

Psychosocial Factors as Correlates of Depression in Women with Breast Cancer in Teaching Hospitals in South West, Nigeria

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Abstract

This study investigated psychosocial factors as correlates of depression in women with breast cancer in teaching hospitals in south west, Nigeria. A descriptive research design of correlational type was adopted for the study. Four teaching hospitals out of the five in the south west, Nigeria were randomly selected for the study. Cluster sampling was used to select the sample because of the peculiar nature of the participants in the hospitals. The sample consists of four hundred breast cancer women with an age range of 22 to 58 years and a mean age of 35.8 years. Three scales tagged "Depression in breast cancer patient Opinionate scale", the Reversed Zung Depression rating scale" and "Osiki-Olorunda depression scale" were used to elicit information from the patients. The first two instruments were adopted while the third one was constructed by the researcher. The three instrument were administered in the teaching hospital in Ilorin for the purpose of validation. The reliability coefficients of 0.802, 0.803 and 0.75 were obtained using spilt half reliability method respectively. The study revealed that all the independent variables taken together correlated 0.99031 and they also accounted for 98.07% of the variance of depression in women with breast cancer. The findings also showed that the following factors could significantly predict depression in breast cancer women, devils belief ($\beta = 1.0001$, $t = 52.4$, $p < 0.05$), dietary attributes ($\beta = 1.072$, $t = 39.5$, $p < 0.05$), self medication ($\beta = 1.02$, $t = 31.0$, $p < 0.05$), community/personal and family sin ($\beta = 1.10$, $t = 36.6$, $p < 0.05$), Radioactive causes ($\beta = 1.11$, $t = 33.0$, $p < 0.05$) and hereditary causes ($\beta = 1.08$, $t = 30.8$, $p < 0.05$). The implications of this were that the psychosocial variables utilized in this study have high potency for predicting depression in breast cancer women. It also implies that in planning and implementing future treatment regimen for these women, these psychosocial variables could be relied upon in providing useful direction especially when considering future etiology and treatment.

Keywords: Psychosocial Factors, Correlates, Depression, Women, Breast Cancer, Teaching Hospitals

Introduction

Depression was thought to be a risk factor for the development of cancer for many years. The stress caused by serious medical disease such as cancer may stimulate reactions that include depression and anxiety in the patient. In certain cases, such as cancer of the breast or pancreatic cancer, depression may occur as an early presenting symptom of the medical illness.

Cancer poses many threats to the disturbed individual. Apart from confrontation with morbidity and mortality, there is the fear of losing self-determination, of being totally dependent and non-productive. These confrontations pose a number of psychosocial problems for the disturbed individuals and their families. Cancer is also known as the global scourge; the most feared disease among all societies though this depends on the meaning the individuals attach to it (Holland and Zittoun, 2009). The breast is a female organ whose physiological functions are secondary to its importance as a determiner of feminine attractiveness in the world. The breast is reflected not only to core gender identity but also to the concepts of motherhood and giving. Breast cancer treatment hinges upon the surgical removal of an organ that is tied intimately to a woman's femininity, sexuality and mothering capacity. Holland (2009) studied the psychological reactions of breast cancer on individuals and confirmed that it is a disease which threatens an organ that is intimately associated with self-image, self-esteem, sexuality, femininity and reproductive and nurturing capacity. They concluded, therefore, that breast cancer is a source of significant stress and depression for any woman. Women with breast cancer who have had a mastectomy feel mutilated and experience depression and loss of femininity (Strada, Plastina, Bernado and Bernado 2003) also said breast cancer diagnosis and treatment are traumatic to patients. They continued that the interaction between such patients with other people results into various emotional and behavioural side effects, and that anxiety and depression are the most frequent and these affect the individuals' quality of life.

Jenkins, May and Hughes (2011) and Baltrusch (2019) found out that certain negative emotional reactions like depression, despair, and the feeling of helplessness seem to play a decisive role in the clinical manifestation of the disease. The appreciation of one's physical body has a profound effect on self-concept and self-esteem. Women with breast cancer are concerned about the mutilation or the loss of a significant part of their body. They fear rejection from friends or spouse due to the society's values and emphasis on the breast as a symbol of sexuality and nurturance. Gottesman and Shield (2008) observed that having cancer and losing a breast can affect interaction with significant others. Positive interactions can maintain or improve one's self-concept and sense of control over the illness situation (Bloom, Ross, Burnell, Wortman, Dunkel, and Schetter, 2009).

