



Quality of life of women with gynecologic and breast cancer undergoing chemotherapy

Qualidade de vida de mulheres com câncer ginecológico e mamário submetidas à quimioterapia

Calidad de vida de mujeres con cáncer ginecológico y de mama sometidas a la quimioterapia

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Objective: analyzing the quality of life of women with gynecologic and breast cancer, undergoing antineoplastic chemotherapy for at least one year after treatment completion. **Methods:** a descriptive, cross-sectional study conducted in a University Hospital. To analyze quality of life, a sociodemographic and clinical data questionnaire and WHOQOL-*bref* were used. **Results:** 30 women with an average age of 52 years were interviewed; most were diagnosed with breast cancer and received adjuvant chemotherapy. Regarding quality of life, the most negatively affected domains were the physical and psychological domains, followed by environmental and social domains. **Conclusion:** including quality of life measures in clinical practice appears to be crucial in promoting comprehensive care to patients and their families.

Descriptors: Quality of Life; Women's Health; Breast Neoplasms; Genital Neoplasms, Female; Drug Therapy.

Objetivo: analisar a Qualidade de Vida de mulheres portadoras de câncer ginecológico e de mama, submetidas à quimioterapia antineoplásica há pelo menos um ano após o término do tratamento. **Métodos:** estudo descritivo, transversal, realizado em um Hospital de Clínicas. Utilizou-se questionário de dados sociodemográficos e clínicos e o WHOQOL-*bref*, para análise da qualidade de vida. **Resultados:** foram entrevistadas 30 mulheres com idade média de 52 anos; a maior parte com diagnóstico de câncer de mama e que receberam quimioterapia adjuvante. Quanto à qualidade de vida, os domínios mais comprometidos foram os domínios físico e psicológico, seguido pelo ambiental e social. **Conclusão:** incluir medidas de qualidade de vida na prática clínica parece ser crucial para promover um cuidado integral ao paciente e sua família.

Descritores: Qualidade de Vida; Saúde da Mulher; Neoplasias da Mama; Neoplasias dos Genitais Femininos; Quimioterapia.

Objetivo: analizar la Calidad de Vida de mujeres con cáncer ginecológico y de mama, sometidas a la quimioterapia antineoplásica a por lo menos un año después de la finalización del tratamiento. **Métodos:** estudio descriptivo, transversal, realizado en un hospital de clínicas. Se utilizó cuestionario de datos sociodemográficos y clínicos y el WHOQOL-*bref*, para analizar la calidad de vida. **Resultados:** se entrevistaron 30 mujeres con edad media de 52 años; la mayoría diagnosticada con cáncer de mama y que recibieron quimioterapia adjuvante. Acerca de la calidad de vida, los dominios más afectados fueron los físicos y psicológicos, seguido por el ambiental y social. **Conclusión:** incluir medidas de calidad de vida en la práctica clínica parece ser crucial para promover una atención integral al paciente y su familia.

Descriptorios: Calidad de Vida; Salud de la Mujer; Neoplasias de la Mama; Neoplasias de los Genitales Femeninos; Quimioterapia.

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Introduction

Brazil, like the rest of the world, has undergone changes characterized by the processes of urbanization, industrialization and increasing life expectancy, which have reflected in an increased frequency of chronic diseases in the population, such as cancer. This is considered a matter of public health due to its high incidence and cause of death⁽¹⁾.

Gynecologic cancer comprises all the cancers of the cervix, ovary, vagina, vulva, uterine body, fallopian tube and also by uterine sarcomas and the gestational trophoblastic neoplasia⁽²⁾. It is noteworthy that breast cancer is also considered by many as a gynecologic cancer because of its high incidence and prevalence in the female population.

According to recent statistics, cervix cancer, also called cervical cancer, is the third most common cancer type among women. In the years of 2014/2015, 15,590 new cases are expected, with an estimated risk of 15.33 cases per 100,000 women, varying according to each region in Brazil⁽¹⁾.

Ovarian cancer, although not the most prevalent, has a high mortality rate among gynecologic cancers, being associated to the deep location of ovaries and late diagnosis of cases⁽³⁻⁴⁾; vaginal cancer is closely related with HPV infection, as well as cases of cervical cancer⁽²⁾.

