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Willingness to Implement Narrative Communication Interventions: Mixed Methods Study Among Breast Cancer Patients and Survivors at the University College Hospital, Ibadan, Nigeria

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Abstract

Purpose: Globally, black women experience poorer breast cancer outcomes suggesting the need for effective health promotion approaches to increase perceived susceptibility and improve screening practices. Although narrative communication by patients or survivors is increasingly considered an effective approach for better breast cancer outcomes, there is limited information on its use in Nigeria. This study assessed the perception, willingness and generalized self-efficacy of breast cancer patients and survivors at the University College Hospital, Ibadan, to implement narrative communication interventions.

Material and Methods: This was a cross-sectional study, and a mixed-method convergent parallel design was utilized for data collection. Written informed consent was obtained from each study participant for in-depth interviews and a semi-structured questionnaire. Five patients were recruited for in-depth interviews and a semi-structured questionnaire was used to obtain data from 102 patients. Data were analysed using thematic analysis for qualitative data, and descriptive and inferential statistics for quantitative data.

Results: The mean age of the respondents was 49.3 ± 10.2 years. There was a good perception (97.1%) towards narrative communication interventions. Ninety-eight percent were willing to implement narrative communication interventions and 79.4% had a high generalized self-efficacy. Respondents' educational attainment was significantly associated with the generalized self-efficacy to implement narrative communication intervention programs ($P < .05$). Most of the in-depth interview participants opined that a pre-diagnosis discussion with a breast cancer patient or survivor would have increased their perceived susceptibility and motivation to screen.

Conclusion: This study highlights the potential of breast cancer patients and survivors as breast health educators, sharing their lived experiences to empower and motivate women on prevention and screening. Findings could guide the design of population-level, breast cancer prevention and screening interventions.

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Context Summary

Key Objective: To assess the perception, willingness and generalized self-efficacy of breast cancer patients and survivors at the University College Hospital, Ibadan to implement narrative communication interventions.
Knowledge Generated: Ninety-eight percent were willing to implement narrative communication interventions and 79.4% had a high generalized self-efficacy. The willingness of respondents to be trained as a breast cancer educator for awareness programme was high 97(95.1%). Majority of the interviewees expressed their interest in being trained on narrative communication as expressed in this quote:

> "I did not go to school[I am not educated] but I am willing to be trained [as a breast cancer educator]. I am very willing to learn more. but we have not seen anyone to lead or guide us on how to do it [narrative communication]" (Participant 2).

Introduction

Globally and in Nigeria, breast cancer (BC) remains the most prevalent cancer and the principal cause of cancer-related deaths among women.[1,2] At the beginning of 2020, the incidence of breast cancer increased to 2.3 million cases worldwide from 1 960 681 in 2017[2,3] which was 1.1 million as reported in GLOBOCAN 2002.[4] Low- and middle-income countries (LMIC) recorded the worst mortality-to-incidence ratios compared to high-income countries with 58% of deaths occurring in less developed countries.[5] While in upper-middle-income countries and high-income countries, the pooled mortality is 15.5 per 100 000 women and 10.2 per 100 000 women respectively, nonetheless, lower-middle-income countries have the highest pooled mortality rate of 20.3 per 100 000.[6] In Sub-Saharan Africa (SSA), the majority of breast cancer diagnoses occur at more than 10 years younger than those in western countries (mean age at diagnosis: 50 years in SSA vs 63 years in the United States) and in Nigeria, breast cancer now leads cervical cancer as the commonest female malignancy.[7]

Breast cancer diagnosis is classified into five stages- 0 - IV[8] that represent its progression; about 70%-90% of breast cancer cases present late in Nigeria[9] at an advanced stage where the cancer has begun to spread.[10] The persisting delay to seek medical attention, leading to a potential delay in diagnosis and treatment is due to multiple patient (socio-demographic, cultural and economic related factors) and health system (access to essential medicines and technologies, health system financing and workforce capacity) factors.[11-16] Although awareness programmes on breast cancer have increased, an inexplicable trend of persisting late presentation lingers with tertiary centres in Nigeria.[17] This trend may be an indicator of the dearth/poor effectiveness of population-level, educational interventions on breast cancer control in Nigeria.

