

Assessment On Awareness Of Chemotherapeutic Regimen And Its Side Effects On The Quality Of Life Of Breast Cancer Patients In Selected Hospital In South East Nigeria: An Institute-Based Study

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Abstract—Report has it that breast cancer patients are not quite aware of chemotherapy side effects. In Southeastern Nigeria breast cancer patients are often ill-prepared to cope with the distress that follows chemotherapy; which means that the patients may not know what to expect and may as well not do what ought to be done to improve their quality of life. The purpose of the study was to ascertain the awareness of chemotherapy and its perceived side effects on the quality of life of breast cancer patients in South East Nigeria. The present study was a descriptive cross-sectional study which conducted at three tertiary institutions in the selected hospitals in South-East Nigeria. The institutions selected for the study were; Imo State University Teaching Hospital Orlu, Abia State University Teaching Hospital, Aba, and Nnamdi Azikiwe University Teaching Hospital Nnewi Anambra State, from January 2023 to April 2023. Multi stage sampling technique was adopted, Two hundred and sixty four breast cancer patients were recruited. The participants were provided with a validated 81 questionnaire of which 28 was self developed and 53 standardized, divided into five different categories; socio demographic profile, awareness, side effect, quality of life and patient perception. frequency, percentages, means and standard deviation and Chi-Square were calculated to do data analysis using SPSS version 23.0. Multiple Regression analysis which is an inferential statistics was used to test hypotheses at a significance level of 0.05. The findings of the study revealed that most of the respondents 205(77.65%) have good knowledge of chemotherapy, 45(17.05%) have excellent knowledge while 14(5.30) have poor knowledge of chemotherapy. The factors influencing the awareness of chemotherapy are socio demographic factors), beliefs, personal attitudes, acculturation, access to health, social support, social influence and culture Norms. Also the factors influencing awareness of chemotherapy side effects were marital status, education and was statistically significant at ($p < 0.02$, 0.006 and 0.000). The respondents are aware of the side

effects which cancer patients experience while taking cancer medications. The study further revealed that 15.9% of the respondents had an excellent quality of life in the past week, 78.0% have good quality of life in the past week while 6.1% have very poor quality of life in the past week. Socio-demographic characteristics have significant ($p < 0.000$, and 0.000) influence on the quality of life of breast cancer patients in Southeast, Nigeria. The respondents are aware that chemotherapy has side effects among breast cancer patients in selected health facilities in Southeast Nigeria. It was recommended that healthcare providers should provide more information about chemotherapy to patients.

Keywords—Cancer; patient; chemotherapy; breast, quality of life

Introduction

Cancer is a leading cause of morbidity and mortality in developed countries (1,2) Cancer has also been found out to be one of the leading causes of death worldwide, accounting for nearly 10 million deaths in 2020 (3). Quality of life and chemotherapy for cancer patients and its associated side effects, and their management are topical issues in oncology practice. They are matters of discourse in various parlances because they are intertwined with cumulative effects that impact the health of patients. Quality of life which has to do with feelings or perceptions of people about current experiences and situations in their lives significantly affects wellbeing in general. The way an individual considers his or her health, comfort, or happiness in relation to interventions and socio-cultural contexts influences actions and decisions that are eventually taken. In other words, a feeling about one's life (which is conceptually referred to as quality of life, QOL) is a fundamental concept in every aspect of human existence. Based on its essence, various attempts are made to describe, define or represent the concept in an adequate manner. As (4) Investopedia (2023) points out, quality of life is a highly subjective measure of happiness that is an essential component of many financial decisions. Quality of life factors vary

depending on personal preferences but most often include an individual's material situation, health, safety, family life, satisfaction with work, and free time. There is no single and unified definition of the quality of life but many that seek to describe this phenomenon as well as possible. The (5) Oxford Dictionary (2023) defines quality of life as the standard of health, comfort, and happiness experienced by an individual or group. It is also captured as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (6). These definitions of QOL show that it is a concept that has links with all spheres of mankind be it social, financial, illness or treatment. It also implies that the meaning of quality of life cannot be the same for everybody. Consequent on the above, quality of Life is an issue that is often investigated in health care. Its interest is because QOL is associated with various health variables, and also an important outcome of health conditions. The things that interfere or affect quality of life are diverse. (7) Lavdaniti et al., reported that the Quality of life is affected by factors such as age, menopausal status, and previous therapy. For patients, the factors affecting their QOL are largely case-dependent. Among cancer patients however, factors that negatively impact their QOL include the disease itself, the adopted treatment and the duration of illness (8). Search for the meaning of life after a diagnosis of cancer is made also another factor that positively affects the quality of life of cancer patients.

