Original Research Article

HEALTH RELATED QUALITY OF LIFE OF WOMEN WITH GYNECOLOGICAL CANCER RECEIVING CHEMOTHERAPY IN THE UNIVERSITY COLLEGE HOSPITAL, IBADAN.

ABSTRACT

Aims: This study aim at assessing the health related quality of life of women with gynecological cancer on chemotherapy, to identify their major concern and to assess the relationship between health related quality of life with side effect of chemotherapy.

Study design: Cross sectional descriptive study on women with gynecological cancer on chemotherapy.

Place and Duration of Study: Radiation Oncology Department, University College Hospital Ibadan, between June 2018 and July 2018.

Methodology: Purposive sampling technique was used to select 117 women with gynecological cancer undergoing chemotherapy treatment at the University College Hospital, Ibadan. The instrument used was European Organization for Research and Treatment of Cancer core questionnaire (EORTC QLQ-C30).

Results: The mean age of participants is 48.8 years. Cervical cancer (69.2%) is the most prevalent gynecological cancer as revealed in this study. In sub-dimensions of the functional status scale the scores of cognitive and physical status was found higher while emotional and social status score were found lowest. Global health, majority of the respondents rated it good (82.1%). On the symptom scale, financial difficulty ranked the highest concern (88%). The most prevalent side effects of chemotherapy as experienced by the respondents in this study was nausea (69.2%), and vomiting (47.6%). There was a statistically significant association between health related quality of life and the prevalent side effect with (p= 0.015). **Conclusion:** This study revealed that larger number of the respondents had good health related quality of life but majority experiences severe side effects. Nurses play a key role in the identification and treatment of the side effects of chemotherapy therefore

minimizing the side effect of chemotherapy may positively impact on patient's health related quality of life.

Keywords: Health related quality of life, Gynecological cancer, Chemotherapy, Side effect.

INTRODUCTION

Cancer is a major public health problem. It caused over 8 million deaths worldwide in 2013 and has moved from the third leading cause of death in 1990 to the second leading cause behind cardiovascular disease in 2013 (GBD Mortality and Causes of Death Collaborators, 2013). Three decades ago cancer was more prevalent in the developed world but the burden is shifting significantly to the developing countries (Sanni, Ocheke & Oyebode, 2013). Gynecological cancers are a frequent group of malignancies in women, accounting for approximately18% of all female cancers worldwide (Goker, Guvenal, Yanikkerem, Turhan & Koyuncu, 2011). Gynecologic cancers are cancers that begin in the reproductive organs, including the cervix, uterus, ovaries, vagina and vulva.

Approximately 84,000 new cases are diagnosed and about 28,000 deaths occur each year from gynecologic cancer among women in the United States (United States cancer statistics, 2013). The gynaecologic cancer burden in developing countries like Nigeria is huge primarily due to the high incidence and mortality of cervical cancer (Agboeze, Ezenonu, Onoh, Nwali, Agwu & Rose, et al., 2015).

After the diagnosis of gynecologic cancer, women are faced with the diagnosis itself, personal interpretation of cancer, physical effects of the disease, long and short term side effects of the treatment regimes and the reaction of family and friends (Pınar, Algier, Çolak & Ayhan, 2008; Özaras and Özyurda, 2010). The management of patient with gynecological cancer mainly aims at prolonging survival but modern therapy focuses on good survival combined with a good quality of life (QoL). (Goker, et al., 2011). The mode of treatment of cancer which involves chemotherapy, radiotherapy and Surgery influence the QoL of women extensively. Chemotherapy is a concentrated and repeated treatment drug regimen, unlike surgery it has many adverse reactions including hair loss, nausea, vomiting, fatigue and diarrhea; besides it requires extended periods of treatment and repeated admissions to the hospital, which can eventually affect the QoL of patients with cancer. In oncology chemotherapy is used as a front-line therapy, as an adjuvant to surgery or radiotherapy and even in palliative care. However in a large majority of cases, despite initial reduction in tumor size, the vast

majority of cancers become unresponsive to chemotherapy (Skeel and Khleif, 2011) When treatment can not result in cure, it should lead to an improvement of well-being and quality of life (Weaver, Forsythe, Reeve BB, Alfano CM, Rodriguez JL, Sabatino SA, et al., 2012).