Among the cancers of the uterine body, endometrial is the most prevalent and therefore the most studied and discussed⁽⁵⁾. Cancer of the uterine tube has a lower prevalence among all gynecologic cancers, it is highly aggressive and is often discovered late, this being similar to ovarian cancer, and its risk factors are still unknown, thereby often resulting in an unfavorable prognosis⁽²⁾.

Breast cancer is the cancer that affects the most women worldwide. Mortality rates remain high, with an estimate for 2014 of 57,120 new cases, with an estimated risk of 56.09 cases per 100,000

women, varying according to regions in Brazil⁽¹⁾. It is noteworthy that the main reason for the high mortality rate in the country is associated with diagnosis of the disease in advanced stages⁽⁶⁾. It is also known that breast cancer can affect women's physical and emotional health⁽⁷⁾, as well as their marital relationships, leading to emotional problems like depression, anxiety, insomnia and fear, thus impairing their quality of life⁽⁸⁾. Because it is the most frequent type of cancer in women, there is a larger number of publications on the subject, including the issue of quality of life for these women.

As for the various types of treatment used against cancer, chemotherapy, surgery, bone marrow transplantation, immunotherapy, hormone therapy, and combining therapies, among others can be cited. Especially in respect to chemotherapy, this is still the most used, and the sooner treatment begins, the better the control of the disease is, thus avoiding possible complications⁽⁹⁾. It is a treatment that uses drugs which destroy cancer cells by interfering with cell functions, division and lysis. However, these drugs can also destroy normal cells in the body, causing many side effects such as nausea, vomiting, diarrhea, constipation, mucositis, myelosuppression, neutropenia, thrombocytopenia, and anemia, among others⁽¹⁰⁾.

It is noteworthy that cancer and its treatments directly affect the patient's life, because once the disease is discovered, changes in their habits and routines occur which compromise their quality of life⁽¹¹⁾. The disease itself and the therapy may cause physical, emotional, and social problems, and also change their daily life activities⁽⁶⁾.

Because quality of life is a variable subjective concept for each patient according to their own expectations and experiences⁽⁶⁾, the training of nurses in the measurement of quality of life scores in these patients in different stages of disease is important, so they can promote better comfort and well-being,

welfare improvements, and seek to promote a dignified life in the presence of a difficult disease prognosis⁽¹¹⁾.

However, there is a pessimistic scenario regarding the quality of life of patients surviving cancer; despite advances in treatment, increased survival time and the free treatment offered by the Unified Health System, many aspects of quality of life are still damaged even years after diagnosis and treatment.

Therefore, it is necessary to value the importance of quality of life in caring for people with cancer in order to generate improvements in care, since health professionals are responsible for the guidance and counseling for patients on what to expect during treatment, recovery and even years later⁽¹²⁾.

The problematic scenario revealed here is relative to the lack of knowledge on quality of life of women with gynecologic cancer after completion of treatment - when women should already be reinserted into their familiar routines, having returned to develop their daily life activities. In addition, this study is justified as it reflects the quality of life situation of women that survived the experience of gynecologic cancer and those who were assisted at a teaching hospital in the city of Uberaba/Minas Gerais.

In this context, the objective was to analyze the quality of life of women with gynecologic and breast cancer after finishing chemotherapy.

Method

This is a descriptive, cross-sectional study, conducted by home visits through an active pursuit of women who had attendance records in the Central Chemotherapy ward of the Federal University of Triangulo Mineiro Clinical Hospital and were residing in the city of Uberaba/MG.

The sample was composed of women with gynecologic and breast cancer over 18 years of age,

who underwent antineoplastic chemotherapy in the institution within the period of August 2010 to August 2012, after a minimum period of one year after finishing treatment and residing in the municipality of Uberaba/MG.

Thus, the constituted inclusion criteria was: having had some type of gynecologic or breast cancer; being older than 18 years; had finished chemotherapy for at least one year; had carried out the treatment in the institution and residing in the city of Uberaba/MG. Exclusion criteria was considered as: women who had cancer in other locations of their bodies; younger than 18 years; had finished treatment less than one year and/or were residing in other municipalities. 30 women met these criteria and were included in the study population.

Data collection was carried out in two stages: for the first we held a consultation with service records in the Central Chemotherapy Ward of the Clinical Hospital of the Federal University of Triangulo Mineiro. Home visits for the interview and the application of the instruments were later scheduled through telephone contact. The data collection period was extended from September to December 2013.

