A CONTROLLED STUDY OF CO-MORBID PSYCHIATRIC DISORDERS AND QUALITY OF LIFE AMONG WOMEN WITH CERVICAL CANCER IN A WEST AFRICAN TEACHING HOSPITAL

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ABSTRACT

Objective: Cervical cancer is an important gynaecological cancer worldwide with associated high morbidity and mortality especially in developing countries of Africa. Despite this, virtually no research has been conducted on psycho-social complications of cervical cancer in Nigeria, hence this study.

Methods: Women with histologically confirmed cervical cancer in the Gynaecology and Oncology clinics of Lagos University Teaching Hospital (LUTH), Lagos, Nigeria were enrolled in the study; with equal number of age and marital status matched two control groups, that is women with uterine fibroid and apparently healthy control women. The subjects, that is women with cervical cancer (WCC) and controls were administered with Schedule for Clinical Assessment in Neuropsychiatry (SCAN) and World Health Organization Quality of Life-Bref (WHOQoL-Bref).

Results: Fifty five WCC and equal number of participants with uterine fibroid and healthy controls respectively were studied. The mean age of the WCC was 43.7±5.0 years; and 80.0% was married. **T**he highest number, 15 (27.3%) presented in stage 2B, followed by 11 (20.0%) stage 3B, and equal number of 8 (14.5%) in stages 2A and 3A respectively. On histological type of cancer, the histological diagnoses were Squamous cell type (94.5%) and Adenocarcinoma (5.5%). Seventeen (30.9%) of WCC had psychiatric complications of Anxiety, Depression or both together compared to 7 (12.7%) and 4 (7.3%) for uterine fibroid and healthy control groups respectively. The difference in the presence of psychiatric diagnoses among the three groups was statistically significant: X^2=11.96, df=2, p=0.003*. Furthermore, the WCC scored much lower across all domains of QoL in the WHOQoL-Bref compared to the two control groups with significant differences of p=0.00*.

Conclusion: Significant psychiatric morbidities with reduced quality of life (QoL) were found among WCC in our study. The need to take into consideration psychological component in the management of cervical cancer patients in Nigeria was emphasized.

Keywords: Cervical Cancer; Psychiatric disorders; Co-morbidity; Lagos; Nigeria.

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INTRODUCTION

Cancer of the cervix is a malignant neoplasm of the cervix uteri, and was the second most common cancer in women after breast cancer globally[1,2]; but latest cancer statistics shows it is now ranked the third most common[3]. Studies have shown cancer of the cervix accounts for 12% of cancers worldwide, with estimated new cases of 470,000 annually[4,5]. Furthermore, it accounts for 35% of deaths among adult females, and most of these deaths, that is about 80% occur in developing countries, particularly Africa[1,6]. The high morbidity and mortality due to cervical cancer in Africa has been largely attributed to late presentation[7].

A number of studies, particularly from the Western world have shown that the diagnosis of cancer of the cervix has some implications including physical, sexual, economic and development of psychological co-morbidities most especially adjustment, anxiety and depressive disorders for the affected women[8,9,10]. Furthermore, in the past two decades, emphasis has also been laid on quality of life (QoL) of patients receiving treatment for chronic or terminal illnesses, more so for cancer survivors[11,12]. QoL has been described in various ways, such as one given by the UNdata, a division of the United Nations Organization (UNO) that states "QoL is a notion of human welfare (well-being) measured by social indicators rather than by 'quantitative' measures of income and production"[13].

In Nigeria, many studies have been carried out on cervical cancer with all virtually on knowledge and awareness of the disease, histological type and the associated high mortality[6,7,14,15,16]; but none has examined the psychological co-morbidities and quality of life of survivors, hence this study.

METHODS

Study Location: The study was carried out in the Gynaecology and Oncology clinics of Lagos University Teaching Hospital (LUTH), Idi-Araba, Lagos . Lagos is the commercial capital of Nigeria, and the hospital is one of the first tertiary health institutions to be established in the country. The Oncology and Gynaecology clinics are patronized by clients from nearly all over the country.

Participants: The study population included adult women (18 years and above) seen in the two clinics with histologically confirmed cervical cancer. Age and marital status matched controls included two groups; one, were women with ultrasound diagnosis of fibromyoma/ uterine fibroids, that is a benign gynaecological disorder; and group two was that of apparently healthy women. Permission to carry out the study was obtained from Research and Ethics Committee of the hospital, in addition to consent obtained from each subject and controls.

