Revista
Brasileira
de Enfermagem
REBEn

ORIGINAL ARTICLE

Therapeutic itinerary of breast cancer women in a border municipality

Itinerário terapêutico de mulheres com câncer de mama em município de fronteira

Itinerario terapéutico de mujeres con cáncer de mama en un município fronterizo

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How to cite this article:
França AFO, Silva RMM, Monroe AP, Mairink APLR, Nunes LN, Panobianco MS. Therapeutic itinerary of breast cancer women in a border municipality. Rev Bras Enferm. 2021;74(6):e20200936. https://doi.org/10.1590/0034-7167-2020-0936

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EDITOR IN CHIEF: Antonio José de Almeida Filho
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Submission: 09-09-2020 **Approval:** 10-27-2020

ABSTRACT

Objectives: to know the therapeutic itinerary and to show the implications of breast cancer for women in a border town in southern Brazil. **Methods:** a qualitative research conducted based on the complexity paradigm, through interviews with 13 women with breast cancer undergoing outpatient treatment and data analyzed by thematic analysis. **Results:** the first signs and symptoms of breast cancer were noticed unexpectedly, in everyday moments and during routine visits. There was family support in the search for assistance in primary care services, but organizational barriers led this itinerary to private health services, including Paraguay. Coping with the disease and treatment was anchored in the family subsystem. **Final Considerations:** the paths for breast cancer diagnosis and treatment included families, primary care services and private health services, including from the neighboring country, considering the vulnerability of border regions to guarantee health care.

Descriptors: Breast Neoplasms; Health Services Accessibility; Border Health; Qualitative Research; Women's Health.

RESUMO

Objetivos: conhecer o itinerário terapêutico e mostrar as implicações do câncer de mama para mulheres em município de fronteira do sul do Brasil. **Métodos:** pesquisa qualitativa, conduzida com base no paradigma da complexidade por meio de entrevistas com 13 mulheres com câncer de mama em tratamento ambulatorial e dados analisados pela análise temática. **Resultados:** os primeiros sinais e sintomas do câncer de mama foram percebidos inesperadamente, em momentos cotidianos e durante atendimentos de rotinas. Houve apoio familiar na busca por assistência, em serviços de atenção primária, mas barreiras organizacionais conduziram esse itinerário aos serviços privados de saúde, inclusive do Paraguai. O enfrentamento da doença e tratamento foi ancorado no subsistema familiar. **Considerações Finais:** os caminhos para o diagnóstico e tratamento do câncer de mama incluíram as famílias, os serviços de atenção primária e os serviços privados de saúde, inclusive do país vizinho, considerando a vulnerabilidade de regiões de fronteira para garantir a assistência à saúde.

Descritores: Neoplasias da Mama; Acesso aos Serviços de Saúde; Saúde na Fronteira; Pesquisa Qualitativa; Saúde da Mulher.

RESUMEN

Objetivos: conocer el itinerario terapéutico y mostrar las implicaciones del cáncer de mama para las mujeres de una localidad fronteriza del sur de Brasil. **Métodos:** investigación cualitativa, realizada con base en el paradigma de la complejidad, a través de entrevistas a 13 mujeres con cáncer de mama en tratamiento ambulatorio y datos analizados mediante análisis temático. **Resultados:** los primeros signos y síntomas del cáncer de mama se notaron de forma inesperada, en los momentos cotidianos y durante las visitas de rutina. Hubo apoyo familiar en la búsqueda de asistencia en los servicios de Atención Primaria, pero barreras organizacionales llevaron este itinerario a los servicios privados de salud, incluido Paraguay. El afrontamiento de la enfermedad y el tratamiento estaba anclado en el subsistema familiar. **Consideraciones Finales:** los caminos para el diagnóstico y tratamiento del cáncer de mama incluyeron familias, servicios de atención primaria y servicios privados de salud, incluso del país vecino, considerando la vulnerabilidad de las regiones fronterizas para garantizar la atención en salud.