In some terminal diseases, such as breast cancer, depression may present as an early symptom of medical illness. Fallowfield, (2011) agreed that mastectomy is one of the most emotionally threatened operations, while Strada et al. (2003) and Meyerowitz (2018) argued that breast cancer and its treatments are psychologically traumatic events for even mature women. Depression as a diagnostic and clinically meaningful term has a short history. It is used over the years, following Fallowfield's introduction of depression as part of the manic-depressive illness in psychiatry, resulted in its dominating all the varieties of emotional reactions to actual or anticipated loss of feelings of distress and sorrow arising from the adversities and vicissitudes of life.

Individuals of today view depression as part of life's experience, and unavoidable condition that everyone has to go through at least once in an individual's lifetime. And it can therefore be subjected to self-cure by will power. Depression in breast cancer individuals can be classified as the normal emotional responses to unwanted and stressful life events which are different from a clinical mental disorder. The severity of depression, its tendency to recur and its high cost. for the individual and the society constitutes one today's major public health problems (Rycroft, 2009). Based on the foregoing therefore, depression which is a public health problem has been known to have adverse effects on the individual as well her family. Breast Cancer treatment involves prolonged and expensive drug and radium therapy with attendant problems and eventual death.

In a healthy state of mind, man exists in harmony with the environment while man's outer and inner rhythms are synchronized. However, illness in the human body leads to deviation, disturbance and alteration to the human homeostasis, which could result in physical, mental and spiritual loss and disorientation of the afflicted person.

Individuals with family histories of cancer have been reported to experience, symptoms of general distress and to have frequent intrusive thoughts and avoidance. To date, in psycho-oncology literature little is known about predictors of such depression in women with breast cancer as related to psycho-social factors. The dearth of empirical backing as well as literatures in the area is a strong motivation to the study.

Statement of the Problem

The enormous impact of morbidity and untimely mortality caused by breast cancer on the developmental life span of individuals and socio-economic development of the Nigerian society cannot be overstated. Breast cancer is one of the most crucial health problems and the most common chronic disease in developed and undeveloped countries. Breast cancer control among adults according to the World Health Organization ranges between 25.4% and 39%, with non-compliance being the greatest of the factors responsible for its poor control. Breast cancer can cause chronic pains, headache, fatigue, blurred vision, nose bleeding and absenteeism from work.

Today, it is established that changes in lifestyle, besides medication treatment is crucial factor to a better prognosis. For example, healthy eating, increased physical activity, and weight management can decrease the prevalence and progress of the mentioned diseases. Despite the known effect of Breast cancer to women health and society, the present trend in Nigeria is shown to have taken a dangerous dimension with prevalence rate showing 10% of Nigerian women suffering from breast cancer. This implies that the productive manpower of Nigeria is in great danger and the hope of possible economic development and the attainment of the Millennium Development Goals (MDG) is non achievable. In view of the above-mentioned problems caused by breast cancer the researcher is intended to know and to educate individual on the causes of breast cancer among women suffering from it. Literature and empirical studies

searched have shown that not much is known about the causes of breast cancer. Hence this study focuses on investigating the psychosocial factors as correlates of depression in women with breast cancer in teaching hospitals in south west, Nigeria.

Purpose of the Study

The general purpose of this study is to examine devil's belief, dietary attributes, self-medication, community/personal and family sin, radioactive causes and hereditary causes as correlates of depression in women with breast cancer in teaching hospitals in south west, Nigeria.