Breast cancer like other types of cancers has various treatment modalities including chemotherapy which is regarded as the main therapy for breast cancer and has greatly improved the survival rates of the sufferers (9). However, chemotherapy is associated with various discomfiting side effects that patients have to contend with. Such side effects are nausea and vomiting, hair loss, fatigue, among others. The trouble from side effects of chemotherapy can be significant enough to hamper the quality of life of breast cancer patients where it affected their emotional functioning, sexual functioning, and financial difficulties (10). The feeling of poor quality of life among the patients becomes more heightened if the patients do not have adequate awareness about chemotherapy-related side effects and/or their tendency to reduce their quality of life. Based on the foregoing, the researcher considered it apt to ascertain the awareness of chemotherapy and its side effects as it related to the quality of life of breast cancer patients in the Eastern section of Nigeria.

Materials and Methods

Study design and setting:

This study was a descriptive cross-sectional study was conducted at South-East Nigeria. The institutions selected for the study were; Imo State University Teaching Hospital Orlu, Abia State University Teaching Hospital, Aba and Nnamdi Azikiwe

University Teaching Hospital Nnewi Anambra State, from January 2023 to April 2023

Study participant and sampling

Two hundred and sixty four breast cancer patient who were female, diagnosed with breast cancer and receiving chemotherapy in the selected hospitals, who were visiting oncology outpatient department were recruited after giving explanation about the study. Written informed consent was obtained from each study participant and anonymity and confidentiality of each study participant was maintained during the study. Ethical approval for this study was obtained from the Institutional Ethical Committee (IMSU/COM/REC/1). Cancer patient diagnosed with breast cancer but not on chemotherapy, who were too sick to participate and not willing to be included from the study

Data collection tool and technique

Data collection tools consist of a total of 81 items which were included in a total of 5 sections. Section- I included questions related to socio-demographic profile of study participants. Section- II included questions related to awareness, Section- III included questions related to side effect, and Section- IV included questions related to quality of life (QOL). Scoring criteria for awareness, knowledge ranged from 5% poor knowledge, 77% good knowledge, awareness of chemotherapy side effect was 2.6 of which values lower than 2.5 was the criterion mean, quality of life awareness had a grand mean of 2.5

Data analysis was done using IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp. IBM Corp. Written informed consent was obtained from each study participant after proper explanation about the study. The questionnaires were available in English language alone. The interviewees were assured of the confidentiality of the data and that this would have no impact on their treatment. Socio-demographic profile was analyzed using mean, frequency, and percentage. Association between socio-demographic variables and awareness, and quality of life was determined using Chi- square test at level of 0.05.

Results

Socio demographic profile of patients

The analysis on table 1 which was carried out to assess the socio-demographic characteristics of the study participants revealed that most of the respondents 125(47.4%) are between 31 – 42 years. 156(59.1%) are Married while 70(26.5%) are single. Most of the respondents 120(45.4%) have tertiary education followed by secondary education 101(38.3%). The analysis of the parity further revealed that most of the respondents 83(31.4%) have 6 and above.

The analysis on the occupation further revealed that most of the women 103(39.0%) are business

women. Most of the respondents 236(89.4%) are Christians while 14(5.3%) are traditional religion. Most

of the respondents 199(75.4%) are Urban dwellers while 65(24.6%) dwell in Rural areas.