Descriptores: Neoplasias de la Mama; Accesibilidad a los Servicios de Salud; Salud Fronteriza; Investigación Cualitativa; Salud de la Mujer.

INTRODUCTION

Breast cancer is the second most common type in the world and the most common among women. Statistics indicate an increase in its incidence in both developed and developing countries, and for Brazil the estimate for the 2020-2022 triennium is 66,280 new cases of the disease(1). It is among the most significant neoplasms, considering its high incidence, high mortality rates and because it causes harmful consequences to women, whether physical or psychological, constituting a serious public health concern worldwide(1-2).

The problem that converges to assistance to women in Brazil, in relation to breast cancer, refers to the high mortality rates justified by diagnoses of the disease in advanced stages, since if diagnosed and treated in a timely manner, prognosis changes and becomes up relatively good(2).

The search for attention involves a variety of factors, which can delay the diagnosis and initiation of treatment for breast cancer. These factors include patients' delay in reaching a health service, considering the organizational barriers present in developing countries and the late search for cancer care, for underestimating or not knowing the signs and symptoms(2-3).

Considering the geographic configuration in terms of access, history, culture and socioeconomic development in border regions, such as the triple border - Paraguay, Argentina and Brazil, including the city of Foz do Iguaçu, setting of this study, it appears that, in these regions, scarcity of resources and infrastructure for health care, precarious living conditions on the open border and great human mobility represent a major obstacle to the planning of preventive actions for breast cancer, making the border a space of greater vulnerability, for considering fragility in terms of health promotion, disease prevention and continuity of care(4).

Thus, knowing the therapeutic itinerary (TI) of women with breast cancer in a vulnerable region, from discovery to disease care, will be important to understand how people configure their paths in the search for health care and how health services are organized to support the care demands resulting from this complex disease(5).

OBJECTIVES

To know the therapeutic itinerary and to show the implications of breast cancer for women in a border town in southern Brazil.

METHOD

Ethical aspects

This study was submitted to and approved by a Research Ethics Committee and all participants signed the Informed Consent Form. To guarantee their anonymity, participants were identified by letters "PW", which means "participating woman".

Theoretical-methodological framework and type of study

This is a descriptive and qualitative research, conducted based on Edgar Morin's Complexity Theory methodological framework.

The Complexity Paradigm presents a new way of looking and thinking about reality. It proposes the inseparability of the phenomena that make up the multidisciplinary mode and approach as a way of building knowledge, comprising complex thinking, i.e., challenging and fostering thinking. To this end, Morin considered principles to guide the cognitive steps of complex thinking: dialogic, gathering and connecting contradictory factors in an analysis of a given event; recursive principle, breaking with the linear understanding of cause-effect relationships; hologram, undoing with the propensity of reductionism and fragmentation and also overcoming the tendency to holism to look only at the whole; organizational, uniting the knowledge of the parts to the knowledge of the whole(6).

To guide the methodology of this study, the COREQ instrument was adopted.

Study setting

This research was carried out in Foz do Iguaçu, Brazil, which belongs to the triple border next to Cuidad del Este (Paraguay) and Porto Iguaçu (Argentina). The municipality has a public hospital that is a reference for oncology care and an Oncology Center, intended for assisting the population of the ninth health region's municipalities in Paraná State. Moreover, it becomes responsible for assisting tourists and foreigners, considering that the city is touristic and there are health demands from neighboring countries. At Oncology Centers, medical and nursing consultations are carried out, and procedures such as chemotherapy, radiation therapy, hormone therapy and biopsies.

Data source

Women older than 18 years of age, undergoing outpatient treatment for breast cancer at the oncology center, users of the Unified Health System (SUS – *Sistema Único de Saúde*), without a diagnosis of mental health problems registered in medical records, and residents of Foz do Iguaçu were included. No participant was excluded, considering that the criterion would be the need for hospitalization in the period proposed for the study; however, one refused to participate, but did not state the reason. Thus, 13 women with breast cancer participated, five of whom were undergoing chemotherapy, six chemotherapy and radiotherapy, and two on hormone therapy. For most participants, the time between suspicion and confirmation of cancer was one month, as well as between diagnosis and the start of treatment.

