month prior to the survey. The most prevalent supportive care needs reported were related to health system and information needs (93.8%), whereas the least prevalent supportive care needs reported were sexuality needs (35.2%). See Table 3.

Upon ranking the scores in descending order of prevalence, most participants (96.6%) reported having needs around financial matters (from additional items) and in relation to having access to professional counselling with a range of health professionals whenever they or their family and/or friends have a need. The next seven most reported needs were items from the health system and information domain (90.3%–94.9%). See Table 4 for details.

#### 3.2.2. SCNS-LF: summated scores of the various domains

The scores in the health system and information domain had the highest mean of all domains ( $M = 74.67$ ,  $SD = 17.78$ ), indicating many participants' needs were either moderate or high. The scores for the sexuality domain show pronounced variation ( $M = 31.72$ ,  $SD = 35.28$ ). The summated scores of the various domains on the SCNS are presented in Supplemental Table 1.

**Table 1**  
Socio-demographic characteristics of the participants.

Characteristics	Participants N = 176
<b>Age</b>	<u>Mean ±SD years</u> 50.82 ± 11.81 <u>Median(Range) years</u> 49.50(25–82)
<b>Ethnicity</b>	<u>n(%)</u>
Akan	133(75.6)
Dagomba	11(6.3)
Ewe	9(5.1)
Ga/Adangbe	2(1.1)
Guan	2(1.1)
Other	19(10.8)
<b>Highest Education Level</b>	
No formal education/some primary education	36(20.5)
Primary	30(17.0)
Junior secondary/high	29(16.5)
Senior secondary/high/sixth form	32(18.2)
Vocational/technical/polytechnic/some college	29(16.5)
Bachelor's degree	18(10.2)
Master's degree	2(1.1)
<b>Marital Status</b>	
Married	92(52.3)
Widowed	35(19.9)
Divorced	24(13.6)
Single/never married	16(9.1)
Separated	7(4.0)
Living with a partner	2(1.1)
<b>Number of children</b>	
No children	16(9.1)
1-3	104(59.1)
4-6	45(25.6)
More than 6	11(6.3)
<b>Region of Residency</b>	
Ashanti	127(72.2)
Bono	20(11.4)
Northern	7(4.0)
Central	5(2.8)
Upper West	5(2.8)
Western	5(2.8)
Greater Accra	3(1.7)
Bono East	2(1.1)
Upper East	2(1.1)
<b>Live with</b>	
Partner and children	66(37.5)
Children	53(30.1)
Other family members	33(18.8)
Live alone	12(6.8)
Partner	12(6.8)
<b>Currently working</b>	
Yes	80(45.5)
No	96(54.5)
<b>Work Status</b>	<u>n = 80</u>
Full time	46(57.5)
Part time	24(30.0)
Casual	10(12.5)
<b>If No is this as a result of your illness</b>	<u>n = 96</u>
Yes	69(71.9)
No	27(28.1)
<b>If No are you</b>	<u>n = 27</u>
Retired	17(63.0)
Home duties (never employed)	10(37.0)
<b>Currently have a valid NHIS card</b>	
Yes	174(98.9)
No	2(1.1)

Abbreviations: SD, Standard Deviation; NHIS, National Health Insurance Scheme.

**Table 2**  
Disease characteristics of the participants.

Characteristics	Participants N = 176
<b>Time since diagnosis</b>	<u>Median(Range)months</u> 24(3–120)
<b>Type of breast cancer:</b>	<u>n(%)</u>
Ductal cancer	151(85.8)
Ductal cancer, lobular	4(2.3)
Lobular	4(2.3)
Adenocarcinoma	1(0.6)
Inflammatory breast cancer	1(0.6)
No details available	8(4.5)
Unknown <sup>a</sup>	7(4.0)
<b>Stage of Cancer</b>	
IIIA	40(22.7)
IIIB	9(5.1)
IIIC	18(10.2)
IV	85(48.3)
No details available <sup>b</sup>	24(13.6)
<b>Previous and current treatment</b>	
Chemotherapy	100(56.8)
Hormone therapy	50(28.4)
Radiotherapy	11(6.3)
Other treatment	9(5.1)
No previous or current treatment	6(3.4)
<b>Comorbidities</b>	
Participants with comorbidities	31(17.6)
Charlson Comorbidity Index	<u>Median(Range)</u> 2(0–7)
<b>Comorbidities<sup>c</sup></b>	
Diabetes mellitus (uncomplicated)	19(10.8)
Hypertension	8(4.5)
Peptic ulcer disease	5(2.8)
Connective tissue disease	4(2.3)
Liver disease (mild)	3(1.7)
Peripheral vascular disease	3(1.7)
Congestive heart failure	2(1.1)
Chronic obstructive pulmonary disease	1(0.6)

<sup>a</sup> Invasive breast cancer of no special type (NST).

