# **REVIEW ARTICLE**



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# Suffering experiences of people with cancer undergoing chemotherapy: A meta-ethnographic study

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#### **Abstract**

This meta-ethnography had the objectives of identifying, evaluating, and summarizing the findings of qualitative studies regarding the suffering experiences of people undergoing chemotherapy, as well as developing an explanatory conceptual structure regarding what affects these experiences. A systematic literature review was carried out, covering the past 10 years, in the following databases: CINAHL, Embase, Medline, LILACS and Scopus. By using meta-ethnographic synthesis methods, the following themes were found: the pain of loss; evaluating, measuring, and neutralizing the threat; and social contours of suffering. The experience of living with cancer and undergoing chemotherapy was synthesized into a theoretical-explanatory model with a structure that resembles barbed-wire loops. The model expresses people's suffering experiences as marked by the feeling of loss, restraint of emotions, and resilience. While transcendent movements broke the cycle of suffering, resilience emerged as a learning experience that made patients more resistant to the pain of loss. The results indicated a complex and diverse set of factors that influence suffering, which confirmed that experiences are individual, comprehensive, and continuously reinterpreted.

# KEYWORDS

cancer, chemotherapy, cancer, ethnographic research, life experiences, suffering, resilience

# 1 | INTRODUCTION

Observational studies have shown that people with cancer experience intense suffering resulting from chemotherapy (Brandl et al., 2019; Thapa et al., 2020). Evaluating this phenomenon is important, not only in epidemiological studies, but also for the clinical practice of professionals who daily witness the pain experienced by these patients. Cassell (1999) defined suffering as "a specific state of distress that

occurs when the intactness or integrity of the person is threatened or disrupted, and it lasts until the threat is gone or integrity is restored". According theoreticians, suffering is caused not only by the event itself, but also by the meaning a person assigns to it when considering their future (Cassell, 1999; Kioko & Requena Meana, 2020).

While some studies have addressed this phenomenon by means of specific screening instruments, conjecturing that suffering is a complex human response that encompasses physical, psychological, social, and spiritual aspects (Mendonça, Pereira, Magnago, Silva, et al., 2020b; Rajeshwari et al., 2020; Thapa et al., 2020), others have

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treated it analytically by using measures of anxiety and depression, interpreting it in terms of psychiatric morbidity (El Kheir & Ibrahim, 2019; Lu et al., 2019; McMullen et al., 2018; Wen et al., 2017).

The applied instruments, whether specific for assessing suffering or not, were designed to track its occurrence and intensity, following previously established concepts of what suffering is considered to consist (Chambers et al., 2014; Cutillo et al., 2017; Thapa et al., 2020). Therefore, a view of the meaning of this experience and of how patients perceive and cope with treatment is not provided, and the consequence can be the creation of a distorted picture, especially if patients' understanding of suffering differs substantially from that of the professionals assessing them.

Concept analysis indicated that the construct is subjective and the suffering experience is individual, comprehensive, dynamic, and difficult to convey, and that usually this experience is not perceived by health professionals (Best et al., 2015). This limitation makes it more likely that patients will not receive appropriate psychosocial support (Penalba et al., 2019).

Regarding the destructive nature of suffering, G. M. Kim et al. (2017) showed that this experience not only increased hospital care costs, but also put the adherence of patients to chemotherapy at risk, interfering with treatment efficacy, incidence of adverse effects, and overall survival. Furthermore, people with higher suffering levels have high risk of mortality (Lu et al., 2019), as well as increased risk of suicide (Granek & Nakash, 2020; Vartolomei et al., 2020).

Some cultural barriers between patients and health professionals can increase the state of distress, compromising treatment and predisposing patients toward the development of psychic problems and suicidal behavior. Examples of these obstacles are religious taboos involving the subject, lack of knowledge of nuances that affect suffering communication, and lack of cultural identification with therapists (Granek et al., 2020).

This scenario suggests that qualitative studies have the potential to translate suffering experiences more effectively from patients' perspectives, and, because of that, they are clinically relevant. In addition to complementing information obtained in epidemiological studies, qualitative studies can show the psychological consequences of cancer treatment more clearly and improve the understanding of how patients interpret and deal with suffering, which allows new insights, with immediate implications.

This paper describes the suffering experienced by patients undergoing chemotherapy in different cultural contexts and geographic locations by means of a literature review that explored suffering beyond its physical meaning, putting together the results of studies oriented toward elucidating this experience.

# 1.1 | Aim

The aim of this review was to identify, evaluate, and summarize the findings of qualitative studies regarding the experience of suffering in patients undergoing chemotherapy, as well as develop an explanatory

conceptual structure about what affects this experience during treatment.

# 2 | METHODS

This was a qualitative systematic review that adopted metaethnography as its synthesis method, because of the method's capacity to gather findings of different studies to allow researchers to achieve a higher level of interpretation, preserving the original contexts in which data were produced. Unlike other metasynthesis styles, meta-ethnography is oriented toward complex matters, which are impossible to elucidate by simply aggregation of findings (Noblit & Hare, 1988).

The development of the study was based on the seven steps described by Noblit and Hare (1988): delimiting the subject, guiding questions, and objectives; deciding on the relevance of the studies; fully reading the material to grasp the main concepts, themes, and metaphors; ascertaining how the studies relate to each other to decide how to synthesize them; translating the studies; synthesizing translations; and expressing the synthesis by means of a structured and critical report. The Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) statement checklist was applied (Tong et al., 2012) (see Appendix S1 in the Supporting Information).

Validation strategies included requesting external auditing from experts in information retrieval and qualitative data analysis. Two researchers in the field of systematic review and a senior lecturer with a PhD in qualitative research were consulted (Finfgeld-Connett, 2010; Sandelowski, 2007). The first phase of the study involved consulting a librarian with expertise in systematic reviewing. Different terms and search strategies were tested to find out how the suffering phenomenon has been previously discussed. This phase confirmed the lack of reviews or similar publications on this topic. The PICo strategy ("population," "phenomena of interest," and "context") was followed to formulate the research question and establish the eligibility criteria (Aromataris & Munn, 2020). The defined guiding question was: How do patients undergoing chemotherapy experience and deal with suffering experiences in different cultural contexts?

Five databases, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin America and Caribbean Center on Health Sciences Information (LILACS), and Scopus, were consulted from April to May 2020. Different search expressions referring to chemotherapy, suffering, and study designs were combined in these platforms (Appendix S2). Additional searches were carried out on Google Scholar and also by consulting cross-references and sending emails to the authors of the studies selected in the previous step to ask for indications of other published reports. The search process was repeated immediately before final analysis, and more recent studies were included in the sample.

The authors selected peer-reviewed qualitative studies published between 2010 and 2020 in English, Spanish, or Portuguese, with

samples including six or more participants, regardless of country or cultural context. These criteria were defined based on the advice of experts who encourage the analysis of studies dating from the past 10 years to avoid outdated discoveries (Finfgeld-Connett, 2010). As for the sample size, it was supported by authors who defend the application of minimum quantitative criteria for qualitative research (Creswell, 1998; Morse, 2000).

To be included, the studies had to address the suffering experience of adults diagnosed with cancer who were undergoing chemotherapy of any modality and administration route. Studies that mixed patients who were receiving chemotherapy during the study execution and those who had already completed this type of treatment were excluded when results were not shown separately. Also excluded were studies with pregnant women and those in which the people suffering did not realize that they were the ones experiencing suffering. Based

on the definition of suffering proposed by Cassell (1999), the following attributes were required when the word "suffering" was not explicit in the studies: the phenomenon should be present in the results, since it emerges a priori from a personal matter, not just from the researchers' interpretations; the experience modified the sense of integrity of those involved; the phenomenon should occupy a central and long-lasting place in patients' experience and have a positive or negative meaning in their lives; and the situation should be described as out of control or exceeding the personal resources of sufferers in at least one phase of the treatment. Initial or isolated reports of physical pain, toxicity related to chemotherapy or other adverse conditions that were analyzed descriptively or from a clinical point of view, and not from experience, were not considered phenomena of interest.

After exclusion of duplicates, two authors examined the titles and abstracts of the publications. Agreement between the authors was

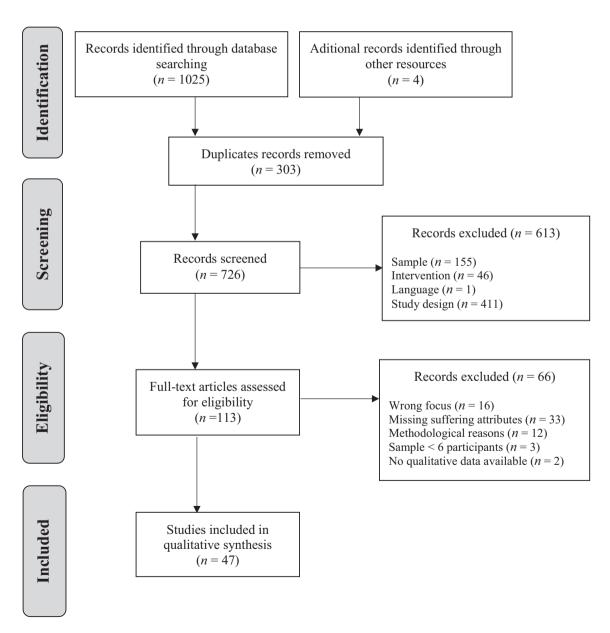


FIGURE 1 PRISMA flow chart of the selection of studies

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<b>FABLE 1</b>

Authors, year publication	Theoretical- philosophical approach	Aims	Sample characteristics	CASP Score
Nizamli et al., 2011	Content analysis <sup>a</sup>	Explore the experiences of Syrian women with breast cancer regarding their chemotherapy	Women who underwent chemotherapy after mastectomy in Syria. $N=17^{\text{c}}$	20
Mesquita et al., 2011	Content analysis <sup>a</sup>	Describe the experience of cancer treatment from the perspective of Brazilian men receiving chemotherapy for various cancers	Brazilian men Low-income Brazilian men without health insurance who received chemotherapy at a university hospital. $N=12^{\rm b}$	18
Gómez et al., 2011	Grounded Theory	Understand the consequences of chemotherapy treatment on the life experiences of women with cancer	Colombian women with breast cancer in stages IIA to IIIA, in adjuvant chemotherapy. $N=6^{\rm c}$	18
Guerrero et al., 2011	Content analysis <sup>a</sup>	Understand the relationship between spirituality and cancer from cancer patients' perspective	Patients undergoing intravenous chemotherapy in a public hospital in the northwest region of the state of São Paulo, Brazil. $N=14~(5^{\rm b},9^{\rm c})$	16
Cheung et al., 2012	Grounded Theory	Gather descriptions from multiethnic Asian breast cancer patients on their experiences and impact of chemotherapy-associated cognitive changes on their daily lives and their coping strategies	Asian patients (mostly Chinese) with breast cancer undergoing chemotherapy. $N=43^{\circ}$	18
Cebeci et al., 2012	Content analysis <sup>a</sup>	Explore the experience of women living with breast cancer	Women with breast cancer undergoing outpatient chemotherapy in Turkey. N = $8^{\rm c}$	20
Seibaek et al., 2013	Phenomenology	Understand the personal experiences of women with ovarian cancer before and after surgery	Danish women with ovarian cancer in different stages that would undergo surgery. $N=10^{\rm c}$	20
Nissim et al., 2013	Grounded Theory	Understand the experience of living with acute leukemia	Canadians with acute leukemia undergoing chemotherapy at a university hospital. N = $43$ (25 $^{\circ}$ ,18 $^{\circ}$ )	18
Beusterien et al., 2013	Content analysis <sup>a</sup>	Explored the impact of colorectal cancer treatments in Web forums	Web forums posted by patients with colorectal cancer. $N=219\ (53^b, 166^c)$	16
Buiting et al., 2013	Content analysis <sup>a</sup>	Explore the extent to which patients have a guiding role in decisions about chemotherapy in the palliative phase	Patients who had received at least one palliative chemotherapy line in the Netherlands. N = 15 $(7^b,8^c)$	20
Lourens, 2013	Phenomenology	Understand the perception about cancer, chemotherapy, and radiotherapy, in addition to raising suggestions to support newly diagnosed patients	Xhosa culture patients (South Africa) with 3 months of diagnosis, submitted to chemotherapy and outpatient radiotherapy. $N=9~(4^{\rm b},5^{\rm c})$	20
Thornton et al., 2014	Content analysis <sup>a</sup>	Examine emotional, positive, and negative experiences of women with cancer	North American women with recurrent breast and gynecological cancer. $N=35^{\rm c}$	18
Palacios-Espinosa & Zani, 2014	Social Representation Theory	Analyze the social representations of cancer and chemotherapy in adult cancer patients	Colombians with different types of cancer undergoing chemotherapy. $N=11\ (7^b,\!4^c)$	20
Ríos-Quezada & Cruzat-Mandich, 2015	Grounded Theory	Understand the meanings associated with quality of life and emotional symptoms in onco-hematology	Chileans undergoing chemotherapy for a year and a half in remission or relapse. $N=7(4^b,3^c)$	18
Buetto & Zago, 2015	Ethnographic and medical anthropology	Interpret the meanings assigned to quality of life by patients with colorectal cancer undergoing chemotherapy	Patients with colorectal cancer in São Paulo, Brazil. $\label{eq:N} N=16~(4^b,12^c)$	18
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CASP	Score	Ç.
	Sample characteristics	Zanional paracype division and an anional
	Aims	Describe the experience of 7-mbirst women living with
Theoretical-	philosophical approach	Content analysis
	Authors, year publication	Marse & Mulanda 2015

Authors, year publication	Theoretical- philosophical approach	Aims	Sample characteristics	CASP Score
Maree & Mulonda, 2015	Content analysis <sup>a</sup>	Describe the experiences of Zambian women living with advanced breast cancer	Zambians with advanced cancer undergoing chemotherapy, radiotherapy or brachytherapy. $N=10^{\rm c} \label{eq:N}$	20
Kakuta et al., 2015	Inductive analysis <sup>a</sup>	Identify how nurses can help alleviate the concerns of patients with end stage carcinomatous peritonitis when the treatment effects of palliative chemotherapy are weakening	Japanese with advanced peritoneal carcinomatosis receiving hospital chemotherapy, and aware of the palliative purpose. $N=8~(6^b,2^c)$	20
Martinez Tyson et al., 2016	Content analysis <sup>a</sup>	Provide insights about the everyday realities, concerns and perspectives of Latino women in chemotherapy	Latin women diagnosed with breast cancer undergoing chemotherapy in Florida. $N=33^{\rm c}$	20
Romeiro et al., 2016	Content analysis <sup>a</sup>	Explore the communication between healthcare professionals and oncology patients based on the perception of patients undergoing chemotherapy	Brazilians with different types of cancer undergoing chemotherapy. N $=$ 14 (8 $^{\mathrm{b}}$ ,6 $^{\mathrm{c}}$ )	20
Chen et al., 2016	Grounded Theory	Exploring the psychological process of patients receiving initial chemotherapy	Patients receiving chemotherapy for breast cancer in Taiwan. $N=20^{\rm c}$	18
Ghodraty-Jabloo et al., 2016	Grounded Theory	Explore how AML survivors describe their longer-term physical and psychosocial well-being and how they cope with these challenges	Canadians who completed treatment or were receiving maintenance chemotherapy. N = 19 $(8^{\text{b}},11^{\text{c}})$	18
Bergqvist & Strang, 2017	Phenomenology	Investigate the reasons, perceptions, and experiences of breast cancer patients	Women between the 2nd and 8th line of palliative chemotherapy for breast cancer in Sweden. $N=20^{\varsigma} \label{eq:N}$	18
Kanda et al., 2017	Content analysis <sup>a</sup>	Analyze the emotional responses of Japanese patients with colorectal cancer and chemotherapy-induced neuropathy	Japanese undergoing Folfox treatment. N = 25 $(14^b,11^c) \label{eq:local_solution}$	18
Chircop & Scerri, 2017	Content analysis <sup>a</sup>	Understand the point of view of participants who face the challenges of chemotherapy	NHL patients undergoing CHOP treatment in Malta. N = 6 $(4^b,2^c)$	20
Suwankhong & Liamputtong, 2018	Feminist methodological framework	Describe the experience of Thai women with breast cancer undergoing chemotherapy	Patients undergoing chemotherapy in a rural community in Thailand. $N=20^{\text{c}}$	20
Chircop & Scerri, 2018a	Phenomenology	Explore the life experience of patients with NHL	NLH patients undergoing CHOP chemotherapy in the Republic of Malta. N = $6 (4^b, 2^c)$	18
Noorisanchooli et al., 2018	Content analysis <sup>a</sup>	Interpret the experience of women with breast cancer with regard to their family	Women with breast cancer undergoing chemotherapy in Iran. $N=12^{\text{c}}$	20
Chircop & Scerri, 2018b	Phenomenology	Explore the use of metaphors by NHL patients undergoing chemotherapy in a hematology ward setting	Maltese with NHL undergoing hospital chemotherapy. $N=6~(4^{\rm b},2^{\rm c})$	18
Nies et al., 2018	Content analysis <sup>a</sup>	Explore the experiences and side effects of breast cancer patients in Malaysia	Chinese, Malay and Indian patients undergoing chemotherapy and other treatment modalities. $N=36^{\text{c}} \label{eq:N}$	50
Boucher et al., 2018	Content analysis <sup>a</sup>	Understand the opportunities for palliative care interventions in the AML population	High-risk AML patients undergoing palliative chemotherapy in North Carolina, USA. N = 22 ( $10^{\rm b},12^{\rm c}$ )	20

