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## **CHEMOTHERAPY UNDER THE PERSPECTIVE OF THE PERSON WITH CANCER: A STRUCTURAL ANALYSIS**

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### **ABSTRACT**

**Objective:** to analyze the contents and dimensions of social representations about chemotherapy by cancer patients in chemotherapy treatment.

**Method:** qualitative study, based on the Theory of Social Representations. One hundred patients were interviewed with cancer undergoing chemotherapy treatment attended at a High Complexity Oncology Unit located in the north of the state of Paraná between August and December of 2016. To collect data, a socio-occupational and clinical characterization questionnaire was used, a form of free evocations and in-depth interviews. The analysis was performed with the *softwares Microsoft Excel* and *Evocations*.

**Results:** the social representation of chemotherapy has in its central core the words healing, good and difficult, which are structured in order to justify the completion of chemotherapy – good treatment that leads to healing, although difficult. In addition, an attempt is made to define chemotherapy from its effectiveness, seeking, in healing, its conceptualization. The periphery presents elements related to the attitude, efficacy and side effects of chemotherapy, which reveal the concrete experience of daily life during treatment.

**Conclusion:** the health team, especially the nursing team, should collaborate with the representational construction of patients with cancer in chemotherapy, offering information and rescuing knowledge gaps that allow their participation in the therapeutic process.

**DESCRIPTORS:** Neoplasms. Chemotherapy. Social psychology. Nursing. Oncology nursing.

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# A QUIMIOTERAPIA SOB A ÓTICA DA PESSOA COM CÂNCER: UMA ANÁLISE ESTRUTURAL

## RESUMO

**Objetivo:** analisar os conteúdos e as dimensões das representações sociais acerca da quimioterapia por pacientes com câncer em tratamento quimioterápico.

**Método:** estudo qualitativo, embasado na Teoria das Representações Sociais. Foram entrevistados 100 pacientes com câncer em tratamento por quimioterapia, atendidos em uma Unidade de Assistência de Alta Complexidade em Oncologia, localizada no norte do estado do Paraná, entre os meses de agosto e dezembro de 2016. Para a coleta de dados utilizou-se um questionário de caracterização socio-ocupacional e clínica, um formulário de evocações livres e entrevistas em profundidade. A análise foi realizada com auxílio dos softwares *Microsoft Excel* e *Evocations*.

**Resultados:** a representação social da quimioterapia possui em seu núcleo central as palavras cura, bom e difícil, que se estruturam no intuito de justificar a realização da quimioterapia – tratamento bom que leva à cura, apesar de difícil. Além disso, nota-se uma tentativa de definir a quimioterapia a partir de sua eficácia, buscando, na cura, sua conceituação. A periferia apresenta elementos relativos à atitude, eficácia e aos efeitos colaterais diante da quimioterapia, os quais revelam a vivência concreta do cotidiano durante o tratamento.

**Conclusão:** a equipe de saúde, em especial a de enfermagem, deve colaborar com a construção representacional de pacientes com câncer em quimioterapia, oferecendo informações e resgatando lacunas de conhecimento que propiciem sua participação no processo terapêutico.

**DESCRIPTORES:** Neoplasias. Quimioterapia. Psicologia social. Enfermagem. Enfermagem oncológica.

# LA QUIMIOTERAPIA BAJO LA ÓPTICA DE LA PERSONA CON CÁNCER: UN ANÁLISIS ESTRUCTURAL

## RESUMEN

**Objetivo:** analizar los contenidos y las dimensiones de las representaciones sociales acerca de la quimioterapia por pacientes con cáncer en tratamiento quimioterápico.

**Método:** estudio cualitativo, basado en la Teoría de las Representaciones Sociales. Se entrevistó a 100 pacientes con cáncer en tratamiento por quimioterapia, atendidos en una Unidad de Asistencia de Alta Complejidad en Oncología, ubicada en el norte del estado de Paraná, entre los meses de agosto y diciembre de 2016. Para la recolección de datos se utilizó un cuestionario de caracterización socio-ocupacional y clínica, un formulario de evocaciones libres y entrevistas en profundidad. El análisis fue realizado con ayuda del software *Microsoft Excel* y *Evocations*.