Two instruments were used to collect data: a demographic and clinical data questionnaire developed by the researchers, and the Quality of Life Assessment Tool of the World Health Organization, the WHOQOL-bref⁽¹³⁾. The first part of this instrument refers to the demographic profile of the participant and the second consists of 26 questions and was answered by all interviewed, except in cases where it was not possible (illiteracy, significant visual impairment, lack of clinical conditions or other). The answers to all WHOQOL-bref questions were obtained by a score ranging from 1 to 5, with higher scores denoting higher quality of life. The instrument consists of four domains, namely: physical, psychological, social and environmental relations. The physical domain consists of seven questions, and seven is the minimum

score and 35 the maximum; the psychological domain is composed of six questions, to obtain a minimum score of six and a maximum of 30; three questions assess social relations, reaching a minimum score of three and maximum of 15; lastly environmental issues, with eight points as a minimum and 40 points is the maximum score.

Compiled data were stored in a *Microsoft Excel*[®] spreadsheet, and then transported to the *Statistical Package for Social Science*[®] version 17.0. Data analysis for the WHOQOL-bref used the syntax provided by the WHOQOL Group. This syntax considers the responses to each question that comprises each of the domains, and can be converted into a scale of zero to 100 points at the end of its analysis (minimum and maximum scores, respectively).

For the analysis of other data, we used descriptive statistics (frequency, proportion, position and dispersion measures); we also used parametric tests: Student's t-test for two independent samples and the Pearson coefficient to assess the correlation of each domain with the overall quality of life. The value of $p < 0.05$ ($\alpha = 5.0\%$) was adopted as a critical level.

The study was previously approved by the Ethics Committee on Human Research of the Federal University of Triangulo Mineiro through protocol number 1698 and all participants signed the Informed Consent form after receiving information of the study from the researchers. Thus, all ethical concerns were taken into consideration for implementation.

Results

As for sociodemographic characteristics, women had an average age of 52.3 ± 14.28 years, half of them lived with partners, most were white (56.7%), had no paid employment (56.7%) and they were not retired (56.7%), as can be seen in Table 1.

Table 1 - Sociodemographic characterization of women with gynecologic and breast cancer undergoing antineoplastic chemotherapy (n=30)

Variables	n(%)
Age group (years)	
20 - 39	7 (23.3)
40 - 49	6 (20.0)
50 - 59	9 (30.0)
≥ 60	8 (26.7)
Education	
Illiterate	3 (10.0)
Primary Education	14 (46.7)
Secondary Education	11 (36.6)
Superior Education	2 (6.6)
Skin	
Dark	9(30.0)
Brown	3(10.0)
White	17 (56.7)
Yellow	1(3.3)
Income (in minimum wages)	
< 1	2 (6.7)
1 - 3	22 (73.3)
≥4	6 (20.0)
Religion	
Catholic	19 (63.3)
Others	11 (36.6)
Paid occupation	
Yes	13 (43.3)
No	17 (56.7)

Most women had a primary education level (46.7%), received an average of one to three minimum wages (73.3%) and Catholicism was the prevalent religion (63.3%), according to data in Table 1.

Regarding the clinical characterization and lifestyle habits of participants, 20% reported drinking alcohol and 6.7% reported smoking tobacco; 63.3% had some prior condition of neoplasia, and systemic arterial hypertension was the most frequent isolated impairment (10%); 56.7% had more than one comorbidity; 76.7% reported taking medication, most commonly being the use of antihypertensive drugs (33.4%), as shown by Table 2.

Table 2 - Clinical characterization of women with gynecologic and breast cancer undergoing antineoplastic chemotherapy (n=30)

Variables	n(%)
Alcoholism	
Yes	6 (20.0)
No	24 (80.0)
Smoking	
Yes	2 (6.7)
No	28 (93.3)
Pathology	
Yes	19 (63.3)
No	11 (36.7)
Use of medications	
Yes	23 (76.7)
No	7 (23.3)
Diagnosis	
Uterine cancer	9 (30.0)
Breast cancer	11 (36.6)
Vaginal cancer	2 (6.7)
Ovarian cancer	5 (16.7)
Fallopian tube cancer	1 (3.3)
Hydatidiform mole	2 (6.7)

As for previous cancer diagnosis in Table 2, 63.4% of women had some type of gynecologic cancer and 36.6% had breast cancer.

