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PSYCHO-SOCIAL FACTORS INFLUENCING POST-DIAGNOSIS CHOICE OF TREATMENT BY WOMEN SEEKING BREAST CANCER CARE AT MOI TEACHING AND REFERRAL HOSPITAL

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Abstract

Breast cancer is the most frequent cancer among women worldwide, impacting 2.1 million women each year, and also causes the greatest number of cancer-related deaths among women. In 2018, it is estimated that 627,000 women died from breast cancer – that is approximately 15% of all cancer deaths among women. While breast cancer rates are higher among women in more developed regions, rates are increasing in nearly every region globally. Female breast cancer was the leading cause of global cancer incidence in 2020, responsible for 2.3 million new cases and representing 11.7% of all cancer cases worldwide. The study sought to determine socio-demographic factors influencing post-diagnosis choice treatment by women seeking breast cancer care. A descriptive cross-sectional study was conducted on a sample of 176 women seeking breast cancer care at Moi Teaching and Referral Hospital. Convenience and purposive sampling were utilized in the selection of participants. An interviewer-administered questionnaire whose pre-testing was done in Eldoret Hospital was utilized. Data management was done using SPSS and analysis was done using relevant descriptive statistics and Chi-square to test for association. The psycho-social factors identified as significantly associated with post-diagnosis choice of treatment at $\alpha=0.05$ were Occupation, level of education and economic activity. There is positive correlation between quality of life, process of treatment, care services and professionalism of the healthcare providers to breast cancer patients' choice of treatment. Therefore, the government of Kenya through the ministry should consider allocating funds to support breast cancer patients due to the high costs of breast cancer treatment and economic deprivation of the patients. Efforts should be put through to empower women through obtaining information, education and economic empowerment.

Key words: Psychosocial, Post-diagnosis, Breast Cancer, Treatment

Introduction

Female breast cancer was the leading cause of global cancer incidence in 2020, responsible for 2.3 million new cases and representing 11.7% of all cancer cases worldwide (Sung *et.al.* 2020). Breast cancer is the most frequent cancer among women worldwide, impacting 2.1 million women each year, and also causes the greatest number of cancer-related deaths among women. In 2018, it is estimated that 627,000 women died from breast cancer – that is approximately 15% of all cancer deaths among women. While breast cancer rates are higher among women in more developed regions, rates are increasing in nearly every region globally. (WHO, 2018). In Africa breast cancer is responsible for 28% of all cancers and 20% all cancer deaths in women.

The incidence rates are estimated below 35 per 100,000 women in most African countries with the Sub-Sahara being the lead. (GLOBOCAN, 2018).

Breast cancer in Africa is characterized by presentation with advanced disease, lack of information about breast cancer incidence, high cost of treatment and inaccessibility of treatment facilities. In Kenya, one out of every nine women is diagnosed with advanced breast cancer (Neondo, 2006) Moi Teaching and Referral Hospital being a referral Hospital has been experiencing an influx of high cases of breast cancer and it provides various treatment methods to the women seeking breast cancer care. Many factors however, are bound to affect post diagnosis choice of breast cancer care among women. It is therefore necessary to obtain information about the socio-demographic factors that influence these choices.

Objective

To assess psycho-social factors influencing post-diagnosis choice of treatment by women seeking breast cancer care at Moi Teaching and Referral Hospital.

Study Design

The study employed cross-sectional study design, where responses were sought at a specific point in time, not repeated and no interventions or follow ups was conducted after the study.

Sample size determination

Fisher *et al.*, (1998) formula was used to calculate the sample size of Breast cancer patients seeking care at Moi Referral Hospital. Since the total number of breast cancer patients seeking care at the hospital was less than 10,000 (N=500), the two stages of the formula were adopted. The first part of the formula was applied with an assumption of a population of more than 10,000 to enable the researcher get the value of "n" which was then used in the second part of the formula to calculate "fn" which represented the desired sample size when the target population was less than 10,000 as illustrated below:

$$n = \frac{Z^2 pqD}{d^2}$$

Where, n = the desired sample size when the study target population was over 10,000

Z = the standard normal deviate, usually set at =1.96 (@ 95% confidence level).

p = the current proportion of women diagnosed with breast cancer in Kenya was 20% (0.2).

$q = I - p = 0.8$

D =Study design effect (usually 1 when it's not a comparative study)

d = the Degree of Accuracy required (0.05)

$$n = \frac{Z^2 pqD}{d^2}$$

$$= \frac{1.962 \text{ x } 0.2\text{x}0.8\text{x}1}{(0.05)2}$$

= 245 breast cancer patients

However, the target population (500) was less than 10,000, and therefore we used:

$$nf = \frac{n}{1 + \left(\frac{n}{N}\right)}$$

Where nf =The desired sample size when population was less than 10,000

n = the desired sample size when the population was more than 10,000

N = the estimate of the population size.

$$nf = \frac{245}{1 + \left(\frac{245}{500}\right)}$$

= 164 breast cancer patients.

Attrition Rate =10% of 164= 12 breast cancer patients.

Total Sample Size 164 + 12 =176 breast cancer patients.

Therefore 176 breast cancer patients were sampled and issued with interviewer administered structured questionnaires for their responses.

Sampling Techniques

Purposive sampling technique and convenience sampling technique.

Data Analysis Criteria/Procedures

Descriptive statistical procedures were employed in organizing and summarizing data sets of collected variables. Chi-square analysis was used to determine the association between the dependent and independent variables.