**Resultados:** la representación social de la quimioterapia posee en su núcleo central las palabras cura, buena y difícil, que se estructuran con el fin de justificar la realización de la quimioterapia – tratamiento bueno que lleva a la curación, a pesar de difícil. Además, se nota un intento de definir la quimioterapia a partir de su eficacia, buscando, en la cura, su conceptualización. La periferia presenta elementos relativos a la actitud, eficacia ya los efectos colaterales ante la quimioterapia, los cuales revelan la vivencia concreta de lo cotidiano durante el tratamiento.

**Conclusión:** el equipo de salud, en especial la de enfermería, debe colaborar con la construcción representacional de pacientes con cáncer en quimioterapia, ofreciendo informaciones y rescatando lagunas de conocimiento que propicien su participación en el proceso terapéutico.

**DESCRIPTORES:** Neoplasias. Quimioterapia. Psicología social. Enfermería. Enfermería oncológica.

## INTRODUCTION

In the current epidemiological scenario, neoplasias remain one of the major causes of mortality worldwide.<sup>1</sup> Its epidemiological and social impact has been reflected in the constant development of therapeutic alternatives that aim at the control of cancer, the greater survival of the patients, or even the cure of the disease.<sup>2-3</sup>

Among the available antineoplastic treatment modalities, chemotherapy is recognized by the side effects that affect patients during treatment, mainly nausea, vomiting, alopecia, diarrhea or constipation and others, which compromise the quality of life of people globally.<sup>4</sup> Associated with this, there are changes in physical appearance, difficulty in maintaining employment and interpersonal relationships, and even questions about the possibility of healing affect the thinking of these people, so as to not only impair the physical scope of the human being, but also the psychological and social.<sup>4</sup>

Regarding the study of social representations about chemotherapy, there are predominantly negative aspects related to the treatment experience — pain, suffering, fear and threat —, as well as the physical limitations that affect substantial changes in daily life.<sup>5-6</sup> In addition, the threatening nature of cancer and its treatment means a process of selective familiarization of patients with chemotherapy, from which it turns what was frightening into something palpable to its reality.<sup>7</sup> Thus, the social representations of cancer patients are alluded to as an alternative to cure and an opportunity to live life in a normal way again.<sup>5</sup>

Despite the important results presented here in studies on the social representations of chemotherapy,<sup>5-7</sup> it is emphasized that the individual organization of the experience of cancer and its treatment process is socially constructed and shared, given the prognostic and therapeutic possibilities that are continually advancing today. These meanings change over time and vary according to how people live the processes of health and illness in the social, cultural and political contexts in which those experiences are inserted.<sup>8</sup>

In this context, arises the question: in which way, currently, cancer patients structurally organize their social representations about chemotherapy? It is worth mentioning that the representational construction allows the patient to give meaning to the experiences that are settled during the treatment and to their conduct in the face of the new reality that surrounds them, thus constituting a framework for the construction of information and concepts based on the need to adapt to the therapeutic process.<sup>5</sup> In this sense, it is justified the understanding of such representations in order to allow new reflections to the health professionals, aiming to instrumentalize their practices with these people and their families, helping them to know their patients better and to allow them to understand their treatment.

Therefore, the objective of this study is to analyze the contents and dimensions of the social representations about chemotherapy by cancer patients in chemotherapy treatment.

## METHOD

Descriptive exploratory study, with a qualitative approach, based on Social Representation Theory (SRT). Social representations are a form of knowledge that allows the explanation of actions and feelings from the senses, being present in images, beliefs or behaviors of a group or society.<sup>9</sup>

The SRT,<sup>9</sup> has complementary approaches that adapt to particular methodological contexts. In this study, it was chosen the Central Core Theory,<sup>10</sup> from the Central Cores Theory it is possible to structure the social representation from a four-house chart, divided by a Cartesian plane, which makes possible the accomplishment of the prototypical analysis. From this chart, the words are placed in quadrants: the central core (CC), the contrast zone and the peripheral system.