<sup>b</sup> Type of breast cancer was stated in patient records as only metastatic breast cancer.

<sup>c</sup> Eight participants had two comorbidities and three participants had three comorbidities.

**Table 3**  
Prevalence of supportive care needs captured by the Supportive Care Needs Survey.

Supportive care domain	No need		Satisfied		Supportive care needs	
	n	%	n	%	n	%
Overall SCNS care items	16	9.1	12	6.8	148	84.1
Health system and information	2	1.1	9	5.1	165	93.8
Psychological	32	18.2	23	13.1	121	68.8
Physical and daily living	55	31.3	12	6.8	109	61.9
Patient care and support	28	15.9	35	19.9	113	64.2
Sexuality	104	59.1	10	5.7	62	35.2
Additional needs	7	4.0	8	4.5	161	91.5

### 3.2.3. SNAP: most frequently reported spiritual needs

Of pertinence to this survey, most participants (91.5%) identified themselves as Christians and more than half of the participants (54.0%) attend religious services weekly. Overall, most participants (92.1%) had at least one spiritual need (i.e., answered “somewhat” or “very much”). Needs of a religious nature were reported as being needed “very much” by the participants more than that of psychological or spiritual needs. See Table 5.

The SNAP items were ranked according to the summated responses to the “somewhat” and “very much” answer categories. The prevalence

**Table 4**

The ten most prevalent supportive care needs captured by the Supportive Care Needs Survey (N = 176).

Rank <sup>a</sup>	Ten most prevalent needs	n	%	Domain
1	Concerns about your financial situation	170	96.6	Additional
1	Having access to professional counselling (eg, psychologist, social worker, counsellor, nurse specialist) if you/family/friends need it	170	96.6	HSI
2	Being informed about things you can do to help yourself get well	167	94.9	HSI
3	Being informed about your test results as soon as feasible	163	92.6	HSI
4	Being given explanations of those tests for which you would like explanations	162	92.1	HSI
4	Being informed about support groups in your area	162	92.1	HSI
4	Having one member of hospital staff with whom you can talk to about all aspects of your condition, treatment, and follow-up	162	92.1	HSI
5	Being informed about cancer which is under control or diminishing (that is, remission)	160	90.9	HSI
6	Being adequately informed about the benefits and side-effects of treatments before you choose to have them	159	90.3	HSI
7	Concerns about getting to and from the hospital	158	89.8	Additional

Abbreviation: HS&I, health system and information.

<sup>a</sup> Based on the summated responses to “low”, “moderate” and “high” need categories.

**Table 5**

Prevalence of spiritual needs captured by the SNAP.

Spiritual needs subscales	Not at all		Some what		Not very much		Very much	
	n	%	n	%	n	%	n	%
Overall SNAP items	5	2.8	9	5.1	51	29.0	111	63.1
Psychological	2	1.1	20	11.4	63	35.8	91	51.7
Spiritual	5	2.8	12	6.8	54	30.7	105	59.7
Religious	6	3.4	10	5.7	10	5.7	150	85.2

of the ten most frequent needs were reported by more than 80.0% of the participants. Seven out of the ten most reported needs were items from the health system and information domain. See [Table 6](#).

### 3.3. Expressed needs

In the time period specified by the CSRI modified tool (past three months), the study participants did not often access the listed services.

**Table 6**

Ten most prevalent needs as captured in the 3 subscales of the Spiritual Need Assessment for Patients (SNAP) (N = 176).

Rank <sup>a</sup>	SNAP Items	n	%	Subscale
1	Someone to bring you spiritual texts	163	92.6	Religious
2	Finding peace of mind	162	92.1	Spiritual
3	Finding forgiveness	160	90.9	Spiritual
4	Relaxation or stress management	159	90.3	Psychological
4	Your relationship with God or something beyond yourself	159	90.3	Spiritual
4	Visits from clergy/imam of your own faith community	159	90.3	Religious
4	Religious rituals such as chant, prayer, lighting candles or incense, anointing, communion	159	90.3	Religious
5	Finding hope	156	88.6	Spiritual
6	Meaning and purpose of human life	154	87.5	Spiritual
7	Personal meditation or prayer practices	149	84.7	Spiritual

<sup>a</sup> Based on the summated responses to the “somewhat” and “very much” answer categories.