The study, therefore, generate the following specific objectives:

1. to examine the composite contribution of independent variable to dependent variable among the selected pupils where these facilities are provided in Southwest, Nigeria.
2. to examine the relative contribution of the independent variables to dependent variable among the selected pupils where these facilities are provided in Southwest, Nigeria

Methodology

Research Design

This is a survey research design. 'thesurvey research design takes a standardized approach to collecting information from individuals aid organizations through the use of questionnaires and/ or interviews. The present study utilise the survey method for its data collection as the three basic elements as identified by Mclaughlin and Marascuilo (1990) were fully ensured. The elements are techniques to draw a representative sample; the needed expertise required to design valid and reliable questionnaire; as well as the data-processing techniques for determining the relationship between the variables embedded in complex situation.

The study was therefore designed to find same psychosocial correlates of depression in women with breast carries in South west Nigeria. The subjects for this study wire women with breast cancer who were in—patients and out-patients in surgery departments and radiotherapy clinics in selected university health institutions in South West Nigeria These are university college hospital [UCH]; Lagos university technique hospital [LUTI]. University of Benin Teaching Hospital [UITII} and Obafemi Awolowo University Teaching Hospital [OAUTH). Considering the peculiar nature of these subjects, the cluster sampling method was employed to select subjectsfor this study. The sampling technique was chosen due to the peculiar nature of the health problem. Out of the 400[four hundred] subjects that were used for the study, 167 were taken from UCH, 109 came from LUTH, 68 were from UBTH while 56 were selected from OAUTH respectively. Four hundred subjects responded with their ages ranging between 22 to 58 years and a mean age of 35.8.

Instruments

Three research scales tagged Depression Patient Opinionate scale; the reversed inventory and Osiki-Olorunda depression scales information front the women. The scale tagged Depression in breast cancer patients Opinionate scale was divided into section A and section B. Section A was on demographic data bearing family background, religion, marital status, age, type of work and work experience. Section B consists of thirty items divided into seven psychosocial factors such as medication, devil/ancestral spirits/people dietary attribution, family/community/personal sin, radioactive substances, heredity causes and natural causes.

Validity of the depression in Breast Cancer, Patient Opinionate Scale, the reversed Zung's depression Rating scale and the Osiki-Olorunda Depression Scale

The validity of an index is the extent to which the index really measures. The validity of any index can have such parts as, content validity, construct validity and so on. Content validity could be further split into face and logical validity. According to Breakwell, Hammond and Fife-Shaw (1995) an instrument could be said to have face validity when the items in the instrument are obviously related to the phenomenon measured, when the items are relevant to the stated condition of the instrument and when the items are based upon whatever knowledge is available at the time of construction. While the depression in breast cancer, patient opinionate scale, the reversed Zung's depression in rating inventory scale and Osiki-Olorunda depression scale are unique, they strictly satisfy these conditions. An index is said to have logical validity when its total area of coverage and interest is defined and split into categories with selected items that constitute each of the sub-themes in the categories to assess the individual parts of the whole (Osiki, 2002).

The depression in breast cancer, patient opinionate scale, the reverse Zung's depression Rating scale and the Osiki-Olorunda depression Scale were constructed to reflect the salient etiology of cancer and degree of depression in breast cancer patients. The construct validity of an index exemplifies the extent to which it measures a theoretical construct or trait. While the construct validity is split into several parts the convergent validity approach for the depression in breast cancer scale, the reverse Zung Rating Depression Scale and the Osiki—Olorunda Scale was considered relevant in contribution. The convergent validity refers to a search for other measures of any instrument (Ilobinndo-Wood and Ilaber (1990). The convergent validity was established by correlating the seven subsections in the depression in breast cancer patient Opinionate scale. For the medication causation, the correlation coefficient[®] was 0.1027; Devil/ancestral spirit/personal sin (0.1511). radio-active Substance (0.0324); Hereditary (0.0398) and Nature (0.01027) respectively.

Reliability of the Depression in Breast Cancer, Patient Opinionate Scale, the reverse Zung Depression rating Inventory and Osiki-Olorunda Depression Scale

The reliability of an index is defined as the extent to which the index yielded the same results in repeated measure. Several methods are available for assessing the reliability of an

instrument. The split half reliability coefficient of the depression in breast cancer scale on 400 subjects' yielded Pearson correlation reliability Coefficient of $r = 0.802$.