The study scenario was a High Complexity in Oncology Unit (Unacon), located in the northern part of the state of Paraná, with patients with cancer undergoing chemotherapy treatment. The inclusion

criteria were: age over 18 years, knowledge of the diagnosis of cancer, and accomplishment of at least three months of chemotherapy treatment, considering the time of relation with the representational object important for its construction. And the exclusion criteria involved: the death of the patient during the period of data collection, and the worsening of his health, leading him to the impossibility of participating in the research.

Of the 204 patients undergoing chemotherapy treatment in this institution, 82 were excluded because they did not meet the inclusion criteria, three patients refused to participate in the study and 19 ended the treatment before being invited to participate in the study, which resulted in a total of 100 participants.

The data collection was performed in three moments: the application of a questionnaire to characterize the participants, a form of free evocations and the conduct of in-depth interviews. The use of different methods for data collection occurred with the intention of producing mutually complementary data, in order to favor a broader interpretation of the object being studied.<sup>11</sup>

In view of this context, the characterization questionnaire aimed at the collection of sociodemographic, occupational and clinical data, while the free evocations form guided the production of five words or expressions by the patients, from the term 'chemotherapy'. Finally, the interviews were carried out through a semi-structured script that aimed to access the social representations about cancer and chemotherapy treatment, the daily life of the patient in chemotherapy, and the care relations established with the team in the health service.

The instrument of socioeconomic and clinical characterization was initially applied to all subjects, followed by free evocations, which facilitated the approximation and interaction between the researcher and individual for the invitation to perform the interviews. The team provided a medical office that was not used in the morning for research, in order to have more freedom for dialogue and intimacy with patients.

All patients were invited to participate in the interviews after the collection of free evocations; however, only 29 individuals demonstrated a desire to talk more about cancer and chemotherapy. The interviews – also performed in the institution, on days and times chosen by the patients – were recorded in a digital recorder and had an average duration of 22 minutes.

Data analysis was performed using three steps. In the first, sociodemographic and clinical data were analyzed descriptively through the program Microsoft Excel 2010. In continuity, the free evocations were standardized and analyzed from the prototypical analysis, performed with the help of the software Evocations 2005. This software undertook the organization of the content and the structure of the social representation rendered by the subjects, allowing the construction of the four houses chart.

The criteria that are established in the organization of the elements in the four houses chart are based on the frequency of each response and the average order of recall, that is, the position in which the response is in relation to the others evoked by the study participants.<sup>12</sup> Thus, the most important terms for the cognitive schema of the individual are those that present a higher frequency of evocations and, at the same time, a priority in the order given by the individual.<sup>10</sup> Such terms are concentrated in the central core of the representation.

The peripheral system is formed by the first periphery, which concentrates elements that were evoked with high frequency, but without importance in the average order of evocations; in the second periphery are grouped those less frequent and less important.<sup>10</sup> The contrast zone is defined by terms that presented low frequency and at the same time a high evocation order, which may reinforce notions of the first periphery, or reveal the existence of a different representation, from a minority subgroup.<sup>10</sup>

Finally, it was sought, in the interviews, the contextualization and confirmation of the inferences proposed in the prototypical analysis, as well as the relation between the elements present in the representational structure.

The research was developed in compliance with the ethical issues established by Resolution 466 of December 12, 2012. The anonymity of the participants was preserved from codes (e1, e2, e3... e 100), followed by their age and diagnosis.

## RESULTS

Among the 100 patients with cancer, undergoing chemotherapy in the study, 67 were women, 48 were aged between 40 and 59 years, and 90 lived with family. In relation to schooling, 50 had incomplete Elementary School and two enrolled in Higher Education. Regarding the occupational situation, ten patients were able to keep their pre-disease employment, while 56 were discharged from the service and 30 were retired. It is noteworthy that 24 patients did not have any financial income at the time of the interview.