Table 1: Socio-demographic Characteristics of Study participants

Variable	Frequency (n=264)	Percentage (%)
Age		
Below 20 years	12	4.6
21-30 years	47	17.8
31-42 years	125	47.4
51-60 years	63	23.9
60 years and above	17	6.4
Marital status		
Divorced	16	6.1
Married	156	59.1
Single	70	26.5
Widowed	22	8.3
Educational Level		
No Formal education	24	9.1
Primary education	19	7.2
Secondary education	101	38.3
Tertiary education	103	39.0
Number of Children		
4-5	47	17.8
6 and above	83	31.4
None	53	20.1
One only	24	9.1
1-3	57	21.6
Occupation		
Business woman	103	39.0
Civil servant	47	17.8
Farmer	21	8.0
Full housewife	12	4.6
Others specify	20	7.6
Seamstress	13	4.9
Trader	48	18.2
Religion		
Traditional Religion	14	5.3
Atheist	5	1.9
Christianity	236	89.4
Islam	3	1.1
Other specify	6	2.3
Residence		
Rural	65	24.6
Urban	199	75.4
Total	264	100.0

Level of the awareness of chemotherapy among breast cancer patients in selected health facilities

The analysis on table 2 which was carried out to assess the level of awareness of chemotherapy among breast cancer patients in selected health facilities in Southeast revealed that most of the respondents 205(77.65%) have good knowledge of chemotherapy, 45(17.05%) have excellent knowledge while 14(5.30) have poor knowledge of chemotherapy.

Table 2

Variable	Frequency	Percentage
Poor Knowledge	14	5.30
Good Knowledge	205	77.65
Excellent Knowledge	45	17.05
Total	264	100.0

Note:

0-25% (Very poor knowledge), 26-50% (Poor knowledge), 51-75% (Good knowledge),

76% and above (Excellent Knowledge)

Factors Influencing Awareness of Chemotherapy

The criterion mean for this study is 2.5. Hence, weighted mean response equal to or above the criterion mean (2.5) indicates acceptance region whereas weighted mean response below the criterion mean (2.5) denotes rejection region. The analysis on table 3 which seeks to ascertain the factors influencing awareness of chemotherapy among breast cancer patients in selected health facilities in Southeast shows a grand mean of 3.67 which

exceeds the criterion mean of 2.5 which shows that the respondents accepted the items as the factors influencing awareness of chemotherapy. Specifically, the mean values of the items are above the criterion mean (i.e 4.00, 4.00, 3.56, 3.09, 4.00, 2.90, 4.00, 3.82 > 2.5) which shows that the factors influencing the awareness of chemotherapy are sociodemographic factors (eg, age, education, marital status, ethnicity and parity etc), beliefs, personal attitudes, acculturation, access to health, social support, social influence and culture norms.

Table 3: Factors Influencing Awareness of Chemotherapy (n = 264)

S/N	Factors Influencing Awareness of Chemotherapy	SA 4	A 3	D 2	SD 1	Total	Mean	Remark
1	Sociodemographic factors (eg, age, education, marital status, ethnicity and parity among others)	264	0	0	0	1056	4.00	Agreed
2	Beliefs	264	0	0	0	1056	4.00	Agreed
3	Personal attitudes	148	116	0	0	940	3.56	Agreed
4	Acculturation	97	104	52	11	815	3.09	Agreed
5	Access to health	264	0	0	0	1056	4.00	Agreed
6	Social Support	72	99	88	5	766	2.90	Agreed
7	Social influence	264	0	0	0	1056	4.00	Agreed
8	Culture Norms	217	47	0	0	1009	3.82	Agreed
Grand Mean							3.67	Agreed

Key: Criterion Mean = 2.5

SA= Strongly Agree

A= Agree

D= Disagree

SD= Strongly Disagree

Side Effect of Chemotherapy

The analysis on *table 4* revealed that the respondents are aware that chemotherapy side effects among breast cancer patients in selected health facilities in Southeast Nigeria. The respondents are aware that you can ask your caregiver for details of the cancer medications you are taking, they are aware of the side effects which cancer patients experience while taking cancer medications.

They agreed that taking cancer medications can make you feel tired a lot of the time or get tired very easily doing everyday tasks, Hair loss is a common side effect of taking cancer medications even though it does not happen to everyone, taking cancer medications lowers your amount of blood, taking cancer medications can sometimes make the mouth to feel sore and irritated, after taking cancer medications for a while, you may lose your appetite, some cancer medicines can cause temporary changes to your skin (e.g. itching, dry, patches),

taking cancer medications can make it difficult for you to fall asleep or you may wake up in the middle of the night and cannot get back to sleep, while taking cancer medications, many people may temporarily lose interest in sex, you may have stool more than normal (diarrhea) or not able to stool as before (constipation) a few days after you begin taking cancer medications, are aware that side effects of cancer medications can make you think of life as miserable, are aware that the quality of life is affected by the cancer medications, are aware that the way you express your state of mind due to your health or your experiences with the medications refers to quality of life.