For an improved breast cancer outcomes, several educational interventions have been proposed and implemented.[19-21] One of these interventions includes education by persons who have been diagnosed with breast cancer using narrative forms of communication including entertainment education, journalism, literature, testimonials and storytelling.[18,21] For example, a study was conducted among Spanish-speaking Latinas women who were randomly assigned to entertainment-education (E-E) narrative video, a nonnarrative educational video, and printed educational materials. It was found that E-E narrative participants' pretest to post-test difference in mammography self-efficacy was significantly higher when compared to the difference of the other two interventions.[22] These are emerging as important tools for cancer prevention and control. Narrative communication can influence outcomes in each of the two broad categories of pre-diagnosis (ie, prevention and detection) encapsulating overcoming resistance to cancer prevention and post-diagnosis (diagnosis, treatment, survivorship).[23]

Similar to findings from other published studies,[23,24] employing breast cancer patients/survivors as educators played a key role in the effectiveness of a breast cancer education program because they shared their own experiences with the audience.[20] Participants who took breast health education by trained breast cancer patients/survivors retained more breast cancer and breast self-examination (BSE) knowledge than those trained by the nurses.[25] Significant increases were noted in BSE skills, performance (and compliance) and self-efficacy. The art of telling vivid stories of their own experiences with cancer enabled survivors to appeal more to laypersons than health professionals. However, the study also reported barriers of survivors as educators, including being uncomfortable as educators, worrying about disclosing their disease, lack of time and issues related to their health.

The limited healthcare resources in Nigeria coupled with the paradoxical trend exhibited by the increasing breast cancer awareness and late presentation justifies the need to explore narrative communication by BC patients/survivors in LMIC settings such as Nigeria. However, there is limited literature on their willingness, ability and effectiveness as educators. In addition, what motivates one survivor, instead of another, to speak out publicly, is not well understood.[26] Therefore, we assessed the perception, willingness and generalized self-efficacy of BC patients and survivors to implement narrative communication interventions at the University College Hospital, Ibadan, Nigeria.

Methods

This was a cross-sectional study, and a mixed-method convergent parallel design was utilized for data collection. Data was collected using a semi-structured assessment tool and an in-depth interview guide. Both the quantitative and qualitative data collection occurred concurrently, and the reporting of this study conforms to COREQ guidelines.[27] This approach was adopted to aid the collection of different but complimentary data in the study site to enrich the interpretation of the results. A sample size was obtained for the study using Epi Info™ Version 7 with the following assumptions: expected frequency was at 50%, accepted margin of error at 5%, and population size at 110.[28] Ten percent was added to account for incompleteness, resulting in a sample size of 95.

Study Area

The study was conducted among breast cancer patients and survivors at the clinics of the Surgical and Radiotherapy Departments of the University College Hospital (UCH), Ibadan. This is a tertiary health facility with a 1000-bed capacity and provides chemotherapy, radiotherapy, psycho-oncology and palliative care to breast cancer patients.

Sampling Procedure

Breast cancer patients and survivors receiving treatment were recruited into the study using a total sampling technique at the clinics of the Surgical and Radiotherapy Departments of the University College Hospital (UCH), Ibadan. All breast cancer patients aged 18 and above were included in the study. Breast cancer patients with metastasis to the brain were excluded from this study.

Quantitative Component

Quantitative data were collected from 102 breast cancer patients and survivors by trained interviewers using a pretested, semi-structured interviewer-administered questionnaire from November 13th 2019 to February 16th 2020. The questionnaire was developed using information obtained from literature on the perception of breast cancer patients on narrative communication.[25] The tool was validated by a pre-test. The general self-efficacy scale was modified to measure patients' generalized self-efficacy.[29] A 14-item instrument was used to measure perception while a 11-item instrument was used to measure willingness. For both, a 3-point Likert scale was used in which 1 point was given to disagree, 2 points to agree, and 0 for undecided, reverse scoring was used for negatively worded questions. The 15-item generalized self-efficacy scale measured on a 4-point scale, 1 point was given to not at all true, 2 points to hardly true, 3 points to moderately true and 4 for exactly true. Scores below 50% were categorized as poor and above as good.

Qualitative Component

The in-depth interviews (IDI) were face-to-face, and participants were selected using purposive sampling technique based on characteristics such as those not in pain or with metastasis to the brain, to ensure we were not a burden of the critically ill patients at the clinics. The in-depth interview guide was used to interview five (5) breast cancer patients and survivors. The interview guide was adapted from tools used in a previous study which aligned with the objectives of this study.[20,22] The interviews were recorded on audiotapes and lasted an average of 35-40 min conducted in research rooms of the breast cancer treatment centres within the hospital which offered privacy. The interviews were conducted until data saturation was achieved. Before the interviews, the researcher explained the objectives of the study, assured them of confidentiality, and obtained permission to use a digital voice recorder. The interviews were facilitated by a moderator and a note taker.

Data Analysis

The quantitative data were entered into the statistical software Statistical Package for the Social Sciences (SPSS version 21). Data were analysed using descriptive statistics such as frequencies and mean (SD) and inferential statistics such as independent t-test was used to examine the association between socio-demographic variables and perception, attitude and generalized self-efficacy to implement NC.