Four out of the six listed inpatient services, including “other inpatient services” were reported by most participants (>73.0% for each service type) as not being accessed. Outpatient services were not accessed frequently by participants in the survey period. Except for library services, all listed outpatient services were available to most participants (>97.0%). The oncology outpatient and the oncology counselling services were the most accessed outpatient services by the study cohort, and a little over one third of the participants (34.7%) visited the oncology outpatient unit more than five times. Most participants (84.7%) did not visit the outpatient palliative care unit. Most day activity services were either not available to most participants or were used minimally. For example, five out of the eight listed day activity services were reported by most participants (>92.0%) as being unavailable (online [Supplemental Table 2](#)).

### 3.4. Health and support services suggested by the women

Seven main categories of health and supportive services were suggested to help women with advanced breast cancer in Ghana manage their illness and their day-to-day activities. These suggestions covered services that address practical issues, crisis intervention, peer information and support groups, initial/ongoing patient and family education, adjustment/supportive counselling, pain/symptom management and other and non-specified support. Online [Supplemental Table 3](#) provides a summary of suggested services and frequency of mention.

### 3.5. Barriers and challenges faced by the women when accessing and utilising health and supportive care services

Financial impediments and being unaware of available supportive care services were reported as barriers to accessing health and supportive care services by most of the women. For example, the women stated not having money to travel to or pay for services that require fees as the major barrier to accessing and utilising such services. Lack of finances also impeded the women to secure accommodation to attend clinics for treatments (online [Supplemental Table 4](#)).

### 3.6. Association between participants' supportive care needs and some selected demographics

[Tables 7 and 8](#) demonstrate the association between participants' felt needs and some selected demographics. Significant differences were observed between the various groupings. For instance, younger participants reported greater needs in the psychological and sexuality domains compared to older participants ( $p < 0.05$ ). With regards to spiritual needs, older participants, and those whose spiritual needs had not been met at the time of the survey, reported greater needs in the religious subscale compared to younger participants and those whose spiritual needs had been met respectively ( $p < 0.05$ ).

## 4. Discussion

This is the first study to explore the supportive care needs of women with ABC in Ghana. To ensure that health service planning and the development of appropriate interventions that aim to help women with ABC in Ghana improve and maintain their quality of life are well informed and targeted, it is first essential to understand this cohort's supportive care needs. This study aimed to comprehensively assess and understand the supportive care needs of this cohort and the services required to address their unmet needs.

The findings of the present study are similar to those reported by [Lam et al. \(2014\)](#) (undertaken in Hong Kong) where most of the top ten reported needs were regarding their diagnosis, its treatment modalities, their side effects and/or complications and their management and the processes within the health system they navigate but differ from that of others ([Aranda et al., 2005](#); [Uchida et al., 2010](#)) (Australia and Japan)