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Authors, year publication	Theoretical- philosophical approach	Aims	Sample characteristics	CASP
Liao et al., 2018	Content analysis <sup>a</sup>	Explore in depth the suffering of women with advanced lung cancer and analyze coping strategies	Women undergoing different types of cancer treatment in Taiwan. $N=34^{\rm c}$	18
Stanze et al., 2019	Grounded Theory	Explore the experiences and meaning of living with advanced lung cancer	Advanced lung cancer patients undergoing chemotherapy in Germany. $N=17(14^{\rm b},3^{\rm c})$	18
Wakiuchi et al., 2019a	Social Representation Theory	Analyze the contents and dimensions of social representations about chemotherapy by cancer patients in chemotherapy treatment	Patients undergoing chemotherapy in a high complexity center in Brazil. N $=100\ (33^b,67^c)$	20
Wakiuchi et al., 2019b	Social Representation Theory	Analyze the social representations and experiences of patients undergoing chemotherapy	Cancer patients undergoing outpatient chemotherapy in northern Paraná, Brazil. $N=29~(6^b,23^c)$	18
Komatsu et al., 2019	Content analysis <sup>a</sup>	Understand the perceived needs of patients with handfoot syndrome or skin reaction to chemotherapy	Japanese undergoing outpatient treatment at a university hospital. $N=20\ (7^b,13^\circ)$	18
Albrecht et al., 2019	Phenomenology	Examine the experiences of young adults receiving induction chemotherapy	Leukemia patients receiving high-dose chemotherapy in the United States. $N=7$ (3 <sup>b</sup> ,4°)	18
Ekenberg et al., 2019	Content analysis <sup>a</sup>	Describe the experiences of patients performing isolated limb perfusion for malignant melanoma	Melanoma patients performing isolated limb perfusion in Sweden. $N=8~(4^{\rm b},4^{\rm c})$	20
Soares et al., 2019	Collective subject discourse	Analyze the meanings and perceptions of patients undergoing intrathecal chemotherapy about this treatment	NHL and ALL patients receiving intravenous and intrathecal chemotherapy in Minas Gerais, Brazil. $N=13(4^b,9^c)$	16
Chou & Lu, 2019	Content analysis <sup>a</sup>	Explore the experiences of patients receiving intraperitoneal chemotherapy	Women with advanced ovarian cancer in the Republic of Taiwan. $N=9^{\text{c}}$	18
Medeiros et al., 2019	Phenomenology	Comprehensively analyze the perception of women experiencing chemotherapy	Brazilian women with breast cancer undergoing first-line treatment in a private clinic in Rio de Janeiro, Brazil. $N=20^{\circ}$	20
Abdel-Ghany et al., 2019	Phenomenology	Explore the experiences of Egyptian women with breast cancer receiving chemotherapy	Egyptian women with breast cancer receiving chemotherapy. $N=12^{\rm c}$	16
Villarreal-Garza et al., 2019	Interpretive description <sup>a</sup>	Describe clinical and information needs, identify unmet support services, and guide interventions for young breast cancer patients in Mexico	Mexican women with breast cancer treated at two cancer treatment centers. $N=29^{\text{c}}$	18
Finlayson et al., 2019	Phenomenology	Understand the experience of women with recurrent ovarian cancer	Americans with recurrent ovarian cancer receiving at least two chemotherapy regimens. $N=12^{\text{c}}$	20
Martin et al., 2020	Content analysis <sup>a</sup>	Identify the predominant experiences of women diagnosed and treated for ovarian cancer	European and American patients with ovarian cancer undergoing at least some type of treatment. $N=64^{\rm c}$	20
Iddrisu et al., 2020	Content analysis <sup>a</sup>	Explore the physical and psychological experiences of young women with breast cancer	Patients receiving treatment for breast cancer in Accra, Republic of Ghana, West Africa. N $=12^{\text{c}}$	18

control in the country.  $N=9~(3^{\rm b},6^{\rm c})$ 

20

CASP Score

2

Sample characteristics	Non-Western immigrants in the Netherlands (Turkey, Morocco, Suriname) with breast cancer and treated with chemotherapy. $N=28^{\rm c}$	Brazilians undergoing chemotherapy treatment at a public institution of reference for cancer
Aims	Explore how non-Western immigrants experience the diagnosis of breast cancer and changes related to chemotherapy	Unveiling the experiences of cancer patients undergoing treatment with neurotoxic chemotherapy
Theoretical- philosophical approach	Content analysis <sup>a</sup>	Phenomenology
Authors, year publication	de Kruif et al., 2020	Mendonça, Pereira, Magnago, Silva, et al., 2020a

(Continued)

TABLE 1

ALL, Acute lymphoid leukemia; AML, Acute myeloid leukemia; CHOP, Chemotherapy protocol containing cyclophosphamide, doxorubicin, vincristine and prednisone; N, Sample size; NHL, Non-Hodgkin lymphoma

<sup>a</sup>Theoretical-philosophical basis not indicated. This is the analytic technique used.

Female participants <sup>b</sup>Male participants.

strong (kappa = 0.703), and 613 articles were excluded. The remaining 113 publications were submitted to full-text reading by the same researchers. Disagreements were resolved by discussion, and the final sample was 47 studies (Figure 1).

The 2018 Critical Appraisal Skills Programme was applied to evaluate the quality of all the selected studies, whose characteristics were summarized and reported descriptively (Table 1). This critical assessment tool is used in reviews of qualitative studies (Hannes & Macaitis, 2012) and consists of 10 questions that address the following issues: assumptions that support qualitative research; possibility of bias in the study design and in the process for carrying it out; and data analysis. Each question is classified as "criterion fully met" (2), "not met" (0), or "partially met" (1). At the end of the evaluation, a final score is assigned. In this study, it was found that the selected articles had final scores between 16 and 20 points, which demonstrates good methodological consistency (Table 1).

The translation and synthesis stages proposed by Noblit and Hare (1988) were developed using the three meta-ethnographic strategies as a reference: synthesis of reciprocal translation, in which the studies are examined iteratively regarding their similarities; synthesis of refutation, in which disagreements between the studies guide analyses: and synthesis of lines of argument, which aims to develop a more comprehensive interpretation of the whole based on lines of argument (France et al., 2019). This process was grounded in stress, appraisal, and coping theory (Folkman, 1984; Lazarus & Folkman, 1986), and by some of the principles of the phenomenological tradition (Heidegger et al., 1962). Although suffering has its own definitions and characteristics that help in recognizing it, promoting its relief is still a challenge. The utilization of theoretical lenses (Cassell. 1999: Folkman, 1984: Lazarus & Folkman, 1986: Svenaeus, 2014), which relates the way we interpret events to how we endure and recover from suffering, is a promising avenue for exploring this perspective.

The development of the syntheses involved three orders of data organization and analysis (Table 2 and Appendix S3). The first order showed narratives about the suffering experience from participants' perspectives. The second order highlighted the researchers' interpretations of the selected studies and compared the findings that emerged from at least two original studies. The third order, or synthesis, consisted of a reinterpretation of first- and second-order concepts oriented by the guiding question (Britten et al., 2002; France et al., 2019). Different from second-order constructs, third-order concepts have greater analytical and generalization power. To demonstrate the confirmability and magnitude of the emerging constructs, we counted the frequency of their occurrence. The effect size was calculated by dividing the number of reports that supported a category (or subcategory) by the total number of studies analyzed (Onwuegbuzie, 2003).

The multidisciplinary team of authors read and reread each of the articles to extract, organize, compare, relate, and group themes that showed similarities. The translation process involved careful conceptual transformations based on analysis of the meanings of the themes, as well as of similar themes and metaphors. The triangulation carried 
 TABLE 2
 Interpretation grid with the first-, second-, and third-order constructs that supported the formulated syntheses

#### "PAIN OF LOSS" THIRD-ORDER CONSTRUCT

**Description:** The feeling of loss expressed the meaning of the distress experience lived by patients undergoing chemotherapy. The image of cancer was that of a disease that stole nearly everything from patients' lives. Losses could be real or perceived, and resulted in considerable distress. Although patients felt an intense initial shock when they received the diagnosis, that level of distress decreased over time.

Effect size: 89.4%

#### "Loss of hope" subcategory

**Description:** The loss of hope in patients under chemotherapy included pessimistic expectations regarding the future, destruction of existential objectives, lamentations about "who I was or could have been," the contemplative state of frustrated dreams, and the awareness of cancer chronicity and incurability.

Effect size: 59.6%

Supported the third-order construct: Chircop & Scerri, 2018a Stanze et al., 2019 Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Komatsu et al., 2019; Chen et al., 2016; de Kruif et al., 2020; Nizamli et al., 2011; Mesquita et al., 2011; Romeiro et al., 2016; Kanda et al., 2017; Guerrero et al., 2011; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Buetto & Zago, 2015; Buiting et al., 2013; Chou & Lu, 2019; Boucher et al., 2018; Cebeci et al., 2012; Thornton et al., 2014; Seibaek et al., 2013; Martin et al., 2020; Maree & Mulonda, 2015; Liao et al., 2018; Iddrisu et al., 2020; Kakuta et al., 2015; Wakiuchi et al., 2019a; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

- "As soon as you are in pain, you start thinking... I thought, well now everything is over. I am screwed. It is just the way it is, every time when you feel something new." (Bergqvist & Strang, 2017)
- "I cannot stop thinking: Why me? I have had a rough time for my whole life... it's not fair, I cannot see hope anymore." (Liao et al., 2018).
- "At this point one of the worst things is just the hopelessness." (Boucher et al., 2018).
- "[...]wanted to be able to end my own life if I want [pause] not actively myself but through others [pause] passive insofar as they give me the means by which to do it." (Stanze et al., 2019)

#### Second-order constructs

Feeling of losing hope because of the symptoms; life before cancer; awareness of the disease and life in the present; perception of cancer as a chronic disease; acceptance that this is their destiny.

# Interpretations that support the third-order construct

- 1. Life with cancer is a psychological challenge. Feelings of "lack of future perspectives" or "hopelessness" oscillate over the course of treatment.
- 2. Awareness of cancer's incurability and expectation of death show a hidden side of hopelessness.
- 3. Cancer relapse undermines optimistic expectations regarding the future.
- 4. Hopelessness can be found in the discourse of people who eliminate all possibilities of enjoying life.
- 5. Hopelessness can manifest as a state of alertness or continuous preparation for negative results.
- 6. Patients with no hope can express a negative evaluation of the future, value frustrated projects instead of making new ones, and acknowledge that all coping strategies are infeasible.
- 7. When levels of hope are low, distress may emerge. Feelings that they have made the wrong choices, that things could have been different, or seeing themselves on a road of no return reduces hope and amplifies distress.
- 8. Hopelessness walks beside loss of meaning.

#### "Loss of self" subcategory

**Description:** Chemotherapy could snatch away a positive image that patients could have of themselves, steal their sense of physical and psychological integrity, and lead to feelings of inadequacy. Disorganization of self and strangeness caused by their own body culminated in loss of sexuality and personal identity. The "loss of self" experience was complex and comprehensive. The construct encompassed psychological, physical, affective, and emotional disorders of the affected identity.

Effect size: 68.1%

Supported the construct: Chircop & Scerri, 2018a Stanze et al., 2019; Noorisanchooli et al., 2018; Komatsu et al., 2019; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Chircop & Scerri, 2018b; Martinez Tyson et al., 2016; Mesquita et al., 2011; Gómez et al., 2011; Bergqvist & Strang, 2017; Nissim et al., 2013; Kanda et al., 2017; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Chou & Lu, 2019; Medeiros et al., 2019; Cebeci et al., 2012; Thornton et al., 2014; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Maree & Mulonda, 2015; Lourens, 2013; Liao et al., 2018; Iddrisu et al., 2020; Kakuta et al., 2015; Abdel-Ghany et al., 2019; Villarreal-Garza et al., 2019.

#### First-order constructs

- "It's weird, if you look in the mirror and see yourself without your hair, you lose some of your identity." (Medeiros et al., 2019).
- "Hair loss is loss of femininity, I am really a man now." (de Kruif et al., 2020).
- "I was beautiful... now nobody can recognize me." (Cebeci et al., 2012).
- "...sister, [keeps quiet and eyes fill with tears]...I was told so casually as if removing my breast was as simple as cutting someone's nails... to me it was a big deal...it was so painful (in my heart)..." (Maree & Mulonda, 2015).

#### Second-order constructs

Own body; usual body; negative feelings because of hair loss; experiencing the load of physical and emotional symptoms; lack of marriage opportunities; sexual relationships; body image; physical appearance/hair loss; male identity; male strength; intrapersonal dimension; hair loss as a corporality change; the new identity as a person with cancer; biographical ruptures; changes in the body; alterations in the perception of themselves; living with hair and breast loss; alterations in sex life; menopause; consequences for fertility; reversing roles.

#### "PAIN OF LOSS" THIRD-ORDER CONSTRUCT

#### Interpretations that support the third-order construct

- 9. Patients under chemotherapy experience loss of identity because of changes in the physical body.
- 10. Hair loss is the main cause of self-image disorders.
- 11. Fatigue provokes feelings of personal depreciation.
- 12. Breast loss affects perceptions of good health, beauty, and sexuality.
- 13. Talking about sexuality and reproductive dysfunction with patients under chemotherapy is a taboo.
- 14. Fatigue resulting from treatment impacts the sense of masculinity: Being a man means being strong, and being weak is not being a man.
- 15. Few men talk about sexual impotence when reporting distress experiences.
- 16. Alopecia causes more distress in women than in men.
- 17. Chemotherapy steals an important symbol of feminine identity: hair.
- 18. Alopecia threatens sexuality because it evokes the image of a sick and fragile person.
- 19. Breast loss negatively influences a patient's perception of themselves as a "woman."
- 20. Breast loss is a demoralizing experience for women with breast cancer.
- 21. Treatment changes the sexual self-concept and creates critical thoughts about a patient's own body.
- 22. Cancer therapy brings feelings of "death of sex life."
- 23. In addition to facing mean comments, patients under chemotherapy are confronted with the image they develop of themselves.
- 24. Darkening of the skin, nails, and mucosae contributed to feelings of inadequacy, shame, stigma, and social discrimination. Being looked at with prejudice has a comprehensive impact on self-esteem: It moves sufferers away from life in society, fosters questionings one's social identity, and leads to rejection of oneself.

#### "Loss of control" subcategory

Description: The feeling of losing control over life in patients under chemotherapy originates in unpleasant circumstances imposed by being dependent, the psychological effects activated by physical incapacities, and loss of self-management. The following topics extracted from first-order constructs converged to this subcategory: (a) threat of becoming dependent; (b) role reversal; (c) feeling of being a burden to society and an overload on the family; (d) financial decline; (e) absence from work; (f) helplessness; (g) powerlessness; (h) impossibility of having a normal life; (i) guilt for not being able to carry out the same functions they did before.

