PERCEPTION OF CERVICAL CANCER PATIENTS ON THEIR QUALITY OF LIFE IN WESTERN KENYA

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ABSTRACT

Quality of life is the subjective perception of the impact of disease and treatment on the health status of an individual as regards to physical, psychological, social and spiritual well-being. Quality of life in patients with life threatening diseases is measurable concept which has been done in many countries all over the world. In Kenya cervical cancer is the leading female cancer in both incidence and mortality rates at 40.1 and 21.8 respectively. This paper evaluated the perception of cervical cancer patients on their quality of life.

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INTRODUCTION

Living a life of quality is an outcome which all people including those living with life threatening diseases aspire. Measuring health related QoL among patients with life threatening diseases is required in order to understand the degree to which their lives and well-being have been affected by disease. (Verdugo et al. 2012). Patients with chronic diseases and especially those in the age group of 18-45 years are known to experience more frequent psychological, occupational and financial frustration and hence poor QoL because this is the age at which adults begin to establish themselves as they venture out in jobs, spouses and enter into various institutions.(Devrimci-Ozguven et al. 2000).

There is little information in the literature regarding QoL among cervical cancer patients in Kenya.This is evidenced by the fact that QoL measurement are not being done in Kenya, despite the fact thatQoL measurement Should be a routine practice in cervical cancer management (Jones *et al.* 2006).The existing gap in knowledge by which cervical cancer impact on the QoL among Kenyan cervical cancer patients requires to be addressed. This study was therefore justified to produce facts and figures for use as a reference in future related studies and for sound practice in palliative care.

Cervical cancer is the third most common female cancer worldwide and causes approximately 275,000 deaths annually worldwide, of which 88% occur in low income countries (LICs). Cancer of the cervix is easily detectable and curable in its early stages. Unfortunately, only 5% of women in developing countries undergo screening for cervical cancer compared to over 40% in developed countries, and 70% or higher in countries that have shown marked reduction in incidence and prevalence of cervical cancer. It is therefore not surprising that in Africa—where screening rates are very low—the majority of women present at late stages with invasive and advanced disease that require appropriate palliative care (WHO; 2004).

In Kenya cervical cancer is leading in both incidence and mortality rates at 40.1 and 21.8 respectively (Globocan, 2012).   According National Cervical Cancer Prevention Programme(NCCPP), 2012-2015 report, the estimated annual number of cervical cancer cases is 2454 while the annual number of deaths due to cervical cancer is 1676 in Kenya. It is projected that by the year 2025, the number of new cervical cancer cases annually in Kenya will reach 4261.Data from hospital-based registries in Kenya indicate that cancer of the cervix accounted for 70-80% of all cancers of the genital tract and 8-20% of all cancer cases for the 10-year period

of 1981 to 1990. With the peak age of cervical cancer being 35-45 years of age, it claims the lives of women in the prime of their life when they may be raising children, caring for the family, and contributing to the social and economic life of their community. This study therefore hope to fill this gap of information by allowing the patients to evaluate their own quality of life verses the services they are getting this information will be useful in designing policies and interventions that will improve their quality of life.

The following abbreviations have been used in this paper: **GOPC**-Gynecological outpatient clinics; **FACT-Cx**-Functional Assessment of Cancer Therapy for cervical cancer; **QoL**-Quality of Life; **JOOTRH**-JaramogiOgingaOdinga Teaching and Referral Hospital; **NCCPP**-National Cervical Cancer Prevention Programme; and **WHO**-World Health Organization

METHODOLOGY

Across-sectional survey using purposive sampling of 334 cervical cancer patients and 7 healthcare providers was conducted in JaramogiOgingaOdinga Teaching and Referral Hospital in western Kenya. Data was collected using quality of life assessment tool (**FACT-Cx**), structured questionnaire, focus group discussion guide and in-depth interview guide. Statistical analysis was done using Chi-square and regression analysis and qualitative data were audio recorded, transcribed verbatim and the content analyzed in emerging themes.

RESULTS

The findings showed that more than half of the respondents experienced poor functional and physical wellbeing 221(66.2%) and 201 (60.2%) respectively and no patient experienced good functional and physical wellbeing.While 189(56.6%) experienced fair overall quality of life. There was statistically significant relationships between cervical cancer stage and physical wellbeing of cervical cancer patients $P<0.0000$.

