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Original Research

# Quality of Life among Women Living with Gynecological Malignancies in Zaria, Nigeria.

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## Abstract

**Background**: Cancer can have an impact on Quality of Life (QoL), which can be influenced by an individual's culture and value system.
**Methodology:** The study was a cross-sectional descriptive study involving all women with gynecological malignancies accessing care at Ahmadu Bello University Teaching Hospital, Zaria.
The sample size constituted all women diagnosed with any gynecological malignancy who accessed care in Ahmadu Bello University Teaching Hospital within six months from the start of data collection. This period was from October 1st, 2023, to March 31st, 2024. A total of 176 cases were identified. The WHOQOL BREF was used to assess QoL. Scores greater than one standard deviation above the mean were considered good, scores less than one standard deviation below the mean were regarded as poor, while scores that fell between them were deemed fair.
**Results**: The mean age of respondents was 49.4 ± SD15.0 years. The mean overall quality of life and overall health were 3.18 ± SD 1.1 and 3.10 ± SD 1.1, respectively. The overall quality of life was poor in 19 (26%) of respondents, and only 7 (9.6%) of respondents had a good quality of life. The majority had a fair overall QoL. The overall QoL was significantly affected by the stage of disease (p=0.04) and treatment status (p=0.02).
**Conclusions:** QoL concerns need to be addressed while offering care for women with gynecological malignancies.

**Keywords:** Gynaecology; Malignancy; Quality of Life; Zaria.

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## Introduction

Gynecological malignancies are a major cause of morbidity and mortality among women worldwide.[1]At the age of 75 years, the risk of a woman developing cancer in sub-Saharan Africa is 14.1%.[1]

The fact that a diagnosis of cancer affects the quality of lifeof individuals with cancer has been documented in the literature.[2]WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. This means that the effect cancer has on QoL is determined by individuals' culture and value system.

With this background, we conducted a study on the QOL of women diagnosed with gynecological cancer who are accessing care in our clinic. We also explored the association between the sociodemographic profile of the women, type of gynecological cancer, stage of disease, symptoms, type of treatment, duration of disease, and QOL.

## Methodology

Study design

The study was a cross-sectional descriptive study involving all women with gynecological malignancies accessing care at Ahmadu Bello University Teaching Hospital, Zaria.

### Sample size

The sample size constituted all women diagnosed with any gynecological malignancy who accessed care in Ahmadu Bello University Teaching Hospital within six months from the start of data collection. This period was from October 1$^{st}$, 2023, to March 31$^{st}$, 2024. A total of 176 cases were identified.

### Data Collection

The Kobo tool collection was used to obtain the necessary data from the case files of women who volunteered to participate in the study. It was also used to obtain the data on QoL using the WHOQOL-BREF[3]using either the English or Hausa versions[4]of the tool based on their preference.

All the case files were identified, and they were contacted via phone calls and invited to participate in the study. Some participants chose to be interviewed via phone calls while others were interviewed during their clinic visits.

### Measurement of Variables

Quality of life was assessed as a continuous variable using WHOQOL-BREF

Scores greater than one standard deviation above the mean were considered good, scores less than one standard deviation below the mean were regarded as poor, while scores that fell between them were deemed fair.

### Data analysis

The obtained data was downloaded to an Excel spreadsheet and cleaned. It was then exported to SPSS version 25 for analysis.

### Ethical Consideration

Approval to conduct the study was obtained from the Health Research Ethics Committee of Ahmadu Bello University Teaching Hospital, Shika. NHREC/ABUTH-HREC/29/08/23.

## Result

Out of the 176 cases identified during the study period, 54 (30.7%) were confirmed to be dead from either their case files or by their relatives on the phone, 24 (13.6%) case files were not found, 25 (14.2%) could not be reached through the mobile phone numbers they registered in the hospital and did not present to the clinic during the study period. Thus only 73 (41.5%) were reached and all participated in the study.