As this is a qualitative research, the sum of the interviews was not relevant to the methodological proposal of this study. When the data started to generate constructs, making it possible to group subsidies for the understanding of the studied themes, and to transpose answers to the initial questions, data collection trajectory was ended(7).

Data collection and organization

Data collection took place from March to June 2018. Initially, contact was made at an Oncology Center, at which time the invitation to participate in the research was made, explaining the objectives and collecting the signatures of the Informed Consent Form. Then, a home visit was scheduled to conduct the in-depth interview, which was recorded on audio and transcribed in full, later, by the first author, who has professional experience in gynecological nursing. At the end, participants were able to listen to the audio of their participation. Family members were present for three participants during the interviews, but without any participation from them.

The interview started with the following guiding question: how was the path taken to discover and care for breast cancer? Other aspects were addressed during the interview, such as: sociodemographic conditions; diagnosis news; repercussions of cancer for women and family; motivations for following treatment; sought services. The average interview time was 40 minutes, without the need to repeat them and without the need for a previous pilot. To record the expressions throughout the interviews, as well as the participants' environment, the researcher had a field diary.

Data analysis

Thematic analysis[8] was chosen to contextualize the empirical data. The content for analysis was obtained by transcribing and organizing the interviews, successive readings, pre-analysis, material exploration, treatment of results and interpretation, to finally describe the categories for discussion, which were identified throughout the research, as they proved to be important to present the TI of breast cancer women in a border municipality.

RESULTS

Participants have an average age of 49.9 years, mostly white, Catholic and with high school education. Concerning marital status, they are married or live in a stable relationship. They have their own house and paid work, with an average family income of US$ 380.74; also, do not receive government aid and use only health services linked to SUS.

Participants' narratives reflect the main aspects of the paths taken for the discovery and care of breast cancer in the border region, which were expressed by the thematic category: *Perceiving the first sign of the disease and health care search*. From diagnosis, it became relevant to show the implications of this disease for women's lives, translated by the category: *Confirmation of breast cancer diagnosis and its implications for the lives of women affected by cancer*.

Perceiving the first sign of the disease and health care search

The paths taken by women with breast cancer begin to be traced from the perception of the first sign of the disease. They detect something modified in their bodies and this can happen by chance, unexpectedly through palpation and generates suspicion of some health problem.

> *I found out myself, I went to take a shower. You know when you're going to take a shower and hold your hand and squeeze your finger there, that's what happened.* (PW1)
>
> [...] *out of nowhere a lump appeared, I felt it with my hand.* (PW11)
>
> *I found out by feeling. I felt it, then I felt a lump in my breast.* (PW12)

There are also women who do not notice changes in their bodies and the lump is discovered only by the result of screening tests, causing them great concern and association with a probable disease.

> *I went to have a check-up, the doctor said to do a breast ultrasound to see how it is, I didn't feel anything. I went to do the ultrasound and a four-cm lump came out.* (PW5)
>
> *I found out why I went for a mammogram. When I got the mammogram that I looked at like this, I already suspected. Because I read, you know,* [...] *and said that I had a lump, if I remember correctly five centimeters. Then I said "this is not good".* (PW10)

When perceiving something wrong in their breasts, many women feel unprepared, so family support is important to encourage them to seek professional help and, consequently, look for a diagnosis.

> *Then he* [the husband] *said "Honey, to clear your conscience, go".* (PW1)
>
> *My daughter knew I already had this lump and said: Mother, let's see this thing there. That's why I went.* (PW2)
>
> *My daughter was admitted to a hospital in Cuidad del Este* [Paraguay], *then she said "Mother, enjoy it and have your mammogram done here". I went and did the mammogram.* (PW7)

This disturbing discovery raises doubts, concerns, and even despair. Thus, women understand the need to seek professional care, and their alternative are Primary Health Care (PHC) services, close to their homes, and this search is sometimes immediate, sometimes late.