In relation to the diagnoses, there were more breast cancers (38), followed by digestive organs (26) and male and female genital organs (16). The diagnosis time of the patients was concentrated in the range of three to nine months (41), and 21 diagnosed the disease for 17 months or more. Among the therapeutic modalities, there were predominant adjuvant chemotherapeutic treatments (54), of which 30 underwent chemotherapy and surgery, 14 underwent chemotherapy and radiotherapy, and 25 performed the three treatments available.

With regard to the source of information on cancer and chemotherapy, 17 patients reported having their questions answered with the help of internet, ten reported to health professionals, and 71 revealed that they did not seek more information about the disease and its treatment.

The analysis of the evocations identified a total of 405 words, of which 109 were different. Considering the maximum of five evocations per individual, the average order was 2.60. The minimum frequency of eight evocations was established for the construction of the four houses chart, which generated an average frequency of 16 words. Table 1 presents the results of the prototypical analysis performed from the presented parameters - Fmin=8, Average Rang=2.60, Fmed=16.

**Table 1** – Four-house chart to the term inducer “Chemotherapy” among cancer patients in antineoplastic treatment. Arapongas, PR, Brazil, 2017. (n=100)

Freq. Ave.	< 2.60			≥ 2.60		
	Evoked term	Freq.	OME*	Evoked term	Freq.	OME*
≥ 16	cure <sup>†</sup>	29	2.552	reactions <sup>§</sup>	22	2.636
	good <sup>‡</sup>	24	1.125	disease control <sup>  </sup>	22	2.727
	difficult <sup>‡</sup>	20	1.900	face <sup>¶</sup>	20	3.000
	nausea <sup>§</sup>	14	2.571	improve <sup>  </sup>	11	2.909
< 15	bad <sup>‡</sup>	12	1.500	necessary <sup>¶</sup>	10	2.800
	treatment <sup>†</sup>	12	2.167	pain <sup>§</sup>	9	3.000
	less difficult <sup>‡</sup>	8	2.500	no-reactions <sup>§</sup>	9	3.333

\*OME: Average order of evocation; <sup>†</sup>conceptual; <sup>‡</sup>attitudinal/evaluative; <sup>§</sup>effects; <sup>||</sup>efficiency; <sup>¶</sup>attitudinal/approach.

The analysis of the four-house chart shows that the probable Central Core (CC) of the social representation of chemotherapy consists of the words: cure, good and difficult, these being the most frequent and readily evoked by the patients. The highest frequency of the chart is attributed to the word cure, a positive term related to the information that the subject has about the treatment. Healing



is associated with the word good, an evaluative element that expresses a positive attitude, which presented the lowest average order of evocation (OME) in the whole chart.

The word cure can express informational content on the part of the group, either by the group's knowledge about the purpose of the treatment or an imaging dimension that defines chemotherapy as such. From the discourses it is possible to contextualize the importance of cure as an expected result after chemotherapy, evaluated predominantly as good.

*It's the cure. They are strong medicines, but it is a way to seek healing, then you have to do it, you have to undergo treatment and you have to accept* (e13, male, head and neck cancer).

*It is good because it heals, it damages us, it destroys our look, but it is part of the treatment. Perhaps the good side of it is even better because it is the cure* (e19, female, breast cancer).

The difficult element, also belongs to the attitudinal dimension, of character evaluation, gives a negative connotation to chemotherapy. It is related to the side effects of therapy, such as nausea, present in the contrast zone, which can be observed in speeches.

*It is difficult, chemotherapy is one thing that damages a lot, then... Not so much today, starts tomorrow, a very difficult week. The effects remain all week And I can not smell it. A lot of nausea, dizziness, complicated. A very difficult week* (e67, female, thyroid cancer).

*[...] it is not easy. It's something like that, that you know you need, but it's a very difficult thing, if you stop to think ... That's why there are a lot of people who give up treatment, because it's not easy* (e19, female, breast cancer).