Quality of Life for patients is defined as “extent to which one’s usual or expected physical, emotional and social well-being is affected by a medical condition or its treatment”. While Health-related quality of life (HRQOL) is a subjective health status that focuses more on the impact of a perceived health state on the ability to live a fulfilling life. For patients living with cancer, all aspects of life are influenced negatively (Ferrell, Brearley, Pilling, and Molassiotis, 2013). Patients with cancer receiving chemotherapy face some psychological problems- stress, anxiety, depression; some physiological side-effects — hair loss, pain, tiredness, nausea, vomiting; some social side effects — social isolation, role and function loss; and, eventually, a worsened quality of life. (Ferlay, Steliarova-Foucher, Lortet-Tieulent, Rosso, Coebergh and Comber, 2012). Nowadays, the goal of cancer therapy is not only to cure the cancer and increase the survival but also to minimize the symptoms relieve suffering, restore functioning, or enhance the quality of life (Muliira, Salas and O'Brien, 2017). Higher quality of life leads patients to complete therapy with the lowest harm, control experienced symptoms and overcome these symptoms.

In a study by Goker, Guvenal, Yanikkerem, Turhan & Koyuncu (2011), on Health related Quality of Life in women with Gynecological Cancer in Turkey it was revealed that Gynecological cancer and treatment processes cause significant problems that have negative effects on physical, emotional, social and role function aspects of QoL. Lívia and Sueli, in a similar study also shows that physical domain was the most compromised, due to the toxicity of chemotherapy drugs administered, in relation to cellular non-specificity, which can generate effects such as pain, fatigue, nausea and vomiting, and additionally anorexia, hampering clients in their daily activities and thus reducing their quality of life (Lívia and Sueli, 2010). Pain and fatigue were the most troublesome symptoms reported in a study carried out by Jayeisimi, Sofela and Rufai, (2007) on health related quality of life in women with breast cancer, at the university college hospital Ibadan. While the highest functional score was recorded on physical functioning scale and the lowest was on social functioning scale (Jaiyesimi et al., 2007). Also, in a study on Quality of life among Zambian cervical cancer women post chemo-radiotherapy it was revealed that Patients with advanced cervical cancer treated with

chemoradiotherapy experienced a favorable quality of life and treatment were considered worthwhile by the majority, they also described problems with sexuality and marital relationships. Low education and living without a partner were predictors of low quality of life (Chitashi, 2012).

Most of the gynecologic cancer patients presented with advanced cancer and generalized metastases to various organ systems; as a result, most women had several symptoms and had been sick for about 2 years before diagnosis, due to poor access to specialized health care, thus affecting their quality of life (Khalil, Bellefqih, Sahli, Afif, Elkacemi & Elmajjaoui, 2015). Also, the problem of finances as the cost of chemotherapy is usually unaffordable, and this is a major obstacle for many patients to continue with the treatment (Akinyemiju, 2012). Financial difficulties ranked highest in a study carried out at the university college hospital on health related quality of life in women with breast cancer (Jayeisimi et al., 2007).

Over the years, studies have been done to assess quality of life (QoL) of patients living with cancers on chemotherapy in different countries. Currently, there is paucity of such studies assessing HRQoL of women with gynecological cancer on chemotherapy in south west and Nigeria at large. This has prompted this study, which assessed the Health Related Quality of life in women with gynecologic cancers on chemotherapy in University College Hospital Ibadan, Oyo State Nigeria.

MATERIAL AND METHODS / METHODOLOGY

The study used cross sectional descriptive design to elicit information from women with gynecological cancers on chemotherapy at the University College Hospital, Ibadan.117 women with gynecological cancer on chemotherapy participated in the study. The data were collected between June and July 2018 from those who agreed to participate in the study. Eligibility criteria included] women diagnosed with gynecological cancer on chemotherapy, aged 18 and above and willing to participate. After been recruited, the women were given consent form explaining objectives, benefits and confidentiality of the study and the women gave their consents. The instrument for the study was a self-structured questionnaire and validated questionnaires. Section A assessed information on socio demographic characteristics of the participants e.g age, sex, type of cancer, educational level etc this constitutes questions 1 - 10. Section B assessed the health related quality of life in women with gynecological cancer on chemotherapy, this section consist of questions 1-30 adapting the (EORTC) core questionnaire version 3. (Aaronson et.al., 1993) It consist of three domain; domain A consist of 15 questions aimed at assessing the functioning, domain B aimed at assessing symptoms scale and

domain C aimed at assessing patient's perception on her global health status. The questionnaire was administered by the researcher and research assistants. Two Research assistants was trained on the data collection instrument and clarifications were provided by the researcher. Eligible persons at the radiation oncology ward and clinic were approached by the researcher and research assistance regarding their interest in participating. The questionnaire was administered by the researcher and research assistants. The data collected was analysed with statistical package for social sciences (SPSS, version 22).