The mean age of the respondents was 49.4 ± SD15.0 years. (Table 1) The ratio of premenopausal women to postmenopausal women was 1:1. The Hausa tribe constituted the majority of the respondents. (Table 1)

**Table 1: Baseline Profile of respondents**

| Variable | Frequency (n=73) | Percentage |
|---|---|---|
| **Age** | | |
| 0-9 | 1 | 1.4 |
| 10-19 | 3 | 4.1 |
| 20-29 | 2 | 2.7 |
| 30-39 | 10 | 13.7 |
| 40-49 | 17 | 23.3 |
| 50-59 | 19 | 26.0 |
| 60-69 | 14 | 19.2 |
| 70-79 | 6 | 8.2 |
| 80-89 | 1 | 1.4 |
| Mean (SD) 49.4 (15) | | |
| **Tribe** | | |
| Hausa | 42 | 57.5 |
| Yoruba | 6 | 8.3 |
| Igbo | 2 | 2.7 |
| Others | 23 | 35.5 |
| **Menopausal** state | | |
| Premenopausal | 37 | 50.7 |
| Post menopausal | 36 | 49.3 |

The mean overall quality of life and overall health were 3.18 ± SD 1.1 and 3.10 ± SD 1.1, respectively. (Table 3) The overall quality of life was poor in 19 (26%) of respondents, and only 7 (9.6%) of respondents had a good quality of life. The majority of the participants reported fair QoL across all domains. The Psychological health domain had the highest number 12 (16.4%) of respondents with poor QoL. (Table 3)

**Table 2. Cancer Profile of respondents**

| Variable | Frequency (n=73) | Percentage |
|---|---|---|
| **Cancer type** | | |
| Cervix | 48 | 65.8 |
| Ovary | 7 | 9.6 |
| Vulva | 6 | 8.2 |
| Endometrium | 5 | 6.8 |
| Uterine Sarcoma | 3 | 4.1 |
| Choriocarcinoma | 3 | 4.1 |
| Vagina | 1 | 1.4 |
| **Cancer stage (FIGO)** | | |
| I | 18 | 24.7 |
| II | 22 | 30.1 |
| III | 23 | 31.5 |
| IV | 10 | 13.7 |
| **Duration of Median illness (SEM)** | 11.0 (1.82) | |
| **Symptoms** | | |
| Pain | 20 | 27.4 |
| Vaginal bleeding | 16 | 21.9 |
| Abdominal distension | 1 | 1.4 |
| Nausea/Vomiting | 1 | 1.4 |
| Diarrhea | 1 | 1.4 |
| Neuropathy | 15 | 20.5 |
| Constipation | 1 | 1.4 |
| Fatigue | 2 | 2.7 |
| Vaginal discharge | 5 | 6.8 |
| None | 30 | 41.1 |

| | | |
|---|---|---|
| **Type and order of treatment offered** | | |
| Chemotherapy | 35 | 47.9 |
| Chemotherapy/Radiotherapy | 17 | 23.3 |
| Chemotherapy/Radiotherapy/Surgery | 1 | 1.4 |
| Chemotherapy/Surgery | 2 | 2.7 |
| Radiotherapy | 1 | 1.4 |
| Surgery | 3 | 4.1 |
| Surgery/Chemotherapy | 11 | 15.1 |
| Surgery/Chemotherapy/radiotherapy | 2 | 2.7 |
| Surgery/Radiotherapy | 1 | 1.4 |
| **Status of treatment** | | |
| Completed | 38 | 52.1 |
| On going | 23 | 31.5 |
| Yet to start | 12 | 16.4 |

**Table 3: Quality of life and Overall, Health of respondents**

| Variable | Mean | Poor | Fair | Good |
|---|---|---|---|---|
| Overall QoL (n=73) | 3.18±1.10 | 19 (26%) | 47 (64.4%) | 7 (9.6%) |
| Overall, Health (n=73) | 3.10±1.2 | 7 (9.6%) | 59 (80.8%) | 7 (9.6%) |
| Physical Health Domain (n=73) | 17.35±2.1 | 8 (10.9%) | 61 (83.6%) | 4 (5.5%) |
| Psychological Health Domain (n=73) | 18.92±3.7 | 12 (16.4%) | 58 (79.5% | 3 (4.1%) |
| Social relationship Domain (n=73) | 9.27±1.8 | 10 (13.7%) | 52 (71.2%) | 11 (15.1%) |
| Environmental Domain | 19.64±5.7 | 10 (13.7%) | 53 (72.6%) | 10 (13.7%) |

The overall QoL was significantly affected by the stage of disease (p=0.02) and treatment status (p=0.03).(Tables 4 and 5) The overall health was also significantly associated with the stage of the disease (p=0.002) (Table 5) However, the sociodemographic profile and cancer type were not significantly associated with the overall QoL and overall health (p> 0.05). (Table 4)