The interview recordings were transcribed verbatim into word documents. The word files were uploaded into NVIVO version 12. To get familiar with the data, the researchers read the transcripts which aided the development of the coding guide. The coding guide was aligned with the questions and sections of the quantitative instrument, and a pre-reporting meeting was conducted to carefully examine the findings and ensure they were consistent with the research questions. Two data coders performed the coding, and the entire research team discussed the data to ensure its accuracy. The coded data was reviewed, incorrect codes were removed and redefined as needed. Thematic analysis was used and the inter-coder reliability was 82%, which was satisfactory.

Ethical Consideration

Ethical review and approval of the study were provided by the University of Ibadan/University College Hospital's Ethics Committee located at IAMRAT College of Medicine, University of Ibadan, Ibadan, Nigeria. The study was approved on 14^{th} October 2019, with the approval number UI/EC/19/0160. This approval was valid for one year, expiring on October 13th, 2020. Written informed consent was obtained from each study participant, and these were kept confidential. The researchers removed identifiers in the electronic data set and limited access to digital responses.

Results

The mean (SD) age of the respondents was 49.3 ± 10.2 years with a range of 28 and 75 years. Almost half (n = 48, 47.1%) had tertiary level education and the most (71.6%, n = 73) of the respondents were of the Yoruba ethnic background. Over two-thirds, (78.4%) were currently married and Christianity was the most prominent religion practiced by the respondents (73.5%). Most of the respondents were self-employed 63(61.8%), employed 26(25.5%) and unemployed 13(12.7%). Most of the respondents' spouses attained tertiary level education 55(55.6%) and are self-employed 55(55.6%). Some of the respondents were diagnosed as far back as 2006 and as recent as 2019 and 14(13.7%) had a family history of breast cancer. The above-described socio-demographic characteristics are presented in Table 1.

For IDI participants, the mean age was 42.2 ± 5.31 years. Most (60%) had secondary educational attainment. Most (n = 4, 80%) of the respondents were of the Yoruba ethnic background. Over two-thirds, (80%) were currently married. Most of the respondents were self-employed 2(40%), employed 2(40%) and unemployed 1(20%).

Table 2 shows the responses of the respondents regarding their perceptions towards narrative communication intervention programs implementation. Approximately, ninety-four per cent of the respondents agreed that a discussion between a breast cancer patient and women of reproductive age helps in preventing breast cancer. When respondents were asked if a prior discussion with a breast cancer patient would have helped prevent their cancer episode and if witnessing an awareness programme led by a cancer patient would have helped in detecting cancer early 88(86.3%) agreed to each question. The IDI participants also opined that this would aid decision-making on seeking care early as illustrated in these quotes:

> "When I noticed the lump in November 2018, it was so painful, I took to my husband's advice and stayed back home. Now my breast has ruptured. Had it been that I was in contact with a breast cancer survivor I would have taken a better decision" (Participant 3).

> "I would have come to the hospital earlier than I did if I have [had] a prior discussion with a BC patient. After I did my first test I ran away" (Participant 2).

The majority 86(84.3%) disagreed with the statement that a discussion with a breast cancer patient invades their privacy. The respondents opined (91.2%) that discussion with a breast cancer patient can help women take up preventive practices. Similar views were expressed by the IDI participants who stated that sharing their experiences in an awareness programme will improve screening practices and health-seeking behaviours. This view is encapsulated in these quotes:

Table 1. Socio-Demographic Characteristics of Respondents.

Variables	Frequency	Percentage
Age		
≤39	21	20.6
≥40	81	79.4
Mean ± SD	49.3 ± 10.2	
Highest level of education		
No formal schooling	5	4.9
Primary school completed	20	19.6
Secondary school completed	29	28.4
College/university completed	48	47.1
Ethnic group		
Yoruba	73	71.6
Igbo	15	14.7
Others[a]	14	13.7
Religion		
Christianity	75	73.5
Islam	27	26.5
Employment status		
Employed	26	25.5
Self-employed	63	61.8
Unemployed	13	12.7
Marital status		
Never married	3	2.9
Currently married	80	78.4
Not married	19	18.6
Spouse's highest level of education		
No formal schooling	3	3.03
Primary school completed	10	10.10
Secondary school completed	31	31.31
College/university completed	55	55.56
Spouse's employment status		
Employed	30	30.30
Self-employed	55	55.56
Unemployed	14	14.14
Year diagnosed		
2006	1	1.0
2015	4	3.9
2016	4	3.9
2017	21	20.6
2018	26	25.5
2019	49	25.1
Family history of breast cancer		
Yes	14	13.7
No	88	86.3

[a] Other ethnicities include Cross River, Delta, Edo, Efik, Ibibio, Kogi, and Tiv.