**Table 7**  
Relationships between selected demographic characteristics and supportive care needs (N = 176).

Demographics	Psychological			Health system and information			Physical and daily living			Patient care and support			Sexuality			Additional items		
	M (SD)	t	p	M (SD)	t	p	M (SD)	t	P	M (SD)	t	p	M (SD)	t	p	M (SD)	t	p
Age		3.16 <sup>a</sup>	<b>.002</b>		1.36	.175		-1.24	.217		1.57	.119		4.48 <sup>b</sup>	<b>&lt;.001</b>		1.54	.124
50 and below	59.68 (20.32)			76.43 (18.84)			42.19 (27.11)			48.52 (21.81)			42.58 (36.78)			67.17 (18.10)		
Above 50	49.01 (24.18)			72.78 (16.47)			47.23 (26.79)			43.68 (19.02)			20.10 (29.67)			62.72 (20.12)		
Ethnicity		-1.28	.201		-.24	.812		-.98	.346		.28 <sup>c</sup>	.778		-.22	.827		.70	.486
Akan	53.27 (22.47)			74.49 (18.06)			43.53 (26.89)			46.41 (21.63)			31.39 (35.47)			65.65 (19.33)		
Other	58.40 (23.78)			75.23 (17.05)			48.01 (27.35)			45.49 (17.23)			32.75 (35.09)			63.39 (18.88)		
Marital status		-.02	.985		.60	.551		1.01	.341		.79	.433		5.37 <sup>d</sup>	<b>&lt;.001</b>		-1.04	.301
Married	54.50 (23.24)			75.43 (17.33)			46.58 (26.78)			47.35 (20.19)			44.38 (33.52)			63.58 (20.31)		
Other status	54.56 (22.53)			73.83 (18.32)			42.47 (27.22)			44.90 (21.07)			17.86 (31.95)			66.59 (17.85)		
Region of resident		1.03	.304		.15	.884		.34	.736		-.63	.527		.58	.565		.76	.447
Ashanti region	55.63 (22.51)			74.79 (17.80)			45.05 (26.29)			45.57 (20.95)			32.68 (35.89)			65.65 (18.54)		
Other regions	51.67 (23.67)			74.35 (17.91)			43.51 (29.00)			47.77 (19.76)			29.25 (33.90)			63.08 (21.17)		
Current working status		.86	.389		-.68	.496		-4.96	<b>&lt;.001</b>		11.34	.181		2.19	<b>.030</b>		-.60	.546
Yes	55.88 (23.05)			73.67 (18.73)			34.24 (24.82)			43.91 (20.51)			38.02 (35.28)			64.06 (19.04)		
No	52.90 (22.61)			75.50 (17.00)			53.27 (25.76)			48.08 (20.58)			26.48 (34.60)			65.82 (19.36)		
Religion		-2.32	<b>.022</b>		-.53	.597		-2.59 <sup>e</sup>	<b>.018</b>		-.30	.765		-.76	.450		-.61	.543
Christianity	53.32 (22.35)			74.45 (17.57)			43.32 (27.16)			46.04 (20.78)			31.11 (35.11)			64.75 (19.22)		
Islam	67.42 (24.88)			77.00 (20.36)			58.57 (21.21)			47.71 (19.03)			38.33 (37.77)			67.92 (19.17)		
Spiritual needs		-3.87	<b>&lt;.001</b>		-2.47 <sup>f</sup>	<b>.015</b>		-.75	.454		.33	.743		-.57	.567		-.92	.359
Met																		
Yes	46.92 (22.71)			70.46 (22.53)			42.81 (26.82)			46.79 (20.89)			29.91 (35.51)			63.44 (20.56)		
No	59.92 (21.44)			77.65 (12.74)			45.91 (27.17)			45.75 (20.47)			33.01 (35.24)			66.14 (18.16)		
Comorbidity present		-.86	.391		-1.22	.223		1.17	.243		-.81	.417		-1.50	.135		-.81	.422
Yes	51.32 (22.50)			71.13 (18.18)			49.77 (27.03)			43.45 (18.81)			23.12 (31.97)			62.50 (21.23)		
No	55.21 (22.93)			75.43 (17.66)			43.52 (26.95)			46.77 (20.97)			33.56 (35.79)			65.56 (18.75)		

Abbreviation: df, degree of freedom.

df = 174 except <sup>a</sup> df = 164.558; <sup>b</sup> df = 170.446; <sup>c</sup> df = 88.386; <sup>d</sup> df = 173.669; <sup>e</sup> df = 18.569 and <sup>f</sup> df = 104.542.

Bold p values indicate significance.