#### Effect size: 76.6%

Supported the construct: Chircop & Scerri, 2018a Stanze et al., 2019 Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Komatsu et al., 2019; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Martinez Tyson et al., 2016; Mesquita et al., 2011; Bergqvist & Strang, 2017; Nissim et al., 2013; Kanda et al., 2017; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Buiting et al., 2013; Chou & Lu, 2019; Medeiros et al., 2019; Boucher et al., 2018; Cebeci et al., 2012; Thornton et al., 2014; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Maree & Mulonda, 2015; Lourens, 2013; Liao et al., 2018; Iddrisu et al., 2020; Cheung et al., 2012; Kakuta et al., 2015; Ghodraty-Jabloo et al., 2016; Chircop & Scerri, 2017; Abdel-Ghany et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

- "Well, what causes me the most stress is for example not being able to work. They approved food stamps and Medicaid but not until February, I do not have anything till then (Cuban, speaking in tears)." (Martinez Tyson et al., 2016).
- "This illness has taken everything away from me. Has taken everything away from me. Everything, everything ... I cannot go out, I cannot cook, I cannot eat, I cannot do housework." (Chircop & Scerri, 2018a, 2018b)

#### Second-order constructs

Reduction in willingness to work; feeling of being helpless regarding symptoms; "I feel so weak: lack of stamina"; being prevented from performing physical activities and sports; not being able to provide or care for their family; impacts on personal and professional life; suffering from alterations in life routines; suffering from being unable to deal with numbness; being unable to carry out daily activities; fear about their physical security; impact on cognitive alterations; concerns with financial charges; feeling sad when they prepare to lose their job; becoming dependent on other people; being at the mercy of their body; impotence; submitting to their new routines; chemotherapy drains me of energy; nerves on edge: perception of limitations caused by neuropathic pain induced by chemotherapy.

- 25. Chemotherapy brings about feelings of losing important things: control over one's own body, autonomy, social status, and dignity,
- 26. Fatigue is described as one of the most distressing symptoms of treatment because it limits performance of daily activities, makes it take longer and require more effort to complete simple tasks, restricts social life, and awakens the fear that death is close.
- 27. Treatment with neurotoxic drugs causes severe distress resulting from loss of basic body functions, such as sensitivity, touch, and mobility.
- 28. Inability to carry out routine activities was experienced as difficult to bear, provoking displeasure, shame, loss of confidence in themselves, and guilt about being dependent.
- 29. Treatment caused loss of the joy of engaging in hobbies.
- 30. Neurological alterations stir up concerns about the risk of accidents and physical security.
- 31. Feelings of uselessness emerge as a consequence of inability to be self-sufficient and finish life projects.
- 32. Economic burdens and financial losses become a central component in the psychological distress experience.
- 33. In addition to physical toxicity, patients experience distress about the *economic toxicity* of treatment. This concept represents anguish about the cost of medications, health insurance, household expenses, the family's patrimony, and extra costs (food, tickets, and accommodations to get to the treatment unit).

#### "PAIN OF LOSS" THIRD-ORDER CONSTRUCT

- 34. The adverse effects that affect functional capacities cause patients to feel ashamed of themselves, and in front of their relatives, and society.
- 35. When fatigue occurs, attending chemotherapy sessions becomes a burden for patients under palliative chemotherapy.

#### "EVALUATING, MEASURING, AND NEUTRALIZING THE THREAT" THIRD-ORDER CONSTRUCT

**Description:** Whether or not a traumatic event triggers distress about the cancer treatment journey depends on how cancer is evaluated, the level of threat the treatment represents, and the resources available to neutralize the state of threat. To survive in a world where important things were taken away by cancer, patients actively worked to make up for their objects of loss, or reduce or accept the impact of the loss. While accepting distress as an unavoidable condition of human existence paved the path to finding meaning, fighting against the experience increased the burden of withstanding the disease, whose progression is, in some cases, inevitable.

Effect size: 95.7%

Supported the third-order construct: Chircop & Scerri, 2018a; Stanze et al., 2019; Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Komatsu et al., 2019; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Chircop & Scerri, 2018b; Martinez Tyson et al., 2016; Mesquita et al., 2011; Gómez et al., 2011; Albrecht et al., 2019; Bergqvist & Strang, 2017; Nissim et al., 2013; Nies et al., 2018; Kanda et al., 2017; Guerrero et al., 2011; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Soares et al., 2019; Buiting et al., 2013; Chou & Lu, 2019; Medeiros et al., 2019; Boucher et al., 2018; Cebeci et al., 2012; Seibaek et al., 2013; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Maree & Mulonda, 2015; Lourens, 2013; Liao et al., 2018; Iddrisu et al., 2020; Cheung et al., 2012; Kakuta et al., 2015; Ghodraty-Jabloo et al., 2016; Finlayson et al., 2019; Chircop & Scerri, 2017; Abdel-Ghany et al., 2019; Wakiuchi et al., 2019a; Villarreal-Garza et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### "Neutralizing the threat: movement toward transcendence and resilience" subcategory

**Description:** Distress oscillated over the cancer treatment trajectory. To reach transcendence, patients could think about new values, try to change the event that caused stress, or reevaluate their understanding. Mobilizing these coping styles had the objective of adjusting the situation to their own cognitive schemes. When objective answers were found, chemotherapy allowed them to design a new sense of existing, and patients experienced relief of physical and psychological distress, improvement of quality of life, and expectation of a better future.

Effect size: 57.4%

Supported the construct: Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Chen et al., 2016; de Kruif et al., 2020; Mesquita et al., 2011; Gómez et al., 2011; Bergqvist & Strang, 2017; Kanda et al., 2017; Guerrero et al., 2011; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Soares et al., 2019; Buiting et al., 2013; Chou & Lu, 2019; Medeiros et al., 2019; Cebeci et al., 2012; Seibaek et al., 2013; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Maree & Mulonda, 2015; Liao et al., 2018; Iddrisu et al., 2020; Ghodraty-Jabloo et al., 2016; Chircop & Scerri, 2017; Wakiuchi et al., 2019a; Mendonça, Pereira, Magnago, Silva, et al., 2020a

#### First-order constructs

- "There are things that today I think: Why did not I wake up early? I always try to give my best, the best... But the best is being together, is giving love, knowing that they are important in your life, even though I think they know that... So, that's it. God allowed me to see again that is not just the job." (Wakiuchi et al., 2019b).
- [...] "Another thing, which I say and repeat, is that life gave me a cancer and God has given me the opportunity to learn things through this cancer." (Mendonça, Pereira, Magnago, Silva, et al., 2020a).
- "After getting the disease, I changed my view toward life. If there is an opportunity to help others, we should help. There is not much time to wait." (Chen et al., 2016)

# Interpretations that support the third-order construct

- 1. Cancer is a call for moral transformation.
- 2. Life takes on new meaning in face of treatment.
- 3. Chemotherapy is seen as a second chance.
- 4. Palliative chemotherapy moves death thoughts away to a safe distance.
- 5. The perspective of death promotes reflection on new values.
- 6. Despite therapeutic failures, patients nurture a concealed hope of reaching healing.
- 7. When there is an objective response, chemotherapy promotes relief of distress and renews hope.
- 8. When the hope of healing is no longer possible, it is replaced by optimism and courage to face life.
- 9. What is transcendent does not nullify distress, but uses it as a starting point to arise.
- 10. The perspective of healing or disease control promotes relief of psychological distress during chemotherapy.
- 11. The treatment experience assumes a destructive nature when patients do not find a meaning for the experienced distress.
- 12. To transcend the limits of their body, patients make use of immanence.
- 13. Chemotherapy provides patients with the possibility of resuming their lives.
- 14. To empower themselves, some patients adopt strategies of active coping. They reorganize routine activities, establish new priorities, and become aware of destructive behavioral patterns.
- 15. The following strategies were found in this domain: resilience; cultivating hope; efforts to continue normal activities; changes in routines; search for alternative therapies, and growing closer to God.

# Second-order constructs

Relaxation phase; accepting the changes; rising from the ashes; life after treatment; becoming a different person; resuming physical activities; greater health awareness; understanding the value of health; greater appreciation of life; valuing family more; meanings of the treatment; new beliefs and objectives; finding the positive impacts of chemotherapy; response to the treatment; positive experience after intra-arterial chemotherapy; reduction of tumor load; living a less restricted life; distress and the need to fight back; appreciation of normality of life before cancer; existentialism; faith and hope; patients' fights and needs; learning to manage the adverse effects of chemotherapy; considerations of transcendence based on immanence; relief about living the same life they had before the disease; health improvement; getting back to normal; chemotherapy: an infusion of hope.

#### "EVALUATING, MEASURING, AND NEUTRALIZING THE THREAT" THIRD-ORDER CONSTRUCT

#### "Perceived threat and actual threat" subcategory

Description: The level of perceived impairment is more related to distress than to the actual level of impairment.

Effect size: 55.3%

Supported the construct: Komatsu et al., 2019; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Gómez et al., 2011; Bergqvist & Strang, 2017; Nissim et al., 2013; Nies et al., 2018; Kanda et al., 2017; Guerrero et al., 2011; Beusterien et al., 2013; Ekenberg et al., 2019; Palacios-Espinosa & Zani, 2014; Buiting et al., 2013; Chou & Lu, 2019; Medeiros et al., 2019; Seibaek et al., 2013; Ríos-Quezada & Cruzat-Mandich, 2015; Maree & Mulonda, 2015; Liao et al., 2018; Iddrisu et al., 2020; Ghodraty-Jabloo1 et al. 2016; Abdel-Ghany et al., 2019; Wakiuchi et al., 2019a; Mendonca, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

"I never viewed myself as sick. I still do not see myself as sick, but everyone says I'm sick. I do not have any ... except that my leg hurts." (Ekenberg et al., 2019).

#### Second-order constructs

I have no reactions; description of the reactions and their frightening nature; depressive symptoms; negative emotions; emotional anguish; negative experience with the side effects; general perception of health.

#### Interpretations that support the third-order construct

- 16. Chemotherapy signs and symptoms cause more distress when mistaken for the disease progress.
- 17. Adverse effects that require frequent care trigger intense stress.
- 18. Being informed and understanding the prognosis mean two different types of threat: actual threat and perceived threat.
- 19. Modifications in body image do not always affect self-perception of patients under chemotherapy negatively.
- 20. Distress bursts out as a consequence of awareness of the severity of health status.
- 21. Thinking that medications are working eases the distress caused by their adverse effects.
- 22. Mistaking the toxic effects of chemotherapy for symptoms of cancer progression causes patients to experience more fear and mental distress.
- 23. Chemotherapy brings about more distress when perceived as a fatal treatment.
- 24. The differences between perceived health status and health status pointed out by other people are a cause of emotional distress.
- 25. The severity of side effects intensifies psychic disorders.
- 26. The presence of mild side effects establishes a perception of good physical health.
- 27. Adverse effects that are less responsive to conventional treatment (alopecia, peripheral neuropathy, hand-foot syndrome, and fatigue) affect patients' sense of physical, psychological, and spiritual integrity more.
- 28. Needle phobia and fear of pain intensify the state of threat related to chemotherapy administration.

# "Dealing with the unpredictable" subcategory

Description: Fear and anxiety were common responses to the uncertainty faced by patients undergoing chemotherapy faced. The stress level varied from mild to severe (before and after receiving test results) and had a cause known to the sufferer or not (perception of imminent threat). While transcendence movements allowed to break the cycle, negative strategies focused on emotion only postponed distress. Among the most accessed strategies, the following stood out: denial, escape, evasion, minimization of the problem, restraint of emotions, and social isolation. For safe care, it is important that nurses recognize when the state of anguish changes from a normal state of anxiety to a more threatening point that requires urgent intervention (suicidal ideation).

Effect size: 78.7%

Supported the construct: Chircop & Scerri, 2018a Stanze et al., 2019 Wakiuchi et al., 2019b; Komatsu et al., 2019; Chen et al., 2016; de Kruif et al., 2020; Nizamli et al., 2011; Chircop & Scerri, 2018b; Martinez Tyson et al., 2016; Gómez et al., 2011; Romeiro et al., 2016; Albrecht et al., 2019; Bergqvist & Strang, 2017; Nissim et al., 2013; Nies et al., 2018; Kanda et al., 2017; Guerrero et al., 2011; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Soares et al., 2019; Buiting et al., 2013; Boucher et al., 2018; Beusterien et al., 2013; Ekenberg et al., 2019; Seibaek et al., 2013; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Liao et al., 2018; Iddrisu et al., 2020; Cheung et al., 2012; Ghodraty-Jabloo et al., 2016; Chircop & Scerri, 2017; Abdel-Ghany et al., 2019; Villarreal-Garza et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

"Yes, it has been like a roller coaster, and so ... some days ... hmmm ... What's worst is not knowing whether you will manage this or not. Will it succeed? ... Before you knew what to do ... Do I get one more Christmas? ... What are the odds? I will have another grandchild next year; will I see them? I'm not afraid of dying, but perhaps I am scared of the journey leading there." (Ekenberg et al., 2019).

"I just do as best I can every day and what I cannot do I put off until the next day. So I do not rush. I do not panic. I do not try to exert myself. I just take my time. Take it easy and what I cannot do today, I will do tomorrow...go with the flow." (Ghodraty-Jabloo et al., 2016)

#### Second-order constructs

The journey; fear; cancer symptoms as triggers of the anxiety of death; fear of chemotherapy; concerns of patients after chemotherapy; fear of relapse; feeling extreme anxiety and discomfort because of chemotherapy; facing unexpected physical problems and severe psychological discomfort over the treatment period; uncertainties regarding the diagnosis; mulling over what is to come; concerns about the possibility of relapse.

- 29. The expectation of having side effects causes fear and psychic distress.
- 30. Pain and expectation of death are considered triggers for distress.
- 31. Lack of control over the future drives patients to replace long-term goals with short-term goals.
- 32. The approach of chemotherapy sessions triggers emotional responses that translate the waiting distress: anxiety, fear, and depression.

# "EVALUATING, MEASURING, AND NEUTRALIZING THE THREAT" THIRD-ORDER CONSTRUCT

- 33. The expectation of an uncertain future results in agony. Although some patients may declare that death does not frighten them, the fear of the path to get there is a real anguish.
- 34. The fear of relapse breaks into patients' thoughts during and after treatment cycles.
- 35. The fear of hospitalization, treatment discontinuation, or dose reduction decreases the willingness to communicate physical distress.
- 36. Patients with multiple episodes of relapse may experience more intense distress (fear, anxiety, and uncertainty) because the efficacy of the next treatments is uncertain.
- 37. Cancer incurability, uncertainties, and the impossibility of making plans intensify the feeling of vulnerability.
- 38. Construing uncertainty as an unacceptable condition threatens the adaptation of patients to cancer and chemotherapy.
- 39. The uncertainties that cause distress are related to unpredictability of results, accidental complications, insecurity about making decisions, and deficits of knowledge.
- 40. Informing patients about the expected effects of treatment brings many benefits: It lessens fear and anxiety and increases the sense of control.
- 41. Fear, anxiety and exhaustion of resources to deal with distress can predispose patients with cancer to suicidal ideation.
- 42. The psychological distress that emerges from chemotherapy is as annihilating and difficult to bear as what happens as a response to cancer itself.
- 43. Patients experience shock at the beginning of treatment. This word defines the state of perplexity about sudden manifestation of symptoms, worsening of clinical status in a short period, feeling startled when the diagnosis is given, being staggered by the immediate need for chemotherapy, and inability to make decisions.
- 44. Patients may opt for styles of passive coping, including the transfer of decisions to the medical team, preference for limited information, and avoidance of pondering about the situation.
- 45. In order to regulate the level of distress resulting from uncertainty, patients may customize probabilities, minimize the problem, or make comparisons.
- 46. To deal with the unpredictable, other strategies focused on emotion can be accessed: trying to negotiate with today's concerns; minimizing or denying adverse effects; restraining emotions; delegating decisions; and carrying out reversal self-affirmation (dismissing medical advice, changing the dosage of medications, and canceling procedures).

#### "The contextual universe hidden behind the meanings" subcategory

Description: Religious, clinical, and cultural contexts shaped distress experiences and influenced the choice of coping strategies.