Result

The mean age was 48.8 years (±10years) with 28 and 68years being the minimum and maximum ages respectively. 74.4% where Christians while 25.6% of the respondents were Muslims. 65.8% were of Yoruba tribe, 27.4% of Igbo tribe while 6.8% were of Hausa tribe. 53% of the respondents were married, 22.2% were divorced and 6.8% were single. Cervical cancer was the most prevalent 81(69.2%) respondents) followed by ovarian cancer in 20(17.1%) respondents, endometrial cancer in 8(6.8%) respondents while vaginal and vulva cancers occurred equally among 8(6.8%) respondents. Respondents had from 1 to 6 courses of chemotherapy with the mean course of chemotherapy being 3times (±1.5times). Respondents' number of children was from 0 to 9 with the mean number of children being 4 children (±2children). 62.4% were traders, 20.5% were housewives, 13.7% were civil servants while 3.4% were students. 41.0% had a tertiary education, 39.3% had only secondary school education, 16.2% had only primary school education while only 3.4% of respondents had no formal education.

Table 1: Respondent's demographic characteristics

Variable	Frequency	Percentage (%)	Mean	Standard deviation	Minimum	Maximum
Age			48.79	10.04	28	68
28-34	16	13.7				
35-41	5	4.3				
42-48	39	33.3				
48.8-54	20	17.1				
55-61	20	17.1				
62-68	17	14.5				
Religion						
Islam	30	25.6				
Christianity	87	74.4				
Others	0	0.0				
Tribe						
Hausa	8	6.8				
Igbo	32	27.4				
Yoruba	77	65.8				

Others						
Marital status						
Single	8	6.8				
Married	62	53.0				
Divorced	26	22.2				
Widow	21	17.9				
Cancer type						
Ovarian	20	17.1				
Cervical	81	69.2				
Vaginal	4	3.4				
Vulva	4	3.4				
Endometrial	8	6.8				
Course of chemotherapy			3.03	1.50	1	6
1	14	12.0				
2	37	31.6				
3	33	28.2				
4	9	7.7				
5	12	10.3				
6	12	10.3				

Table 2 shows the mean, standard deviation, minimum and maximum values for each item under the component scales as well as that of the single items.

Table 2: Health related quality of life of respondents

Variable	Mean	Standard deviation	Minimum	Maximum
Functional scale				
Physical functioning	60.40	36.79	0.00	100.00
Role functioning	53.70	34.82	0.00	100.00
Emotional functioning	49.43	32.29	0.00	100.00
Cognitive functioning	61.60	33.56	0.00	100.00
Social functioning	36.75	33.59	0.00	100.00
Symptom scale				
Fatigue	56.41	28.01	16.67	100.00
Nausea and vomiting	51.19	31.90	0.00	100.00
Pain	50.85	29.18	16.67	100.00
Quality of life scale /global health status	63.03	18.09	33.33	83.33
Single items				
Dyspnea	25.64	34.57	0.00	100.00
Insomnia	50.14	33.80	0.00	100.00

Appetite loss	54.13	32.37	0.00	100.00
Constipation	41.60	31.84	0.00	100.00
Diarrhea	15.95	27.54	0.00	100.00
Financial difficulties	88.31	25.26	0.00	100.00

Table 3 shows that 82.1% of the respondents have a better health related quality of life while 17.9% has a worse health related quality of life.

Table 3: Categories of respondents' health related quality of life

Variable		
Health related quality of life	Frequency	Percentage (%)
Better	96	82.1
Worse	21	17.9

Association between the side effects of chemotherapy and health related quality of life of women with gyneacological cancers on chemotherapy.

Table 4, the p-value 0.015 is less than 0.05 and it can therefore be concluded that there is significant association between health related quality of life and prevalent side effects experienced by women on chemotherapy. Therefore, the null hypothesis is rejected.

Association between the side effects of chemotherapy and health related quality of life of women with gyneacologic cancers on chemotherapy.

Table 4

Variable	Prevalent side effects		X^2	P-value
	Mild	Severe		
Quality of life			8.434	0.015
Better	29(24.8%)	67(57.3%)		
Worse	0(0.0%)	21(17.9%)		

DISCUSSION

The ages of respondents ranges between 28 and 68years being the minimum and maximum ages respectively, with mean age of 48.8 years (±10years) this is in agreement with findings from a similar study by Lívia and Sueli, (2007) with a mean age of 48.4 (± 12.0) years. Age has been reported to be a single predictor of cancer development. Risk for the development of cancer begins to increase at 40 years of age and then increase rapidly at age 50years (American cancer and Society, 2004).