With respect to the peripheral system, the elements with high frequency and OME below 2.60 in the first periphery (disease control, reactions and facing), while in the second periphery are the terms with low frequency and OME above 2.60, being: improving, necessary, pain and no reaction. In contrast, the contrast zone consists of words that have a frequency below 16 and OME less than 2.60 and are therefore promptly evoked by the patients: nausea, poor treatment and less difficult.

The relation between the CC, the peripheral system and the contrast zone was established in three main ways: the presence or absence of adverse reactions during chemotherapy, the need for chemotherapy treatment for cancer control and cure, and conceptualization of chemotherapy as a treatment.

In this context, the experience of side effects from chemotherapy was revealed from the element reactions, present in the first periphery, being the most frequent word and promptly evoked in the peripheral system. It reflects the negative physical consequences of chemotherapy for the patients under study, related to the pain element, present in the second periphery, as well as nausea and bad both in the contrast zone. The term nausea was the most frequent in the contrast zone (14), although it had the largest OME in it. On the other hand, the bad element was the second most readily evoked throughout the representation, as well as being the most prominent of the contrast zone, with OME of 1.500.

The elements reactions, pain, nausea and bad were associated with the magnitude of the effects of chemotherapy, and reaffirmed the difficult assessment as presented in the CC. The speeches of the patients confirm such results from their everyday experiences during chemotherapy.

*Because you know that, doing today, I get out of here okay, I'm going home driving. Tomorrow from noon begin the reactions. And then I'm really going to bed, I get three to four days badly, sometimes I have to go to the hospital to take the serum and usually I have a bad week* (e01, male, oropharynx cancer).

*It is bad, but... It is a must! I feel nauseous, dizziness, sometimes constipation. And the taste of food fades, I don't know, I do not have palate. So, it is a difficult thing* (e13, male, head and neck cancer).

*It is difficult, the days one does it, one suffers a lot. Arrive at home and suffers... Pain, vomits all the time, does not have hunger. On a daily basis I just lie down, I can not do anything (e15, male, esophageal cancer).*

On the other hand, there are those who report the absence of strong reactions, which corroborates good acceptance of chemotherapy for patients. Although expression without reactions has presented a low frequency of evocations and the highest OME in the four-house chart, it stands out for demonstrating opposition to the terms reactions, pain, nausea and bad. In association, the less difficult attitudinal evaluation element, present in the contrast zone, reveals ambivalence in the CC, opposing the difficult element.

Positive connotations - with no reaction and less difficult - are both related to contexts in which patients refer to a quieter coexistence with treatment, without the interference of reactions in their daily living, as evidenced by speeches.

*Nor is it a seven-headed creature, it's something you're afraid of, as everything new to your life is frightening, it frightens! (e04, female, breast cancer).*

*For me it's being good, I'm not having a reaction to being bad or anything. A lot of people end up getting bad, having a reaction to this or that, so it's good for me to come here and take chemo (e20, female, breast cancer).*

*I was lucky that, all the chemo that I did, did not harm, radio I did, did no harm, did not do anything of side effect. And the chemo did not have much effect, side effect (084, female, breast cancer).*

On the other hand, the patients denote the perception of the beneficial effects of the therapy, from the expression disease control, a positive element present in the first periphery, and the word improve, in the second periphery, also of positive orientation in the representation. The two elements are allocated in the dimension relative to the efficacy of chemotherapy, and reaffirm the cure as an expected event after the treatment, as can be observed in the speeches:

*But we have to go through this to be good and to have life. To continue living and to continue here, has to do (e25, female, breast cancer).*

*Chemotherapy itself, we feel that it has a real, real effect that we feel when it does. Even by the malaise, you realize that it passes. When it is passing through the body, you will feel that it is passing and it is doing [...]. You really feel that the disease is not in you in that period (e66, female, breast cancer).*

*I think it's important, it's good because it's fighting the cancer cells, cancerous. I think it is important (e84, female, breast cancer).*

As a result of the evaluation of the effectiveness of chemotherapy, two elements act as prescribers of conduct within the representation - face and necessary. The first, present in the first periphery, has attitudinal character and demonstrates the positioning of the group, from which correspond the confrontation of the chemotherapeutic treatment. The necessary element, present in the second periphery, has evaluative character and justifies the accomplishment of the treatment. The relations with the difficult word is noted, in the sense that chemotherapy is performed because it is mandatory for healing, but difficult to manage daily.

