

Chemotherapy-related fatigue in women with breast cancer***Fadiga secundária à quimioterapia em mulheres com câncer de mama****Fatiga secundaria a la quimioterapia en mujeres con cáncer de mama**

Received: 01/12/2018
Approved: 15/04/2019
Published: 01/07/2019

Carine Ferreira Lopes¹
Anna Claudia Yokoyama dos Anjos²
Cristiane Soares Campos³

The objective of this study was identifying and understanding the repercussions of chemotherapy-related fatigue on the quality of life, from the perspective of women with breast cancer. This is a descriptive and interpretive study, with a theoretical-methodological framework from medical anthropology, using an ethnographic case study as a method, through semi-structured interviews and field diaries. It was carried out in 2016, in the residence of participants. Participants in the study understood breast cancer as something they had to experience in their lives. From this perspective, despite the fatigue due to chemotherapy and other related adverse events, participants considered their quality of life to be good, showing themselves to be capable of adapting their routine and tasks to their new health conditions.

Descriptors: Fatigue; Drug therapy; Quality of life; Breast neoplasms.

O objetivo deste estudo foi identificar e compreender as repercussões da fadiga secundária à quimioterapia na qualidade de vida, na perspectiva da mulher com câncer de mama. Trata-se de um estudo descritivo e interpretativo, com orientação teórico-metodológica da antropologia médica, que utilizou como método o estudo de caso etnográfico, empregando entrevistas semiestruturadas e diário de campo, realizado em 2016, em domicílio. Para a participante do estudo, o câncer de mama foi compreendido como algo que deveria experienciar em sua vida. A partir dessa perspectiva, apesar da ocorrência da fadiga secundária à quimioterapia e de outros eventos adversos relacionados, a participante considerou sua qualidade de vida como boa, demonstrando a capacidade de adaptar sua rotina e afazeres às suas novas condições de saúde.

Descritores: Fadiga; Tratamento farmacológico; Qualidade de vida; Neoplasias da mama.

El objetivo de este estudio fue identificar y comprender las repercusiones de la fatiga secundaria a la quimioterapia en la calidad de vida, en la perspectiva de la mujer con cáncer de mama. Se trata de un estudio descriptivo e interpretativo, con orientación teórico-metodológica de la antropología médica, que utilizó como método el estudio de caso etnográfico, empleando entrevistas semiestructuradas y diario de campo, realizado en 2016, en el domicilio. Para la participante del estudio, el cáncer de mama fue comprendido como algo que debía tener como experiencia en su vida. A partir de esa perspectiva, a pesar de la aparición de la fatiga secundaria a la quimioterapia y de otros eventos adversos relacionados, consideró su calidad de vida como buena; demostrando la capacidad de adaptar su rutina y quehaceres a sus nuevas condiciones de salud.

Descriptor: Fatiga; Tratamiento farmacológico; Calidad de vida; Neoplasia de la mama.

1. RN. Specialist in General ICU and in Assistance to Critical Births. Specialist in Nursing at the Workplace. Specialist in Oncology and Palliative Care. General hospital at the Universidade Federal de Uberlândia (GH/UFU), MG, Brazil. ORCID: 0000-0002-8054-466X E-mail:carinelopesenf@gmail.com

2. RN. MS in Elementary Nursing. PhD in Sciences. Post-doctoral studies in Nursing. Adjunct Professor IV at UFU. Uberlândia, MG, Brasil. ORCID: 0000-0001-6984-4381 E-mail:annaclaudia1971@gmail.com

3. RN. Specialist in Patients with Special Needs. MS in Health Sciences. Uberlândia, MG, Brazil. ORCID: 0000-0002-0224-4688 E-mail:cristianecampos08@gmail.com

*This study was financed by the National Council for Scientific and Technologic Development (CNPQ).

INTRODUCTION

Cancer-Related Fatigue (CRF) is characterized by lack of energy, fatigue, weakness, pain, apathy, gustative changes, slowness, loss of concentration, advance of physical symptoms, among other effects. The phenomenon can be classified as primary — when it results from the disease itself — or secondary — when it results from the treatment of the disease or comes from syndromes or comorbidities¹.

One of the types of secondary fatigue is the chemotherapy-related fatigue (CTRF), which is an adverse reaction that affects from 70 to 100% of people who undergo this type of treatment. Secondary fatigue shows a significant increase in chemotherapy cycles and is described as a persistent type of suffering, a subjective feeling of tiredness or physical, emotional, and cognitive exhaustion, that can be related to cancer or its treatment. It is not proportional to the activities conducted and interferes in the person's capacity to function^{2,3}.