> *Upon realizing it, I showered, got dressed and went to a health center.* (PW3)
>
> *One day taking a shower, I ran my hand over and felt a lump, only I didn't care. I left it, only it was very small, you know, very little thing, I kept working and forgot. Then one day I was taking a shower when I ran my hand, I felt like I was a ball. Then I thought, wow, that little bit has increased a lot, I will have to see a doctor. I went to a health center, went through consultation.* (PW4)
>
> *I ended up at a health center.* (PW12)

In a field diary record, it was found that one participant waited to pass her period to seek help after detecting the lump, as she considered that it could be a hormonal change. Meanwhile, another waited ten years to investigate the lump, as she felt no discomfort. It is important to highlight that such waits contributed to the postponement of diagnosis and beginning of treatment.

> *I had a lump on the wall of the right breast, on top of the sternum, and it didn't progress, it didn't do anything, it didn't grow, it was there quietly. I had this lump for over 10 years.* (PW2)
>
> *I woke up with a lump, feeling it already. As it was close to my period, I expected to start menstruating, I thought it was something*

> *related to this, but then when menstruation started, it didn't disappear. I looked for my gynecologist, at first I went to a private gynecologist* [...]. (PW11)

Faced with the need to seek a diagnosis, there are women who face difficulties in accessing public health services, needing to resort to private services as an option for care. Because they live in a region of cross-border flexibility, they overcome geographical barriers and seek care in health services in the country next to Brazil, Paraguay, because they consider these services to be less costly. However, the dissimilar experiences of encounters or disagreements between women with breast cancer and health services lead to the construction of itineraries for acquiring access to health networks, according to their different needs.

> *I did an ultrasound in Paraguay. Because it was cheaper, I didn't make an appointment here in Brazil.* (PW2)

> *I made the first appointment there in Paraguay, then I did everything here* [in Brazil]. (PW5)

> *I went to the gynecologist, from the clinic and he said, "I'm going to send you to have an ultrasound scan". Then I got the referral, they lost my referral. Three or four months passed, and me, silly, waited. I came back and went to see the gynecologist again. He took it and gave me another referral, only that it had been about four, five months and my breast was already bleeding. You know that at this time we usually don't have any money. I freaked out, my husband got money, I went there and paid for the ultrasound.* (PW10)

As well as access to health services, the paths taken to elucidate the diagnosis and start treatment are accompanied by innumerable challenges with regard to obtaining exams and referral to a specialist. In these situations, even with difficulties, the participants pay for these exams in order to streamline and receive care.

It is well known that participating women do not follow the same path to discover the lump. If, on the one hand, there are women who look for family care subsystems, evidenced when family counseling is attended and valued, on the other hand, care search is professional, considering a preponderant and immediate subsystem.

After the hard walk to receive the diagnosis, participants verbalize that in the itinerary for health care, the moment when they receive the news of the disease is more difficult and extremely distressing, and that they experience a strong emotional impact, accompanied by anguish and fear for being with a stigmatizing disease, strongly linked to the idea of suffering and death, for them and for others.

> *Everyone thinks you are going to die, because cancer has no cure, you are going to die.* (PW3)

> *Ah I felt, God forbid! I felt bad, because everyone feels, just like me. I was already hoping it was, you know? It's just that you're not sure, so you say "Oh Jesus, have mercy, that even I didn't pray much, you know? I asked God to heal, but He didn't want to"* [cry]. (PW10)

> *It looks very difficult, when you receive the news of cancer, the first thing that crosses your mind is that you will die. Then the plug falls. There is no treatment, but the first thing you think is that you are going to die. I thought I was going to die.* (PW11)

> *It was hard* [starts to cry]. (PW12)

Despite all these feelings, upon receiving the news, the first and greatest concern is with the family, about how their partner and children would react when learning about their diagnosis.