*It is difficult! But, necessary, to get the cure. You have to do it [...]. We see others, much worse than we. Near them, my problem is almost nothing, and the girl is laughing there, looking at the shop windows. Our problem is not that big, we have to face this way (e04, female, breast cancer).*

*And I suffer a lot with it, not today, but before I started to suffer the day before, because I knew I had to come. Not now, I manage it better now. I said I need, let's face it, let's go... (e54, female, rectal cancer).*

*Difficult, a lot. It's something that's necessary, that we know it is, but if you stop to think, you don't do it (e19, female, breast cancer).*



Finally, the treatment element was the only one belonging to the conceptual dimension in this representation, present in the contrast zone, being infrequent but readily evoked by individuals. The discourses that refer to the treatment reinforce its importance in the fight against cancer, the persistence necessary for its accomplishment, besides the effectiveness of this in relation to the disease, associated with the good element, in the sense that the treatment allows the person to recover his health after the sickness.

*It is the treatment. I don't want to, but I do it [...]. So we have to go ahead with the treatment, we have to go all the way* (e23, female, breast cancer).

*[...] if it's a treatment to be well, what can we do? We need it, it's necessary, so there's no way, what can we do, right? So as for treatment, I think it has been done, the thing that has to be done* (e56, female, breast cancer).

The interrelationships between the elements present in the four-house chart and their functions in the social representation will be discussed below.

## DISCUSSION

The Central Core Theory has as presupposition the structuring of a social representation, organized from a CC, in which the common meanings of the studied object are established, i.e., the social representation that a group has on a given object. The central core is the most stable element of representation, which resists changes, being that which remains present in the collective memory of the group or individual, allowing the continuity of the evolutionary context of representation.<sup>10</sup>

The peripheral elements are those that are organized around the central core, constituting themselves in more accessible elements of the representation. They have as functions: the concretization, which results from the anchoring of each representation to the concrete reality, in order to make it understandable and transmissible; the regulation, that integrates new information or transformations of the environment, being the moving and evolutionary elements of the representations; and defense, which deals with the contradictions tolerated by the peripheral system, from its transformation, in order to protect the central core.<sup>10</sup> In this sense, the peripheral system adds the system of values and social norms belonging to the group's ideological environment,<sup>10</sup> which has the function of reaffirming and/or strengthening the CC, or even demonstrating the contradictions existing in a group about the representational object.

In this theoretical perspective, the CC of the representation of chemotherapy, composed by the healing elements, good and difficult, reveals that chemotherapy is a good treatment because it aims at healing. At the same time, therapy is difficult, considering its important side effects that affect routine and usual activities.

The apparent contrast between the evaluation of chemotherapy in the condition of good and difficult shows that, although it is a difficult treatment, it is justified to perform chemotherapy because it is good in terms of recovery from health, i.e., it makes it possible to cure cancer.

It is also observed an imaginary connotation of the cure, in order to conceptualize the chemotherapy as such, according to the discourse of e13: '*It is the cure*'. In this sense, cure can be conceived as sense and meaning of chemotherapy, i.e., it is the main reason for its accomplishment and also gives life to its definition. The desire for cure is decisive in the performance of chemotherapy, considering that it is an alternative that helps to alleviate the adverse conditions experienced after the diagnosis of cancer.<sup>5</sup>

Nevertheless, the word difficult assumes meaning in its qualitative aspect when associated to the terms nausea and bad, in the zone of contrast, reactions, present in the first periphery, and pain, in the second periphery. These elements delimit the everyday experiences related to the side effects of chemotherapy, supporting the negative evaluation of the object. Side effects may cause patients to

return their perceptions regarding chemotherapy with an emphasis on the unpleasant consequences of treatment, which is the main difficulty encountered by patients during the therapy period.<sup>5</sup>

With regard to the peripheral system, the practical reality of chemotherapy for the patient's daily life is demonstrated in association with CC. The association of the central and peripheral elements is justified by the functions of the periphery in the representational structure. The peripheral system acts in the attempt to absorb information or transformations of the environment, in addition to existing contradictions about the object, thus protecting the CC of drastic changes.<sup>10</sup> These are elements that are related in the structure of the representation in order to approach it of the concrete reality of the people when in association with the object,<sup>10</sup> in the same way that occurs in the structure presented.