Regarding the proposed cancer treatment, there was a predominance of Wertheim-Meigs surgery and chemotherapy (30%); as for chemotherapy, 80% had multidrug therapy, while 83.3% had adjuvant chemotherapy. Women more often had at least six chemotherapy cycles (66.7%), and among the participants, 10% were treating oncological relapse.

Table 3 - WHOQOL-bref scores of women with gynecologic and breast cancer undergoing antineoplastic chemotherapy (n=30)

	Domains			
	Physical	Psychological	Social	Environment
Average	54.28	62.08	68.88	63.75
Median	58.93	64.58	75.00	65.62
Standard Deviation	22.61	20.77	22.63	18.42

In analyzing the domains of WHOQOL for quality of life, the highest average was found in the social field (68.8 ± 22.6); however, the physical domain had the lowest scores (54.28 ± 22.6), as seen in Table 3.

It is noteworthy that according to the Student t-test analysis, there were no statistically significant data when analyzing quality of life and sociodemographic and clinical characterization, and there was no correlation between overall quality of life and each of the domains of the WHOQOL (Pearson correlation).

Discussion

According to data from the National Cancer Institute, the age group that has the highest incidence of gynecologic and breast cancer is 50 to 59 years of age⁽¹⁾, confirmed by our findings which showed that this age group was predominant among participants (30%).

With regard to income, most did not report having paid employment (56.7%). It is noteworthy that the physical symptoms produced by chemotherapy can cause significant changes in the lives of patients, among them being removal from paid positions, consequently generating feelings of inadequacy and guilt for not being able to financially contribute to the family income⁽¹⁴⁾.

Regarding the level of education of women, 36.7% had incomplete primary education and 10% were illiterate. In this sense, the literature suggests that education may interfere with preventive measures and treatment of gynecologic cancer, highlighting the necessity of the creation and implementation of support strategies for women with lower education⁽¹⁵⁾.

Most women, 29 (96.7%) reported following some religion among those contained in the questionnaire. It is known that religion and spirituality can be ways to combat a disease as stigmatized and impactful as cancer, as patients who rely on a spiritual force may have a greater feeling of comfort⁽¹⁶⁾.

The neoplasia with the highest frequency was breast cancer, followed by cervical cancer. According to information from the National Cancer Institute, breast cancer is the second most common cancer in the world, excluding non-melanoma skin tumors and is still what affects women the most⁽¹⁾.

Estimates indicate 57,120 new cases of this cancer in 2014, with the highest incidence in the Southeast region (71.18/100,000), South region (70.98/100,000), Midwest region (51.30/100,000), Northeast region (36.74/100,000) and North region (21.29/100 000)⁽¹⁾. Brazil has a high incidence and prevalence of breast cancer, accompanied by an increased mortality rate due to problems related to early detection, prevention, diagnosis and treatment⁽¹⁵⁾.

Cancer of the cervix, ranked second among the causes of gynecologic cancer in the study population and occupying the third most common type in the female population, thereby constituting the fourth leading cause of death for women in Brazil⁽¹⁾, confirmed in our findings. It is noteworthy that its tracking through Pap smear testing among 25 to 64 year-old-women still constitutes the best way of preventing the disease⁽¹⁷⁾.

Regarding quality of life, the physical health domain had lower scores, averaging 54.28, a result that is similar to those found in a study of women undergoing cancer surgery, which reported physical pain as a limitation to their daily tasks⁽¹⁸⁾. It is known that the diagnosis of cancer and its treatment causes significant impact on quality of life of patients, especially in the physical aspect, because it causes signs and symptoms such as nausea, vomiting, diarrhea, constipation, mucositis, myelosuppression, neutropenia, thrombocytopenia, anemia⁽¹⁰⁾, as well as fatigue and pain⁽⁹⁾.

Pain, decreased quality of life, lack of treatment adherence and the increased risk possibility of mortality are all associated with higher prevalence of distress in cancer patients. Distress can be caused from feelings of vulnerability, sadness and fear, anxiety,

panic, social isolation and spiritual crisis, affecting the way people deal with cancer and their changes⁽¹⁹⁾.

The psychological domain was the second most compromised with a score of 62.08. An integrative literature review showed the occurrence of psychological problems, in which most patients with breast cancer claimed 'psychological distress,' related to depression, anxiety and low emotional function, thereby negatively affecting their quality of life⁽²⁰⁾.