> *My concern was with my daughter, that's right. Ah, my daughter, she was also very bad at school.* (PW1)

> *It was very impressive, but my biggest concern was with the family. How they would receive it, because I had no major concerns.* (PW2)

> *Thump right, you thump a little. I asked God and accepted. I said that I would not suffer, that I would not let myself be slaughtered, right, because of my children and my husband, because my husband is stuck with me. I thought if I fell, everyone wouldl fall.* (PW9)

Thus, after experiencing the sad finding of the diagnosis of breast cancer, women follow TI using the family health care subsystem. This subsystem is affirmed through concern for the family through the news of the disease, which in a way encourages them to seek treatment and to continue living.

Confirmation of breast cancer diagnosis and its implications for the lives of women affected by cancer

The news of breast cancer is frightening; there is a rupture of the psychic balance, which generates tension, fear, with strong subjection to inner conflicts as a result of experiencing this conflicting situation, accompanied by anguish and emotional stress. The consequences of breast cancer diagnosis in young women differ in some ways from other women.

> *I went to a private clinic, the tests we did at first did not show anything. We only found out after the biopsy. Then I started paying for the health plan. But at the time I did not treat, I was three years without treatment, I did not accept the disease. I started to limp. It hurt a lot too, that's when I discovered that I had metastasis in the hip, I had the surgery for the health plan. After that, I was no longer able to pay health insurance, which is why I also did not treat. At that time, I went to the health clinic near where I lived, the doctor who assisted me said "You have to go to the hospital* [reference to Oncology] *urgently to start your treatment", and I went.* (PW6)

> [...] *I was so worried and now I knew I was going to lose my breast, it would be worse, right.* (PW10)

> *It was my mother at the time* [my concern]. *I took care of her all my life; I don't like to talk about it a lot* [starts to cry]. (PW13)

Among the narratives, the possibility emerges that cancer may prevent them from working and having children, leaving them worried and sad about the finitude imposed by the disease and treatment.

> *I used to work as a receptionist, as a secretary, these things, but then I couldn't work anymore, because now almost every week I am in the hospital, this is really bad.* (PW5)

> *It's sad, right, because in addition to the disease I know I won't be able to have children.* (PW6)

Thus, through the various inferences of the diagnosis found by women with breast cancer, both young and the others, it is necessary to design methods of coping at this stage of the disease. For coping with the diagnosis, the emotional support of family members is of great value, in order to contribute positively to their recovery, in addition to making them more confident and safer.

> *I went with my husband, when we arrived at the office, he* [the doctor] *said "Look, it really is malignant". It was a shock. Wow, tears just flowed, I just cried, my husband put his hand on my shoulder like that. Wow, it's like a hole has opened. You totally lose the ground, but my husband was a good companion. The problem lived together, day and night.* (PW1)

> *At the time, it was shocking, you know, it is a shock, but then we started talking to family members and everything, supporting them. So, it was calmer, but at first it was shocking.* (PW8)

When faced with the diagnosis of the disease, women feel the need to face their new situation and again resorted to the family health care subsystem, which is noticeable in the emotional support of family members and partners.

It is important to remember that even in the face of the emotional impact with the diagnosis of breast cancer, there are different behaviors, advancing towards treatment and presenting a positive coping with the disease.

> *My daughter found out. She said "Mom, it just didn't go well". Then I said to her, "What to do? We will have to fight, fight". At the time he didn't give me anything like that, he never dropped a tear because of it. The doctor in Asunción said "One thing I will tell you is that you are not the first woman or the last woman with breast cancer, but if you go home and put it in your mind that you have cancer breast cancer, you'll just think you have cancer and die and you'll lose sleep. If you put that on your head, you'll go from day to day, because 40% of your illness is what the mind does, and if you think positive, you will win".* (PW7)

> *Ah, at the time I was kind of like that. I wasn't sad because I thought to myself if I kept putting something on my head. Because I think like that, I'm sure that anything we will die or with cancer or without cancer, one day we will. So, I don't care about it, I don't care.* (PW13)

In their care and healing itinerary, women experience many obstacles, be they functional, financial, and psychological. But they show the awareness of the severity of this disease and understand the need to face the problem aiming at a cure, combined with positive thinking and determination, with family support to face breast cancer in all its dimensions.