The respondents rejected that taking cancer medications will make you feel sick and want to vomit or really sick and vomit as well, taking cancer medications makes you to become more likely to get infections and be seriously ill, taking cancer

medication can make you easily bleed from nose and mouth, after taking cancer medications for some time, some people may have problems with concentration,

or remembering things, etc. are chemotherapy side effects among breast cancer patients in selected health facilities in Southeast Nigeria.

Table 4: Side Effect of Chemotherapy

Side Effects	Responses (%)				Mean
	VA (4)	A (3)	NQA (2)	NAAA (1)	
Are you aware that you can ask your caregiver for details of the cancer medications you are taking?	65 (24.6)	87 (33.0)	74 (28.0)	38 (14.4)	2.7
Are you aware of the side effects which cancer patients experience while taking cancer medications?	57 (21.6)	91 (34.5)	59 (22.4)	57 (21.6)	2.6
Taking cancer medications can make you feel tired a lot of the time or get tired very easily doing everyday tasks	102 (38.6)	87 (33.0)	53 (20.0)	22 (8.3)	3.0
Taking cancer medications will make you feel sick and want to vomit or really sick and vomit as well	35 (13.3)	60 (22.8)	129 (49.1)	39 (14.8)	2.3
Hair loss is a common side effect of taking cancer medications even though it does not happen to everyone	75 (28.4)	105(39.8)	59 (22.4)	25 (9.5)	2.9
Taking cancer medications makes you to become more likely to get infections and be seriously ill.	33 (12.5)	59 (22.3)	106 (40.2)	66 (25.0)	2.2
Taking cancer medications lowers your amount of blood	47 (17.8)	76 (28.8)	98 (37.1)	43 (16.3)	2.5
Taking cancer medication can make you easily bleed from nose and mouth	32 (12.1)	64 (24.2)	87 (33.0)	81 (30.7)	2.2
Taking cancer medications can sometimes make the mouth to feel sore and irritated	54 (20.5)	84 (31.8)	83 (31.4)	43 (16.3)	2.6
After taking cancer medications for a while, you may lose your appetite	46 (17.4)	90 (34.1)	82 (31.2)	46 (17.4)	2.5
Some cancer medicines can cause temporary changes to your skin (e.g. itching, dry, patches)	64 (24.4)	99 (37.5)	64 (24.4)	37 (14.0)	2.7
After taking cancer medications for some time, some people may have problems with concentration, or remembering things, etc	47 (17.8)	68 (25.8)	101 (38.3)	48 (18.1)	2.4
Taking cancer medications can make it difficult for you to fall asleep, or you may wake up in the middle of the night and cannot get back to sleep	56 (21.2)	94 (35.6)	73 (27.7)	41 (15.5)	2.6
While taking cancer medications, many people may temporarily lose interest in sex	44 (16.7)	76 (28.8)	100 (38.9)	44 (16.7)	2.5
You may have stool more than normal (diarrhea) or not able to stool as before (constipation) a few days after you begin taking cancer medications	51 (19.3)	89 (33.7)	93 (35.2)	31 (11.7)	2.6
Are you aware that side effects of cancer medications can make you think of life as miserable?	57 (21.6)	84 (31.8)	88 (33.3)	35 (13.2)	2.6
Are you aware that your quality of life is affected by the cancer medications?	57 (21.6)	89 (33.7)	82 (31.1)	36 (13.6)	2.6
Are you aware that the way you express your state of mind due to your health or your experiences with the medications refers to quality of life?	60 (22.7)	85 (32.2)	72 (27.3)	47 (17.8)	2.6

Key: VA= Very Aware. A= Aware. NQA=Not Quite Aware. NAAA= Not aware at all

Factors influencing the awareness of chemotherapy side effects

The analysis on *table 5* revealed that the factors influencing awareness of chemotherapy side effects among breast cancer patients are marital status, highest educational attainment and number of children

(Parity), occupation and residence (location), it was statistically significant at ($p < 0.02, 0.006, 0.000$). The respondents rejected age and religion as the factors influencing awareness of chemotherapy side effects among breast cancer patients and not significant statistically.