> "If I share my cancer experience, It will help women have[develop] the habit of checking their breast from time to time. If they

Table 2. Respondents' Perception Towards the Narrative Communication Intervention Programs.

	Agree		Disagree		Undecided	
Variable	Freq	*P* (%)	Freq	*P* (%)	Freq	*P* (%)
A discussion between a breast cancer patient and women of reproductive age is helpful in preventing breast cancer	96	94.1	2	2.0	4	3.9
A prior discussion with a breast cancer patient would have helped me prevent this cancer episode	88	86.3	0	0	14	13.7
If I had witnessed an awareness programme led by a cancer patient I would have detected my cancer early	88	86.3	8	7.8	6	5.9
Patients' breast cancer episode discussion cannot help women carry out routine checkups	16	15.7	86	84.3	86	84.3
Discussion with a breast cancer patient can help women take up preventive practices	93	91.2	7	6.9	2	2.0
Witnessing an awareness programme by a breast cancer patient would make one take healthy decisions than the usual breast cancer awareness programme without a breast cancer patient	93	91.2	5	4.9	4	3.9
Witnessing an awareness programme by a breast cancer patient would capture the severity of breast cancer than the usual breast cancer awareness programme without a breast cancer patient	90	88.2	8	7.8	4	3.9
I am certain sharing my ordeal in an awareness programme will increase the perceived severity	88	86.3	7	6.9	7	6.9
Sharing my experience of breast cancer will capture the attention of the audience	93	91.2	7	6.9	2	2.0
If I know my cancer experience can help others prevent the condition, I will talk about it	93	91.2	7	6.9	2	2.0
Having breast health education by breast cancer patients prevents one from being reluctant to report breast problem	91	89.2	8	7.8	3	2.9
Discussing my breast cancer experience for awareness invades my privacy	8	7.8	86	84.3	16	15.7
Patients' breast cancer episode discussion cannot help women present breast cancer early	2	2.0	93	91.2	7	6.9
Patients' breast cancer episode discussion can help women start treatment early	81	79.4	14	13.7	7	6.9

> notice anything, they will be able to come to the hospital on time" (Participant 5).

> "It [experience sharing by cancer patient/survivor during educational sessions] will be intense such that those who do not examine their breast will start to do so, those who have already noticed the abnormality but unconcerned will seek healthcare service timely. Certainly no doubts" (Participant 4).

More than half (88.2%) agreed that witnessing an awareness programme by a breast cancer patient would convey more, the severity of breast cancer than the usual breast cancer awareness programme by others. More than half (86.3%) were certain sharing their ordeal in an awareness programme will increase the perceived severity of breast cancer. This view is supported by a quote from the IDI participants who expressed that breast cancer educational sessions by survivors will be more effective at increasing the perceived severity than those delivered by health professionals. They also noted the complementary roles of educational sessions by health professionals and survivors as expressed below:

> "The one [educational session] with a BC patient is more intense than health professional. They will know it is severe. One part [a health professional] knows the science of the disease, another [the BC patient] has the experience. These two will work hand in hand" (Participant 2).

> "What you experience as a health professional is different from what I experience. A discussion with me would increase the [an individual's perception of the] severity of breast cancer. From time to time it will come back to their mind because that person[who discussed it] has experienced it." (Participant 1).

The important role of narrative communication on the utilization of treatment was also expressed as reflected in this quote *"If women have a discussion with a BC patient or survivor they will know that the earlier treatment is commenced the better the outcome, people will not run away from the treatment"* (Participant 3).

Table 3 shows the responses of respondents on their willingness to implement narrative communication programs. Below are the summaries of what they said:

> "I desire to share my experience so that other women can take the necessary steps on time. Many people have misconceptions that concoction are effective. Some think the combination [of conventional and complementary and alternative medicine] will work better. But all of it is a waste of money and threats to one's life" (Participant 5).

Majority of the interviewees had concerns with identity disclosure during narrative communication programs as illustrated in these quotes:

> "If my voice can be changed in such a way that people will not know who it is or whether I am the one, I will be so glad. I am so

Table 3. Respondents' Willingness Towards Implementing Narrative Communication Intervention Programs.