DISCUSSION

This investigation glimpsed important aspects related to the paths taken by women to answer a complex problem, breast cancer, which requires the individual to seek care, assistance, and cure, and has implications for their lives and for family and social life. Analyzing the TI of these women in the border region, with all its diversity, contradictions, and uncertainties, is connected to the proposed principles of complex thinking, considering that in border regions complex environments and situations also emerge.

The dialogical principle is evidenced by the perception of the first sign with suspicion of the disease and the report of the diagnosis. Health and disease, life and death, despite being antagonistic, are complementary, since they interfere with the diversity of relationships, in the individuals' interaction with themselves and with the environment. This order and disorder compete, but they also cooperate in the organization of the universe, because if the world were made only out of order, there would be nothing new nor creation. On the other hand, if it were only disorder, it would not constitute an organization and would be unable to promote development and innovation(9).

Under this logic, the contrary recommendation of the Ministry of Health of Brazil to the teaching of breast self-examination as a method of breast cancer screening and the contribution of self-examination practice cooperate with each other for health promotion. Thus, on the one hand, self-examination has low sensitivity and specificity, which causes a high percentage of false-negative tests, on the other hand, the eventual practice of self-examination, combined with observation as a way of getting to know the body itself, the normal aspects of the breast and the warning signs, among them lumps, contributes to early identification of worrying signs and symptoms of breast cancer(1-2).

Mammography is the most reliable radiological exam to assess the breasts and detect any changes, even before they are noticed, whether it is a benign lesion or cancer, as it identifies tumors that are less than one centimeter and imperceptible to touch, the stage of the disease with excellent chances of cure. Furthermore, it is directly related to the decrease in mortality caused by this neoplasm. However, there is a small rate of cases in which early signs may be obscured by unusually dense breast tissues. Thus, it is necessary to perform digital mammography or ultrasound in women with very firm or bulky breasts, which can hide initial lumps(10-11).

In the organizational principle, it is possible to understand how the TI was built and organized after lump detection and activation of professional and family health care subsystems; thus, it is necessary to know the parts and vice versa, as it is impossible to know the whole without knowing the parts and knowing the parts without knowing the whole. Organizing the whole produces new properties in relation to the parts considered in isolation(6).

Among the comings and goings of the paths identified by participants, PHC services were included, which are closer to families and the community. These services should be the preferred port of the system, but not restricted, as the system must be organized according to individual or collective health needs. PHC is responsible for identifying, coordinating and transforming these needs, as it is responsible for ordering access to other levels of health care and care regulation as an instrument to adapt supply to demand, prioritizing cases according to the classification of clinical criteria(5,12).

Moreover, the health-disease process does not happen separately from the aspects of an individual's life and that of a society, it is part of the entire socio-cultural context. Therefore, it is necessary to understand the path people take in search of care for their health conditions. In health anthropology, this path is called IT, which includes a succession of decisions and agreements between individuals and groups with different interpretations of the disease and the choice of appropriate therapy(13), i.e., an intense movement between the whole and the parts(6).

TI, based on the health care systems model, contains three subsystems, in this order described: family, popular, and professional(14).

The family subsystem, widely referred to in the present investigation, is attributed to popular knowledge, which includes subjects, their relatives, friends, neighbors and social networks. It is in this subsystem that prudence with the disease is exercised through changes in attitudes and eating habits, domestic medicines, emotional support and religious resources. The popular subsystem, not evidenced by participants, concerns healing professionals who are not legally recognized, who use devices such as herbs, engendered therapies, and healing rituals. Although identified with less intensity, the professional subsystem is the one on which the legally recognized official health care network is based. The transit of individuals within these three systems provides the decision of treatment and care they will perform(14-15).

The lack of connection between health care systems may lead to a delay in the investigation of breast lesions suspected of breast cancer, resulting in a late diagnosis, as well as a delay in the time for carrying out diagnostic tests and starting treatment, and may negatively impact healing and/or survival time. Late therapy can compromise quality of life, as it undertakes more aggressive interventions, varied treatments and consequently more sequel(16).