Similarly, the contrast zone tends to reinforce elements and dimensions present in the other quadrants, especially the CC. Nevertheless, it may reveal representations of subgroups that do not appear in the CC, in order to show new representational tendencies.

In this perspective, when comparing CC, peripheral system and contrast zone, we can think of two inferential categories, which allow us to glimpse the concrete reality of chemotherapy for the cancer patient: the experience of adverse reactions, which includes a negative connotation for the representation, and the possibility of control and cure of the disease, whether positive or neutral. A third inferential aspect reserved for the conceptualization of chemotherapy, which is established in isolation in the chart.

The negative elements, belonging to the effects dimension of chemotherapy, are reactions (first periphery), bad and nausea (contrast zone), and pain (second periphery). These terms contextualize difficult assessment (CC), making it possible to infer that chemotherapy is difficult due to the adverse reactions presented. The physical and psychological impacts caused by the side effects of chemotherapy are mentioned as obstacles in the day to day treatment, in order to hinder a positive treatment experience.<sup>5</sup>

Thus, patients link to their representations the adverse conditions that they face due to the therapeutics. This interpretation is fundamental for understanding the predominantly negative connotation that chemotherapy has for cancer patients, since it molds a socially accessible representation to the daily life of the study group, which experiences the harmful repercussions of the treatment.

Nonetheless, the negativity related to chemotherapy may precede the treatment as a form of social stigmatization, present not only in patients with cancer, but also in their relatives and other social groups.<sup>13</sup> Corroborating such an inference, a study of the representations of chemotherapy for women with breast cancer identified that patients on treatment were bothered by the expectation of other people about their reactions.<sup>7</sup> The authors report that the patients claimed to hear poor descriptions of the effects of chemotherapy, as well as to find other people's indubitably about the occurrence of adverse reactions after their treatment.<sup>7</sup>

It is important to emphasize that patients do not always coexist with important side effects during antineoplastic treatment.<sup>7</sup> The representational structure presented here has a certain ambivalence, which leads us to infer that there was a better adaptation to chemotherapy by some patients, which may be related to the types of cancer or chemotherapy administered in each therapy.

In this sense, a subgroup of patients on chemotherapy apparently does not conceive it difficult or bad. This perspective was not contemplated by the comparative analysis of subgroups for this representation, which leads to infer that there is no sociodemographic or clinical pattern for such ambivalence: the concrete experience of chemotherapy helped the patients to structure their thinking about the object in question, demonstrating that, although strong reactions were expected, some patients did not experience the severity of the side effects.

Another study<sup>6</sup> also showed ambivalent attitudes on the part of the patients, which oscillated between the hope of cure and the fear of the side effects, the evils caused by chemotherapy and

death. Although negative meanings were predominant in relation to treatment, patients conceived chemotherapy as the only and best alternative to fight cancer and achieve cure, so that the therapy was not a choice, but rather the attitude in assuming the consequences of it.<sup>6</sup>

In this sense, some of the peripheral elements combine to reaffirm the positive terms present in the CC. The cure is associated with the disease control element, present in the first periphery, and in the term improve (second periphery), which rely on the treatment (contrast zone) as an attempt to eliminate the disease. The Chemotherapy is a hope factor in the treatment of cancer, leading patients to accept it in order to cure the disease, as well as prophylaxis for its non-recurrence.<sup>14</sup>

Following this perspective, the need to perform the chemotherapy treatment was also evident in this study, demonstrating a possible notion of obligation regarding the accomplishment of the therapy. The necessary term, present in the second periphery, is associated with cure, disease control, and elements difficult and to face, from the hypothesis that patients conceive chemotherapy as a difficult treatment that must be faced because it is necessary for the control of disease and cure.