Quality of Life (QoL) is the perception of individuals about their position in life, in the context of the value system in which they live, regarding their objectives, expectations, and concerns⁴. Cancer patients are notoriously susceptible to major QoL impairments, be it due to the disease or to its treatment, making it necessary to develop studies that can give support to improve the quality of life of people in this stage of life⁵.

CTRF is underreported, underdiagnosed and under-treated, since patients are reluctant to report it — believing it is something they should endure — and most professionals do not evaluate it due to lack of knowledge or because they do not recognize how important it is with regards to the QoL². Therefore, the health team must be capable of preventing or identifying early the CTRF and other reactions, implanting a plan for adequate interventions and management that seeks to offer better conditions to confront and, as a result, improve the QoL.

As a consequence, studies that aim to understand the experience of women with breast cancer and CTRF become relevant, as well as those that seek to comprehend how these reactions have repercussions on the QoL (from the subjective point of view of the person experiencing them), looking for subsidies that can improve assistance. Many studies carried out on the field are quantitative and aim to measure and quantify changes and interferences in the CTRF. However, most of them did not make it possible to listen to the voice of participants. That can be done through a qualitative and methodological approach, which is the objective of this study.

The objective of this study was identifying and understanding the

repercussions of chemotherapy-related fatigue in the quality of life, from the perspective of women with breast cancer, and to offer resources that can give support to the planning of nursing care.

METHOD

This is a descriptive, theoretical-methodological study on medical anthropology, using as its method an ethnographic case study.

Medical anthropology aims to understand people in the context of health through their culture and their experiences, seeking to clarify how health and disease are structured and structure themselves. From its perspective, health is the result of the articulation between biology and culture. That is, from an anthropological perspective, health is also a product determined by culture⁶.

The ethnographic method is one of the qualitative research methods that are compatible with the medical anthropology theoretical framework. It consists in providing a dense description of reality from the manifestations of meanings captured through direct observation of a context, allowing the researcher to clarify and interpret the meanings of a specific cultural context, making it possible for others to also comprehend the phenomenon studied⁵. In the context of Case Studies (CS), ethnography aims to apprehend details about human behavior from a cultural perspective, making it possible to study the phenomenon in depth⁷.

The data collection included resources from the semi-structured interview, the records from the field diary, and information from medical records. The semi-structured interviews are made up of a script with open questions that must be asked with flexibility, that is, the interviewer must be able to ask follow-up questions to better explore the phenomenon being discussed⁸.

The research project that originated this study was approved by the Research Ethics Committee (REC) of the Universidade Federal de Uberlândia, with records in Plataforma Brasil, respecting the ethical principles that govern researches involving human beings. After the REC analysis, the study was approved in 12/16/2015 under protocol CAAE 1.372.174.

This study selected participants who were: 18 y/o or older women; going to follow-up nursing consultations and showing preserved cognitive capacity; living in the city where the research took place and attending the hospital where it was conducted; diagnosed with non-metastatic breast cancer; aware of their own diagnosis; undergoing exclusively an intravenous chemotherapy treatment; having already went through the first cycle of treatment; having a positive CTRF evaluation. The participant should also present a formal

interest in participating in the research, after receiving an explanation about its objectives and how to participate.

After the invitation was accepted, they were required to sign the Free and Informed Consent Form (FICF), in accordance with Resolution 466/2012 of the National Health Council. During the development and writing of the final text of the research, the anonymity of the patients was maintained using a pseudonym to identify participants.

To identify CTRF, a flowchart of fatigue evaluation⁹ was used. It consists in the application of three consecutive questions. When the answer to these questions is affirmative, it means that there is fatigue: "Do you feel tired?"; "Does this fatigue improve when you rest or sleep?"; "Does this fatigue prevent you from doing what you use to do?".

The study was carried out in the Oncology ward of a University Hospital in the countryside of the state Minas Gerais, in the house of the participants. The home visits were scheduled in advance, according to the availability of the patient.

Four interviews were carried out in the house of the participant, each lasting for nearly 25 minutes. The four interviews, the outpatient clinic follow-up during treatment and the field diary were enough to answer to the objectives established by this study, according to the criteria of data saturation for qualitative studies of this nature¹⁰.