	Agree		Disagree		Undecided	
Variable	Freq	*P* (%)	Freq	*P* (%)	Freq	*P* (%)
I am willing to share my breast cancer experience with women in an awareness program	89	87.3	8	7.8	5	4.9
I am willing to share my breast cancer experience for awareness purpose at my current disease state privately	64	62.7	8	7.8	30	29.4
I am willing to share my breast cancer experience for awareness purpose at my current disease state publicly	31	30.4	7	6.9	64	62.7
I am willing to share my breast cancer experience for awareness purpose after my treatment privately	75	73.5	4	3.9	23	22.5
I am willing to share my breast cancer experience for awareness purpose after my treatment publicly	53	52.0	6	5.9	43	42.2
I am confident sharing my breast cancer experience in public will reduce stigma of being terminally ill	91	89.2	7	6.9	4	3.9
I am incapable of being an educator because of health concerns	16	15.7	3	2.9	83	81.4
I am confident sharing my experience for education purpose will capture the attention of the audience	88	86.3	8	7.8	6	5.9
I can input being a breast cancer educator in my schedule	87	85.3	9	8.8	6	5.9
I am willing to be trained as a breast cancer educator for awareness program	97	95.1	3	2.9	2	2.0
I am uncomfortable participating in an awareness program as a breast cancer educator	6	5.9	11	10.8	85	83.3

> willing to share my lived experience. My husband is no longer supportive. so, I would not want to do anything whereby he will send me packing out of the house" (Participant 3).
>
> "I will say everything, I can open it [site of mastectomy] for them to see. But if it is in prints, I wouldn't want them to show my face" (Participant 1).
>
> "I can do all- publicly or privately and through any medium [provided], it is not in my neighbourhood. I live in Lagos, so I can do it in Ibadan. I just can't do it in Lagos" (Participant 2).

However, one of the participants expressed that she had no concern with identify disclosure because she had seen important personalities share their lived experiences as shown below:

> "If the situation warrant I mention my name or they see my face I have no restrictions- there is nothing uncomfortable in it for me. We all have seen important personalities who have breast cancer and have come out publicly to talk about it without feeling sky. For example, the first lady of Ondo State. She openly removed her clothes when left alone with women" (Participant 4).

A participant urged that narrative communication by survivors should be introduced carefully and gradually in order not to overwhelm the patients, furthermore, support from significant others is critical and will motivate them to engage in narrative communication as illustrated below:

> "I will advise the organizers take it gradually so the breast cancer patients are not overwhelmed in sharing their lived experience, as people support them they will be motivated to continue" (Participant 5).

Majority of the interviewees expressed their interest in being trained on narrative communication as expressed in this quote:

> "I did not go to school [I am not educated] but I am willing to be trained [as a breast cancer educator]. I am very willing to learn more. but we have not seen anyone to lead or guide us on how to do it [narrative communication]" (Participant 2).

Table 4 shows the responses of respondents on generalized self-efficacy for implementing narrative communication intervention programs. Respondents had a good self-efficacy with majority responding 'Exactly true' and 'Moderately true' to statements pertaining to solving difficult problems if they try hard enough 53(52.0%); 46(45.1%), facing opposition 29(28.4%); 67(65.7%), sticking to aim and achieving goals 38(37.3%); 54(52.9%), dealing efficiently with unexpected events 31(30.4%); 56(54.9%), solving most problems by investing the necessary effort 34(33.3%); 54(52.9%), remaining calm when facing difficulties because they can rely on my coping abilities 43(42.2%); 44(43.1%) and usually handle whatever comes their way 43(42.2%); 42(41.2%) respectively. Below are the summaries of what they said:

> "Nothing can stop me when I want to achieve a goal. Not even sickness. Nothing can stop me. Even if I am worried, I try to find solutions. If I am confronted with something bigger than me, I let go. I don't let things disturb me too much- not even when someone offends me" (Participant 1).
>
> "I am doing something that will help others. Nothing can stop me from achieving my goal. If I am not encouraged, I really desire to do this thing. I want people to know this disease really exists and treatment yields positively if started early. It is only the financial aspects that can discourage me because I don't have a source of income" (Participant 2).
>
> "I'm not easily discouraged, but I am the scary type. I worry a lot. But discouraged- No! I learn to encourage myself" (Participant 1).

However, respondents had low generalized self-efficacy with breast screening practices knowledge. Responses of

Table 4. Respondents' Generalized Self-Efficacy Towards Implementing Narrative Communication Intervention Programs.