Instruments: These consist of the following:

Socio-demographic Questionnaire: This was used to elicit such information as age, educational status, marital status, occupation, etc.

Schedules for Clinical Assessment in Neuropsychiatry (SCAN): This was developed by World Health Organization (WHO) as an improvement on Present State Examination (PSE)[17]. SCAN is used by a trained clinician to assess, measure and classify psychopathology and behavior associated with major psychiatric syndromes in adult individuals. The instrument has been used extensively in Nigeria[18].

World Health Organization Quality of Life-Bref (WHOQoL-Bref): This is a 26-item self-administered generic questionnaire developed by World Health Organization (WHO). It measures the quality of life of an individual in four domains: physical, psychological, social and environmental domains. It is a shorter version of the original 100-item instrument, with appropriate retention of the original psychometric properties[19]. WHOQoL-Bref had been used in various studies in the past[20,21].

Procedure: Successive women who met the criteria were recruited in to the study. Each of the cervical cancer and uterine fibroid participant as well as controls were administered with the socio-demographic questionnaire and WHOQoL-Bref. The SCAN was administered on each participant and control by one of the researchers (ICE).

Data Analysis: Data was entered and analyzed using Epi-Info version 3.5.1. Means and standard deviation were found for the continuous variables, and the difference between means was found using student's t-test. Chi-square and Fisher's exact tests were used to test associations between categorical variables; with level of significance set at $p \leq 0.05$.

RESULTS

Socio-demographic and Clinical Profiles

A total of 165 women were studied, made of 55 with cancer of the cervix; and equal number of those with uterine fibroid and apparently healthy control groups respectively. The age range was 30-49 years. The mean age for women with cervical cancer (WCC) was 43.7±5.0 years; with 42.7±4.4 and 43.1±4.9 years for uterine fibroid and apparently healthy control groups respectively. Majority was married: 80.0% for WCC and 85.5% and 78.2% for the fibroid and healthy control groups respectively. Among WCC, 52.7% was employed; with 34.5% and 38.2% for fibroid group and healthy control groups respectively.

For WCC, the highest number, 15 (27.3%) presented in stage 2B, followed by 11 (20.0%) stage 3B, and equal number of 8 (14.5%) in stages 2A and 3A respectively. Compared with the uterine fibroid group (21.8%), majority of the cervical cancer subjects (67.3%) was seen in this study less than one year from the time of histological diagnosis of their illness; 21.8% and 47.3% for 1-2 years for the cervical cancer and uterine fibroid subjects respectively.

On the histological type of cancer for the cervical cancer subjects, the histological diagnoses were Squamous cell type (94.5%) and Adenocarcinoma (5.5%).

Psychiatric diagnoses

The part 1 sub-section of the Present State Examination module of the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) was administered to elicit presence of psychiatric diagnosis in WCC and controls. Specifically, the psychiatric disorders studied were Anxiety, Depression and co-morbid Anxiety with Depression. Among WCC, 17 (30.9%) had psychiatric diagnoses; 7 (12.7%)for the uterine fibroid group and 4 (7.3%) for the apparently healthy controls. The difference in the presence of psychiatric diagnoses among the three groups of participants was statistically significant: $X^2=11.96$, df=2, p=0.003*, (Table 1a).

The specific psychiatric diagnoses for each group are as shown in Table 1b.

Quality of Life Scores among WCC and Controls

The World Health Organization Quality of Life-Bref (WHOQoL-Bref) was administered on the three groups. The mean scores in the overall quality of life (QoL) and those in the five domains for each group are as shown in Table 2. As shown, there were significant differences with p=0.00* in the scores between the different groups, with the cervical cancer participants having the lowest mean scores in virtually all the domains of the WHOQoL-Bref.

DISCUSSION

The mean age (43.7 years) of women with cervical cancer (WCC)in our study was relatively lower when compared with some previous similar studies. In a study in Eastern district of Hong Kong, the mean age of WCC was 60 years[10], and 54 years in a recent study in Nigeria[22]. However, in a more recent pooled data analysis of 19 population based studies in Beijing,

China, the mean age was found to be 41.5 years[23], very similar to our finding (43.7 years). Majority of our CCS (80.0%) was married. In Africa, it is considered as a thing of high value and prestige for a woman to be in marriage relationship[24].