Reversed Zung rating scale also had two sections A and B. Section A was on demographic data section B consisted of 29 items. The split half reliability was employed to estimate the reliability coefficient of the scale and reliability of 0.803 was obtained. The Osiki-Olorunda Depression scale also has section's A and B, and consisted of 19 items. The split half coefficient reliability for the scale was found to be 0.75. The internal consistency of the index was also established while utilizing the Cronbach alpha and a reliability of 0.7490, 0.8334 and 0.7487 were obtained respectively. While also utilizing the items to total correlation, the lowest item to total correlation were 0.2175, 0.1659, and 0.2904 as compared to the highest item to total correlation of 0.5194, 0.5467 and 0.5580 respectively.

Procedure

The consultants in charge of the patients in the hospitals were briefed about the purpose of the study. The scales were distributed to the respondents in each of the hospitals after they were also briefed about the study. English language was the main form of communication. The scales were retrieved back immediately.

Data Analysis

The data collected were analyzed using Analysis of variance, multiple correlation and regression statistical methods. The ANOVA is particularly useful for searching differences in the means of scores of variables measured at the interval level. The study also adopted the multiple regression statistics to ascertain the degree to which the independent variable had contributed to explain the dependent variable in the study. The Alpha level of 0.05 significance was used to effect statistical decisions.

Results

Hypothesis 1: This hypothesis states that the selected psychosocial factor will not significantly predict depression in women with breast cancer.

This hypothesis was tested at the 0.05 level of significance using multiple regression analyses. The statistical analyses employed and the details of obtained results are presented in table.

Table 1: Summary of Regression Analysis on Sample Data

Multiple	=	0.99031
R Square	=	0.98071
Adjusted R. Square	=	0.98041
Standard Error	=	0.97568

Table 1: Analysis of Variance

Source of Variation	df	SS	MS	F-ratio	sig. of f
Regression	6	19018.4	3169.73	3329.7231	.0000
Residual	393	374.11572	0.95195		
Total	399	19392.5151	3170.6819		

Significant at p < 0.05

Table 1 show that the combination of the seven independent variables (i.e medication, devil/ancestral beliefs, dietary, family/community and person sin, radioactive causes, hereditary and natural causes in predicting depression in women with breast cancer yielded a co-efficient of multiple regression of 0.99031 and a multiple R square (R²) of 0.98071. this means that all the seven independent factors accounted for 98.07% percent of the variance in depression in women with breast cancer. The hypothesis was thus not supported.

The analysis of variance also confirmed this further as the computed details showed that the psychosocial factors significantly predict depression in women with breast cancer with the F-Ratio of 3329.7231at the 0.05 level. Additional computational analysis as indicated in table 2 was also done using parametric estimate.

Table 2: Parameter Estimates

Independent variables	B	SE B	Beta	T-value	Sig. T
Medication	1.027127	0.033058	0.226185	31.071	.0000*
Devil, Ancestral/wicked spirits and/or people	1.001465	0.019087	0.399856	52.168	.0000*
Dietary attributes	1.072814	0.027112	0.300722	39.569	.0000*
Personal and family sin	1.107533	0.028669	0.295657	38.632	.0000*
Radioactive causes	1.119566	0.033896	0.249496	33.030	.0000*
Hereditary causes	1.081150	0.035084	0.232299	30.816	.0000*
Nature causes	1.036582	0.524089		1.978	.0486

• = Significant at $P < 0.05$

Table 2 shows that the parameter estimates indicate high correlation coefficient of the psychosocial factors studied, that is, medication, Dietary, personal and family sin, radioactive causes, hereditary causes, have positive relationship with depression in women with breast cancer. Using standardized regression coefficient to determine the relative contributions of

each of the variables to the cause of depression in the subjects, it was discovered that the six variables contributed significantly to the prediction of depression in them. These are Devil/Ancestral spirits, topping the list while self-medication is the least factor contributing and nature causation is not significant.