Guiding issues used for the development of interviews were: "How has the experience of chemotherapy (CT) been working out for you?"; "Could you tell me what do you understand from the word 'fatigue'?"; "Tell me what have you been trying to do to diminish fatigue?"; "Could you tell me what is quality of life for you?"; "Has the fatigue been interfering with your quality of life?".

The interviews were recorded using a smartphone, to keep the integrity of the statements, and the statements were transcribed immediately after the interviews were conducted. All recordings were stored in specific files and kept until the research was finished. Additional records were made in the field diary.

To analyze the data set, a Thematic Analysis (TA) was carried out, since it is flexible and compatible with a qualitative and essentialist (hermeneutic/phenomenological) approach, which aims to access and interpret experiences, meanings, and the reality in which the patient is¹¹.

RESULTS

Who is Emerald and what is her life story

The participant, here called Emerald, is 51 years old. She was born in the region Triângulo Mineiro, is divorced, white, catholic, and lives in

the city where the study is being carried out for 46 years.

She lives with two children (16 and 12 y/o) in a well-located flat, with all necessary infrastructure features, basic sanitation and electricity.

She works since she was 16 years old. Before graduating in dental prostheses, she used to work as a receptionist at a gym. She is currently an entrepreneur in the field of gym equipment and the owner of a gym which she inherited from the father of her children. The monthly family income, currently, is R\$ 3,200.00, meaning she is in the B2 social level according to the strata of Brazilian population¹².

She had a four-year long relationship with the father of her children, who got involved in an auto accident in 2015 that led to his death, leaving her to raise their children on her own.

She was the third daughter among 4 siblings, and moved to the city where she lives today when she was five years old. Most siblings live in another city, but they meet whenever possible. Her mother is 78 y/o, healthy, and lives alone. Emerald sees her family relationships as good and with no conflicts.

The discovery of the disease

Before finding out about the cancer, Emerald underwent annual follow-up consultations for two years, due to a cyst in her right breast. At the end of 2015, she noticed that the cyst had grown larger and harder during a self-examination but decided to wait for the date of her routine exams to check it. In March 2016, when she reported the changes she had noticed to the physician, a biopsy was performed. The result of the histopathological examination came in June 2016, indicating a breast neoplasia, that is, cancer.

Despite not having family history for breast cancer, she states that she does not question the reason for the illness to appear. Emerald believed it "was something [through which] I'd have to go through", or to which she had some type of predisposition; she believed that spiritual and emotional states might influence in the growth of the disease. However, in their statements, she states that even with all changes undergone last year, she did not believe they would influence the onset of the disease:

[...] last year, the year in which the father of my children passed away, I changed my life radically [...] but... I don't think that this is the reason (Emerald, 11/21/2016).

Oh, I think it's like any other passage in life, you have to learn something from it right, [...]; this disease, for me, is just like any other I would have to experience for some reason... a predisposition to have it. They say the emotional and spiritual states influence a lot. sometimes that's true...; but I'll say, I don't think that's my case (Emerald, 11/21/2016).

Support networks during the illness and its treatment

Emerald was always open to her family about the disease, and even with the shock on the day she received the diagnoses, she did not let herself feel down, and faced the situation. She decided to give the news to her children carefully, not hiding reality.

The main people involved with her treatment were her children, her mother, and a sister-in-law, who were always accompanying her and were present throughout the treatment, including in the days in which CT took place.

Emerald reported that, in addition to family support, she had faith in God. She also showed that she believed in the work and knowledge of the health professionals involved in her treatment, and that she trusted herself to recover, and that that gave her the strength needed to face the disease and believe in her recovery and well-being:

"[...]I believe in God, because He is the Greatest Being, without Him we can't do anything! (We must have) faith that everything happening around us, that it will be fine" (Emerald, 01/05/2017).

Emerald reported not feeling sick, and used this argument to answer to almost all questions about the changes she experienced, regarding both disease and treatment:

"I don't feel sick, I think that sums it up, you know? I'm not feeling sick" (Emerald, 11/21/2016).

The main adverse effects reported by Emerald and verified in medical records were: change in the sense of taste (dysgeusia), dry mouth (xerostomia), more frequent visits to the bathroom (polyuria), hair loss (alopecia), weight increase and CTRF. The loss in concentration and capacity of rational thinking required Emerald to change her routine, as the following excerpt of the interview indicates:

"[...] It wasn't so bad that I'd say: 'this is a problem in my life.'" I realized this was happening, but it didn't make me go: 'oh, now I have to stop working because I can't think rationally', no [...]. It slowed me down a bit!" (Emerald, 04/19/2017).