Effect size: 89.4%

Supported the construct: Chircop & Scerri, 2018a Stanze et al., 2019 Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Komatsu et al., 2019; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Chircop & Scerri, 2018b; Martinez Tyson et al., 2016; Mesquita et al., 2011; Gómez et al., 2011; Albrecht et al., 2019; Bergqvist & Strang, 2017; Nissim et al., 2013; Nies et al., 2018; Kanda et al., 2017; Guerrero et al., 2011; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Soares et al., 2019; Buiting et al., 2013; Chou & Lu, 2019; Medeiros et al., 2019; Cebeci et al., 2012; Seibaek et al., 2013; Ríos-Quezada & Cruzat-Mandich, 2015; Martin et al., 2020; Maree & Mulonda, 2015; Lourens, 2013; Liao et al., 2018; Iddrisu et al., 2020; Cheung et al., 2012; Ghodraty-Jabloo et al., 2016; Finlayson et al., 2019; Chircop & Scerri, 2017; Wakiuchi et al., 2019a; Villarreal-Garza et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

- "...whatever your passions are, whether it's bike riding, horseback riding, golf, tennis, tiddlywinks... now more than ever is the time to follow them even if it's your family, your church; what it is is not important. Those are the things that are going to get you through the rough days." (Boucher et al., 2018).
- "My wife and I did not disclose, it is our belief do not tell the kids they can take it seriously and kill themselves. Our culture is like this." (Lourens, 2013).
- "And in our culture they tell us not to go to hospitals. We must go to the traditional healers to be checked to heal it. [...]Family advised me to go to a healer because I have been bewitched." (Lourens, 2013).
- "We do not want to know...[..]. .. in my community, it is still a taboo, breast cancer as an ordeal of Allah." (de Kruif et al., 2020).

#### Second-order constructs

Need to develop coping strategies; adjustment phase; finding adaptation methods; managing health and life; how to go through treatment; supported (hospital chemotherapy), but still isolated; treatment and secondary effects; handing power over; orienting the schedule toward the present; managing symptoms; belief in alternative treatments; life style adjustments; going into quarantine to tolerate the effects passively; perceiving the effects of alternative and complementary treatment; fear of hospitalization; spirituality and positive effects; religious acceptance; keeping positive thoughts; cultural and religious influences on the experiences of diagnosis and treatment; "there is no suffering on earth that heaven cannot heal."

- 47. When patients perceive distress as a consequence of their mistakes, they may struggle against seeking help because the act of suffering itself is a way to expiate one's own mistakes.
- 48. In more secular cultures, distress can be seen as an expression of divine will. In these cases, receiving it without complaint becomes an act of worship.
- 49. When sufferers attribute distress to witchcraft or the action of evil forces, strategies can involve looking for healers or executing sacred rituals.
- 50. Cancer imagery, religious beliefs, and patients' interpretation of symptoms are related to the perception of distress.
- 51. Latin patients use religious and spiritual coping to deal with distress more.
- 52. Prayer, reading of biblical texts, and religious activities provide relief of distress.
- 53. Cultural dimensions of distress (myths, stigmas, and religious beliefs) influence decisions about whether or not to engage in treatments whose benefits are questionable.
- 54. Conflicts between Western medicine and local cultures make patients from ethnic minorities more vulnerable to nonadherence to treatment.
- 55. For men, looking for help is a sign of weakness.

#### "EVALUATING, MEASURING, AND NEUTRALIZING THE THREAT" THIRD-ORDER CONSTRUCT

- 56. Patients with leukemia express the feeling of confinement during the hospitalization period of high-dose chemotherapy.
- 57. Patients perceive a worse quality of life in the hospital chemotherapy modality, because of isolation, distance from the family, and intensity of the therapy (higher doses and more intense adverse effects).
- 58. Cognitive alterations caused by chemotherapy provoke intense distress in Asian people because of their hyper-valorization of mental capacities and of the balance between body, mind, and spirit.
- 59. Having the hair cut before chemotherapy intensifies the feeling of control.
- 60. Chinese patients can value emotional restraint as a sign of strength.
- 61. Gender stereotypes influence the perception of distress when men talk about masculinity before and after cancer.
- 62. Coping strategies used by patients and relatives are similar because they originate in the same cultural universe.
- 63. In societies that are less religious, the focus of hope moves from God to chemotherapy and medical care.
- 64. Receiving chemotherapy under the inpatient regimen intensifies feelings of loneliness.
- 65. Body changes that cannot be hidden can cause more distress than those that are not perceptible or that can be disguised.
- 66. Keeping a high level of connection with spirituality can help Latin patients to adapt and face cancer positively.
- 67. Internet forums are an important source of social support for young patients undergoing chemotherapy. By means of these tools, it is possible to spread sympathy and motivational encouragement.
- 68. The indicated chemotherapy modality affects the distress experience. The severity of adverse effects in induction therapy for leukemia and in intraperitoneal chemotherapy leads to high levels of physical and psychic distress.
- 69. Because traditional Chinese medicine is popular in that country, many patients undergoing chemotherapy opt to use it, as well as other types of alternative medicine, to deal with toxic effects.
- 70. Patient distress is a cultural construction influenced by the environment, life history, losses, and learning.
- 71. Crying releases negative emotions and helps relieve distress in the Latin culture.
- 72. Asian patients may oppose to polypharmacy to treat adverse effects.
- 73. Cultural stigmas can motivate patients with indications for chemotherapy to reject treatment.
- 74. Personality traits, emotional imbalances, and divine will are used to justify the development of the disease. Perceiving oneself as the agent that causes the disease leads to the distress of feeling guilty about the origin of cancer.

#### "SOCIAL CONTOURS OF DISTRESS" THIRD-ORDER CONSTRUCT

Description: Distress can be originated, worsened, and relieved by social relationships.

Effect size: 82.97%

Supported the third-order construct: Chircop & Scerri, 2018a Stanze et al., 2019 Wakiuchi et al., 2019b; Noorisanchooli et al., 2018; Chen et al., 2016; Suwankhong & Liamputtong, 2018; de Kruif et al., 2020; Nizamli et al., 2011; Chircop & Scerri, 2018b; Martinez Tyson et al., 2016; Mesquita et al., 2011; Gómez et al., 2011; Romeiro et al., 2016; Albrecht et al., 2019; Bergqvist & Strang, 2017; Nissim et al., 2013; Nies et al., 2018; Kanda et al., 2017; Guerrero et al., 2011; Beusterien et al., 2013; Ekenberg et al., 2019; Buetto & Zago, 2015; Palacios-Espinosa & Zani, 2014; Chou & Lu, 2019; Medeiros et al., 2019; Boucher et al., 2018; Cebeci et al., 2012; Thornton et al., 2014; Ríos-Quezada & Cruzat-Mandich, 2015; Maree & Mulonda, 2015; Lourens, 2013; Liao et al., 2018; Iddrisu et al., 2020; Cheung et al., 2012; Kakuta et al., 2015; Ghodraty-Jabloo et al., 2016; Chircop & Scerri, 2017; Abdel-Ghany et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a.

#### First-order constructs

- "He left me after 28 years of marriage because I became ill and he could not tolerate my illness. If he had cancer or another disease, I would never do this to him. Never. I would've stayed with him with all my love. I would care for him. My heart is broken into a thousand pieces. Even cancer did not cause me so much pain; this is the most difficult part." (Kurdish woman) (de Kruif et al., 2020)
- "I suffer from sadness but I do not want to pass my sadness on to others ...
  I did not show her [my wife] that I was sad because I used to think if I showed her it would make things worse." (Chircop & Scerri, 2017).
- "My husband, my daughter, my mother supported me while I was sitting and crying in the middle of the night. We shared my feelings the whole night, hugged each other and cried together." (Cebeci et al., 2012).
- "If your husband is ill, you just have to take care of him, if your child is ill, your mother.... It is a matter of course in our culture. But if you get sick yourself, you always tried to take care of all the rest. It is a matter of course in our culture." (de Kruif et al., 2020).

#### Second-order constructs

Fear of parting from the family; social dysfunction; social isolation; poor performance of their role in the family; the importance of care and emergency care provided by professionals; lack of support of family/domestic problems; mother's role; being far from the family or the home country; seeing other people going through chemotherapy; fewer friends; interpersonal dimension; experiences with other patients; experiences with their family and the community; avoiding crowds to prevent infections; support from other people; concern with their family, the disease progression, and the future; feeling of isolation about treatment; support sources; intentional distancing; friends and relatives do not understand that cancer is a recurring disease; keeping composure; "alone in a desert, I heard the cry of my silence."

- 1. The perspective of not being able to raise their children and the fear of making them suffer is a devastating concern for women undergoing chemotherapy.
- 2. The fear of having their relationships deteriorated by treatment is a constant concern in the life of patients.
- 3. Treatment undermines family relationships and causes anguish when patients do not feel understood.
- 4. Distress is an experience shared among family members.
- 5. It is difficult to talk about distress.
- 6. The perceived decrease in the relationship network and the feeling of having been abandoned by friends and relatives make patients suffer.

# "SOCIAL CONTOURS OF DISTRESS" THIRD-ORDER CONSTRUCT

- 7. Patients experienced ambiguous feelings regarding family support.
- 8. To protect their relatives, some patients opt to hide chemotherapy symptoms and their emotional anguish.
- 9. The distance from the family intensifies the stress of facing cancer in a different country.
- 10. Thinking of relatives keeps the desire to shorten life away.
- 11. Alopecia, fatigue, risk of infection, nausea, and vomiting are the effects that cause social isolation the most.
- 12. Seeing the distress of other patients is also a cause of anguish.
- 13. Cancer treatment can end love relationships.
- 14. Loss of the partner's sexual interest results in psychic distress.
- 15. The impact of treatment on the family is more related to patients' frustrated expectations of fulfilling their roles than to pressure from close family members.

out by researchers with different theoretical backgrounds and fields of knowledge (philosophy, psychology, public health, oncology, and palliative care) imparted rigor to the interpretations, and offered the possibility of developing rich and complex analyses, subject to the reflection skills of the researchers (Barry et al., 1999). The combination of theoretical and methodological frameworks, in turn, reduced the likelihood of chance associations and bias in data analysis (Finfgeld-Connett, 2010).

The syntheses were produced with subcategories as the starting point, which, together, expressed the meaning of the experience of living with cancer and undergoing chemotherapy as three themes: pain of loss; evaluating, measuring, and neutralizing the threat; and social contours of suffering.

# 3 | RESULTS

Most studies examined were carried out in Brazil (n=9) and the United States (n=7). The other studies were carried out in 21 other countries in America, Africa, Asia, and Europe. A total of 1145 patients receiving chemotherapy were evaluated, of whom 77.9% were women. Analysis of diagnostic profiles showed that most studies (n=29) chose only one tumor topography, and the most frequent primary sites were the breast (n=17) and the hematopoietic system (n=9). Regarding theoretical frameworks, phenomenology was the most used, although there was a prevalence of studies that did not indicate the theoretical-philosophical framework they were based on (Table 1). Nevertheless, the heterogeneity of methodological approaches allowed the authors to reflect on multiple perceptions of reality and have a clearer understanding of the phenomenon, enabling the proposition of robust syntheses.

# 3.1 | The pain of loss

The construct *pain of loss*, observed in 89.4% of the studies, pointed to the sense of loss experienced by patients from the time the diagnosis was made to the active treatment phase, and had three subcategories as starting points: *loss of control, loss of hope*, and *loss of self*.

Loss of control described the suffering experienced when realizing the decline of physical capacities and the feelings that arose because of dependence on other people. It could also be used to represent loss of control over one's own life, body, and freedom to act toward providing for themselves. The belief that results will always be subject to the actions of other people or the progress of the disease, regardless of what is done or the behaviors adopted, emerged as a source of considerable psychological suffering.

The patients experienced frustration and anger because of side effects that kept them from doing a range of activities, from carrying out simple everyday tasks to making complex decisions regarding their treatment. A state of vulnerability occurred as a consequence of perception of reduced cognitive capacity and frustration about not being able to stop the progress of the disease or control its physical symptoms, both those originating from cancer itself and those caused by the treatment (Abdel-Ghany et al., 2019; Albrecht et al., 2019; Iddrisu et al., 2020; Kakuta et al., 2015; Kanda et al., 2017; Komatsu et al., 2019; Maree & Mulonda, 2015; Martin et al., 2020; Mendonça, Pereira, Magnago, Silva, et al., 2020a; Nissim et al., 2013; Nizamli et al., 2011; Ríos-Quezada & Cruzat-Mandich, 2015; Wakiuchi et al., 2019a).

Adverse effects such as neuropathy and fatigue prevented patients from controlling primary bodily functions, which was an attack on their dignity. These reactions went beyond the physical dimension, resulting in feelings of uselessness, exhaustion, and depression. The impacts were significant, bringing about progressive suffering by making patients feel, as the disease progressed, that they were losing their battle against cancer (Abdel-Ghany et al., 2019; Bergqvist & Strang, 2017; Boucher et al., 2018; Buetto & Zago, 2015; Ekenberg et al., 2019; Ghodraty-Jabloo et al., 2016; Iddrisu et al., 2020; Liao et al., 2018; Martin et al., 2020; Ríos-Quezada & Cruzat-Mandich, 2015).

Patients' losses began with their jobs, social status, and roles as provider, evolving into loss of independence, social relationships, and self-love. Loss of autonomy and the threat of becoming a burden on society made patients feel overwhelmed by despair, defeat, and abandonment (Bergqvist & Strang, 2017; Cheung et al., 2012; Chircop & Scerri, 2018a; Ekenberg et al., 2019; Ghodraty-Jabloo et al., 2016; Iddrisu et al., 2020; Kakuta et al., 2015; Martin et al., 2020; Martinez Tyson et al., 2016; Palacios-Espinosa & Zani, 2014; Stanze

et al., 2019; Wakiuchi et al., 2019b). The metaphor "surrender to cancer," mentioned in one of the studies, conveyed the message of inadequate control over life and lack of energy to fight against the disease (Chircop & Scerri, 2018b).

Loss of hope was manifested in the following ways: perceiving one's death as an imminent event; experiencing helplessness when dealing with death; being aware of the incurable nature of the condition and that all efforts to fight cancer would be useless; always expecting the worst; accepting that it was their destiny; giving up on making plans; abandoning themselves; feeling frustrated about the lack of response of some symptoms to conventional treatment; feeling despondent because of the perception that they were just "surviving"; and feeling like speeding up their death (Bergqvist & Strang, 2017; Beusterien et al., 2013; Boucher et al., 2018; Buiting et al., 2013; Chen et al., 2016; Cheung et al., 2012; Chircop & Scerri, 2018a, 2018b; de Kruif et al., 2020; Finlayson et al., 2019; Ghodraty-Jabloo et al., 2016; Iddrisu et al., 2020; Kakuta et al., 2015; Maree & Mulonda, 2015: Martin et al., 2020: Mendonca, Pereira, Magnago, Silva, et al., 2020a; Nies et al., 2018; Nissim et al., 2013; Palacios-Espinosa & Zani, 2014; Stanze et al., 2019; Wakiuchi et al., 2019b).

Fear of relapse, awareness of the severity of the disease, and professionals' lack of empathy intensified the feeling of loss of hope (Chircop & Scerri, 2017; Chou & Lu, 2019). Studies reported a decrease in hope intense enough to stir up suicidal ideation and the desire to seek assisted suicide (Buiting et al., 2013; Chen et al., 2016; Chircop & Scerri, 2018a, 2018b; Liao et al., 2018; Stanze et al., 2019).

The subcategory *loss of self* captured the aspects related to loss of identity, sexuality, and a positive self-image. It also included suffering for not being able to recognize one's own body, because it is disfigured by treatment. This experience was intensified by the perception that their new physical appearance was disapproved of by other people, their partners, and themselves. Regarding suffering related to hyperpigmentation caused by chemotherapy, for instance, studies have shown that the presence of signs of treatment on the skin and having to repeatedly explain their condition to other people were a psychological burden on the participants (Beusterien et al., 2013; Iddrisu et al., 2020; Komatsu et al., 2019; Lourens, 2013).