As the border is considered a vulnerable and complex environment, it reflects on the problems that translate this context. There is a clear overload on public health services at the excellent points of care, resulting in a reduction of human, structural, financial and logistical resources for breast cancer prevention and treatment assistance for Brazilian citizens.

The regulatory criterion for the transfer of financial resources adopted to SUS is the population contingent, which is unfavorable. Thus, foreign populations and Brazilians who live in neighboring countries and who seek health care in the Brazilian space are not counted in these costs. Thus, the cost ends up becoming scarce and local planning directly affected, showing difficulty planning and providing specific public policies for these municipalities(17).

Furthermore, the fundamentals of integrality and universality of SUS are considered as a strong reason for the movement of foreigners to Brazil. Commuting is instigated by access, resolution and quality of health systems(18). This coming and going, people entering and leaving between countries is common in the open border's daily life, we notice the lack of a single standard for the itinerary, a fact confirmed in this research.

In addition to the organizational problems for breast cancer diagnosis and treatment, neoplasm recognition due to its high rate of morbidity and mutilation demonstrates important implications for self-esteem and generates great psychological disturbance, which begins when women begin to suspect that the lump found may be cancer(16).

Since it is a stigmatizing disease, fear of death is a feeling awakened by the news of breast cancer, as it is associated with poor prognosis, aggressive treatment, pain, suffering, incurability and the strong correlation between cancer and death(19).

The illness and death process are somewhat conflicting for the female role within family spheres. Over time, the responsibility for household chores and the actions that derive from caring for the home has been attributed and instituted in society as something natural and exclusive to women, playing the role of home, children and husband caregivers, promoter supportive relationships and even family subsistence(20-21). These functions are altered by the discovery of breast cancer, and complicated by treatment, implying changes in the way of life, plans, priorities and the routine of the home, limiting the continuity of this autonomy and its daily practices. Moving from caregiver to the person in need of care can lead to feelings of loneliness, helplessness, insecurity, depression, social isolation and procrastination with breast health care(20-21).

Family members also experience conflicting situations and feelings of discomfort, despair and concerns before the pain and suffering of women affected by breast cancer. These feelings are acceptable due to the unknown and uncertainties of cancer, which make them vulnerable, tense and worried due to changes in the whole family environment. However, at that moment when a woman needs to be cared for, she will need family support, understanding and comfort as facilitators for the moment lived(19), a reality present for the women participating in this study.

Breast cancer is more common in women over 40 years of age, however there has been an increase in its incidence in young women (under 40 years old)(22). Three women in this age group participated in this study.

For younger women, the meaning of breast lump detection is not linked to the sense of cancer as in older women. Moreover, they consider that they are not at risk age for this neoplasm. When there is awareness of their condition of being young and having breast cancer, their feelings experienced are contradictory, profound and fearful, and often, the denial of such condition causes them to postpone therapy and, therefore, have a worsen prognosis(22).

Continuing with daily activities, such as work, is a favorable strategy to reduce anxiety and idleness, helping with recovery, emotional control, distracting and promoting self-esteem, in addition to being a positive factor in the healing process. However, maintaining work can generate discomfort for women, considering the difficulties in reconciling work and treatment, resulting in a high percentage of absences from work or in the treatment itself, absences from work activities due to the physical and emotional limitations produced by these therapies(23).

In these perspectives, breast cancer is mediated by prejudices and skeptical feelings and the confirmation of the diagnosis generates a great repercussion and transformation in women's and their families' lives. This effect can only be mitigated if their families are informed and guided about the disease, treatment, rehabilitation and also on how to help women in coping with physical and psychosocial changes experienced during this process. Therefore, family and partner support is essential for women to obtain encouragement to face the disease and suffering arising from treatment, in addition to encouraging them to overcome their battle for life with balance and emotional security, making sure that they do not this alone(24).