Corroborating this inference, a study that also analyzed the social representations of chemotherapy for cancer patients states that for some patients, chemotherapy constitutes a “necessary evil”, which is established from the physical and psychological impacts that the treatment adds to daily life of people with cancer.<sup>5:843</sup>

Finally, the only conceptual element in the representational structure is the term treatment, present in the contrast zone. Although it does not define chemotherapy as a drug, the treatment demonstrates knowledge about its therapeutic purpose.

However, the absence of a conceptual element in the CC, and also of terms derived from the knowledge reified in the representations of the patients, is in agreement with a study<sup>7</sup> which observed chemotherapy sessions in women with breast cancer. The authors state that, in the process of familiarization and objectification of chemotherapy, patients moved away from complex meanings, assigning more accessible terms when referring to medicines, such as the designation of their colors and side effects.<sup>7</sup>

In this perspective, the patients in this study organized their ideas with some independence of the reified knowledge, translating their perceptions and observations about the treatment, in order to become familiar with the chemotherapy. Such inference is justified as, in this representation, the word expressing the conceptual content for the group in the CC was cure, indicating the efficacy or outcome expected by chemotherapy.

It is also noteworthy that when asked about their main sources of information about cancer, 71% of the patients revealed that they do not seek information about the disease. Only ten patients reported talking to health professionals to answer their questions, and 17 said they prefer the use of Internet to do so.

In this sense, the absence of “cultural relevance” or “social thickness”<sup>15</sup> of chemotherapy among patients may signal that information relating to the object is not present in the conversations of the group, or even inaccessible in terms of informative exposure to those people. Hypothetically, the absence of elements from the universe reified in the representation can signal a communication between health team and patient from which no information dialogue is established that allows familiarization with the concepts about chemotherapy.

According to the above, the nursing team has fundamental importance regarding the assistance offered to the cancer patient and his family, in providing information about the disease and the treatment, allowing the patient to experience the treatment with meaning in their experiences and behaviors.<sup>5</sup> Thus, the need for the nursing professional to be present and communicative with patients in chemotherapy, in order to recover knowledge gaps and information that may be of prime importance for the construction of their social representations.

This study is limited because it was held in one institution, which has a specific social organization, besides a group of people belonging to a regional context endowed with culture and own habits. In any case, its construction indicates the need for practical improvement for nursing, seeking the accomplishment of a care that contemplates individual and social needs of the patient with cancer.

## CONCLUSION

This study contemplated the analysis of the contents and dimensions that organize the social representation on chemotherapy for patients with cancer during the chemotherapy treatment. Dimensional content related to the attitude towards chemotherapy, its efficacy, its side effects, and a conceptual dimension were identified.

The CC is established in order to justify the accomplishment of chemotherapy, conceiving it as a good treatment and that leads to healing, although it has proven to be difficult in daily life. In addition, an attempt is made to define chemotherapy based on its efficacy, seeking in cure its conceptualization. The periphery of the representation presents elements that reveal the concrete experience of the treatment by the patient with cancer, affected to the presence or not of side effects after the applications, and the necessity of accomplishment of the chemotherapeutic treatment, aiming at the improvement and the control of the cancer.

Therefore, the recognition of a social representation that does not aggregate concepts of the reified universe can indicate a lack of informational from the patient with cancer, who built their perceptions based only on experiences and observations. Thus, this study may contribute to the reflection on nursing care, in the sense that reveals to the professionals that their dialogue and the offer of information about chemotherapy can help the cancer patient in the individual and social construction of knowledge about his disease and treatment, giving him greater participation in his therapeutic process.

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## NOTES

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### ETHICS COMMITTEE IN RESEARCH

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### CONFLICT OF INTEREST

No any conflict of interest.

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