Another study demonstrated the presence of negative feelings in cancer patients, which can be influenced by the negative stigma that the disease prognosis has and the complications it brings, not only to women's daily lives, but also to social and behavioral aspects; the treatment itself also causes impactful side effects⁽⁹⁾.

The environmental domain was also compromised, but with a lower score (63.75). This domain addresses issues of physical security and protection; the home environment; financial resources; health and social care accessibility and quality; opportunities to acquire new information and skills; participation and opportunities for recreation and leisure; physical environment and transportation.

Corroborating with the literature, it can be inferred that the lack of financial resources hinders accessibility to health care centers, thus compromising living and safety conditions, and it also affects the practice of physical activity (only 30% of patients practiced exercises). This situation may have negative consequences for maintaining a satisfactory quality of life for these patients because it generates concerns and even treatment withdrawal⁽¹⁸⁾. Therefore, health professionals should help these patients and refer them to assistance services when needed.

The social domain, assessed by questions regarding personal relationships, social support and sexual activity, had higher scores (68.88), which is aligned with a study performed with 100 cancer patients undergoing chemotherapy. The authors concluded that social relationships are beneficial to increased quality of life of these patients, those who

receive help and support from others, and this helps in coping with the disease⁽⁹⁾.

A study that addressed quality of life of breast cancer survivors (a period of at least one year after treatment) compared to healthy women, matched by age group, found that the survivors had lower scores for physical, psychological and environmental domains, similar to the results of this study. The authors highlight the need of healthcare improvement focused on this group (survivors)⁽¹²⁾. A study shows that improvement in patients' quality of life occurs when treatment side effects can be prevented and controlled, and also in adherence to additional effective treatments that can help patients to better cope with the disease and the received treatment⁽²¹⁾.

We emphasize that cancer in the female population generates some stressors that accompany them even after the entire process of diagnosis and treatment; they can be physical (changes and limitations caused by the disease and treatment) and/or psychological - including the fear of death, fear of reoccurrence, not being able to raise their children and guilt for the heredity factor (especially in the case of breast cancer), among other stressors. The same authors point out that going through the experience of gynecologic cancer, especially breast cancer, may represent a crippling experience for women with negative aspects that will affect their lives permanently, being defined by them as 'a disease that never ends.' However, for women surviving cancer represents overcoming the finitude of life, as during treatment they find themselves between life and death⁽²²⁾.

The experience of women who survived cancer is reflected in losses and gains. Losses are inherent to the disease; on the other hand, gains can be related to reflection and the reframing of life; adopting healthier lifestyle habits, engaging in religious practices and overcoming sickness and death⁽²³⁾.

We also note the fact that the study was developed in the patients households, which not

only made the collection of actual data in specific contexts for each patient possible, but also allowing for more reliable answers regarding their current living conditions. Secondly, we emphasize the positive aspects of the interaction between researchers and patients, who provided information and guidance to patients and their families/caregivers after data collection, thereby promoting quality of life enhanced by the home visits⁽²⁴⁾.

Conclusion

The sociodemographic context of the group of women with gynecologic and breast cancer, undergoing antineoplastic chemotherapy and attended by the Unified Health System, revealed aspects such as low education and being over 50 years of age. As to their quality of life, it was found that the most compromised domains were the physical and psychological domains, and the most preserved was the social sector. It can be stated that including measures which promote the quality of life in clinical practice appears to be crucial in being able to evaluate certain interventions and consequences of the disease in the lives of these patients. In addition, the study emphasizes the need for a qualified and skilled multidisciplinary team in cancer treatment to comprehensively care for patients and their families.

Limitations of this study are the cross-sectional design that only allows for describing the object under study at a certain moment, without allowing for further exploration of the variables. In addition, we have a limitation in the small number of participants, despite all the surviving women who were assisted in the Central Chemotherapy ward of the Federal University of Triangulo Mineiro Clinical Hospital who were integrated into the study, although the sample was representative of the study population. In this sense, further research should be conducted through longitudinal studies and/or through comparative groups (healthy and survivors).

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Collaborations

Ferreira VA, Silveira INT, Gomes NS and Silva SR contributed to the design, collection of field data analysis, data interpretation, writing of the article and final approval of the published version. Ruiz MT contributed to the analysis, data interpretation, writing of the article and final approval of the published version.

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