**Table 8**  
Relationships between selected demographic characteristics and spiritual needs (N = 176).

Demographics	Psychological					Spiritual					Religious				
	M	SD	t	df	p	M	SD	t	df	p	M	SD	t	df	p
Age			1.59	174	.113			1.49	174	.138			-1.99	167.003	<b>.048</b>
50 and below	16.58	3.19				43.64	8.34				17.32	3.72			
Above 50	15.86	2.80				41.87	7.33				18.31	2.82			
Ethnicity			.34	93.824	.738			-.65	174	.517			-.46	174	.646
Akan	16.27	3.20				42.56	8.44				17.73	3.45			
Other	16.12	2.41				43.47	5.95				18.00	3.02			
Marital status			1.99	174	<b>.048</b>			1.05	174	.296			-.55	174	.584
Married	16.66	2.89				43.38	7.57				17.66	3.30			
Other status	15.76	3.11				42.13	8.24				17.94	3.41			
Region of resident			-.64	174	.521			-.27	174	.790			-.55	174	.581
Ashanti region	16.14	2.91				42.69	7.51				17.71	3.41			
Other region	16.47	3.32				43.04	8.90				18.02	3.21			
Current working status			-.68	174	.496			-1.23	140.612	.222			-1.90	174	.059
Yes	16.06	3.23				41.96	9.17				17.28	3.64			
No	16.38	2.85				43.47	6.63				18.23	3.03			
Religion			.04	174	.965			-1.00	174	.319			-.73	174	.466
Christianity	16.24	3.08				42.60	8.00				17.74	3.44			
Islam	16.20	2.40				44.73	6.54				18.40	2.06			
Spiritual need met			-1.56	128.439	.122			-1.83	106.104	.069			-2.31	116.787	<b>.023</b>
Yes	15.79	3.46				41.38	10.02				17.07	4.01			
No	16.54	2.65				43.78	5.81				18.31	2.69			
Comorbidity present			-.67	174	.505			.02	174	.986			-.04	174	.969
Yes	15.90	3.07				42.81	6.46				17.77	3.17			
No	16.30	3.02				42.78	8.19				17.80	3.39			

Abbreviation: Df, degree of freedom.

Bold *p* values indicate significance.

where most of the reported needs in the top ten items belonged to the psychological domain. These differences may be attributed to the particular health systems and support services available across these countries along with cultural differences. The findings may indicate that the health system and support services available in Ghana are limited. The women do not have access to reliable, accurate, in-depth information about the disease, standard and emerging treatments modalities, and strategies to cope with symptoms and side effects/complications of treatments to assist them to manage their day-to-day lives. Increased efforts to disseminate information to the women in line with their preferred mode are required.

Internationally, cross-cultural comparison studies have found that psychological needs ranked the highest of all the supportive care needs of Caucasian women with ABC from the USA, Australia, and European countries (Fischer et al., 2014; Levesque et al., 2015) but not among Asian women (Lam et al., 2011) with the exception of women from Japan (Uchida et al., 2010)). Comparably, the findings of this study are consistent with those of the studies involving Asian women (Au et al., 2013). Although, psychological needs were not ranked among the highest of the needs in this present study, many women worried about those close to them, their ability to cater for them, and about uncertainty of their future which is similar to the participants from the USA, Australia and European countries in those cross-cultural comparison studies (Fischer et al., 2014; Lam et al., 2011; Levesque et al., 2015).

Emotionally, the women's needs revolved around having hospital staff show empathy towards them, to be treated like a person (not just another case), as well as providing them with reassurance about their feelings relating to their condition. Furthermore, they needed the opportunity to talk to someone who understands and has been through a similar experience. These findings are congruent with a global study on the supportive care needs of women with advanced breast cancer (Cardoso et al., 2016). Healthcare providers often focus on managing the cancer rather than holistically caring for the patient; thus, neglecting their emotional concerns (Corney et al., 2014). Receiving support from their treating team, family members, friends, and breast cancer survivors will help them to manage such feelings to facilitate their emotional stability as they navigate their cancer trajectory.

Most of the women reported that they were in pain and felt unwell or

tired a lot of the time. These results align with other findings reported in the literature regarding the physical needs of women with breast cancer (McKittrick et al., 2020; Vignes et al., 2020). These effects often prevent women from being involved in their usual activities. Hence, women with ABC need their physical symptoms to be relieved to improve their quality of life.

Financial issues were the most common concerns reported by all the women in this study and were related to securing transportation to attend appointments. This finding differs from that of studies conducted among cancer patients in Canada (Fitch, 2012) and Australia (Sanon-Fisher et al., 2000) in which few participants indicated they needed help with financial matters. Some of the primary issues contributing to women's financial difficulties in this study include employment challenges, either through the loss of, or a change to a job, due to the illness and treatment, and the subsequent loss of income together with the out-of-pocket costs related to cancer treatments and investigations. The economic downturn in Ghana, coupled with the high cost of living and employment issues, makes it difficult for most families to meet their day-to-day needs (Osei-Boateng and Ampratwum, 2011). A chronic illness, such as ABC, often introduces devastating health care expenses to the household further complicating this situation (Sanuade et al., 2018; Togoe, 2012). The universal health insurance scheme in Ghana that is supposed to relieve the women of this burden has been reported to be facing significant pressures under the influence of inefficiencies in the operation of the scheme and the provider payment system (Alhassan et al., 2016). As a result, women with ABC in Ghana have to pay for most treatment related costs.