Variable	Exactly true		Moderately true		Hardly true		Not at all true	
	Freq	*P* (%)	Freq	*P* (%)	Freq	*P* (%)	Freq	*P* (%)
I can implement narrative communication for breast cancer education program because:								
I can always manage to solve difficult problems if I try hard enough	53	52.0	46	45.1	1	1.0	2	2.0
If someone opposes me, I can find the means and ways to get what I want	29	28.4	67	65.7	6	5.9	0	0
It is easy for me to stick to my aims and accomplish my goals	38	90.2	54	9.8	9	9.8	1	9.8
I am confident that I could deal efficiently with unexpected events	31	30.4	56	54.9	12	11.8	3	2.9
Thanks to my resourcefulness, I know how to handle unforeseen situations	39	38.2	44	43.1	16	15.7	3	2.9
I can solve most problems if I invest the necessary effort	34	33.3	54	52.9	12	11.8	2	2.0
I can remain calm when facing difficulties because I can rely on my coping abilities	43	42.2	44	43.1	13	12.7	2	2.0
When I am confused with a problem, I can usually find several solutions	40	39.2	48	47.1	12	11.8	2	2.0
If I am in trouble, I can usually think of a solution	26	25.5	32	31.4	19	18.6	25	24.5
I can usually handle whatever comes my way	43	42.2	42	41.2	14	13.7	3	2.9
Generalized self-efficacy assessed based on knowledge on breast cancer education								
I am certain preventive practice of BSE entails daily checking of the breast	73	71.6	16	15.7	1	1.0	12	11.8
I am certain preventive practice of BSE is checking of breast by one's self	70	68.6	19	18.6	2	2.0	11	10.8
I am certain preventive practice of CBE is a monthly routine check-up	52	51.0	36	35.3	4	3.9	10	9.8
I am certain preventive practice of ultrasonography is an annual routine check-up	4	3.9	3	2.9	9	8.8	86	84.3
I am certain preventive practice of mammogram is a check for females from 40 years and above	7	6.9	4	3.9	8	7.8	83	81.4

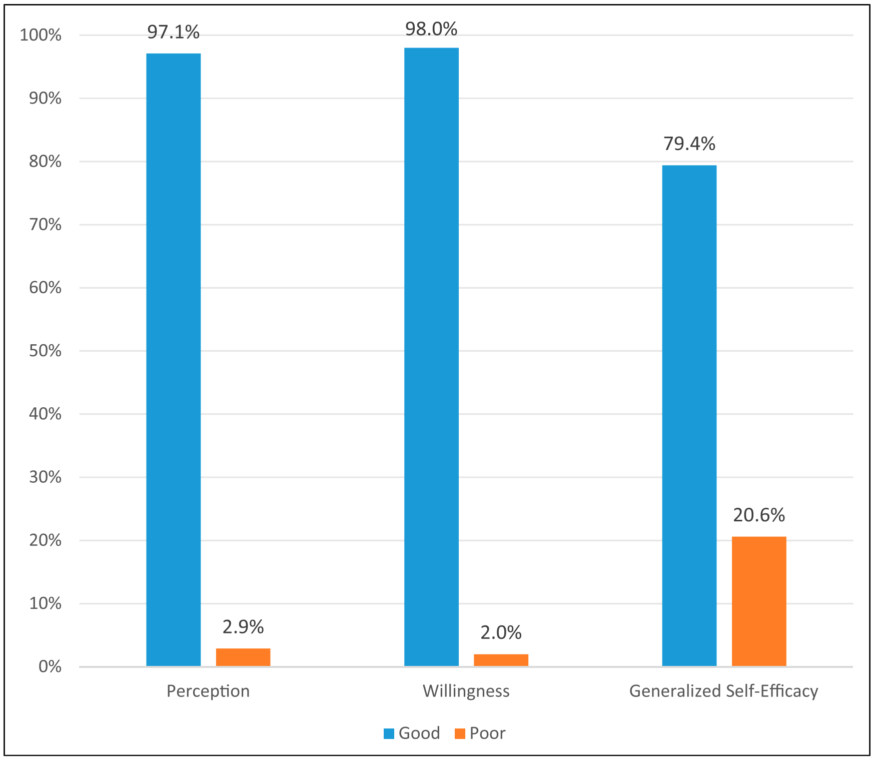

Figure 1. Overall Perception, Willingness and Self-Efficacy Towards Implementing Narrative Communication Intervention Programs.

'Exactly true' and 'Moderately true' were given to statement that BSE is a daily check 73(71.6%); 16(15.7%), CBE is a monthly check 52(51.0%); 36(35.2%), ultrasonography is an annual check 4(3.9%); 3(2.9%) and mammogram is a check for female 40 years and above 7(6.9%); 4(3.9%). Overall, 81(79.4%) had good self-efficacy score. The following quotes summarize their responses.