Table Factors influencing the awareness of chemotherapy side effects

Factors	Total	Level of awareness (%)			χ^2 -value	P-value
		Excellent Knowledge (n=45)	Good Knowledge (n=205)	Poor Knowledge (n=14)		
Age						
Below 20 years	12 (4.5)	3 (6.7)	8 (3.9)	1 (7.1)	11.53	0.173
21-30 years	47 (17.8)	10 (22.2)	34 (16.6)	3 (21.4)		
31-42 years	125 (47.4)	14 (31.1)	106 (51.7)	5 (35.7)		
51-60 years	63 (23.9)	12 (26.7)	48 (23.4)	3 (21.4)		
60 years and above	17 (6.4)	6 (13.3)	9 (4.4)	2 (14.3)		
Marital status						
Divorced	16(6.1)	5(11.1)	11(5.4)	0(0)	14.28	0.027
Married	156(59.1)	17(37.8)	132(64.4)	7(50.0)		
Single	70(26.5)	16(35.56)	49(23.9)	5(35.7)		
Widowed	22(8.3)	7(15.6)	13(6.3)	2(14.3)		
Highest educational attainment						
No Formal education	24(9.1)	4(8.9)	18(8.8)	2(9.1)	23.90	0.002
Other qualifications	17(6.4)	1(2.2)	16(7.8)	0(0)		
Primary education	19(7.2)	0(0)	19(9.3)	0(0)		
Secondary education	101(38.3)	15(33.3)	85(41.5)	1(7.1)		
Tertiary education	103(39.0)	25(55.6)	67(32.7)	11(78.6)		
Number of Children						
4-5	47(17.8)	12(26.7)	33(16.1)	2(17.8)	21.45	0.006
6 and above	83(31.4)	4(8.9)	76(37.1)	3(21.4)		
None	53(20.1)	14(31.1)	35(17.1)	4(20.1)		
One only	24(9.1)	7(15.6)	17(8.3)	0(0)		
1-3	57(21.6)	8(17.8)	44(21.5)	5(21.6)		
Occupation						
Business woman	103(39.0)	7(15.6)	92(44.9)	4(28.6)	35.28	0.000
Civil servant	47(17.8)	10(22.2)	36(17.6)	1(7.1)		
Farmer	21(8.0)	2(4.4)	16(7.8)	3(21.4)		
Full housewife	12(4.6)	7(15.6)	4(2.0)	1(7.1)		
Others specify	20(7.6)	4(8.9)	15(7.3)	1(7.1)		
Seamstress	13(4.9)	2(4.4)	9(4.4)	2(14.3)		
Trader	48(18.2)	13(28.9)	33(16.1)	2(14.3)		
Religion						
Traditional Religion	6(2.3)	0(0)	5(2.4)	1(7.1)	8.39	0.396
Atheist	5(1.9)	0(0)	5(2.4)	0(0)		
Christianity	236(89.4)	45(100)	179(87.3)	12(85.7)		
Islam	14(5.3)	0(0)	13(6.3)	1(7.1)		
Other specify	3(1.1)	0(0)	3(1.46)	3(1.1)		
Residence						
Rural	65(24.6)	19(42.2)	39(19.0)	7(50.0)	15.83	0.000
Urban	199(75.4)	26(57.8)	166(81.0)	7(50.0)		

The influence of socio-demographic characteristics on the quality of life of breast cancer patients in southeast Nigeria.

Socio-demographic characteristics on the quality of life of breast cancer patients in southeast Nigeria. The hypothesis was tested at a significance level of 0.05 using multiple regression analysis. The significant value of socio-demographic characteristics and quality of life is 0.009 which is less than 0.05, we then reject null hypothesis and accept alternative hypothesis and conclude that Socio-demographic characteristics have significant influence on the quality of life breast cancer patients in Southeast, Nigeria