Coping is classified as a method, which can be trained, applied and adjusted, regardless of the stress experienced. If this method is effective, stress will be overcome, otherwise there will be a need for intellectual reconsideration of the stressor and necessary changes in actions to solve the problem. Stress can be triggered by several factors, it is inevitable and is part of human evolution;

however, each person when faced with a factor of exhaustion, will have a coping based on their culture, experiences, values, and feelings. The news of the disease generates several stress-producing sensations that demand a method of coping. The choice of the coping mode will be essential to define whether the moment lived will be one of overcoming or disaster(25).

Starting from these conceptions, the hologram principle is verified in the understanding that each part will be necessary to contemplate the whole, i.e., the part is in the whole and the whole is in the part. For this, it is essential to understand the language, culture and precepts of women with breast cancer, to understand the coping carried out. Thus, this principle highlights this apparent paradox of complex systems, in which not only the part is in the whole, but in which the whole is inscribed in the part(9).

The interconnection of women's narratives with the recursive principle(6) is demonstrated in the characterization of women by self-producing and self-organizing from reality, from the experiences and experiences obtained during TI, from the moment of suspicion of the disease to the start of treatment. The impact of the news of the disease, the fear of death due to the stigma of cancer, as well as the concern for the family, produced changes and new orders in the way of life, plans and priorities. Furthermore, coping and the repercussion of the diagnosis for women and their families also contributed to the self-organization of the whole, i.e., TI.

For women with breast cancer, knowing about the disease caused a disorder in many aspects, both individual and nuclear (family), thus requiring a new dimension, i.e., disorders that are organized.

To conclude, in the course of the TI performed by participants, the itineraries "weave", "intertwine" between the dimensions directed towards a common objective, which is health care search. Thus, according to complex thinking, knowledge is a process under construction, unfinished and subject to reconstruction, subordinated to the external environment (society, culture, and means of achieving it). Concomitantly, it is independent, as it organizes itself during its inextinguishable construction.

Study limitations

The limitations of this study are related to a group composed only of women residing in Brazil, which made it impossible to know different TIs in the three border cities - Foz do Iguaçu (Brazil), Cuidad del Este (Paraguay), and Porto Iguaçu (Argentina). In this regard, the object of study is complex, making it important to expand to other investigations, having as a backdrop the observation of the ways of care and cure of breast cancer to reduce vulnerabilities in border regions.

Contributions to nursing, health, and public policies

This study contributes to designing strategies to improve the quality of nursing care for the diagnosis and treatment of breast cancer, in addition to favoring possibilities for access to PHC services to care for these women, especially for border regions, considering the vulnerability in cooperation between countries to guarantee assistance in public health services.

FINAL CONSIDERATIONS

In this investigation, the discovery of the first signs and symptoms of breast cancer was perceived unexpectedly, in everyday moments and during routine visits, leading women to despair, but with family support they were encouraged to seek health care. The itinerary of seeking professional attention was initiated in PHC services, and for finding organizational barriers in public health services, especially in the acquisition of imaging exams, they included in their care paths, private health services, including from Paraguay.

In this TI experienced by breast cancer women, feelings of distress were gaining ground, and the emotional impact, fear and anguish were sometimes related to the disease and to the family reaction.

The consequences of the trajectory of breast cancer were divergent among young and older women. For young women, concerns involved the absence of paid work, impediments to procreation, while for older women, the major concern was related to the care of other family members. And to face this situation, they again resorted to family support and care, and at this moment, positive feelings, determination and courage emerged to face the complexity of the physical, emotional, family and social problem that is breast cancer.

SUPPLEMENTARY MATERIAL

This manuscript is the result of a doctoral thesis presented to the University of São Paulo at Ribeirão Preto College of Nursing in 2020, entitled "Therapeutic itinerary of breast cancer women in a border municipality", available at: https://www.teses.usp.br/teses/disponiveis/22/22133/tde-18092020-101923/publico/ANDREAFERREIRAOUCHIFRANCA.pdf

FUNDING

Araucaria Foundation.

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