This finding aligns with the opinions of the interviewees who expressed low knowledge about breast cancer control measures as summarized in these quotes:

> "I don't know much. Every time I come to the clinic, I don't have the opportunity to listen to the lectures. I am always looking for a means to get the money for my chemotherapy and get the drugs" (Participant 3).
>
> "I know about BSE, it is done with the fingers and should be done before menstruation and 5 days after menstruation. I don't know any asides from this" (Participant 2).

Figure 1 shows overall perception, willingness and generalized self-efficacy towards implementing narrative communication intervention programs. Respondents 99(97.1%) had a good perception, 81(79.4%) had a good self-efficacy and overall 100(98%) were willing to implementing narrative communication intervention programs.

Recommended Strategies to Deliver Narrative Communication Interventions

A smaller proportion of respondents 49(48%) suggested an audio-visual medium as a means to share breast cancer experience as compared with audio 97(95.1%) and prints 56(54.9%). Below are the summaries of what they said:

> "I would prefer I audibly (with my voice only) share my lived experience. I can also share in prints" (Participant 5).
>
> "I am willing to go for audio, people can't know I'm the one. If it is visual, it should be only in an audience I am not known. I can show the scar. But if in prints, I wouldn't want my face shown. I can have the site in prints without my face" (Participant 1).

A larger proportion of respondents suggested youths 44(43.1%) to be the target and recipients of breast education anchored by breast cancer patients or survivors as compared with teenagers 36(35.3%) and adults 22(21.6%). Below are the summaries of what they said:

> "I think it is best we start from the people in the university- the youth. I will let them know without seeking care early, I would have died. But I need an avenue to start telling people my cancer experience" (Participant 2).

> "I am most concerned about adolescents and young adult females. Because this young women with BC, how will they breastfeed their children? I will tell them how my husband misled me I didn't pick up the results of the test I did." (Participant 3).

Table 5 shows that educational attainment of respondents was associated with good perception, high generalized self-efficacy and high willingness to implement narrative communication interventions. There was no significant difference between the age religion, family history of respondents and perception; this is the same with generalized self-efficacy. However, there was a significance between the educational attainment of respondents and perception ($P = .007$), willingness ($P = .001$) and generalized self-efficacy ($P = .014$). Also, there was a significance between the age ($P = .033$), educational attainment ($P = .001$), religion ($P = .010$) and willingness.

Table 5. Association Between Socio-Demographic Characteristics and Perception, Willingness and Generalized Self-Efficacy.

Socio-demographic characteristics	Variables	Mean ± SD	P-value
Perception			
Age	Below 39	25.52 ± 4.49	.795
	Above 40	25.67 ± 3.77	
Educational attainment	No formal schooling	23.40 ± 4.34	.007*
	Primary school completed	23.75 ± 4.47	
	Secondary school completed	25.24 ± 4.76	
	College/university completed	26.90 ± 2.41	
Religion	Christianity	25.92 ± 3.79	.301
	Islam	24.85 ± 4.19	
Family history of breast cancer	Yes	24.50 ± 4.27	.276
	No	25.82 ± 3.84	
Willingness			
Age	Below 39	19.86 ± 1.53	.033*
	Above 40	18.99 ± 2.76	
Educational attainment	No formal schooling	16.20 ± 3.83	.001*
	Primary school completed	17.90 ± 3.35	
	Secondary school completed	19.28 ± 2.48	
	College/university completed	19.94 ± 1.59	
Religion	Christianity	19.43 ± 2.30	.010*
	Islam	18.44 ± 3.15	
Family history	Yes	18.71 ± 2.61	.517
	No	19.24 ± 2.57	
Generalized self-efficacy			
Age	Below 39	36.19 ± 7.97	.386
	Above 40	37.05 ± 7.07	
Educational attainment	No formal schooling	41.20 ± 5.72	.014*
	Primary school completed	39.90 ± 6.33	
	Secondary school completed	37.76 ± 6.86	
	College/university completed	34.62 ± 7.34	
Religion	Christianity	36.25 ± 7.09	.942
	Islam	38.59 ± 7.47	
Family history of breast cancer	Yes	36.86 ± 7.83	.677
	No	36.88 ± 7.18	

*Significant.

Discussion

The purpose of this study was to assess the perception, willingness and generalized self-efficacy of BC patients and survivors to implement narrative communication interventions for breast cancer education in Nigeria. The perception, willingness and self-efficacy of the respondents were high, implying they may have the potential to share their lived experiences and implementing narrative communication programs. This correlates with studies on the willingness of breast and cervical cancer patients to serve as educator.[25,26,30] Leveraging these attributes can be valuable in breast education programs.