In our study, over three-quarter of WCC presented in stages 2 and 3; as usual for most WCC in Africa, late presentation is still a problem in management with resultant high morbidity and mortality[6,7,14]. Again, as with previous studies in Nigeria, squamous cell carcinoma was the commonest histopathological diagnosis in our study[16,22].

Close to one-third (30.9%) of participant WCC had one form of psychiatric diagnosis or the other which included Anxiety (10.9%), Depression (12.8%) or co-morbid Anxiety and Depression (7.2%). Many studies in the past have shown high rate of psychiatric morbidities among patients with cancer[25,26]. Particularly for cervical cancer, there are high rates of co-morbid anxiety and depressive disorders[9,10,27]. The finding of 30.9% of WCC in our study having a psychiatric diagnosis is similar to that of 37.0% in a study by Lau et al (2013)[10]. Our finding on the psychiatric morbidity is again important because such psychiatric disorders like anxiety and depression are known to worsen cancer morbidity, prolong hospitalization and increase propensity to suicide[28,29,30].

In the past few decades, more clinicians recognize the importance of health related quality of life (HRQoL) most especially in the treatment of chronic and terminal illnesses including cancers[31,32]. Studies have shown that a patient's quality of life (QoL) is impacted from the beginning of the cancer experience, during which the individual encounters many unplanned and/or life altering events[12]. In our study, the scores of WCC was generally lower compared to the control groups in all the domains of WHOQoL-Bref. Our findings are similar to those from previous similar studies where cancers were found to impact negatively on QoL among such patients[33,34,35].

Important limitations of our study is the small number of sample, and been a cross-sectional study carried out in a centre, a causal relationship is difficult to establish and generalization made for the country (Nigeria) at large. Despite these limitations, our study had opened a frontier to appreciating the psycho-social complications associated with Cervical cancer subjects in Nigeria. It can be concluded that there is need to establish a consultation-liaison psychiatric services in gynaecology/ oncology clinics in Nigeria to take care of the psychological needs of the concerned subjects.

TABLE 1a: Presence Of Psychiatric Diagnosis (Anxiety, Depression Or Both) Among Wcc And Controls

PARTICIPANTS	Cervical Cancer	Uterine Fibroid	Healthy Controls
	No. (%)	No. (%)	No. (%)
PSYCHIATRIC DIAGNOSIS			
Present	17 (30.9)	7 (12.7%)	4 (7.3%)
Absent	38 (69.1)	48 (87.3)	51 (92.7%)
TOTAL	**55 (100.0)**	**55 (100.0)**	**55 (100.0)**

X^2=11.96, df=2, p=0.003*

TABLE 1b: Types Of Psychiatric Diagnoses Among Subjects And Controls

	PARTICIPANTS (N=55)		
	Cervical Cancer	Uterine Fibroid	Healthy Controls
	No. (%)	No. (%)	No. (%)
TYPES OF PSYCHIATRIC DIAGNOSIS			
Anxiety disorder	6 (10.9)	5 (9.1)	-
Depression	7 (12.8)	2 (3.6)	1 (1.8)
Anxiety and Depression	4 (7.2)	-	3 (5.5)
TOTAL	**17 (30.9)**	**7 (12.7)**	**4 (7.3)**

TABLE 2: Mean Scores On Whoqol-bref Domains Among The Three Groups Of Participants

	Mean Scores± SD for the three groups				
	Cervical Cancer	*Uterine Fibroid*	*Healthy Co ntrols*	*F statistics*	*p*
QUALITY of LIFE DOMAINS					
Overall Quality of Life		3.1±1.2	3.7±1.0	4.2±0.8	
17.46	0.00*				
Satisfaction with Health	2.4±1.2		3.6±1.0	4.4±0.7	
61.84	0.00*				
Physical		46.7±22.0	73.5±12.5	71.3±14.8	
42.67	0.00*				
Psychological		53.8±17.2	64.3±11.9	73.9±9.8	
31.40	0.00*				
Social Relationship		55.3±17.6	66.1±10.3	63.7±10.2	
10.26	0.00*				
Environmental Domain		54.0±14.5	64.2±14.0	65.5±14.0	
10.96	0.00*				

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