Losing body parts associated with sexual desire and functions linked to eroticism negatively affected the patients' sense masculinity or femininity. Believing that their new image did not match their actual identity made them feel like they were not their real selves (Abdel-Ghany et al., 2019; Cebeci et al., 2012; Chen et al., 2016; Gómez et al., 2011; Mesquita et al., 2011; Nies et al., 2018; Noorisanchooli et al., 2018; Suwankhong & Liamputtong, 2018). Mastectomy and alopecia emerged as the most devastating consequences of treatment for women with breast cancer, reducing their desire for social interactions and physical intimacy (Abdel-Ghany et al., 2019; de Kruif et al., 2020; Maree & Mulonda, 2015; Nizamli et al., 2011). Several accounts by women inserted in different cultural contexts defined mastectomy as a route to losing the meaning of life. Regarding alopecia, despite being construed as a temporary effect, it had such a damaging effect in African and Syrian patients that it was symbolized as

mourning (Gómez et al., 2011; Iddrisu et al., 2020; Maree & Mulonda, 2015; Nizamli et al., 2011).

For men, occupational incapacities affected the meaning of "being a man." Losing characteristics such as physical strength and being able to engage in sports activities and interact socially by means of male activities led to a loss of social identity (Mesquita et al., 2011).

# 3.2 | Evaluating, measuring, and neutralizing the threat

The construct evaluating, measuring, and neutralizing the threat showed the different coping styles adopted by patients to reduce suffering to tolerable levels. While some kept their focus on strategies oriented toward the problem, trying to change the event that triggered stress, others focused their efforts on reevaluating the experience or controlling emotions. Four subcategories made up this synthesis: neutralizing the threat: movements toward transcendence and resilience; dealing with the unpredictable; perceived threat and actual threat; and the contextual universe hidden behind the meanings.

When the demands presented by cancer exceeded the adaptive capacities of patients, *moving toward transcendence and resilience* boosted different positive reevaluations by the following means: assigning a hope of healing to the treatment, despite being aware of its palliative nature; addressing the disease from a spiritual growth standpoint; appreciating the beneficial effects of chemotherapy over its adverse effects; believing that suffering is a route toward purification of the soul; and acknowledging their own ability to overcome obstacles (Bergqvist & Strang, 2017; Buetto & Zago, 2015; de Kruif et al., 2020; Ekenberg et al., 2019; Guerrero et al., 2011; Mendonça, Pereira, Magnago, Silva, et al., 2020a; Mesquita et al., 2011; Palacios-Espinosa & Zani, 2014; Stanze et al., 2019).

Likewise, different coping strategies were sought, acting to both to inspire hope and to strengthen resilience during the course of chemotherapy. To keep hope alive, patients deployed a number of strategies: turning to more realistic and short-term goals, because they did not know how long they were going to live; valuing meaningful relationships that made them feel part of something bigger; experiencing gratitude for the relief of physical symptoms and the reestablishment of their functional capacities; focusing on the expectation of health recovery when the treatment was concluded; revering each day as an opportunity to enjoy little things; remembering important moments that could be missed; pointing out qualities and potentialities they ignored; describing how their faith and spiritual practices were important to transcend suffering; focusing on the possibility of keeping the disease stable; and hoping for new therapeutic regimens that could offer them a longer life (Albrecht et al., 2019; Bergqvist & Strang, 2017; Boucher et al., 2018; Chen et al., 2016; Chircop & Scerri, 2017; de Kruif et al., 2020; Ekenberg et al., 2019; Finlayson et al., 2019; Ghodraty-Jabloo et al., 2016; Gómez et al., 2011; Guerrero et al., 2011; Kakuta et al., 2015; Liao et al., 2018; Maree & Mulonda, 2015; Nies et al., 2018; Ríos-Quezada & Cruzat-Mandich, 2015; Seibaek et al., 2013; Soares et al., 2019; Stanze et al., 2019; Thornton et al., 2014; Wakiuchi et al., 2019a, 2019b).

Patients talked about overcoming suffering after it reached its peak as if describing "rising from the ashes" (Chen et al., 2016; Mesquita et al., 2011). The second-order construct represented the cycle of transformation, recovery of hope, and rebuilding of their lives.

The subcategory *dealing with the unpredictable* was structured around feelings of uncertainty and fear, evaluation of the state of threat, and application of strategies to reduce psychological overload. Whether or not suffering had a known cause, expectations of a fruitful future were overshadowed by fear of not achieving what was dreamed of, not becoming what they aspired to be, or becoming someone they did not expect to be. Doubts about whether events were positive or negative emerged from uncertainty regarding the efficacy of medications; results of tomography scans; lack of knowledge of when and how the symptoms of the disease progression would occur; expectation of pain and suffering; perceived incapacity to make plans; and questions in the face of the discovery of new treatments (Bergqvist & Strang, 2017; Boucher et al., 2018; Chen et al., 2016; Chircop & Scerri, 2017; Finlayson et al., 2019; Liao et al., 2018; Nies et al., 2018; Villarreal-Garza et al., 2019).

Feelings of uncertainty pervaded the accounts of people with leukemia more often, because of varied prognoses, multiple hospitalization episodes, and sudden worsening caused by disease complications and adverse effects of chemotherapy. Fear and insecurity assumed such a devastating character that they were defined as *suffering itself*. Focusing on the present, trying to keep their precancer life, and avoiding intrusive thoughts stood out among the most-used strategies to reduce despair (Bergqvist & Strang, 2017; Boucher et al., 2018; Ekenberg et al., 2019; Finlayson et al., 2019; Ghodraty-Jabloo et al., 2016; Martinez Tyson et al., 2016; Nies et al., 2018; Stanze et al., 2019).

The beginning of the treatment was considered the period of greatest vulnerability, because of lack of information about cancer and chemotherapy, the shock that followed diagnosis, and the presence of more exacerbated cancer signs and symptoms (Boucher et al., 2018; Chen et al., 2016; Chircop & Scerri, 2018b; Chou & Lu, 2019; Ekenberg et al., 2019; Gómez et al., 2011; Iddrisu et al., 2020; Kern de Castro et al., 2018; Liao et al., 2018; Maree & Mulonda, 2015; Martin et al., 2020; Martinez Tyson et al., 2016; Mesquita et al., 2011; Nies et al., 2018; Nissim et al., 2013; Nizamli et al., 2011; Romeiro et al., 2016; Stanze et al., 2019; Wakiuchi et al., 2019b). Ways of reevaluating and coping focused on emotion were also identified, and allowed for readjusting the situation to less threatening levels. Emphasizing medical and hospital resources, minimizing the problem, and avoiding reflecting on the situation or thinking of the future were reported in the studies (Albrecht et al., 2019; Buetto & Zago, 2015; Chircop & Scerri, 2017; Ghodraty-Jabloo et al., 2016; Liao et al., 2018; Nissim et al., 2013; Stanze et al., 2019; Thornton et al., 2014).

When feelings of helplessness became dominant, some people adopted an attitude of passive acceptance that, different from resilience, led them to ignore their own psychospiritual needs and unquestioningly embrace treatment (Finlayson et al., 2019; Nissim et al., 2013; Stanze et al., 2019). On the opposite end, there were radical strategies, including reversal self-affirmation, dismissal of medical

advice, changes in the dosage of medications, cancelation of procedures by default, and treatment withdrawal (Stanze et al., 2019).

Americans and Europeans put their effort into attitudes that kept them close to their daily routines, declaring that everything would be fine in the end (Albrecht et al., 2019; Chircop & Scerri, 2017; Gómez et al., 2011; Nissim et al., 2013; Stanze et al., 2019). Trusting in the therapeutic effects of tea and fruit helped Chinese, Indian, Thai and Malaysian people feel better. Many attributed medicinal herbs with the ability to control pain and the toxic effects of treatment, nourishing a belief in the power of certain foods to decrease the size of their tumor (Nies et al., 2018; Suwankhong & Liamputtong, 2018).

The search for alternative medicine, classified as a coping strategy focused on the problem, was justified by relief of the adverse effects of chemotherapy, strengthening of the immune system, and promotion of physical and spiritual well-being (Chen et al., 2016; Kanda et al., 2017; Nies et al., 2018; Suwankhong & Liamputtong, 2018). Latin and Muslim patients focused on nonbiomedical techniques to relieve tension, and coping methods that immersed them in emotion, especially its religious and spiritual dimensions (de Kruif et al., 2020; Martinez Tyson et al., 2016; Wakiuchi et al., 2019b). Chinese people also resorted to prayer and sacred chants (Chou & Lu, 2019).

The subcategory perceived threat and actual threat combined results that confirmed suffering as a phenomenon whose occurrence is not associated with specific types of external stimuli (level of adverse effects, staging, and chemotherapy efficacy), nor becomes manifest as a set of behavioral reactions. Under very similar cultural, clinical, and religious conditions, sufferers experienced a range of emotions of varied intensity and duration. First- and second-order constructs reinforced the existence of important situational parameters for suffering to occur: awareness of cancer severity: differences between perceived health status and that pointed out by other people; and interpretation of symptoms and their responsiveness to conventional treatment (Albrecht et al., 2019; Chen et al., 2016; Ekenberg et al., 2019; Finlayson et al., 2019; Ghodraty-Jabloo et al., 2016; Kakuta et al., 2015; Komatsu et al., 2019; Mendonça, Pereira, Magnago, Silva, et al., 2020a; Nies et al., 2018; Suwankhong & Liamputtong, 2018).

In the construct the contextual universe hidden behind the meanings, suffering proved influenceable by patients' religious and cultural universe, and the indicated treatment modality also affected its characteristics. Receiving treatment for leukemia or chemotherapy in an inpatient regimen boosted isolation and loneliness (Albrecht et al., 2019; Chircop & Scerri, 2017; Chircop & Scerri, 2018a, 2018b; Nissim et al., 2013). Perceiving therapy as an obligation or the only way to stay alive caused more stress in patients (Ekenberg et al., 2019; Kakuta et al., 2015; Wakiuchi et al., 2019a, 2019b).

Cultural and religious stigmas affected the suffering experience so intensely that many patients avoided saying the word *cancer* publicly and in front of their physicians (Liao et al., 2018). In Latin, Muslim, and African patients, the disease and its treatment were often represented by the words *pain and suffering* and *death and destruction* (Albrecht et al., 2019; Cebeci et al., 2012; de Kruif et al., 2020; Iddrisu et al., 2020; Lourens, 2013; Palacios-Espinosa & Zani, 2014).

Believing that cancer could be caused by past mistakes, or the result of a curse, a spell, divine punishment, or emotional imbalance, created feelings of guilt, but also impacted decisions about whether to continue or discontinue chemotherapy. These decisions were influenced by the following factors: cultural stigmas and beliefs; clinical condition; hope of a cure or a longer life; level of information; and fear of the disease progression, a painful death, and disappointing their relatives and the medical team. In the case of people under palliative treatment, when the clinical benefits are questionable, deciding to continue therapy was a crossroads that challenged the emotional control of many patients (Buetto & Zago, 2015; Buiting et al., 2013; Chen et al., 2016; de Kruif et al., 2020; Finlayson et al., 2019; Guerrero et al., 2011: Iddrisu et al., 2020: Kakuta et al., 2015: Kanda et al., 2017; Liao et al., 2018; Lourens, 2013; Mendonça, Pereira, Magnago, Silva, et al., 2020a; Mesquita et al., 2011; Palacios-Espinosa & Zani, 2014). Despite the overload of toxic effects, the decision to carry on with chemotherapy prevailed.

# 3.3 | Social contours of suffering

The construct *social contours of suffering* represented the relief or worsening of suffering resulting from social relationships. The results showed that love from family is undeniably crucial to dealing with cancer. However, similar to what happened for mutual support, suffering emerged as an *experience shared between relatives*. In addition to receiving support, patients tried to protect their family members by hiding the symptoms of the disease and the toxic effects of the medications (Boucher et al., 2018; Chen et al., 2016; Chircop & Scerri, 2017; Chou & Lu, 2019; de Kruif et al., 2020; Ekenberg et al., 2019; Ghodraty-Jabloo et al., 2016; Gómez et al., 2011; Kakuta et al., 2015; Maree & Mulonda, 2015; Nies et al., 2018; Noorisanchooli et al., 2018; Ríos-Quezada & Cruzat-Mandich, 2015; Stanze et al., 2019; Thornton et al., 2014; Wakiuchi et al., 2019b).

Studies have indicated that, in women, concern about the future of their children and the perspective of not being able to raise them created extreme suffering (Chen et al., 2016; Chou & Lu, 2019; de Kruif et al., 2020; Gómez et al., 2011; Guerrero et al., 2011; Iddrisu et al., 2020; Martinez Tyson et al., 2016; Nizamli et al., 2011; Noorisanchooli et al., 2018). The effects of cancer and its treatment extended to marital relationships and caused conflict and even divorce in several countries. Accounts given exclusively by women were identified in the first-order constructs (Buetto & Zago, 2015; Cebeci et al., 2012; de Kruif et al., 2020; Gómez et al., 2011; Maree & Mulonda, 2015; Nizamli et al., 2011; Thornton et al., 2014; Wakiuchi et al., 2019b).

Social isolation was simultaneously a cause and a consequence of suffering (Albrecht et al., 2019; Boucher et al., 2018; Buetto & Zago, 2015; Chircop & Scerri, 2018a; Chou & Lu, 2019; Gómez et al., 2011; Martinez Tyson et al., 2016; Nies et al., 2018; Nissim et al., 2013; Nizamli et al., 2011; Ríos-Quezada & Cruzat-Mandich, 2015). Western and Eastern patients avoided going out because they felt insecure about exposing physical and psychological changes resulting from chemotherapy, such as darkening of the skin, weight loss, alopecia, mood

swings, and suffering itself (Chen et al., 2016; Iddrisu et al., 2020; Komatsu et al., 2019; Suwankhong & Liamputtong, 2018). To disguise these effects, sufferers wore different accessories, including wigs, hats, and gloves, and in more severe cases, they changed their residences or opted to become nuns (Chen et al., 2016; Chou & Lu, 2019; Komatsu et al., 2019; Nizamli et al., 2011; Suwankhong & Liamputtong, 2018).

# 3.4 | Explanatory conceptual structure of the experience of living with cancer and receiving chemotherapy

The three themes that described the experience of living with cancer and going through chemotherapy were condensed into an explanatory conceptual structure (Figure 2). The illustration representing suffering by concentric loops of barbed wire is a metaphor for its purpose of providing restraint and its capacity to endure and cause damage, as well as trigger feelings and distort perceptions.

The construct *pain of loss* pointed to the body as a central dimension in the way people perceive each other, how they think they are being seen, and most importantly, how they present themselves in the world. In this regard, participants experienced *loss of self, loss of control*, and *loss of hope*, which caused and fed back into suffering.

The toxic effects that were the most difficult to disguise were experienced as highly threatening to spiritual, social, and emotional well-being. The way patients saw their bodies was influenced by the severity of the physical consequences of the treatment, especially alopecia, loss of a breast, and skin hyperpigmentation. In cultures impregnated with stigma, the sense of personal integrity was more threatened, creating identity crises, shame, and insecurity in the face of social prejudice. A distorted body image, together with stigmatizing comments, was the cause of suffering for many patients, evidenced by negative perceptions of how they thought they were being seen. This double aspect is described as a negative self-concept feeding suffering, with social stigmas perpetuating *loss of self*.

The constructs of the theoretical model are surrounded by a continuous process of *evaluation*, *measurement*, *and neutralization of the threat*. The wires are overlapped when patients deploy negative coping strategies (more entangled areas), perceiving losses in their lives. However, the set of barbed wire loops is broken when a positive reevaluation is capable of moving patients toward transcendence. This indicates the cyclic, mutable, and dynamic nature of coping. Through the reassessment process, resilience movements alternate with the intertwining of the wire strands, which shows that in the experience of suffering, patients transit between one pole and the other. The conceptual structure shows that suffering is not an end point, and patients undergoing antineoplastic treatment fight actively to reconquer their objects of loss and find new ways to connect with them. While transcendence allowed overcoming suffering, resilience emerged as a mechanism of resistance.