Embarrassment or stigma was identified as a challenge with identity disclosure. Participants' preferred to hide their identity and share their experiences through audio-visuals and prints and there was disinterest in sharing their experiences through live interactions with large audience whereas, audio and smaller groups were more acceptable. This is associated with stigma and in previous studies, this constitutes a barrier to breast and cervical cancer screening, early diagnosis as well as treatment seeking for symptomatic women who limit diagnosis disclosure to ward off gossips that breeds isolation and verbal abuse[31]; Stigma has also been identified in other cancers and HIV[32] and highlights the need for interventions to empower cancer patients and survivors as a strategy to address pervasive stigma which limits identity disclosure. Providing patients and survivors the opportunity to contribute to the design of these interventions will be valuable and as such, a bottom-top approach is recommended to enable the successful implementation of a narrative communication intervention.

Although identity disclosure was found as a barrier, respondents were willing to tell their lived experiences and confident that by showing the sites of their breast cancer surgeries, awareness could be raised and positive preventive and screening behaviours promoted. This correlates with a study of disease disclosure patterns among breast cancer patients were a higher disease disclosure was predicted among those with greater disease severity, optimism and stress-related growth.[33] Findings of a study,[34] suggest that breast cancer severity may act as facilitator of screening, perhaps this may also facilitate sharing lived experiences. Similarly, in the experiences of Chinese young female one of the reasons for their choices to disclose their diagnosis was for others to take precautions.[35]

The independent variables of age, educational attainment, religion, and family history of breast cancer were not significantly associated with willingness and perceived self-efficacy. This is contrary to a study which found that breast cancer disclosure patterns were higher in younger women with disclosure-oriented attitudes.[33] Another study showed that being employed influenced self-disclosure of breast cancer diagnosis to family, friends, colleagues and bosses/managers.[36] Educational attainment was significantly associated with willingness, perception and self-efficacy. Respondents who had completed tertiary education from a college or university were more willing, had good perceptions and perceived self-efficacy to implement narrative communication interventions. Educational attainment remains a powerful tool; respondents who have educational attainment below tertiary level had concerns about how their lack of education could affect their abilities to share their lived experience and this may be considered in the selection of patients/survivors to be empowered.

Majority of the respondents expressed poor knowledge of breast cancer issues; similar findings have been documented among breast and prostate cancer patients.[37] Therefore, training is essential prior to breast health education anchored by BC patients and survivor. The training is required to adequately improve prospective anchors' knowledge of breast cancer signs, symptoms, stages and prognosis and correct screening practices. Also, there is a need to focus more resources on communicating the clinical features and risk factors of breast cancer. Experience shared by breast cancer patients or survivors can help increase the perceived severity and promote health seeking behaviours.

The implementation of narrative communication for increased breast cancer prevention lays largely on the availability of organizations to pioneer the initiative. At the moment, there a limited resources available for patients/survivors to take the course of sharing their lived experiences. However, the availability of government and non-governmental organizations will fuel the implementation.

This study had some limitations, the small sample size and sample technique limits the ability to generalize the results to a larger population. The reduced number of participants also lowers the statistical power, potentially increasing the risk of sampling bias and decreasing the accuracy of the estimates. Also, the cross-sectional design of the study introduces a potential risk of selection bias and information bias. Nonetheless, the study assessed and confirmed that patients and survivors were willing, had good perception and high level of efficacy to implement narrative communication. To the best of our knowledge, this study is the first to report the possible use of narrative communication within the socio-cultural context of Nigeria.

Conclusions

The study has demonstrated that majority of breast cancer patients/survivors are willing to serve as educators implementing narrative breast health programmes through varying approaches - audio, visual and prints - complying with the needs of each individual. An integrated approach involving all stakeholders in providing a platform for narrative communication may promote adaptive breast cancer behaviours. Hence, there is need to provide evidence for the effectiveness of this initiative through feasibility and pilot studies. Also, to enhance the generalizability of the use of narrative communication, future research should consider expanding the sample size to better represent the broader population. The study's results, due to the limited sample size, may not fully reflect the population as a whole. A larger, more diverse sample will provide stronger statistical power and allow for more robust conclusions that are applicable to a wider demographic.

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Author Contributions

Authors (OAO, MMO and OSA) conceptualized the study. All authors contributed to the development of the data charting process, data extraction and writing first draft of the manuscript. All authors read and approved the final manuscript.

Declaration of Conflicting Interests

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Ethical Statement

Ethics Approval

Ethical review and approval of the study were provided by the University of Ibadan/University College Hospital's Ethics Committee located at IAMRAT College of Medicine, University of Ibadan, Ibadan, Nigeria. The study was approved on 14th October, 2019, with the approval number UI/EC/19/0160. Written informed consent was obtained from each study participant, and these were kept confidential.

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Supplemental Material

Supplemental material for this article is available online.

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