Repercussions of fatigue in Emerald's life

The main change reported by Emerald during CT was CTRF. Due to this effect, according to the participant, she became depleted, and could not keep her work routine. So that her position regarding fatigue could be better understood, Emerald was asked about what, for her, is fatigue:

"[...] in my case it was an excess of tiredness really... an excess... the body doesn't want to respond to what you want to do; it lacks energy to do things" (Emerald, 04/19/2017).

Her medical planning for chemotherapy treatment included 4 cycles of Doxorubicin and Cyclophosphamide every 21 days, followed by 4 days Paclitaxel, spaced along 12 weeks. The different chemotherapy regimens used in the treatment meant that Emerald experienced two different intensities of CTRF.

In the first stage of the treatment (doxorubicin and cyclophosphamide), Emerald reports being more tired in the first days after the CT. In the second stage (Paclitaxel), she found that the effect of the CTRF impacted less on her physical conditions (since it was less intense, debilitating her for a short period), but it was more frequent when compared to the fatigue caused by doxorubicin and cyclophosphamide (information retrieved from a note made during a nursing consultation that was in the patient's records).

The diminution of energy throughout the treatment led to discomforts and directly impacted the patient in the performance of her activities:

"You start feeling that the body doesn't react like it used to anymore, you can't do things as fast as you did before" (Emerald, 04/19/2017).

Emerald understood that the fatigue was something positive in her life, since it made her rethink and reorganize her routine, respecting her own limitations. Her understanding of her own physical condition allowed her to reflect, improve her diet, and start the habit of resting at certain points.

Aiming to understand if the CT had negative repercussions on Emerald's QoL, the researchers asked her to define what is QoL. Upon analysis, it was found that Emerald did not define it, but described what she thought was important for a good QoL. For her, QoL is something very personal:

Being with my family, having the possibility of being with them all the time, especially with my children; [...] I make a point of having some little things at home, like sitting at the table to eat when everyone is there [...]. Economical conditions too right, the fact that you have an income that allow for reasonable living conditions; I won't say you need an excellent income but, ... that you have to worry so much about your income. [...] You need to have peace, tranquility [...]"(Emerald, 02/17/2017).

Emerald considered her QoL to be good and compared it to the period before the treatment. She reiterated that there were no significant changes in her life, denying that her QoL suffered in any way. Despite these assertions, when talking specifically about the implications of CTRF on her QoL, she reported that, throughout the treatment, some days were very hard. She referred to specific days in which she felt a lack of energy, tiredness, and lack of vitality to carry out daily activities, symptoms that became intense enough for her to feel like staying in bed, that limited some of her domestic and professional activities (information taken from a note in the field diary).

Respecting one's own limitations

Emerald reports having faced the treatment with positivity. When asked about this positive behavior, she could not tell whether her motivation was a personal objective, for her children or her mother.

The resting time demanded by the

adverse effects of the treatment, as well as the change in her self-image, triggered changes in her routine. Despite the need for such changes, the fact that she worked in the reception of the gym was seen as positive by Emerald, since she could stay most of the time sitting down, which meant less physical effort. Even so, work activities needed more attention to be carried out, due to the cognitive impact of CTRF. Emerald believed that managing to work would make people see that she was in a good general condition, despite undergoing such an aggressive treatment in the CT.

Therefore, positive behavior strategies such as resting, the rearrangement of daily routines and the devotion of greater attention to work activities, were used by the participant to deal with adverse reactions, as this excerpt from her report shows:

But my work is not tiresome. That's why I think its favorable. Now I don't know if the person was perhaps a maid, she wouldn't be able to work, because she wouldn't be capable (Interview in 02/17/2017).

[...] I work a lot with my head. You need to care for everything... So since I became slower I noticed that I had to think carefully about a lot of things (Interview from 18/04/2017).

To deal with this situation, Emerald sought, in her cultural repertoire, a strategy that could help her dealing with these new needs. She understood that the best course of action would be respecting the limits of her body, mentally and physically saving energy in days when the adverse reactions were at the worst. After she felt an improvement, she also thought it adequate to keep active. Therefore seeking to resume her usual routine.

For Emerald, working, despite her lack of motivation, would be a good strategy to spend the day and feel more energetic. Due to the comings and goings of the gym, and the presence of people talking and staying around, the environment offered a good distraction. Whenever she noticed that she was not feeling well, she would go back home (*note from the field diary*).