Just like barbed wire, whose symbolic meanings and modes of use depend on the places and cultures in which it is embedded, experiences related to chemotherapy have a close connection with cultural characteristics, as shown by the construct the contextual universe

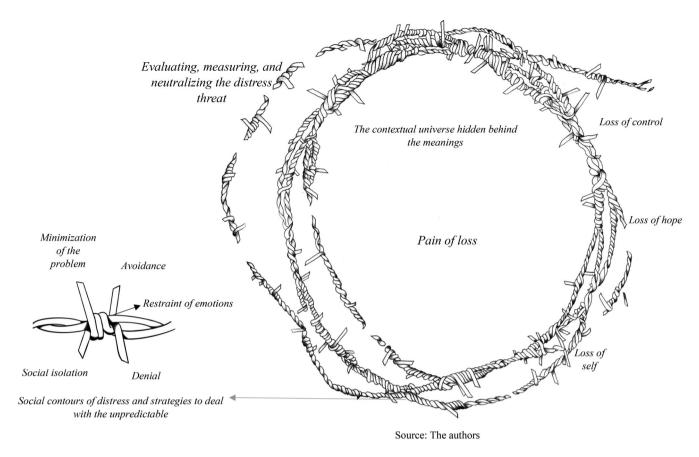


FIGURE 2 Explanatory conceptual structure of the experience of living with cancer and receiving chemotherapy

hidden behind the meanings. This confirms that studying cultural characteristics, more specifically the meaning of suffering in certain cultures, is an important step toward understanding how patients undergoing chemotherapy perceive threats, evaluate their losses, and reassess positive and negative consequences of treatment, choosing strategies to deal with the unpredictability of these consequences.

The basic structure of the set of barbed wire loops is made up of two steel wires intertwined to create a new, reinforced unity, which symbolizes the social contours of suffering. This conformation shows that social relationships can be an important source of support when patients feel understood and assisted throughout their journey. These relationships can also be the cause of anguish when patients witness the sadness of those they love the most, or when they feel neglected. The continuous clockwise and counterclockwise twisting has the objective of maintaining the structure of the steel wire and its stability after it is stretched. This technique, used in the fabrication of barbed wire, can be compared with the restraint of emotions in patients experiencing suffering. To protect themselves and prevent people close to them from suffering, many choose to cry alone, disguise the toxic effects of chemotherapy, and hide their diagnoses. Emotions are restrained, but exaggerated and aggressive reactions burst out when an argument makes them fall apart, leading them to vent all their repressed suffering.

Difficulty with sharing negative emotions and dealing with the unpredictable was compensated by strategies that postponed

confrontations, like barbed wire ends that point away from a knot: attempts to forget the disease; refusal to listen to and talk about cancer-related things (avoidance); efforts to keep suffering restrained and keep up appearances; failure to perceive or consciously acknowledge the damage caused by treatment (denial); and use of discourses that minimized the problem and of attitudes of social isolation.

# 4 | DISCUSSION

This meta-ethnography was guided by the stress, appraisal, and coping transactional theory (Lazarus & Folkman, 1986). It examined how cognitive evaluations affect suffering and the strategies chosen to deal with it. The theory posits that mental evaluations developed by individuals faced with stressful situations, like cancer and chemotherapy, are linked to results and how they cope with their problems. These evaluations are processes by which people decide whether events will become damaging to their well-being (primary evaluations), determining whether there are enough resources to deal with the conflict, if they perceive it as a threat (secondary evaluations). In contrast with theorists who understand the phenomenon as open to third-party deduction (Edwards, 2003; van Hooft, 1998), Cassell (1999) and Folkman (1984) share an intuitive concept of perceiving damage (or threat to integrity) in the first person. While in the

first case the sufferer may not be aware of the damage, in the second, they are the ones who recognize the presence and magnitude of suffering.

According to theoreticians, stress coping generally shows efforts oriented toward either modification of the causes of anguish (problems), or relief of emotional stress loads (emotion). The fight focused on emotion is an attempt to reduce internal demands and conflict, whereas coping focused on problems is an effort to manage external demands between the environment and the individual (Folkman, 1984; Lazarus & Folkman, 1986).

Based on the effects on suffering reported in the studies examined, the authors identified cognitive evaluations consistent with the stress translational model (Folkman, 1984). Damage evaluations were carried out when patients perceived that the disease and treatment had already caused losses (pain of loss). When people believed that the event was a threat to their well-being but that the gains were greater than the losses, suffering acquired a spiritual growth aspect (movements toward transcendence and resilience). Still from this theoretical perspective, when suffering was recognized as a challenge (evaluating, measuring, and neutralizing the threat construct), it mobilized coping strategies focused on both emotion (recognition of the capacity to overcome obstacles) and problem-solving (use of tea and herbs).

For some researchers, the concept of resilience accounts for how stressful life events can cause such differing outcomes among people who have faced similar situations. Understood as a universal force, resilience enables people, groups, or communities to adapt positively to extreme circumstances (Alharbi et al., 2020; Chon et al., 2020; Kim, Park & Kim, 2021; Rudzinski et al., 2017). The aforementioned subcategory confirms that, despite being inherently uncontrollable, individuals who are able to overcome adversity can be transformed or even strengthened in the face of other losses. Although it is useful to study resilience from the point of view of the factors that promote it (Alharbi et al., 2020; Orkaizagirre-Gómara et al., 2020; Rudzinski et al., 2017), shifting the focus to how and why people become resilient allows for the most subtle forms of adaptation to be captured to guide psychosocial interventions (Rudzinski et al., 2017). By making that shift, we could recognize the pride taken in talking about a new purpose in life (even in the palliative context), the appreciation of the love of family members while receiving their care, and the perception of time like an invaluable loan.

Another mode of mental evaluation was perceiving the possibility of future losses when there was no real damage (*dealing with the unpredictable*). Coping strategies to increase the sense of control in the face of treatment unpredictability included "negotiating with today's concerns" and "minimizing the problem."

According to Heidegger et al. (1962), fear is a central emotion in human existence, which can manifest in the world as the act of escape from *being there*. Although people fear something that is objective (death, toxic effects of chemotherapy), the ultimate source of their fear is not an object that is outside of them, but within themselves. Mobilization of avoidance strategies to protect oneself from one's own thoughts showed that, ultimately, fear always gets back to the

"sufferer" and not to "why one suffers." Regarding those who could not pinpoint a cause of suffering, Heidegger et al. (1962) said that the state of anguish is also present in the simple fact of existing. *Being-in-the-world* is enough for people to feel inundated by this melancholy feeling of "not being at home".

Three Heideggerian elements were exposed in the subcategory dealing with the unpredictable: the before-what (wofür), or the fear in the form of threat; fear (fürchten) itself, which opens up the world for the sufferer; and why (worum) one fears, which refers to our own being-there. First-order constructs emphasized the fear of death as the most important in the subcategory. In the face of the finitude of human existence, fear and the risen awareness that we are all beingstoward-death (sein-zum-tode) marked the presence of the last Heideggerian concept. It caused an existential change in the lives of patients (movement toward transcendence), who were touched, not by successful stimuli, but by the opportunity to recover their own authenticity.

According to Folkman (1984), a person who perceives an event as out of control judges it as relatively resistant to positive modification. However, in this review, the third-order interpretations of the evaluations of losses and threats were endorsed as positive interpretations (movements toward transcendence and resilience). As shown in a metaanalysis (Franks & Roesch, 2006), the findings synthesized in this study showed that although patients could face cancer as an event that threatened their objectives, personal resources, and life expectancy, chemotherapy could change this, making them not perceive future losses as unavoidable events. Likewise, even patients undergoing palliative treatment can keep an intimate hope of cure. Based on the assumption that hope is not a self-renewing resource, but that it needs a place and reason to arise (Folkman, 2010), situational factors, family ties, personal attributes, and reevaluations of probabilities suppressed or nourished this emotion. We identified extreme circumstances that affected the conflict between suffering and hope by abruptly altering the chances of a positive outcome. Examples are the transition to exclusive palliative care, worsening of toxic effects, relapses of the disease, and recovery of physical capacities (Bergqvist & Strang, 2019; Seiler & Jenewein, 2019). Even when all options seemed to be exhausted, faith in God, confidence in one's own ability to overcome, the reframing of a new sense of existence, and commitments to the family regulated a fine balance between suffering and hope.

As portrayed in previous studies (Duggal et al., 2016; Ginter, 2020; Tamura et al., 2021), individuals who nurtured higher levels of hope were able to create alternative paths that allowed them to recover from challenging situations without succumbing to suffering. Confident expectations about the results of chemotherapy made individuals resilient and empowered to persevere in their goals, which confirms findings that hope based on meaning can support positive long-term coping and vice versa (Folkman, 2010). Consequently, viewing chemotherapy as a challenge or an opportunity for transformation can recruit resilience strategies that increase resistance, whereas threat evaluations tend to mobilize avoidance strategies.

Analyses have shown that strategies focused on problems tended to show better psychological results than those immersed in emotions.

Although avoidance strategies and mental disengagement can lessen the anxiety of the moment, they show no positive impact in the long run. For post-trauma growth (a concept that captures the discovery of positive psychological changes that follow periods of crisis) to happen, challenges must be steered by proactive coping strategies. If no action is undertaken, people, in addition to not changing their condition, can mull over intrusive failure – thoughts that create stress of a different kind (Bigatti et al., 2012; Fujimoto & Okamura, 2021).

Contrary to avoidance strategies, religious coping focused on emotion illustrated how spiritual values can help patients move on. There is evidence that higher positive religious coping scores are associated with lower levels of suffering in Muslims, whereas higher use of negative coping is associated with increased levels of suffering in Brazilians (Mendonça, Pereira, Magnago, Silva, et al., 2020b; Yılmaz Karabulutlu et al., 2019). In the Muslim and Christian religions, suffering can be faced as part of life or as a way to prove one's faith. Fighting against cancer and dealing with the limitations imposed by treatment led many patients to take refuge in God, because they became aware of their own weakness and the fragility of human existence.

Regarding perception of losses, one study found that this evaluation mode was more present in people with multiple episodes of relapse, and associated it with more important depressive symptoms (Bigatti et al., 2012). This study identified the use of radical coping strategies to get around losses related to body image that intensified experienced suffering, with the cognitive reevaluation process as a starting point (loss of self). Use of a nun's habit and changing one's residence were strategies deployed to avoid giving explanations about the disease. Additionally, some participants felt that cancer was such an uncontrollable threat that, to overcome the perceived lack of resources, they adopted reversal self-affirmation styles, including changes in the dosage of medications and cancelation of medical procedures.

From the perspective of phenomenology, whose objective is elucidating the connections between the real and the imaginary, between experience and consciousness, the suffering experience cannot be *dichotomized*. To get a sense of *total suffering*, it is necessary to connect the parts, so it is possible to understand how they relate to one another in a whole (Svenaeus, 2014).

The identified movements toward transcendence and resilience corroborated results reported in studies that rejected the idea that suffering can be treated as a reductionist cause and effect relationship (Filhour, 2017; Mills et al., 2019; Svenaeus, 2014). When a person's suffering is judged in advance, the hypothesis that this experience has a negative meaning is made and, when searching for evidence to support the hypothesis, researchers borrow a method from empirical science that can pathologize suffering by turning it into a psychological symptom (Svenaeus, 2014).

Studies that have opted to address the phenomenon according to the principles of phenomenology have indicated deeper involvement, tackling it as a feeling and a state of mind. As such, suffering has positive and negative implications, including the way a person perceives and acts in the world, communicates, and values what is essential in existence. That does not mean that a person will receive a cancer diagnosis with satisfaction, but that this event can give rise to deep reflections that will enable them to change their priorities and the sense of their existence (Filhour, 2017; Mendonça, Pereira, Magnago, Silva, et al., 2020a; Svenaeus, 2014).

Regarding what affected the suffering experience, social, clinical, and cultural contexts stood out, expressed as the construct the contextual universe hidden behind the meanings. Chemotherapy modality, severity of the toxic effects, and therapeutic benefits, as well as conflicting relationships, cancer stigmas, and perception of the treatment, shaped meanings that were under constant transformation. Culture influenced this experience considerably, including beliefs about chemotherapy, myths about the causes of the disease, and coping attitudes. This led to modifications in social relationships and had a powerful effect on decisions about continuing or discontinuing chemotherapy. The latter was verified in cultures in which the treatment was perceived as a curse that equated it with a slow death or a fatal therapy.

Studies carried out in China and other Asian countries found that difficulty of sharing negative feelings with people close to them resulted in more suffering (Chen et al., 2016; Chou & Lu, 2019; Kakuta et al., 2015; Kanda et al., 2017; Liao et al., 2018; Nies et al., 2018). Likewise, men from Brazilian and German studies also reported greater difficulty expressing emotions (Mesquita et al., 2011; Stanze et al., 2019). Previous studies have indicated that, in situations of extreme grief, the fear of not being listened to, the unspeakable nature of the experience, and the fear of causing pain to other people can silence the request for help, increasing suffering (Moore et al., 2004; Smith, 1998). Heidegger et al. (1962) called this concern with other people fürsorge. The word is used to express, in daily routines, how a person gets ahead of the existence of other people, trying to take on their suffering. The philosopher analyzed extremes of concern, characterizing as "replacement" the state of anguish in which the being-there believes it is in possession of someone else's emotions: sometimes taking their place, at others nullifying itself. In Heideggerian thinking, when a person is trying to protect another from suffering, it is themselves they are trying to spare, because every evil that affects the other person causes damage to the first person and their world.

The stigma of death associated with cancer also contributed to the state of restraint of emotions, in which suffering is concealed to show signs of good physical health and emotional resistance. Paradoxically, if the communication of diagnoses makes people feel not accepted or like they are being seen as sick patients nearing death, there is also mitigation of suffering, because the situation allows the release of emotions during sharing of experience.

Among Syrian women, mastectomy assumed the meaning of death. Society's taboo against the diagnosis caused so much shame that it was dealt with through a reduction in social interactions. The perceived discrimination and the internalized stigmas were also factors associated with the severity of loneliness (Nizamli et al., 2011).

For Alasmawi et al. (2020), overcoming prejudice is an important step toward achieving relief of loneliness in people with stigmatized diseases. However, even if they can count on good support networks, people who feel "strange" can experience excruciating loneliness by anticipating the depreciation process, even if it does not occur. This makes them limit interaction opportunities out of fear of discrimination and shame about physical effects. According to Heidegger et al. (1962), the suffering originating in voluntary social isolation assumes a form of impersonality, which can be explained by excessive valorization of how other people may react and what they will think. Considering that life occurs in a world with other beings, loss of identity carried along with its loss of *being-there* in the open space of public opinion. For example, some patients were concerned about handfoot syndrome, that is, the fear of being considered "dirty," and mastectomized women worried about responding to people's curiosity.

In contrast to the higher level of suffering because of hair loss recorded in Latin and Asian women (Chou & Lu, 2019; Medeiros et al., 2019), Turkish women with breast cancer reported that losing a breast was the most destructive experience (Cebeci et al., 2012). In Turkish society, breasts are valued as the most important characteristic of women and, consequently, the surgical procedure to take them off makes them feel useless and less sexually attractive. Additionally, the different perceptions of Latin and Turkish women may be related to the fact that many women in traditional Turkish society wear kerchiefs on their heads as proof of faith, a common trait in the Muslim religion (Cebeci et al., 2012; Erol et al., 2012).

Regarding *pain of loss*, alterations in body image and loss of physical function, social roles, and autonomy in guiding their own life indicated that it is not, a priori, the extension, type, or severity of loss that determines a person's suffering, but how they perceive and reassess it. Feelings similar to those experienced about physical changes were reported in a study that examined the interpretation of suffering in a community in Tonga. Mental suffering was compared to an object that loses its form or has its contents damaged (Vaka et al., 2020).

Researchers deduced that the cultural dimension considerably affects patients' ability to reevaluate and cope. This was shown by the different meanings attributed to hair loss by Western and Muslim patients and by the strong restraint of emotions and intense suffering related to loss of cognitive capacities observed in Asian people. These results reinforced the findings by Vaka et al. (2020) about the importance of getting inside the cultural universe of patients to get closer to their definition of suffering and understand behaviors around the search for physical and mental health.