Many Ghanaians associate their wellbeing with their religion/spirituality as a social support and a buffer to psychological issues (Pokimica et al., 2012). A recent study conducted in Ghana found that the most active coping strategy adopted by women with breast cancer of various stages was religion (Benson et al., 2020). Spiritually, the women needs were similar to that found in a previous study conducted among cancer patients in New York (Astrow et al., 2018). However, in contrast to that study (Astrow et al., 2018), the present study found that many of the women did not prefer to share their spiritual concerns with their doctor or nurse. Recommendations have been raised for treating teams of patients, particularly in the context of advanced cancer, to be responsible

for addressing the spiritual needs of their patients (Phelps et al., 2012). Some researchers have noted that addressing concerns regarding finding hope, coping with suffering, and overcoming fears may be within the scope of medical personnel (Fallowfield et al., 2003); others have argued that dealing with patients' spiritual needs is generally outside the job descriptions of clinical staff (Sloan et al., 2000). Despite this argument, some of the women expressed the desire for their treating team to discuss their spiritual concerns with them. Therefore, in light of the study findings and the supporting literature, it may be prudent for treating teams to take an interest in the spiritual concerns of women with ABC, and to offer appropriate guidance and support to improve their wellbeing.

Most of the women in this study did not access many of the available services, except the oncology outpatient visit/counselling services. Some services that one would expect to be available for women with breast cancer, such as an oncology or palliative care ward, Look Good Feel Better programs, a wig and turban service, and transport services to the hospital/clinic were not available according to the women. This may be due to non-communicable diseases, such as breast cancer, not being given much attention in Ghana (Bosu, 2012). In countries that either lack the inclusion of specialised supportive care services, such as clinical psychology, dietetics, physiotherapy, occupational therapy and social work in their health systems, or are difficult to access, such as in the case of Ghana, supportive care remains largely the responsibility of medical and nursing professionals (Gray et al., 2002); hence, many of the women did not have access to these services. Paradoxically, some of the health services that are required to address the supportive care needs of the women are already available in Ghana; however, most of these services are not well structured and are limited in their capacities and operations which serve as barriers to their accessibility and utilisation.

#### 4.1. Strengths and limitations

To the best of our knowledge, this study is the first to use highly recognised and validated tools to comprehensively assess the needs of women with ABC in Ghana and as such contributes to a better understanding of their supportive care needs. However, a number of limitations must be acknowledged. The study employed a cross-sectional descriptive design; hence, the identified predictors of supportive care needs could not be confirmed. Future longitudinal studies are required to ascertain the causal relationships between the women's supportive care needs and their demographic characteristics to further explain the significant relationships identified. Moreover, the generalisability of the study findings is limited due to the use of a convenience sampling approach. The needs of women who seek cancer treatment from other health care centres were not captured, hence are not represented in the findings; their needs may be different from that of the study cohort. The study sites serve as the referral point for all women with breast cancer who come from the northern and some parts of the southern sector of the country, therefore the study sample may have been representative. There is a possibility that selection bias was introduced as eligible participants were identified by treating clinicians.

#### 5. Conclusion

Our findings demonstrate that women with ABC in Ghana have numerous and complex supportive care needs, particularly relating to health systems and information, financial matters, and spiritual issues. In spite of these numerous needs, most of the women did not access the available services to address their needs as they faced many barriers and challenges. Health care professionals are encouraged to listen to and understand the concerns of these women and to realise the importance of addressing their concerns to ensure they are assisted to manage their condition, and day-to-day lives, to maintain and/or improve their quality of life. The first step is to assess the needs of the women which could lead to a shared understanding of how best to support them whilst

considering, honouring, and respecting their wishes. The study findings highlight that assessment of the current services available to the women is essential to identify gaps in service provision that result in the supportive care and health service needs of the women not being met.

#### CRediT authorship contribution statement

**Cynthia P. Akuoko:** Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Writing – original draft. **Shirley Chambers:** Writing – review & editing, Supervision. **Patsy Yates:** Writing – review & editing, Supervision.

#### Declaration of interest

The authors have no funding or conflicts of interest to disclose.

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#### Appendix A. Supplementary data

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