Resting was the main strategy Emerald chose to deal with fatigue; after a bad day, she would continue actions that could improve her well-being. Resting after lunch and choosing day periods in which temperature was cooler were resources she used to deal with problems in the gym or other places out of the house. With these choices, Emerald tried to avoid tiredness, and keep her body stronger and healthier during treatment. After rest periods, she reported to feel completely restored from the tiredness, even if this was a temporary situation.

In general, Emerald was found to undergo many different situations, and to use many common sense strategies to deal with the difficulties she experienced throughout her life and the process of disease and treatment for

breast cancer.

There were no references, during the interviews in her residence, to the guidance she received from the team of professionals who offered healthcare in the institution where she was treated, which is the same institution where this study was conducted.

DISCUSSION

The sociodemographic and clinical data of the participant in this study show a similarity to the profile of women with breast cancer who participated in another study¹³. Said characteristics do not include relevant risk factors to the development of cancer. It is important to highlight that most breast cancer diagnoses are sporadic, not hereditary¹⁴.

Paid work is considered as something pleasurable by the women who work, a way to obtain intrinsic or extrinsic advantages to oneself¹⁵. In a case study, it was noted that continued work seems to act as a criterion of normality, which is extremely important not only because the participant feels that they can keep their daily routine, but because it means they would be able to keep their responsibility as providers for their homes¹⁶. In the study presented here, Emerald acts similarly, since she reported not feeling sick. She believes that being able to work was important in her daily routine, as it helped her maintaining her social position as a mother, worker, and exclusive provider for her home.

The many roles that women play in contemporary society make it so they have no time for their own health. A study evaluated the delay in the diagnosis of breast cancer and showed that, for the most part, it is related to the time the patient takes to seek health services, from the moment they detect the first symptoms or signs¹⁷.

This finding was corroborated by the statements of Emerald, who identified the first sign at the end of 2015, but only got a definitive diagnosis in June 2016, that is, more than six months later. Emerald reported that, due to her many daily activities and to her newly assumed professional role, she decided to wait for the time she would undergo routine exams, instead of seeking healthcare immediately after noticing alterations.

Staying at work aids in the recovery and treatment of breast cancer, increases self-esteem, promotes emotional control, provides distraction and occupies time, reduces anxiety, contributes to the acceptance and commitment to the treatment, and as a result, has a positive impact on the process of cure¹⁸. The participant of this study described her work as an incentive to stay active and not lay down the whole day. She believed that her work activity made it possible for her to still be a part of her social context, in contact with other people, which also

aided in the maintenance of her self-esteem.

The concerns generated by cancer are even worse when the woman is a mother of children who are still dependent on her care. In this context, the concern about the children increases, due to their uncertain future¹⁶. After the father of her children passed away, Emerald became their sole guardian. During the interviews, she did not show fear regarding the future and the care of her children, neither regarding the stigma of death associated to cancer, but it was possible to note that she was concerned with her increased responsibilities in the care of the children, a role that previously she shared with their father.

Receiving the diagnosis of cancer is usually decisive, since from then on, it is possible to reformulate several important aspects of life, which was also verified in the life of the participant of the present study¹⁹. The assumption of the diagnosis of cancer itself triggers a series of reactions in patients and their families: panic, despair, and chaos. When diagnosis is confirmed, these reactions become larger and more particular²⁰. Emerald, upon receiving the diagnosis, sought support from her mother, who felt concern and despair, and whose care and support the sick daughter came to need later.

To avoid passing on to her children her concerns about the diagnoses and course of treatment, Emerald waited for the initial impact of the news to be overcome, after what she told them about the disease. Over time, both her mother and her children got to know the situation and understood how important their support and help was. All these relatives started offering all the help she needed in her course.

Social and family support is often cited as one of the most important factors in the protection and recovery of the health of patients, aiding them in re-signifying life²¹. It is essential for women with the disease to feel they have support, because that makes facing the disease and not giving up easier. Usually this support is mostly offered by family²⁰. Emerald's children and mother were her main source of support, aiding them in their domestic activities, corporal care, self-esteem maintenance, and in accepting her new body image.

Faith and religion are important in the lives of most people, and directly influence their social behavior, becoming an important tool used by women with breast cancer to deal with the disease and its treatment. There are reports of religious practices that offered spiritual comfort, hope, and aiding to cope with the disease²².

Socially, the many types of cancer are seen by different peoples as destructive diseases, burdens of punishment and penalty, especially associated to the stigma of death²⁰.