Regression analysis between age, marital status, level of education and religionwas used to determine their influence on overall quality of life.All the independent variables showed positive influence on overall quality of life. The P-values for age**P=0.022**, level of education**P=0.002** and religion **P=0.045**were less than 0.05 indicating that these variables had statistically significant relationship with overall quality of life. Only marital status had P- value more than **0.05**

indicating that it did not have statistically significant relationship with overall quality of life **P=0.231.**

Table 1Quality of life of cervical cancer patients

Domains of well being	Quality of life of cervical cancer patients				
	Poor	Fair	Moderate	Good	Total
Physical wellbeing	201 (60.2%)	72 (21.6%)	61 (18.3%)		334 (100%)
Emotional wellbeing	42 (12.6%)	112 (33.5%)	148 (44.3%)	32 (9.6%)	334 (100%)
Social/family well being	96 (28.7%)	88 (56.3%)	40 (12.0%)	10 (3.0%)	334 (100%)
Functional wellbeing	221 (66.2%)	93 (27.28%)	20 (6.0%)		334 (100%)
Overall quality of life	94 (28.1%)	189 (56.6%)	51 (15.3%)		334 (100%)

The findings showed that more than half of the respondents experienced poor functional and physical wellbeing 221(66.2%) and 201 (60.2%) respectively and no patient experienced good functional and physical wellbeing. Results from the quality of life measurement tool saw most patients reporting not being able to work and enjoy life and From the FGDs most patients reported physical problems ranging from severe pain of the abdomen, back and thighs; bleeding and discharge from the vagina; constipation; fatigue; and nausea

A fairly good number of patients 148 (44.3%) enjoyed moderate emotionalwellbeing this was mostly attributed to their strong spiritual will which cushioned them from anxiety, worry, and loosing hope in their fight against the disease. While 189(56.6%) experienced fair overall quality of life.

Table 2 Cervical cancer stage by Physical wellbeing

Cervical cancer stage	Physical wellbeing			
	Poor n=201	Fair n=72	Moderate n=61	P-value
Stage 1 n=52	1 (0.49%)	10(13.8%)	41(67.2%)	<0.0000*
Stage 2 n=40	20 (9.9%)	10(13.8%)	10(16.3%)	
Stage 3 n=63	32(15.9%)	21(29.1%)	10(16.3%)	
Stage 4 n=179	148(73.6%)	31(43.0%)	0	
	201	72	61	

Analyses performed by Chi-square tests. *Statistically significant at P≤0.05.

Table 2 presents the proportion of respondents who experienced different levels of physical wellbeing by cervical cancer stage. Results revealed thatmore than half of the respondents 201(60.2%) experienced poor physical wellbeing while no respondent experienced good physical wellbeing. High proportion of those who experienced poor physical wellbeing 148(73.6%)were in stage 4 while no respondent in stage 4 experienced moderate physical wellbeing. High proportion of those who experienced moderate physical wellbeing 41(67.2%) were in stage 1.

There is statistically significant relationships between cervical cancer stage and physical wellbeing of cervical cancer patients P<0.0000

Table 3 Cervical cancer stage byFunctional wellbeing

Cervical cancer stage	Functional wellbeing			
	Poor n=221	Fair n=93	Moderate n=20	P-value
Stage 1 n=52	0	42(45.1%)	10 (50%)	<0.0000*
Stage 2 n=40	20(9.04%)	20(21.5%)	0	
Stage 3 n=63	43(19.4%)	10(10.7%)	10 (50%)	
Stage 4 n=179	158(71.5%)	21(22.5%)	0	

Analyses performed by Chi-square tests. *Statistically significant at P≤0.05.

Table 3 presents the proportion of respondents who experienced different levels of Functional wellbeing by cervical cancer stage. Results revealed that more than half of the respondents 221

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(66.2%) experienced poor Functional wellbeing while no respondent experienced good Functional wellbeing. High proportion of those who experienced poor Functional wellbeing 158(71.5%) were in stage 4 while no respondent in stage 4 experienced moderate Functional wellbeing. Half of those who experienced moderate Functional wellbeing 10 (50%) were in stage 1.There is statistically significant relationships between cervical cancer stage and Functional wellbeing of cervical cancer patients P<0.0000

Table 4 Influence of Cervical cancer stage and treatment received in the last month on overall quality of life

Independent variables	B	Std. Error	t	P-value
(Constant)	2.361	0.123	19.244	**<0.0000***
Cervical cancer stage	-0.257	0.027	-9.374	**<0.0000***
Treatment received in the last month	0.052	0.013	3.954	**<0.0000***

    a. Dependent Variable: Overall quality of life

Regression analysis between independent and dependent variables was used to identify whether cervical cancer stage and treatment received in the last month had influence on overall quality of life. Cervical cancer stage showed a negative influence on overall quality of life, implying that 25.7%(-0.257) of reduction in overall quality of life is explained or predicted by cervical cancer stage. Whereas treatment received in the last one month had a positive influence on overall quality of life, implying that 5.2%(0.052) of improvement in overall quality of life is explained or predicted by treatment received in the last one month.

The P-values in bold were less than 0.05 indicating that both cervical cancer stage and treatment received in the last month had statistically significant relationship with overall quality of life **P<0.0000**

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Table 5Influence of age, marital status, level of education and religion on Overall quality of life of cervical cancer patients

Independent variables	B	Std. Error	t	P-value
(Constant)	1.039	0.229	4.529	**0.000**
Age	0.081	0.035	2.303	**0.022**
Marital status	0.043	0.036	1.200	**0.231**
level of education attained	0.141	0.044	3.196	**0.002**
Religion	0.108	0.054	2.012	**0.045**

a. Dependent Variable: Overall quality of life

Regression analysis between independent and dependent variables was used to identify whether age, marital status, level of education and religionhad influence on overall quality of life.All the independent variables showed positive influence on overall quality of life.