In Denmark, considered the least religious nation in the world, spirituality moved away from a belief in a higher power toward the courage to face life. Among the Xhosa, cancer was seen as a curse and a white people's disease. Stigmas related to chemotherapy and beliefs in supernatural forces motivated Africans to seek treatment with healers. Some even opted to replace chemotherapy with spiritual treatments. Wamwayi et al. (2019) showed that Australian health services offered to African mental health patients were culturally inadequate, a worrying fact given the intense flow of African immigrants and refugees into that country. The authors pointed out the need to formulate culturally sensitive policies, and to consider including interpreters, training teams, and alignment of spiritual care with patients' beliefs.

Progressive loss of control of bodily functions awoke fear of death and the worrisome feeling of physical "deterioration" of the body due to medications. This was evaluated when chemotherapy symptoms were mistaken for those of the disease. In contrast, when patients understood toxic effects as a sign of therapeutic efficacy, treatment symptoms were reevaluated with less suffering (perceived threat and actual threat).

Reduction in tumor load proved to be an important factor in the promotion of hope, especially because it made physical signs less intense. After multiple unsuccessful surgical resections, patients perceived intra-arterial chemotherapy as an opportunity to return to their life before cancer (Ekenberg et al., 2019). These beneficial results promoted relief of suffering and could nurture optimistic thoughts and allow reestablishment of physical capacities, leading to higher levels of independence and the resumption of routine and social activities. The construct movements toward transcendence and resilience confirmed that hope is a fundamental dimension of spirituality, capable of giving meaning to life, regulating suffering levels, and mobilizing patients toward transcendence.

Despite the clinical benefits of treatment, the thinness of the line between suffering and hope was a source of tension in patients. Sometimes, the participants nurtured unreal healing expectations, and sometimes they faced the disease progress with disappointment and hopelessness. Paradoxical feelings of believing in the future and fearing cancer relapse triggered intense anguish, showing that hope can coexist with concerns about an uncertain future. While some patients had hopes about continuing their treatment somehow, others prepared to interrupt it to enjoy their "lost" time. The power of these desires was influenced in a complex way by the effectiveness of chemotherapy and the severity of physical symptoms (Bergqvist & Strang, 2017; Buiting et al., 2013; Kakuta et al., 2015; Liao et al., 2018; Ríos-Quezada & Cruzat-Mandich, 2015). The dilemma about continuing or discontinuing antineoplastic therapy is called choice suffering. The difficult decision to engage in treatments whose effects patients cannot tolerate or accept was identified in studies that examined non-oncological contexts (Fulford, 2008).

In some cultures, the decision to continue palliative chemotherapy prevailed, regardless of quality of life and level of adverse effects. In Japan and China, the physical incapacities resulting from peripheral neuropathy were difficult to tolerate. However, the desire to live proved more intense than pain and suffering, which reinforced the thesis that Japanese people strongly believe that actively fighting against cancer until the last moment confers a dignified death (Hirai et al., 2006).

# 4.1 | Limitations

Lack of information on the theoretical stance of the authors and its possible influence on the interpretation of the results limited the methodological quality of some selected studies (Beusterien et al., 2013; Cheung et al., 2012; Soares et al., 2019). Many of them did not explore negative cases, that is, those that did not fall into the

categories/themes found (such as Beusterien et al., 2013; Cheung et al., 2012; Guerrero et al., 2011; Nissim et al., 2013; Romeiro et al., 2016; Soares et al., 2019). The exclusion of research reports published in languages other than those considered in the inclusion criteria may have precluded the capture of the suffering experienced in isolated cultures and those more distant from the West. Additionally, it could be that articles published in journals with more limited reach and those that were not indexed in the main databases were not retrieved.

#### 5 | CONCLUSION

Qualitative evidence shows a diverse, yet dynamic, set of factors that affect the suffering experience. This confirmed that the phenomenon is continuously reinterpreted and that the experience with chemotherapy is a universe of possibilities in which patients keep reevaluating their objects of loss, creating meanings, and choosing strategies to regain their sense of control. The meta-ethnographic approach shows that suffering experiences in the same cultural context are similar. The authors believe that collectivity influences individuals, and that gender and power relationships, myths, and stigmas are relatively stable dimensions of suffering in the same cultural universe.

The Heideggerian framework and the stress, appraisal, and coping theory contributed by providing important findings, suitable for guiding clinical practice in infusion centers that deliver care to immigrants. Different from previous studies, this meta-ethnography described the suffering experience, a culturally nuanced phenomenon, in countries with ethnic and linguistic differences, covering people with several types of cancer who are submitted to different chemotherapy modalities and administration routes.

With these results, it is possible to infer that culturally sensitive evaluation must be integrated into nursing care and, for that, patients should be heard regarding the cultural and existential meanings of their experience. Different perceptions of treatment suggested that supporting patients requires finding out about their personal values and what really makes them suffer, which requires more than just intuitive skills. Philosophical research methods provide robust elements to explore the complexity of hidden experience, the meaning of threatening events, and reasons that guide actions in the world of life. This is more than probing for biomedical causes of suffering in an attempt to eliminate it. It involves respect for the deeper ontological aspects that confront the sufferer, the meaning of life, and the value of experience. It does not mean waiving compassion or the necessity of helping others; but it does mean understanding that in suffering, the human also recognizes its place in the world.

Although regretting what has been lost may seem as worthless as feeling guilt itself, such reflection has the power to transform frustration into resilience – a learning experience that arises from suffering. Contradictory as it may seem, the loss of important things can add value to the few things remaining. As important as restoring what has been lost is to make patients aware that choices, however small, will define overcoming chapters. Thus, it is essential that nurses foster

resilience, reinforce the new acquired values, and commit themselves to the spiritual growth of their patients.

#### RELEVANCE TO CLINICAL PRACTICE

With the increase in migratory movement around the world, nurses must develop technical competencies that will help them identify the influence of cultural components on the perception of suffering. Stigmas and personal beliefs related to this phenomenon could be intervention targets, especially those that affect choice about continuing or discontinuing chemotherapy. Counseling which includes clear explanations about the process of carcinogenesis, chemotherapy cycles, and use of spiritual therapies, in culturally appropriate ways, as complementary to treatment, can improve adherence and prevent early interruption of therapy. Nurses should also be encouraged to frequently monitor patients' suffering, paying attention to times in the trajectory of the illness when hope is at a low, such as the beginning of treatment, before receiving test results, changes in chemotherapy protocols, disease recurrence, and sudden increases in drug toxicity.

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#### **CONFLICT OF INTEREST**

The authors declare there are no conflicts of interest.

# **AUTHOR CONTRIBUTIONS**

Study design: Angelo Braga Mendonça, Eliane Ramos Pereira. Data collection: Angelo Braga Mendonça, Angelica Yolanda Bueno Bejarano Vale Medeiros. Data analysis and interpretation: Angelo Braga Mendonça, Eliane Ramos Pereira, Carinne Magnago, Angelica Yolanda Bueno Bejarano Vale Medeiros, Karina Cardoso Meira. Discussion of the results: Angelo Braga Mendonça, Carinne Magnago, Rose Mary Costa Rosa Andrade Silva, Adriana de Oliveira Martins, Karina Cardoso Meira. Writing and/or critical review of the content: Angelo Braga Mendonça, Carinne Magnago, Adriana de Oliveira Martins. Review and final approval of the final version: Angelo Braga Mendonça, Eliane Ramos Pereira, Carinne Magnago, Rose Mary Costa Rosa Andrade Silva.

# **DATA AVAILABILITY STATEMENT**

The data that supports the findings of this study are available in the supplementary material of this article

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#### **REFERENCES**

- Abdel-Ghany, S. L., Ahmed, B. O., Hassanein, S. M., & Eswi, A. S. Z. (2019). Lived experiences of Egyptian women with breast cancer receiving chemotherapy. *Indian Journal of Public Health Research & Development*, 10, 678–682.
- Alasmawi, K., Mann, F., Lewis, G., White, S., Mezey, G., & Lloyd-Evans, B. (2020). To what extent does severity of loneliness vary among different mental health diagnostic groups: A cross-sectional study. *International Journal of Mental Health Nursing*, 29(5), 921–934.
- Albrecht, T. A., Keim-Malpass, J., Boyiadzis, M., & Rosenzweig, M. (2019). Psychosocial experiences of young adults diagnosed with acute leukemia during hospitalization for induction chemotherapy treatment. *Journal of Hospice & Palliative Nursing*, 21(2), 167–173.
- Alharbi, J., Jackson, D., & Usher, K. (2020). Personal characteristics, coping strategies, and resilience impact on compassion fatigue in critical care nurses: A cross-sectional study. Nursing & Health Sciences, 22(1), 20–27.
- Aromataris, E., & Munn, Z. (2020). JBI manual for evidence synthesis. *JBI*. 33–38. https://doi.org/10.46658/JBIMES-20-01
- Barry, C. A., Britten, N., Barber, N., Bradley, C., & Stevenson, F. (1999).
  Using reflexivity to optimize teamwork in qualitative research. Qualitative Health Research, 9(1), 26–44.
- Bergqvist, J., & Strang, P. (2017). The will to live breast cancer patients perceptions' of palliative chemotherapy. *Acta Oncologica*, *56*(9), 1168–1174.
- Bergqvist, J., & Strang, P. (2019). Breast cancer patients' preferences for truth versus hope are dynamic and change during late lines of palliative chemotherapy. *Journal of Pain and Symptom Management*, 57(4), 746–752.
- Best, M., Aldridge, L., Butow, P., Olver, I., & Webster, F. (2015). Conceptual analysis of suffering in cancer: A systematic review. *Psycho-Oncology*, 24(9), 977–986.
- Beusterien, K., Tsay, S., Gholizadeh, S., & Su, Y. (2013). Real-world experience with colorectal cancer chemotherapies: Patient web forum analysis. *Ecancer*, 7, 361.
- Bigatti, S. M., Steiner, J. L., & Miller, K. D. (2012). Cognitive appraisals, coping and depressive symptoms in breast cancer patients. Stress and Health: Journal of The International Society for the Investigation of Stress, 28(5), 355-361.
- Boucher, N. A., Johnson, K. S., & LeBlanc, T. W. (2018). Acute leukemia patients' needs: Qualitative findings and opportunities for early palliative care. *Journal of Pain and Symptom Management*, 55(2), 433–439.
- Brandl, A., Katou, S., Pallauf, A., Pratschke, J., Rau, B., & Goerling, U. (2019). Psycho-oncological distress in patients with peritoneal surface malignancies treated with cytoreductive surgery and hyperthermic intraperitoneal chemotherapy. *European Surgery*, 51, 315–324.
- Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M., & Pill, R. (2002). Using meta ethnography to synthesise qualitative research: A worked example. *Journal of Health Services Research & Policy*, 7(4), 209-215.
- Buetto, L. S., & Zago, M. M. (2015). Meanings of quality of life held by patients with colorectal cancer in the context of chemotherapy. *Revista Latino-Americana de Enfermagem*, 23(3), 427–434.
- Buiting, H. M., Terpstra, W., Dalhuisen, F., Gunnink-Boonstra, N., Sonke, G. S., & den Hartogh, G. (2013). The facilitating role of chemotherapy in the palliative phase of cancer: Qualitative interviews with advanced cancer patients. PLoS One, 8(11), e77959.
- Cassell, E. J. (1999). Diagnosing suffering: A perspective. Annals of Internal Medicine, 131(7), 531–534.
- Cebeci, F., Yangın, H. B., & Tekeli, A. (2012). Life experiences of women with breast cancer in south western Turkey: A qualitative study. *European Journal of Oncology Nursing*, 16(4), 406–412.
- Chambers, S. K., Zajdlewicz, L., Youlden, D. R., Holland, J. C., & Dunn, J. (2014). The validity of the distress thermometer in prostate cancer populations. *Psycho-Oncology*, 23(2), 195–203.

- Chen, Y. C., Huang, H. M., Kao, C. C., Sun, C. K., Chiang, C. Y., & Sun, F. K. (2016). The psychological process of breast cancer patients receiving initial chemotherapy: Rising from the ashes. *Cancer Nursing*, 39(6), E36–E44.
- Cheung, Y. T., Shwe, M., Tan, Y. P., Fan, G., Ng, R., & Chan, A. (2012). Cognitive changes in multiethnic Asian breast cancer patients: A focus group study. *Annals of Oncology*, 23(10), 2547–2552.
- Chircop, D., & Scerri, J. (2017). Coping with non-Hodgkin's lymphoma: A qualitative study of patient perceptions and supportive care needs whilst undergoing chemotherapy. Supportive Care in Cancer, 25(8), 2429–2435.
- Chircop, D., & Scerri, J. (2018a). The lived experience of patients with non-Hodgkin's lymphoma undergoing chemotherapy. European Journal of Oncology Nursing, 35, 117–121.
- Chircop, D., & Scerri, J. (2018b). The use of metaphors in non-Hodgkin's lymphoma patients undergoing chemotherapy. *Journal of Advanced Nursing*, 74(11), 2622–2629.
- Chon, M. Y., Yeun, E. J., Jung, K. H., Jo, Y. I., & Lee, K. R. (2020). Perceptions of resilience in patients undergoing peritoneal dialysis: A Qmethodology study. Nursing & Health Sciences, 22(1), 108–117.
- Chou, J. F., & Lu, Y. (2019). Intraperitoneal chemotherapy: The lived experiences of taiwanese patients with ovarian cancer. Clinical Journal of Oncology Nursing, 23(6), E100–E106.
- Creswell, J. (1998). Qualitative inquiry and research design: Choosing among five traditions. Sage.
- Critical Appraisal Skills Programme (2018). CASP qualitative studies checklist. https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf. Accessed February 15, 2020.
- Cutillo, A., O'Hea, E., Person, S., Lessard, D., Harralson, T., & Boudreaux, E. (2017). The distress thermometer: Cutoff points and clinical use. Oncology Nursing Forum, 44(3), 329–336.
- de Kruif, A. J., Chrifou, R., Langeslag, G. L., Sondaal, A. E. C., Franssen, M. M. M., Kampman, E., Winkels, R. M., de Boer, M. R., Visser, M., & Westerman, M. J. (2020). Perceptions of non-Western immigrant women on having breast cancer and their experiences with treatment-related changes in body weight and lifestyle: A qualitative study. PLoS One, 15(7), e0235662.
- Duggal, D., Sacks-Zimmerman, A., & Liberta, T. (2016). The impact of hope and resilience on multiple factors in neurosurgical patients. *Cureus*, 8 (10), e849.
- Edwards, S. D. (2003). Three concepts of suffering. *Medicine, Health Care, and Philosophy*, 6(1), 59–66.
- Ekenberg, M., Wesslau, H., Olofsson Bagge, R., & Engström, M. (2019).Patient experiences with isolated limb perfusion for malignant melanoma A qualitative study. European Journal of Oncology Nursing, 43, 101672.
- El Kheir, D., & Ibrahim, A. (2019). Epidemiological assessment of distress during chemotherapy: Who is affected? *Journal of Taibah University Medical Sciences*, 14(5), 448–453.
- Erol, O., Can, G., & Aydıner, A. (2012). Effects of alopecia on body image and quality of life of Turkish cancer women with or without headscarf. *Supportive Care in Cancer*, 20, 2349–2356.
- Filhour, L. D. (2017). The lived experience of suffering of males after blunt trauma: A phenomenological study. *Journal of Trauma Nursing*, 24(3), 193–202
- Finfgeld-Connett, D. (2010). Generalizability and transferability of metasynthesis research findings. *Journal of Advanced Nursing*, 66(2), 246–254
- Finlayson, C. S., Fu, M. R., Squires, A., Applebaum, A., Van Cleave, J., O'Cearbhaill, R., & DeRosa, A. P. (2019). The experience of being aware of disease status in women with recurrent ovarian cancer: A phenomenological study. *Journal of Palliative Medicine*, 22(4), 377–384.
- Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology*, 46(4), 839–852.