Regarding this context, Emerald reported the opposite, that she did not see breast cancer as a punishment; she faced the disease as something that she was destined to experience through life, not as divine punishment or consequence of some failure on her part.

Medical anthropology takes into account the process of re-signifying life, which take place after certain experiences due to the meanings attributed to them and those found during one's course through life. Emerald used her breast cancer experience for self-reflection and, from it, sought to re-signify the way in which she see and lives life, respecting her own limits and considering the needs of her own body.

The experience of cancer leads to mixed feelings within the individual. They learn considerably when it comes to personal reorganization, learning what to do so not to lose control of the situation they are in^{16,20}. Emerald could change her routine and tasks according to her new conditions of health.

CT affects the lives of breast cancer patients in many different dimensions. Its negative effects in most cases have negative repercussions in diminishing their QoL, affecting both physical, cognitive, and emotional functions in the development of their roles in life, generating anxiety, prejudices in the perception of ones' body image, and worsening symptoms such as dyspnea and pain, in addition to intensifying adverse effects such as fatigue, nausea, vomiting, and constipation²³.

A study that evaluated fatigue and QoL in patients who underwent antineoplastic CT found that people who have CTRF show a decrease in QoL rates²⁴. It is possible to see an association between the difficulty in maintaining concentration and the CTRF in different types of cancer. Emerald felt difficulties concentrating right after the first CT cycles. Especially when reading books, she found it was very hard to focus on the stories.

For most people, fatigue is a protective response for physical and psychological stress²⁵, which was also taken into consideration by Emerald, since it led her to understand many of her needs and how important it was to respect her own limits.

It was found that she adapted many aspects of life to maintain her QoL, although she stated that the CTRF did not have a negative impact on her QoL. Through a thorough analysis of the statements in the interviews, the field diary notes, and the nursing consultation notes, it could be noticed that Emerald would often emphasize the most difficult days, in which she lacked energy and will to carry out her activities, perform the necessary adaptations of her daily life routine, and change the way such activities would be carried out. Work and health were the most affected aspects of her life,

considering the new life routine adopted by the adverse QoL effects. It was also found that an exclusive plan for activities was necessary, since she could not do them with the same agility as before, confirming there were changes in the QoL.

The concepts of health, disease, and QoL are very particular. They are cultural construct, being the concept of culture here understood as a set of ideas, concepts, rules and behaviors that a certain group shares and organizes through life and in accordance to health and disease experiences in different societies²⁶. This QoL concept is different than the one offered by Emerald.

With regards to the representation of CTRF, it is important to analyze the context using the concepts constructed by Emerald, that is, from her experience. The patient stated that, even having cancer, she did not feel sick, and therefore, sought to keep active and continue living her life the same as before. Despite the CTRF and other CT-related adverse events, Emerald considered her QoL to be good. Therefore, her personal construction of the meaning of CTRF was different from that of participants from another study who participated in similar experiences¹.

Emerald reported have never lived around people with cancer. What she heard from others was that the disease could be aggressive and painful (field diary notes). Her reactions to the treatment's adverse events were also not as expected within the culture she lives, making it another positive impact in her experience, so that she would not feel diseased and could consider her QoL as positive.

In the context in which she was inserted, no physical or mental negative impressions about the treatment were elaborated, helping her to have positive feelings, behaviors, and attitudes regarding the fact that she had cancer and the chemotherapy treatment she was undergoing.

CONCLUSION

In this study, the participant belongs to a group of patients who were diagnosed with breast cancer and fits a pre-established profile according to epidemiological data.

The concept of fatigue as elaborated by Emerald is similar to one that has been often described by contemporary scientific literature. The way professionals who deal with oncologic patients treat symptoms as unimportant stands out, as it reflects on the underestimation of these symptoms by the patients themselves, since they consider this to be an adverse effect inherent to the treatment, that is, something that they should just endure.

Adaptations were needed in the routine and daily activities of patients, especially when considering the impact related to CTRF. These

changes, despite reflecting the need for daily life reorganization, did not affect the participant's QoL according to her. Other adverse effects meant that Emerald had to make considerable changes in her lifestyle. She had to reevaluate her routine previous to the disease and start respecting the limits of their own body.

To better understand the changes caused by CTRF in the QoL of patients with breast cancer undergoing chemotherapy, future studies should interview a bigger number of participants, from different social, economic, and cultural contexts, with different clinical characteristics, to have access to different perspectives in different contexts, whichever is the context in which participants experience CTRF.