The P-values for age, level of education and religion were less than 0.05 indicating that these variables had statistically significant relationship with overall quality of life. Only marital status had P- value more than 0.05 indicating that it did not have statistically significant relationship with overall quality of life **P=0.231**

DISCUSSIONS

Developing countries in sub-Saharan Africa are experiencing changing disease patterns with non-communicable diseases especially cancers becoming a menace. In Kenya, cancer ranks third as a cause of death after infectious and cardiovascular diseases (Globocan, 2012). Millennium Development Goals does not focus directly on non- communicable diseases (NCDs), yet the Kenyan constitution guarantees every individual the highest attainable standard of health and Vision 2030 envisages provision of an efficient integrated and high quality affordable healthcare to all citizens.

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Non-communicable diseases especially cancers seem neglected as they receive little attention contrary to the provisions of the constitution and Vision 2030. Currently most interventions in the Healthcare system are aligned to the MDG emphasized diseases like HIV/AIDs, malaria and tuberculosis. Kenya lacks proper cancer registry, especially cancer site specific registry, this leaves researchers and policy makers in darkness as to the actual magnitude of cancer problem. The minority affected by cancer are therefore left to suffer bitterly and silently. The current study therefore hopes to bring to open the quality of life of cervical cancer patients in Kenya.

The results revealed that cervical cancer patients experience poor functional and physical wellbeingthough they do fairly better with emotional and social wellbeing, further findings indicated that most patients' household income sources were small scale farming and small scale business 47.6% and 43.4% respectively. This partly concurs with Ell et al.(2008); in a study conducted onlow-income Hispanic women with a primary diagnosis gynecological cancer where patients experienced significantly poorer functional, physical, emotional, and affective well-being. The two studies however differ in their findings regarding emotional and social wellbeing among cervical cancer patients which were fairer in the current study. This may be attributed to high spirituality and strong extended and family ties reported by patients in the current study.

A retrospective study conducted at the People's Hospital of Xintai City in Shandong Province on Chinese survivors of cervical cancer showed a significant association between health-related QoL, education level, tumor stage, marital status, and age.(Nie and Gao 2014)**.** This agrees with the current study where such test of association resulted in P-values for age P=0.022, level of education P=0.002, cervical cancer stage P=0.000 and religion P=0.045 indicating that these variables had statistically significant relationship with overall quality of life. Only marital status **P=0.231** differed this may be explained by the fact that, most patients in the current study were widows 53.3% others were divorced and single only 31.1% were married.

Stage of cervical cancer may adversely affect the quality of life (QOL) among patients. A cross-sectional study was conducted in Malaysiato predict the QOL among cervical cancer patients by the stage of their cancer. Results showed that global health status, emotional functioning and pain score were higher in stage III cervical cancer patients while role functioning was higher in stage I cervical cancer patients. Patients with stage IV cancer have a lower mean score in global health status and emotional functioning while stage III had lower mean score in role functioning

but higher mean score in pain. In conclusion, stage III and IV cervical cancers mainly affect the QOL of cervical cancer patients. The study recommended that Focus should be given to these subgroups to help in improving the QOL. (Azmawati et al. 2014)**.** The findings of the current study confirms these findings where majority of patients who experienced poor physical (89.5%) and functional (90.9%) well being were in stage 3 and 4 of the disease.

In the current study, fatigue, insomnia, menopausal symptoms were significantly observed among the respondents. This concurred with(Damodar et al. 2014)

Nair, (2000) asserted thatQuality of life scores of cervical cancer patients in developing countries are lower than published norms, and lower scores were associated with inpatient status, more advanced stage of the disease, lower Karnofsky physical performance scores, , and lower 'fighting spirit' and more 'helplessness/hopelessness'. This finding partly agrees with the current study and partly differs in that the current study reported patients to have high fighting spirit and hopefulness as majority of the patients said they are not worried about death and they did not lose hope in the fight against their illness (84%).

Patients receiving palliative care in South Africa and Uganda exhibited significantly poorer QOL compared to similar populations in the USA. Feeling at peace and having a sense of meaning in life were more important to patients than being active or physical comfort, and spiritual wellbeing correlated most highly with overall QOL (Selman, et al. 2011).This contradicts the current study where spiritual wellbeing was not highly associated with overall quality of life though patients reported high spiritual status and high need for spiritual nourishment.

CONCLUSION

Cervical cancer patients experience poor functional and physical wellbeing though they do fairly better with emotional and social wellbeing. Interventions targeting improving quality of life among cervical cancer patients should be prioritized.

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