**Table 4: Association between Quality of life (QoL) and Overall, Health (OH) of respondents and Sociodemographic profile**

| Variable | Overall Quality of Life (QoL) | | | | Overall, Health (OH) | | | |
|---|---|---|---|---|---|---|---|---|
| | Poor QoL | Fair QoL | Good QoL | P=value | Poor OH | Fair OH | Good OH | P=value |
| Age in years | | | | | | | | |
| 0-9 | 0 | 1(100) | 0 | 0.13 | 0 | 1(100) | 0 | 0.25 |
| 10-19 | 0 | 3(100) | 0 | | 0 | 3(100) | 0 | |
| 20-29 | 0 | 2(100) | 0 | | 0 | 2(100) | 0 | |
| 30-39 | 3(30) | 3(30) | 4(40) | | 1(10) | 5(50) | 4(40) | |
| 40-49 | 4(23.5) | 11(64.7) | 2(11.8) | | 1(5.9) | 14(82.4) | 2(11.8) | |
| 50-59 | 6(31.6) | 12(63.2) | 1(5.3) | | 4(21.1) | 14(73.7) | 1(5.3) | |
| 60-69 | 2(14.3) | 12(85.7) | 0 | | 0 | 14(100) | 0 | |
| 70-79 | 4(66.7) | 2(33.3) | 0 | | 1(16.7) | 5(83.3) | 0 | |
| 80-89 | 0 | 1(100) | 0 | | 0 | 1(100) | 0 | |
| Tribe | | | | | | | | |
| Hausa | 9(21.4) | 28(66.7) | 5(11.9) | 0.57 | 2(4.8) | 35(83.3) | 5(11.9) | 0.76 |
| Yoruba | 3(50) | 3(50) | 0 | | 1(16.7 | 5(83.3) | 0 | |
| Igbo | 0 | 2(100) | 0 | | 0 | 2(100) | 0 | |
| Other* | 7(30.4) | 14(60.9) | 2(8.7) | | 4(17.4) | 17(73.9) | 2(8.7) | |
| Menopausal status | | | | | | | | |
| Pre | 7(19.4) | 24(66.7) | 5(13.9) | 0.28 | 2(5.4) | 29(80.6) | 5(13.9) | 0.30 |
| Post | 12(32.4) | 23(62.2) | 2(5.4) | | 5 (13.5) | 30(81.1) | 2 (5.4) | |

* All other Nigerian tribes apart from the ones listed above

**Table 5: Association between Quality of life and Overall, Health of respondents and disease profile**

| Variable | Overall Quality of Life (QoL) | | | | Overall, Health (OH) | | | |
|---|---|---|---|---|---|---|---|---|
| | Poor QoL | Fair QoL | Good QoL | P=value | Poor OH | Fair OH | Good OH | P=value |
| Type of Cancer (n=73) | | | | | | | | |
| Cervix | 16(33.3) | 29(60.4) | 3(6.2) | 0.19 | 5(10.4) | 40(83.3) | 3(6.2) | 0.27 |
| Choriocarcinoma | 0 | 2(66.7) | 1(33.3) | | 0 | 2(66.7) | 1(33.3) | |
| Endometrium | 1(20.0) | 4(80.0) | 0 | | 1(20.0) | 4(80.0) | 0 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ovary | 0 | 4(57.1) | 3(42.9) | | 0 | 4(57.1) | 3(42.9) | |
| Uterine sarcoma | 0 | 3(100) | 0 | | 0 | 3(100) | 0 | |
| Vagina | 0 | 1(100) | 0 | | 0 | 1(100) | 0 | |
| Vulva | 2(33.3) | 4(66.7) | 0 | | 1(16.7) | 5(83.3) | 0 | |
| Stage of Disease (FIGO) (n=73) | | | | | | | | |
| I | 1(5.6) | 15(83.3) | 2(11.1) | 0.02 | 0 | 16(88.9) | 2(11.1) | 0.002 |
| II | 7(31.8) | 12(54.5) | 3(13.6) | | 4(18.2) | 15(68.2) | 3(13.6) | |
| III | 6(26.1) | 17(73.9) | 0 | | 0 | 23(100) | 0 | |
| IV | 5(50) | 3(30) | 2(20) | | 3(30) | 5(50) | 2(20) | |