The limitation of this study is the fact that it involves only one research with one patient. However, its results make it possible to get to know and understand the many ways in which CTRF influences the life of a woman who is undergoing CT, many of which are not always explicit, requiring professionals to have a closer look while assessing and dealing with the problem.

In addition, these results are expected to aid those who seek knowledge about CTRF and its repercussions on QoL, making it possible to understand the meanings attributed to it from the perspective of the patient and, as a result, contribute to improve the quality of assistance.

REFERENCES

1. Jesus S, Fitzgeorge L, Unsworth K, Massel D, Suskin N, Prapavessis H, et al. Feasibility of an exercise intervention for fatigued breast cancer patients at a community-based cardiac rehabilitation program. *Cancer Manag Res*. [Internet]. 2017 [cited in 25 apr 2018]; 9:29-39. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312692/>
2. Bonassa E, Santana TR. *Enfermagem em terapêutica oncológica*. 4ed. São Paulo: Atheneu; 2012.
3. National Comprehensive Cancer Network. Cancer-related fatigue: NCCN clinical practice guidelines in oncology [Internet]. Plymouth Meeting, PA: NCCN; 2017 [cited in 12 apr 2017]. Available from: www.nccn.org
4. World Health Organization, The Whoqol Group. The World Health Organization Quality of Life Instruments (WHOQOL): position paper from the World Health Organization. *Soc Sci Med*. [Internet]. 1995 [cited in 12 apr 2017]; 41:1403-10. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/8560308>
5. Públio GB, Silva KO, Sousa Viana GF. Qualidade de vida de pacientes oncológicos submetidos à quimioterapia. *Ciênc Desenvolv - Rev Eletr FAINOR*. [Internet]. 2014 [cited in 25