Coefficients^a

Model	Un standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-1.036	.644		-1.610	.009
Age	.422	.085	.287	4.938	.000
Marital Status	.401	.083	.316	4.820	.000
Educational Level	.119	.062	.123	1.918	.006
Parity	.087	.049	.123	1.777	.077
Occupation	.157	.088	.098	1.792	.074
Religion	.049	.069	.040	.715	.475
Residence/Location	-.034	.085	-.022	-.397	.692

a. Dependent Variable: QOL

Discussion of Findings

Cancer is a prevalent chronic disease in China and worldwide, and chemotherapy serves as the primary treatment for cancer patients (11). The global demand for first-line chemotherapy is projected to increase by over 50% between 2018 and 2040, with China having the highest demand, as approximately 4.2 million new patients will require chemotherapy (12). Breast cancer like other types of cancers has various treatment modalities including chemotherapy which is regarded as the main therapy for breast cancer and has greatly improved the survival rates of the sufferers (9). The trouble from side effects of chemotherapy can be significant enough to hamper the quality of life of breast cancer patients where it affected their emotional functioning, sexual functioning, and financial difficulties (10). The feeling of poor quality of life among the patients becomes more heightened if the patients do not have adequate awareness about chemotherapy-related side effects and/or their tendency to reduce their quality of life. The study investigated the awareness of chemotherapy and its side effects as it related to the quality of life of breast cancer patients in the Eastern section of Nigeria.

In the resent study, the analysis on table 2 which was carried out to assess the level of awareness of chemotherapy among breast cancer patients in selected health facilities in Southeast revealed that most of the respondents 205(77.65%) have good knowledge of chemotherapy, possibly due to the respondent educational background. The finding agrees to an extent with the findings of (13) carried out a study on breast cancer and Chemotherapy Knowledge among Undergraduates of Health Sciences: Which Traits Predict Good Knowledge?. The respondents included students aged 18 years old or older who were enrolled in nursing, Medical Laboratory Technician (MLT) and radiography diploma programmes. Higher scores on it indicated better knowledge. The knowledge level was moderate. Females, nursing, and final-year students possessed significantly better knowledge. After adjusting for covariates, significant factors determining good breast cancer knowledge include being in the nursing discipline and years of study.

Awareness provides the raw materials from which animals develop qualia or subjective ideas about their experience. The study revealed that the factors influencing awareness of chemotherapy side effects among breast cancer patients are marital status, highest educational attainment and number of children (Parity), occupation and residence (location). The study is in consonance with (14) Pearman et al., carried out a study on the factors influencing chemotherapy knowledge in women with breast cancer, Chemotherapy knowledge is linked to managing side effects, marital status, education were the factors mentioned.

From analysis of table 4 it showed that the respondents are aware of the chemotherapy side effects among breast cancer patients in selected health facilities in Southeast Nigeria, perhaps due to: the oncologist must have educated the patient on the side effect of the chemotherapy. This agreed with the findings of (15) on side effects of chemotherapy among cancer patients in Malaysian General Hospital, they found out that the side effects include nausea and vomiting, respectively which where the most worrisome side effects which shows that the respondents have knowledge of chemotherapy side effects. Other common and worrisome side effects, were hair loss and loss of appetite. The study also accede with a separate cross-sectional study carried out in Tanzania by (9) on the awareness of chemotherapy side effects and attitude towards chemotherapy and found out that the respondents were aware of the chemotherapy side effects as majority of the respondents had been informed by the doctor.

A strong correlation between QOL and patient's compliance to medication is also reported in (16) Silavanich et al., These reports imply that patients may take up treatment more satisfactorily in order to have better outcomes if QOL is optimal and vice versa. Therefore, it is advocated that issues which patients and clinicians consider important or capable of impacting quality of life of patients should be carefully considered in deciding treatments (17). The study revealed through the hypothesis tested using multiple regression analysis that socio-demographic characteristics have significant influence on the quality

of life breast cancer patients in Southeast, Nigeria. This agreed with the findings of (18) Surbhi et al., who carried out a study on the quality of life and its socio-demographic determinants in breast cancer patients. The socio-demographic profile and QOL using the World Health Organization QOL-BREF were analyzed using the descriptive statistical methods. All the QOL indicators were statistically significantly ($P = 0.0001$).

Conclusion

There were certain factors influencing respondent awareness of chemotherapy among the respondents, viz; socio-demography, beliefs, personal attitudes, acculturation, access to health, social support, social influence and culture Norms. The respondents are aware that chemotherapy has side effects among breast cancer patients in selected health facilities in Southeast Nigeria. Socio-Demographic characteristics have significant influence on the quality of life of breast cancer patients in Southeast Nigeria.

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