**Table 6: Association between Quality of Life and Overall, Health of respondents and treatment profile**

| Variable | Overall Quality of Life (QoL) | | | | Overall, Health (OH) | | | |
|---|---|---|---|---|---|---|---|---|
| | Poor QoL | Fair QoL | Good QoL | P=value | Poor OH | Fair OH | Good OH | P=value |
| Type of treatment (n=73) | | | | | | | | |
| Chemotherapy | 13(37.1) | 21(60) | 1(2.9) | 0.13 | 5(14.3) | 29(82.9) | 1(2.9) | 0.20 |
| Chemotherapy/Radiotherapy | 4(23.5) | 12(70.6) | 1(5.9) | | 2(11.8) | 14(82.4) | 1(5.9) | |
| Chemotherapy/Radiotherapy/Surgery | 0 | 1(100) | 0 | | 0 | 1(100) | 0 | |
| Chemotherapy/Surgery | 0 | 2(100) | 0 | | 0 | 2(100) | 0 | |
| Radiotherapy | 0 | 1(100) | 0 | | 0 | 1(100) | 0 | |
| Surgery | 1(33.3) | 2(66.7) | 0 | | 0 | 3(100) | 0 | |
| Surgery/Chemotherapy | 1(9.1) | 6(54.5) | 4(36.4) | | 0 | 7(63.7) | 4(36.4) | |
| Surgery/Chemotherapy/radiotherapy | 0 | 2(100) | 0 | | 0 | 2(100) | 0 | |
| Surgery/Radiotherapy | 0 | 0 | 1(100) | | 0 | 0 | 1(100) | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Treatment Status (n=73) | | | | | | | | |
| Completed | 5(13.2) | 28(73.7) | 5(13.2) | 0.03 | 4(10.5) | 29(76.3) | 5(12.2) | 0.10 |
| On going | 7(30.4) | 15(65.2) | 1(4.3) | | 0 | 22(95.7) | 1(4.3) | |
| Yet to start | 7(58.3) | 4(33.3) | 1(8.3) | | 3(25.0 | 8(66.7) | 1(8.3) | |

## Discussion

During the process of data collection, we discovered that 54(30.7%) of the participants who were eligible for the study were dead. A similar finding was reported from Iran by Shirali et al in a web-based study.[2] They reported that up to 33% of the target population were either dead or could not be reached via their phone numbers. This finding is of concern as it is a sad reflection of the association between cancer and mortality. Cancer has been reported to be one of the leading causes of premature deaths worldwide.[5] These deaths have also been reported to be disproportionately more common among women.[6, 7]

The mean (SD) age of the respondents was 49.4(15.0) which is quite similar to the mean age of 49(12.5) reported in a similar study on Mental Health and QoL among women with gynecological cancers in another region of Nigeria.[8]This shows that many women within the reproductive age group are diagnosed with gynecologic cancers in our environment which can cause a lot of negative effects on their families. In 2020, an estimated one million children became maternal orphans because their mothers died from cancer, with close to one-half of these orphans losing their mothers from either female breast or cervical cancer.[7]

Cervical cancer is the most common type of cancer diagnosed among the respondents. (Table 2) This is not surprising as it is the most common gynecological malignancy in our environment[9]and many other regions in sub-Saharan Africa.[10, 11]Vulva cancer was the third commonest in this study. The difference in the pattern of distribution of the cancers (Table 2) when compared to what is known in the literature[12, 13] including studies from our environment[8, 14,] is likely due to the fact our study was on all patients attending the oncology and gynecology clinic during the study period and not only the newly diagnosed cases.

Many 30(40.1) % of the respondents had no symptoms at the time of the study. (Table 2) This may be because more than half of the 38(52.1%) had completed treatment. Also, symptoms tend to improve with treatment and only 12(16.4%) of the respondents were yet to start treatment. Pain was the commonest symptom experienced by 20 (27.4%) of the respondents. A Systematic Literature Review and Meta-Analysis on the prevalence of pain in patients with cancer reported a pooled prevalence of 44.5%.[15] This is quite higher than what was observed in this study. The observed difference may be because the systematic literature review and meta-analysis on the prevalence of pain[15]was on all cancer types and not specific to gynecologic malignancies. This was followed by vaginal bleeding in 16 (21.9%) respondents. This may be because cervical cancer was the most common type of cancer reported among the respondents, and vaginal bleeding is a major symptom of the disease. Neuropathy was seen in 15 (20.5%) of the respondents which is likely because of chemotherapy. Chemotherapy was the most common form of treatment offered to the respondents.