- apr 2017]; 7(2):244-57. Available from: <http://srv02.fainor.com.br/revista/index.php/memorias/article/view/329>
6. Caprara A. Uma abordagem hermenêutica da relação saúde-doença. *Cad Saúde Pública*. [Internet]. 2003 [cited in 25 apr 2017]; 19(4):923-31. Available from: <http://www.scielo.br/pdf/csp/v19n4/16842.pdf>
7. Stake RE. Case studies. In: Denzin NK, Lincoln YS. *Strategies of qualitative inquiry*. Thousand Oaks: Sage Publications; 2003. p.134-64.
8. Manzini EJ. Uso da entrevista em dissertações e teses produzidas em um programa de pós-graduação em educação. *Rev Percurso*. [Internet]. 2012 [cited in 25 apr 2017]; 4(2):149-71. Available from: <http://periodicos.uem.br/ojs/index.php/Percurso/article/view/18577>
9. Associação Brasileira de Cuidados Paliativos. Consenso Brasileiro de Fadiga. *Rev Bras Cuid Pal*. 2010; 3(2 supl 1):1-32.
10. Corbin J, Strauss A. *Basics of qualitative research*. 4ed. Thousand Oaks: Sage Publications; 2014.
11. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. [Internet]. 2006 [cited in 12 mar 2017]; 3(2):77-101. Available from: https://www.researchgate.net/publication/235356393_Using_Thematic_Analysis_in_Psychology
12. Associação Brasileira de Empresas de Pesquisa. Critério Brasil 2015 e atualização da distribuição de classes para 2016 [Internet]. [São Paulo]: ABEP; 2016 [acesso em 20 jun 2017]. Available from: www.abep.org/Servicos/Download.aspx?id=12
13. Oliveira TSG, Neris RR, Santos LNT, Teixeira RG, Magnabosco P, Anjos ACY. Perfil de mulheres com câncer de mama tratadas com quimioterapia. *Rev Enferm UFPE on line*. [Internet]. 2016 [cited in 20 jun 2017]; 10(11):4097-103. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/download/11496/13361>
14. Amorim M, Siqueira K. Relação entre vivência de fatores estressantes e surgimento de câncer de mama. *Psicol Argum*. [Internet]. 2017 [cited in 20 jun 2017]; 32(79):143-73. Available from: <https://periodicos.pucpr.br/index.php/psicologiaargumento/article/view/20523>
15. Milagres MAS. *Vivências da mulher e da família frente ao tratamento oncológico*. [Dissertação]. Viçosa, MG: Universidade Federal de Viçosa; 2015.
16. Anjos ACY, Zago MMF. A experiência da terapêutica quimioterápica oncológica na visão do paciente. *Rev Latinoam Enferm*. [Internet]. 2006 [cited in 20 jun 2017]; 14(1):33-40. Available from:
- <http://www.scielo.br/pdf/rlae/v14n1/v14n1a05.pdf>
17. Trufelli DC, Miranda VC, Santos MBB, Fraile MNP, Pecoroni PG, Gonzaga SRF, et al. Onde está o atraso? Avaliação do tempo necessário para o diagnóstico e tratamento do câncer de mama nos serviços de oncologia da Faculdade de Medicina do ABC. *Rev Bras Mastologia*. 2007; 17(1):14-7.
18. Peteet JR. Cancer and the meaning of work. *Gen Hosp Psychiatry*. [Internet]. 2000 [cited in 12 apr 2017]; 22(3):200-5. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/10880715>
19. Rzeznik C, Dall'agnol CM. (Re) descobrindo a vida apesar do câncer. *Rev Gaúcha Enferm*. [Internet]. 2000 [cited in 25 apr 2017]; 21(Esp):84-100. Available from: <https://seer.ufrgs.br/RevistaGauchadeEnfermagem/article/view/4329>
20. Gomes IP, Lima KA, Rodrigues LV, Lima RAG, Collet N. Do diagnóstico à sobrevivência do câncer infantil: perspectiva de crianças. *Texto & Contexto Enferm*. [Internet]. 2013 [cited in 20 jun 2017]; 22(3):671-9. Available from: <http://www.scielo.br/pdf/tce/v22n3/v22n3a13.pdf>
21. Almeida TG, Comassetto I, Alves KMC, Santos AAP, Silva JMO, Trezza MCSF. Experience of young women with breast cancer and mastectomized. *Esc Anna Nery Rev Enferm*. [Internet]. 2015 [cited in 20 jun 2017]; 19(3):432-8. Available from: http://www.scielo.br/pdf/ean/v19n3/en_1414-8145-ean-19-03-0432.pdf
22. Silva SED, Vasconcelos FER, Geziania SS, Jaques MB, Pantoja NRS, Cavalcante RL, et al. As representações das mulheres mastectomizadas sobre seus corpos 'alterados'. *Rev Eletr Gest Saúde*. [Internet]. 2017 [cited in 25 apr 2017]; 1(3):590-602. Available from: <http://periodicos.unb.br/index.php/rgs/article/view/10394/9165>
23. Andrade V, Sawada NO, Barichello E. Quality of life in hematologic oncology patients undergoing chemotherapy. *Rev Esc Enferm USP*. [Internet]. 2013 [cited in 25 apr 2017]; 47(2):355-61. Available from: http://www.scielo.br/pdf/reeusp/v47n2/en_12.pdf
24. Padavini RL. *Fadiga e qualidade de vida em pacientes sob quimioterapia antineoplásica* [Internet]. [Dissertação]. Campo Grande, MS: Universidade Federal do Mato Grosso do Sul; 2014 [cited in 05 apr 2017]. 86p. Available from: <https://posgraduacao.ufms.br/portal/trabalho-arquivos/download/1335>
25. Ahlberg K, Ekman T, Gaston-Johansson F, Mock V. Assessment and management of cancer-related fatigue in adults. *Lancet*. [Internet]. 2003 [cited in 05 apr 2017]; 362(9384):640-50. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/12944066>

26. Good B. Medicine, rationality, and experience: an anthropological perspective. Nova York: Cambridge University Press; 1994.

CONTRIBUTIONS

All authors contributed equally in the conception, design, analysis, data interpretation, writing, and critical review of the article.

How to cite (Vancouver)

Lopes CF, Anjos ACY, Campos CS. Chemotherapy-related fatigue in women with breast cancer. *REFACS* [Internet]. 2019 [cited in *inserir dia, mês e ano de acesso*]; 7(3):322-330. Available in: *Insert access link*. DOI: *insert DOI link*.

How to cite (ABNT)

LOPES, C. F.; ANJOS, A. C. Y.; CAMPOS, C. S. Chemotherapy-related fatigue in women with breast cancer. *REFACS*, Uberaba, MG, v. 7, n. 3, p. 322-330, 2019. Available in: *Insert access link*. Access in: *insert day, month and year of access*. DOI: *insert DOI link*.

How to cite (APA)

Lopes, C.F., Anjos, A.C.Y. & Campos, C.S. (2019). Chemotherapy-related fatigue in women with breast cancer. *REFACS*, 7(3), 322-330. Recovered in: *insert day, month and year of access* from *Insert access link*. DOI: *insert DOI link*.