Discussions of Findings

From the analysis shown in this study, it could be observed that selected psycho-social factors such as self-medication, devil/ancestor/wicked spirits and/or people, dietary attribute, family/community/personal sin, radioactive substance and hereditary causes taken together significantly predict depression in women with breast cancer. This could be observed with multiple r of 0.99031. r^2 of 0.98071 which indicated a 98% variance. The analysis of variance also revealed this. It could be argued then that women with breast cancer think of the cost of treatment including the drugs and radiotherapy treatment, this could lead them to taking of drugs such as tranquilizers and narcotics as a relief measure.

Furthermore, other factors such as devil/ancestor/wicked spirits and or/people beliefs concerning cancer and dietary attributes, which keep recurring in the minds and environment of the patient are powerful enough to cause depression in the patient. This fact is buttressed by the result of Meyerowitz (2018) and Schover (2019) which claimed that women with breast cancer often display severe emotional distress. The study of Fallowfield (2011) also confirmed the place of heredity as one of the psycho-social factors that could cause depression in women with breast cancer especially if such women think about the genes which their children is likely to inherit from them. It will be observed from Table 2 that all the six variables contributed significantly to productive depressing in women with breast cancer. As often times without number negative thoughts undoubtedly filter through the minds of the patients. This kind of relapses provide basis for intensive preoccupation with the illness, feelings of worthlessness and guilt.

The findings as shown in hypothesis two also indicated that there were significant differences in the perception of women from different age groups in respect to the selected psycho-social correlates of depression in women with breast cancer. The results of the study showed an evidence of medication, devil/ancestor/wicked spirits and/or people beliefs and dietary attributes. The results showed that the patients who are advanced in age are most likely to engage in self medication followed by those with young age parents while the old age ones are likely to seek orthodox medical attention.

According to Lambo (2006) several compelling forces internal or external in health-related decisions, compete within the individual to trigger behaviour. Moreover, and undoubtedly such initiated behavior oftentimes could be risky due to the haste or delay or over-reactions of the adapted medication. Ryeroft (2009) elaborating on Lambo (2006) assertions, opined that life's essence is comprehended in terms of hope, because apart from hope being futuristic, it propels, sustains and resuscitates the individual from a despondent, confused, lifeless and insipid condition. The subject of hope is an important phenomenon to the

understanding of the individual's health, illness and sick-role behavior, since the coping techniques and strategies that could be adopted become easily produced.

Recommendations

In view of the findings made in this study and the importance of helping women with breast cancer to live a quality life and reach the zenith of their aspirations, the researcher wishes to make the following recommendations.

- 1) Operational researches should be conducted by other researchers to identify more psycho-social factors that could predict depression and the result of these studies translated into different languages and disseminated to all women with cancer of the breast either by the use of electronic media or by literatures.
- 2) Additional large prospective epidemiological studies are necessary to determine if depression predisposes patients to higher incidences, worse courses and outcomes from cancer of the breast.
- 3) Epidemiological surveys whose study population size is not known can be carried out using self-administered questionnaires and interviews after which a sample of those suspected to be depressed should be intensively studied with psycho-therapeutic and psycho physiological methods.
- 4) Since anxiety and depression co-exist in patients, a careful history which requires time is essential by other researchers. So as to obtain much information as possible on the patient's life history, heredity, premorbid personality and other aspects of life.

Conclusion

Following the finding from this study, such factors as medication, devil-ancestor/wicked spirit and/or people, dietary attribution, family/community/personal sin, radioactive substances, hereditary causation and nature causation have been found to correlate in predicting depression in women with breast cancer. The role of depression in breast cancer cannot therefore be overemphasized. It is, extremely common that one in five people are affected. Depression strikes about twenty five percent of all cancer patients, can sap a person's immune system, weakening the body's ability to cope with the disease. Patients fighting both depression and cancer feel distressed, tend to have trouble with everyday tasks and often may not follow medical advice.

Depression is a common problem among cancer patients but is often unrecognized and therefore undertreated because the depressive symptoms are misattributed to cancer and its treatments. Some selected psycho-social factors as medication, devil/ancestor/wicked spirits and /or people, dietary attributes, family/community/personal sin, radioactive substances, hereditary and natural causation were used in this study to predict depression in women with breast cancer. All these factors predicted depression accounting up to 98% of the variance in the psychosocial correlates. As a result, of the African setting with some characteristics sets of practices cultural and

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