PSYCHO-SOCIAL FACTORS OF THE RESPONDENTS

Variable	Frequency (n)	Percentage (%)
Quality of life ever since diagnosed with breast cancer		
Very bad	14	8.0
Bad	77	**43.8**
Average	66	37.5
Good	19	10.8
Process of treatment		
Very bad	4	2.3
Bad	86	**48.9**
Average	28	15.9
Good	58	33.0
Excellent	4	2.3
Support from family members		
Very bad	10	5.7
Bad	69	**39.2**
Average	43	24.4
Good	41	23.3
Excellent	13	7.4
Care services of the hospital in general		
Bad	9	5.1
Average	39	22.2
Good	118	**67.0**
Excellent	10	5.7
Professionalism of the healthcare provider		
Very bad	5	2.8
Bad	4	2.3
Average	39	22.2
Good	111	**63.1**
Excellent	17	9.7

The above table reveals that 43.8% (n=77) of the respondent report to have bad quality of life ever since diagnosed with breast cancer. 48.9% (n=86) of the respondent had bad process of treatment. 39.2% (n=69) of the respondents reported bad support from family members. 67% (n=118) of respondent rated good care service of the hospital 63.1% (n=111) of the respondent rated excellent professionalism of the healthcare provider.

THE RELATIONSHIP BETWEEN PSYCHO-SOCIAL FACTORS AND THE CHOICE OF BREAST CANCER TREATMENT

Variable	**Chemotherapy**	**Radiation**	**Surgery**	**χ2 Value**	**df**	**p-value**
Quality of life ever since diagnosed with breast cancer						
Very bad	2	0	1	12.899^{a}	6	.045*
Bad	73	5	9			
Average	49	5	13			
Good	14	3	2			
Process of treatment						
Very bad	4	0	0	14.609^{a}	6	.024*
Bad	74	3	9			
Average	21	5	2			
Good	39	5	14			
Support from family members						
Very bad	7	1	2	16.428^{a}	8	.037*
Bad	60	2	7			
Average	37	2	4			
Good	28	5	8			
Excellent	6	3	4			
Care service of the hospital in general						
Very Bad	5	3	0			
Bad	6	1	0	24.803^{a}	8	.002*
Average	39	2	3			
Good	80	5	16			
Excellent	8	2	6			
Professionalism of the healthcare provider						
Very bad	5	0	0	16.483^{a}	8	.036*

Bad	2	2	0			
Average	32	4	3			
Good	87	5	19			
Excellent	12	2	3			

There is a positive significant correlation between quality of life ever since diagnosed with breast cancer and breast cancer choice of treatment ($\chi2 = 12.899^{a}$, degree of freedom (df) =6, $p<0.05$). The process of treatment is positively correlated with breast cancer choice of treatment ($\chi2 = 14.609^{a}$, df=6, $p<0.05$) There is a negative statistical significant association between support from family members and breast cancer choice of treatment ($\chi2 = 16.428^{a}$, df=8, $p<0.05$). There is significant positive correlation between the care services of the hospital in general and breast cancer choice of treatment ($\chi2 = 24.803^{a}$, df=8, $p<0.05$). There is a statistically positive significant association between professionalism of the health care provider and breast cancer choice of treatment. ($\chi2 = 16.483^{a}$, df=8, $p<0.05$). These significant associations are in the table.

Discussion

The influence of psycho-social factors on breast cancer choice of treatment

The psycho-social factors; quality of life since diagnosis, process of treatment, support from family members, care services of the hospital, professionalism of the healthcare provider were found to be positively associated with breast cancer choice of treatment.

There is a positive significant association between respondents' quality of life since diagnosis and breast cancer choice of treatment. Forty-three percent of the respondent rated their life as bad since being diagnosed with breast cancer. Karen (2006) has shown that as many as one-quarter of women with breast cancer suffer marked psychological morbidity associated with diagnosis and treatment, though for many women psychological distress declines substantially within a year after treatment. Factors that appear to moderate the impact of breast cancer on women's psychological health include coping styles, treatment preferences, and social support

There is a positive significant association between family members' support and breast cancer choice of treatment. Thirty-nine percent of the respondents rated the support they get from family members as bad. This shows that there is barely any positive support from family members, this support can be in terms of financial support, emotional support, psychological support, spiritual support to mention a few. When the family members of the patients show support, it helps both the patient and the family members to cope with the disease and its treatment throughout the patient's pathway and hence help the patient maximize treatment benefits in order to cope in the best possible way with the effects of the disease

Generally, supportive care during and after cancer treatment is essential and should be available, affordable, and accessible for all patients and their families. However, in many cases supportive care needs are not met. This is often due to the low priority of supportive care in systems and families with scarce resources.

Adachi (2007) has also demonstrated that failure to address supportive care during cancer treatment can bring about reduced compliance to therapy and, as a consequence, worse outcomes.

There is a significant positive association between professionalism of the healthcare provider and breast cancer choice of treatment, this shows that the respondents were handled in a very supportive and caring way, providing good management and treatment services. This finding correlates to WHO (2006) which stipulates that enhanced professionalism reinforced medical competencies improve physician-patient relationships.

Conclusion

Psycho-social factors such as quality of life since diagnosis, professionalism of the health care provider, and support from family members were found to be positively associated with breast cancer post-diagnosis choice of treatment.

This study therefore rejects the null hypothesis that; There is no association between psycho-social factors and breast cancer post-diagnosis choice of treatment by women seeking breast cancer care.

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