About three out of every four of the respondents were diagnosed with FIGO Stage II and above with only 18(24.7%) of the respondents presenting at an early stage. (Table 2) This means that most women present with at least a locally advanced disease and10(13.7%) presented at the end stage of Stage IV. This

supports the fact that late presentation is a major challenge in the management of cancer in our environment.[16]

Even though the majority 38(52.1%) of our respondents have completed their treatment, 12(16.4%) of the respondents were treatment naïve. Many studies on QoL among cancer patients focus on QoL after and during treatment.[17]However, we included treatment-naïve patients in this study. This enabled us to compare the QoL among women who have completed treatment with those who are undergoing treatment and the treatment-naive women.

The mean (SD) overall QoL (3.18±1.10and overall health (3.10±1.2) observed in this study (Table 3) were like what was reported by Yeh et al among Chinese women. Comparing overall QoL and overall health with similar studies in our environment was not possible because different tools were used to assess QoL in those studies.[8,14]

When overall QoL and overall health were categorized as poor, fair, and good, the majority of the women fell in the fair category (64.4% and 80.0% for overall QoL and overall health respectively). (Table 2) Many other similar studies also reported fair to good overall quality of life and overall health among women with gynecological cancers.[8,10,12,14,18]

The overall QoL and Overall health were good in only 7(9.6%) of the respondents. This is of concern to clinicians because improving the quality of life of patients is part of the aims of treatment. This also means that there is a need to incorporate measures that will ensure a good quality of life for women with gynecological cancers.

The overall QoL was found to be significantly associated with the Stage of Cancer (p=0.04) and treatment Status(p=0.02) but not with other sociodemographic and cancer-related profiles of the respondents. One (1) out of every 2 women with stage 4 disease had a poor quality of life which was significantly (p=0.04) higher than what was observed with other stages of the disease. (Table 5). Also, more than half (58%) of women who were yet to start treatment had a poor quality of life which was also significantly higher (p=0.02) than what was observed in women who were on treatment and those who had already completed their treatment. The implication of this is that efforts should be made to commence treatment as early as possible to ensure improvement in the quality of life of women with gynecological cancer.

The overall health was observed to be poor in about one out of every 3 patients with stage IV disease which was significantly (p=0.01) higher when compared with other stages of disease. However, the treatment status did not significantly affect the overall health as it did the overall QoL. This may be because patients who have commenced and/or completed treatment may have significant improvement on their overall QoL when compared with those who are yet to start treatment but may still have some physical symptoms which may make their overall health irrespective of treatment status. Thus, overall health may not be significantly different from those that are yet to start treatment. No significant association was observed between other sociodemographic and cancer-related profiles of the respondents and overall QoL and overall health.

The quality of life was mostly fair across all four (4) domains in this study. The physical health domain and psychological health domain had the least number of women 4(5.5%) and 3(4.1) % respectively with good QoL. The association between psychological distress and cancer has been well-documented in the literature for many decades.[8,19]This is also reflected in this study. This means there is still a need for more research to develop innovative ways of providing optimal psychological support for women diagnosed with gynecological malignancies. Physical health is also significantly affected by the burden of symptoms that are associated with cancer and its treatment. This is also evident from this study. The Significant negative effect of gynecological cancer on physical health has been reported in the literature.

These effects may become long-term in some instances.[20–23] This calls for more efforts by healthcare providers offering cancer care to control the burden of symptoms of cancer which contribute to negative effects on physical health. The social relationship domain and environment domain had the highest proportion of women with a good quality of life (15.1% and 13.7% respectively). This may be due to the largely extended family setting in our environment that tends to offer a lot of social support in times of health and disease.

There was no association between the sociodemographic characteristics of the participants and their quality of life. However, the number of participants with poor overall quality of life and poor overall health was higher among those with Stage IV disease and the difference was statistically significant (p=0.02 and p=0.002 respectively). The number of participants with poor overall quality of life was also higher among participants who were yet to start treatment, and the difference was statistically significant (p=0.03). This buttresses the need for early diagnosis and prompt treatment in women with gynecological malignancies to improve their quality of life.

## Conclusion

Only a few women living with gynecological malignancies accessing care in our facility had good QoL. Poor Overall QoL was observed more in women with Stage IV disease and women who were yet to start treatment, and the association was statistically significant. Poor Overall health was also observed more among women with Stage IV disease, and the association was also significant. The psychological and physical domains also had the highest number of women with poor quality of life. This calls for the need to address the quality-of-life concerns of women with gynaecological cancers.

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