- Folkman, S. (2010). Stress, coping, and hope. *Psycho-Oncology*, 19(9), 901–908.
- France, E. F., Uny, I., Ring, N., Turley, R. L., Maxwell, M., Duncan, E. A., Jepson, R. G., Roberts, R. J., & Noyes, J. (2019). A methodological systematic review of meta-ethnography conduct to articulate the complex analytical phases. BMC Medical Research Methodology, 19(1), 35.
- Franks, H. M., & Roesch, S. C. (2006). Appraisals and coping in people living with cancer: A meta-analysis. *Psycho-Oncology*, 15(12), 1027–1037.
- Fujimoto, T., & Okamura, H. (2021). The influence of coping types on post-traumatic growth in patients with primary breast cancer. *Japanese Journal of Clinical Oncology*, 51(1), 85–91.
- Fulford, K. W. (2008). Values-based practice: A new partner to evidencebased practice and a first for psychiatry? *Mens Sana Monographs*, 6(1), 10–21.
- Ghodraty-Jabloo, V., Alibhai, S., Breunis, H., & Puts, M. (2016). Keep your mind off negative things: Coping with long-term effects of acute myeloid leukemia (AML). Supportive Care in Cancer, 24(5), 2035–2045.
- Ginter, A. C. (2020). "The day you lose your hope is the day you start to die": Quality of life measured by young women with metastatic breast cancer. *Journal of Psychosocial Oncology*, 38(4), 418–434.
- Gómez, C. E. P., Garcia-Sánchez, L. V., & Enríquez, J. I. (2011). Experiencias de vida en mujeres con cáncer de mama en quimioterapia. Revista Colombiana de Psiquiatría, 40, 65–84.
- Granek, L., & Nakash, O. (2020). Prevalence and risk factors for suicidality in cancer patients and oncology healthcare professionals' strategies in identifying suicide risk in cancer patients. Current Opinion in Supportive and Palliative Care, 14(3), 239–246.
- Granek, L., Nakash, O., Ariad, S., Shapira, S., & Ben-David, M. A. (2020). The role of culture/ethnicity in communicating with cancer patients about mental health distress and suicidality. *Culture Medicine and Psychiatry*, 44(2), 214–229.
- Guerrero, G. P., Zago, M. M., Sawada, N. O., & Pinto, M. H. (2011). Relationship between spirituality and cancer: Patient's perspective. Revista Brasileira de Enfermagem, 64(1), 53–59.
- Hannes, K., & Macaitis, K. (2012). A move to more systematic and transparent approaches in qualitative evidence synthesis: Update on a review of published papers. *Qualitative Research*, 12(4), 402–442.
- Heidegger, M., Macquarrie, J., & Robinson, E. (1962). Being and time. Blackwell.
- Hirai, K., Miyashita, M., Morita, T., Sanjo, M., & Uchitomi, Y. (2006). Good death in Japanese cancer care: A qualitative study. *Journal of Pain and Symptom Management*, 31(2), 140–147.
- Iddrisu, M., Aziato, L., & Dedey, F. (2020). Psychological and physical effects of breast cancer diagnosis and treatment on young Ghanaian women: A qualitative study. BMC Psychiatry, 20(1), 353.
- Kakuta, M., Kakikawa, F., & Chida, M. (2015). Concerns of patients undergoing palliative chemotherapy for end-stage carcinomatous peritonitis. The American Journal of Hospice & Palliative Care, 32(8), 810–816.
- Kanda, K., Fujimoto, K., & Kyota, A. (2017). Emotional responses to persistent chemotherapy-induced peripheral neuropathy experienced by patients with colorectal cancer in Japan. Asia-Pacific Journal of Oncology Nursing, 4(3), 233–240.
- Kern de Castro, E., Peloso, F., Vital, L., Bittencourt Romeiro, F., Moro Gutiérrez, L., & González Fernández-Conde, M. (2018). Cancer disclosure: A cross-cultural research Brazil-Spain. *Psicooncología*, 15(1), 119–132.
- Kim, G. M., Kim, S. J., Song, S. K., Kim, H. R., Kang, B. D., Noh, S. H., Chung, H. C., Kim, K. R., & Rha, S. Y. (2017). Prevalence and prognostic implications of psychological distress in patients with gastric cancer. BMC Cancer, 17(1), 283.
- Kim, S., Park, S., & Kim, G.-U. (2021). Association of depression, pain, resilience, social support with post-traumatic stress in sexual abuse: A quantile regression approach. Nursing & Health Sciences, 22(4), 1 Advance online publication.

- Kioko, P. M., & Requena Meana, P. (2020). The nature of suffering and its relief: A proposal for a redefinition. BMJ Supportive & Palliative Care, 10(1), e1.
- Komatsu, H., Yagasaki, K., Hirata, K., & Hamamoto, Y. (2019). Unmet needs of cancer patients with chemotherapy-related hand-foot syndrome and targeted therapy-related hand-foot skin reaction: A qualitative study. European Journal of Oncology Nursing, 38, 65–69.
- Lazarus, R. S., & Folkman, S. (1986). Cognitive theories of stress and the issue of circularity. In M. H. Appley & R. Trumbull (Eds.), *Dynamics of stress*. The Plenum series on stress and coping (pp. 63–80). Springer.
- Liao, Y. C., Liao, W. Y., Sun, J. L., Ko, J. C., & Yu, C. J. (2018). Psychological distress and coping strategies among women with incurable lung cancer: A qualitative study. Supportive Care in Cancer, 26(3), 989–996.
- Lourens, M. (2013). An exploration of Xhosa speaking patients' understanding of cancer treatment and its influence on their treatment experience. *Journal of Psychosocial Oncology*, 31(1), 103–121.
- Lu, D., Andrae, B., Valdimarsdóttir, U., Sundström, K., Fall, K., Sparén, P., & Fang, F. (2019). Psychological distress is associated with cancerspecific mortality among patients with cervical cancer. *Cancer Research*, 79(15), 3965–3972.
- Maree, J. E., & Mulonda, J. (2015). "My experience has been a terrible one, something I could not run away from": Zambian women's experiences of advanced breast cancer. *International Journal of Africa Nursing Sciences*, 3, 24–30.
- Martin, M. L., Halling, K., Eek, D., & Reaney, M. (2020). "Lower abdominal pains, as if I was being squeezed...in a clamp": A qualitative analysis of symptoms, patient-perceived side effects and impacts of ovarian cancer. The Patient - Patient-Centered Outcomes Research, 13(2), 189–200.
- Martinez Tyson, D. D., Jacobsen, P., & Meade, C. D. (2016). Understanding the stress management needs and preferences of Latinas undergoing chemotherapy. *Journal of Cancer Education*, 31(4), 633–639.
- McMullen, M., Lau, P., Taylor, S., McTigue, J., Cook, A., Bamblett, M., Hasani, A., & Johnson, C. E. (2018). Factors associated with psychological distress amongst outpatient chemotherapy patients: An analysis of depression, anxiety and stress using the DASS-21. Applied Nursing Research. 40, 45–50.
- Medeiros, M. B., Silva, R., Pereira, E. R., Melo, S., Joaquim, F. L., Santos, B., & Goés, T. (2019). Perception of women with breast cancer undergoing chemotherapy: A comprehensive analysis. *Revista Brasileira* de Enfermagem, 72(suppl 3), 103–110.
- Mendonça, A. B., Pereira, E. R., Magnago, C., Silva, R. M. C. R. A., Martins, A. O., & Leão, D. C. M. R. (2020a). Suffering among patients with cancer undergoing neurotoxic chemotherapy: A phenomenological approach. Texto & Contexto - Enfermagem, 29, e20190285. https:// doi.org/10.1590/1980-265x-tce-2019-0285
- Mendonça, A. B., Pereira, E. R., Magnago, C., Silva, R. M. C. R. A., Meira, K. C., & de Martins, A. O. (2020b). Distress and the religious and spiritual coping of Brazilians living with cancer: A cross-sectional study. European Journal of Oncology Nursing, 48, 101825.
- Mesquita, M. G., Moreira, M. C., & Maliski, S. L. (2011). "But I'm (became) different": Cancer generates reprioritizations in masculine identity. *Cancer Nursing*, 34(2), 150–157.
- Mills, A. C., Poogpan, J., Wong-Anuchit, C., & Rujkorakarn, D. (2019). The meaning of acceptance (Thum-jai) in Thai people: Letting it go...so life goes on. *International Journal of Mental Health Nursing*, 28(4), 879–887.
- Moore, R. J., Chamberlain, R. M., & Khuri, F. R. (2004). Communicating suffering in primary stage head and neck cancer. European Journal of Cancer Care, 13(1), 53–64.
- Morse, J. M. (2000). Determining sample size. *Qualitative Health Research*, 10, 3–5.
- Nies, Y. H., Ali, A. M., Abdullah, N., Islahudin, F., & Shah, N. M. (2018). A qualitative study among breast cancer patients on chemotherapy: Experiences and side-effects. *Patient Preference and Adherence*, 12, 1955–1964.

- Nissim, R., Zimmermann, C., Minden, M., Rydall, A., Yuen, D., Mischitelle, A., Gagliese, L., Schimmer, A., & Rodin, G. (2013). Abducted by the illness: A qualitative study of traumatic stress in individuals with acute leukemia. *Leukemia Research*, 37(5), 496–502.
- Nizamli, F., Anoosheh, M., & Mohammadi, E. (2011). Experiences of Syrian women with breast cancer regarding chemotherapy: A qualitative study. *Nursing & Health Sciences*, 13(4), 481–487.
- Noblit, G., & Hare, R. (1988). Meta-ethnography: Synthesising qualitative studies. Sage.
- Noorisanchooli, H., Rahnam, M., Haghighi, M. J., Hashemi, S. A., & Younesbarani, Z. (2018). The familial experiences of women with breast cancer referring to chemotherapy clinic: A qualitative study. Clinical Cancer Investigation Journal, 7(6), 210–216 https://www.ccijonline.org/text.asp?2018/7/6/210/250406
- Onwuegbuzie, A. J. (2003). Effect sizes in qualitative research: A prolegomenon. *Quality & Quantity*, *37*, 393–409.
- Orkaizagirre-Gómara, A., Sánchez De Miguel, M., Ortiz de Elguea, J., & Ortiz de Elguea, A. (2020). Testing general self-efficacy, perceived competence, resilience, and stress among nursing students: An integrator evaluation. Nursing & Health Sciences, 22(3), 529–538.
- Palacios-Espinosa, X., & Zani, B. (2014). Representaciones sociales del cáncer y de la quimioterapia en pacientes oncológicos. *Diversitas:* Perspectivas em Psicologia, 10(2), 207–223 (see: https://revistas. usantotomas.edu.co/index.php/diversitas/article/view/2062
- Penalba, V., Deshields, T. L., & Klinkenberg, D. (2019). Gaps in communication between cancer patients and healthcare providers: Symptom distress and patients' intentions to disclose. Supportive Care in Cancer, 27 (6), 2039–2047.
- Rajeshwari, A., Revathi, R., Prasad, N., & Michelle, N. (2020). Assessment of distress among patients and primary caregivers: Findings from a chemotherapy outpatient unit. *Indian Journal of Palliative Care*, 26(1), 42–46.
- Ríos-Quezada, M. J., & Cruzat-Mandich, C. (2015). Perception and meanings related with the quality of life in hemato-oncology patients. *Revista Chilena de Neuro-psiquiatría*, 53(4), 261–268.
- Romeiro, F. B., Peuker, A. C., Bianchini, D., & Castro, E. K. (2016). Chemotherapy patient perception regarding communication with the healthcare staff. *Psicooncología*, 13, 139–150.
- Rudzinski, K., McDonough, P., Gartner, R., & Strike, C. (2017). Is there room for resilience? A scoping review and critique of substance use literature and its utilization of the concept of resilience. Substance Abuse Treatment, Prevention, and Policy, 12, 41.
- Sandelowski, M. (2007). From metasynthesis to method: Appraising the qualitative research synthesis report. In C. Webb & B. Roe (Eds.), Reviewing research evidence for nursing practice: Systematic reviews (pp. 88–111). Blackwell.
- Seibaek, L., Hounsgaard, L., & Hvidt, N. C. (2013). Secular, spiritual, and religious existential concerns of women with ovarian cancer during final diagnostics and start of treatment. Evidence-based Complementary and Alternative Medicine: Ecam, 2013, 765419.
- Seiler, A., & Jenewein, J. (2019). Resilience in cancer patients. Frontiers in Psychiatry, 10, 208.
- Smith, B. A. (1998). The problem drinker's lived experience of suffering: An exploration using hermeneutic phenomenology. *Journal of Advanced Nursing*, 27(1), 213–222.
- Soares, T. A., Oliveira, L. R., Bracarence, C. F., Costa, N. S., Moraes-Souza, H., & Contim, D. (2019). Intrathecal chemotherapy: Perceptions and meanings attributed by patients with hematological cancer. *Revista Enfermagem UERJ*, 27, e44294 https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/44294/33079
- Stanze, H., Schneider, N., Nauck, F., & Marx, G. (2019). "I can't get it into my head that I have cancer..."-A qualitative interview study on needs of patients with lung cancer. *PLoS One*, *14*(5), e0216778.

- Suwankhong, D., & Liamputtong, P. (2018). Physical and emotional experiences of chemotherapy: A qualitative study among women with breast cancer in Southern Thailand. *Asian Pacific Journal of Cancer Prevention*, 19(2), 521–528.
- Svenaeus, F. (2014). The phenomenology of suffering in medicine and bioethics. *Theoretical Medicine and Bioethics*, 35(6), 407–420.
- Tamura, S., Suzuki, K., Ito, Y., & Fukawa, A. (2021). Factors related to the resilience and mental health of adult cancer patients: A systematic review. Supportive Care in Cancer. Advance online publication. https://doi.org/10.1007/s00520-020-05943-7
- Thapa, S., Sun, H., Pokhrel, G., Wang, B., Dahal, S., & Yu, S. (2020). Performance of distress thermometer and associated factors of psychological distress among Chinese cancer patients. *Journal of Oncology*, 2020, 3293589.
- Thornton, L. M., Levin, A. O., Dorfman, C. S., Godiwala, N., Heitzmann, C., & Andersen, B. L. (2014). Emotions and social relationships for breast and gynecologic patients: A qualitative study of coping with recurrence. *Psycho-Oncology*, 23(4), 382–389.
- Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. BMC Medical Research Methodology, 12, 181.
- van Hooft, S. (1998). Suffering and the goals of medicine. *Medicine, Health Care, and Philosophy*, 1, 125–131.
- Vaka, S., Neville, S., & Holroyd, E. (2020). An ethnic interpretation of mental distress from the perspective of Tongan men and community leaders. *International Journal of Mental Health Nursing*, 29(5), 953–961.
- Vartolomei, L., Vartolomei, M. D., & Shariat, S. F. (2020). Bladder cancer: Depression, anxiety, and suicidality among the highest-risk oncology patients. European Urology Focus, 6(6), 1158–1161.
- Villarreal-Garza, C., López-Martínez, E. A., Martínez-Cannon, B. A., Platas, A., Castro-Sánchez, A., Miaja, M., Mohar, A., Monroy, A., Águila, C., & Gálvez-Hernández, C. L. (2019). Medical and information needs among young women with breast cancer in Mexico. *European Journal of Cancer Care*, 28(4), e13040.
- Wakiuchi, J., Marcon, S. S., Oliveira, D. C., & Sales, C. A. (2019a). Chemotherapy under the perspective of the person with cancer: A structural analysis. Texto & Contexto Enfermagem, 28, e20180025.
- Wakiuchi, J., Marcon, S. S., Oliveira, D. C., & Sales, C. A. (2019b). Rebuilding subjectivity from the experience of cancer and its treatment. Revista Brasileira de Enfermagem, 72(1), 125–133.
- Wamwayi, M. O., Cope, V., & Murray, M. (2019). Service gaps related to culturally appropriate mental health care for African immigrants. *International Journal of Mental Health Nursing*, 28(5), 1110–1118.
- Wen, Q., Shao, Z., Zhang, P., Zhu, T., Li, D., & Wang, S. (2017). Mental distress, quality of life and social support in recurrent ovarian cancer patients during active chemotherapy. European Journal of Obstetrics, Gynecology, and Reproductive Biology, 216, 85–91.
- Yılmaz Karabulutlu, E., Yaralı, S., & Karaman, S. (2019). Evaluation of Distress and Religious Coping Among Cancer Patients in Turkey. *Journal of Religion and Health*, 58(3), 881–890.

# SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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