In this study, gynaecologic cancer includes cervical cancer, ovarian cancer, Endometrial cancer, vulva and vagina cancer. Cervical cancer was the most prevalent (69.2%) respondents followed by ovarian cancer in (17.1%) respondents, endometrial cancer in (6.8%) respondents while vaginal and vulva cancers occurred equally among (3.4%) respondents, this report is in agreement with a large review carried out in Lagos and Ibadan (South West Nigeria) in 2011 showed that cervical cancer was second only to breast cancer as the commonest cancer in the region (Durowade, et al., 2012). The pattern from Aminu Kano Teaching hospital in the largest metropolis in the north west of the country equally shows that cervical cancer is the commonest Gynaecologic malignancy in women. According to GLOBOCAN 2012, cervical cancer is the 4th commonest cancer in women and the 7th overall worldwide. Its highest incidence occurs in less developed areas of the world where 85% of the cases now occur (Cancer Institute, 2013).

In this study, the subdimensions of the functional status scale were evaluated, the mean of cognitive and physical score was found higher while emotional and social functional subdimentions score were found lowest in women with gynecological cancer on chemotherapy. Similarly, a study in Turkey, which evaluated QoL of women using EORTC QLQ-C30 scale, stated that emotional (49.55±32.42) aspects of QoL were mostly affected among the functional parameters and cognitive function (66.33±27.45) was found higher (Pinar et al., 2008). The report is also in line with a result from a similar study by Goker (2011) the mean of cognitive score was found higher than other dimensions and emotional score was the lowest score in women with gynecologic cancer. It was stated in their study that the low social functioning score, and especially emotional functions have been observed to decrease significantly in the women with gynecological cancer and the findings indicates the impaired QoL in cancer patients (Goker, 2011). In Nigeria, families, parental, and friends support is at quite a low level, some see cancerous disease as a hopeless case thereby abandoning their relations with such disease at such a critical state thus making an immense contribution to the impaired social and emotional well-being. It was also stated in Goker et al., study that Cancer diagnosis, a long treatment process and obscurity keep the patients away from social life and lead to disturbances in interpersonal relationships resulting into low social functioning.

Regarding self-rated health, most of the respondents (63.03 ±18.09) rated it as very good or good and considered that they are satisfied with it. Similarly Sueli and livia 2001, reported high score for global

health of respondents in their study on Quality of Life in Women with Gynecologic Cancer in Turkey. It was stated in their study that high score of global health result indicates that, in view of the prospect of progress of a chronic disease, they are satisfied with the moment they are experiencing. The QoL as seen in this study is higher than that reported by Sueli and Livia this may be as a result of racial difference. The result is contrary to what was obtained in a study on the Quality of Life in Cancer Patients undergoing Chemotherapy by Dehkordi et al., (2009) their findings show that the Quality of life (QoL) was fairly favorable in majority (66%) of the patients.

In relation to the symptom scale out of the 96 respondents with a better quality of life, 33 has mild symptom with good functioning while 63 has severe symptoms with poor functioning. All the 21 respondents with worse quality of life have severe symptom and poor functioning. Despite the severe symptoms experienced with poor functioning by majority, they still claimed to have good quality of life this could be related to the fact that Nigerians are very strong and still claim to be fine in the face of hardship.

On the symptom scale, financial difficulty ranked the highest followed by fatigue, pains, loss of appetite, nausea and vomiting (88%,56%,54%,51% and 50%) respectively. It was also observed that financial difficulties ranked highest in a study carried out at the university college hospital on health related quality of life in women with breast cancer (Jayeisimi et al., 2007). The problem of finances is a major cause of health deterioration as the cost of chemotherapy is usually unaffordable, and this is a major obstacle for many patients to continue with the treatment (Akinyemiju, 2012). The most experienced symptoms as its been reported in the literature for cancer patients, fatigue is the most significant problem affecting the daily activities and life (Hoskins et al., 1997). In this present study, fatigue score was found second highest for women with gyneacological cancer on chemotherapy. Pain and fatigue were the most troublesome symptoms reported in a similar study carried out by (Jaiyesimi et al., 2007). There was a statistically significant association between the prevalent side effects and health related quality of life of women with gyneacological cancer on chemotherapy ($p=0.015$). This study revealed that larger number of the respondents had good health related quality of life but majority experiences severe side effects of chemotherapy.

CONSENT

Informed consent form was obtained from all respondents before administering the questionnaires.

ETHICAL APPROVAL

Ethical approval sought and obtained from the joint University of Ibadan/University College Hospital (UI/UCH) ethical review board.

CONCLUSION

This study revealed that larger number of the respondents had good health related quality of life but majority experiences severe side effects. Nurses play a key role in the identification and treatment of the side effects of chemotherapy therefore minimizing the side effect of chemotherapy may positively impact on patient's health related quality of life, and there is need for regular assessment of health related quality of life of women with gyneacological cancer because measuring the impact of cancer and its treatment on patients' quality of life is being recognised as an important outcome measure.

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