

## Psychological Resilience and Breast Cancer: An Integrative Review

Maria Fernanda de Matos Maluf<sup>1</sup> and Lincon Jo Mori<sup>2</sup>

<sup>1</sup>Fluminense Federal University, Niterói, Brazil

<sup>2</sup>Syrian Lebanese Hospital, São Paulo, Brazil

Correspondence should be addressed to Maria Fernanda de Matos Maluf, *Fluminense Federal University, Niterói, Brazil*

Received: August 31, 2024; Accepted: September 16, 2024; Published: September 25, 2024

### **ABSTRACT**

Breast cancer is the second cancer among women in Brazil, with 66,280 new cases in 2022 and an estimated 72,000 new cases by 2025, according to data from the Brazilian National Institute of Cancer. On the other hand, there are a few studies of psychological resilience in Brazilian women with breast cancer. This study aimed to investigate the psychological resilience process in breast cancer patients. An integrative review was conducted using databases such as PubMed, the Virtual Health Library (BVS), and ScienceDirect. The search included articles published between 2019 and 2024 in Portuguese, English, and Spanish. The following mesh terms were included: psychological resilience and breast cancer. The selection and analysis of articles followed the PRISMA guidelines. Of the 319 articles first selected, 39 were used in the review. Of these, 14 included articles indicate that lack of support during breast cancer treatment can lead to adverse psychological consequences, thereby hindering resilience. The patients demonstrate high levels of anxiety, depression, decrease in self-esteem and self-concept, loss, or low fertility during the treatment in young women of childbearing age, which represents a significant concern for this population. For all breast cancer patients, the presence of external support, such as having family, friends, financial resources, and support to carry out the treatment, proves to be relevant in maintaining mental health, thus enabling positive resilience.

### **KEYWORDS**

Psychological resilience; Breast cancer; Women

### **INTRODUCTION**

In Brazil, 704,000 cancer cases are projected for the triennium from 2023 to 2025. Among women, breast cancer is one of the most prevalent malignancies, comprising 10.5% of cases, with an estimated incidence of 72,000 new cases by 2025, according to the National Cancer Institute (INCA) [1]. In 2022, the incidence of breast cancer among women was 66,280 new cases per

100,000 women, corresponding to an adjusted incidence rate of 43.74 cases per 100,000 women [1].

In Iran, an estimated 6,160 new cases and 1,063 deaths are attributed to the disease each year [2]. In contrast, Sweden reports approximately 8,000 new cases annually [3]. Turkey exhibits a breast cancer incidence rate of 47.7 cases per 100,000 women [4].

**Citation:** Maria Fernanda de Matos Maluf, Psychological Resilience and Breast Cancer: An Integrative Review. *Int J Can Med* 7(3): 82-91.

Breast cancer prognosis is influenced by the stage at diagnosis and the tumor's characteristics. Early detection enhances the treatment's curative potential. However, in the presence of metastatic disease, treatment's main objectives are prolonging survival and improving quality of life (INCA, 2022) [5].

The breast cancer treatment process is lengthy and influenced by multiple factors, including the presence of a robust familial and social support system, the availability of comprehensive medical care encompassing all aspects of breast cancer treatment (access to a medical team addressing patient needs, medication for treatment continuity, socio-psychological support, etc.), personal religious beliefs, reintegration into daily activities<sup>6</sup>, and consistent self-care practices [2].

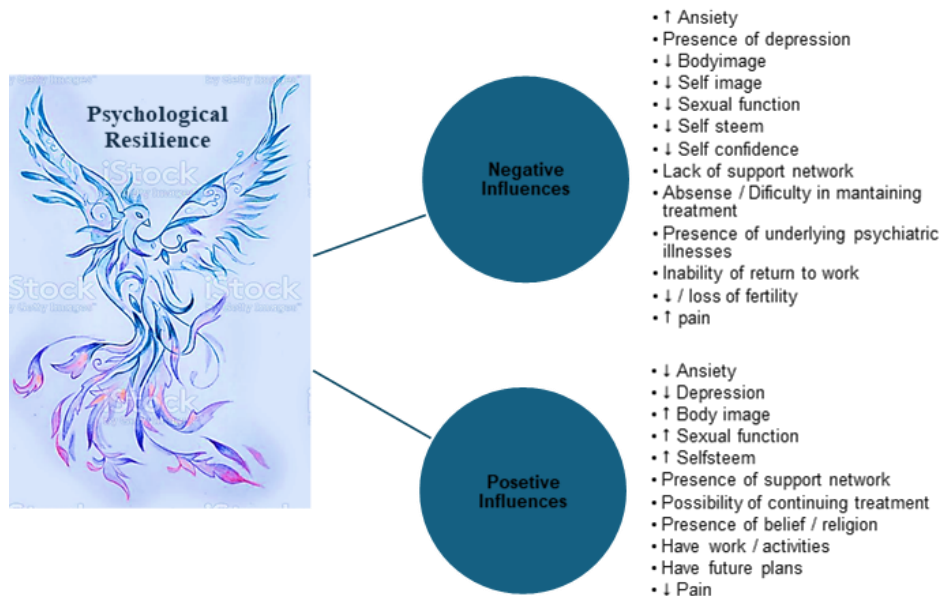
The existence of the support network mentioned above is beneficial for the resilience process to occur properly. Resilience assists women with breast cancer in preserving the quality of life (QOL) during treatment by promoting psychological flexibility and thereby enhancing problem-solving skills [2].

Resilience is defined as the capacity to face and respond positively to adversities and their potential negative outcomes, such as those encountered in breast cancer, which involve multimodal treatments (surgery, chemotherapy, radiotherapy, hormone therapy, etc.). These treatments can result in various psychological impacts on women, including self-image, self-esteem, and self-concept, leading to both psychological and psychiatric distress.

Resilience is an individual characteristic encompassing emotional strength, courage, and adaptability. It helps to mitigate the negative impact of the illness and supports the adjustment process, characterized by perseverance, maintaining life's purpose, and self-confidence [4-8].

Being resilient does not imply that the individual does not experience stress, discomfort, or lack of awareness of the adverse situation or the potential need to distance oneself from it [9].

Figure 1 summarizes the negative and positive influences on the psychological resilience of women with breast cancer.



**Figure 1:** Elements that promote positive or negative resilience.

Figure 1 illustrates the positive and negative elements that influence psychological resilience processes. Individuals diagnosed with breast cancer have a pre-existing psychological structure, which may be more or less altered by the diagnosis and treatment, along with existing socio-environmental factors.

Resilience in breast cancer patients can foster health-related behaviors and lead to an improved QoL.

One possible explanation is that resilience can mitigate negative emotions, such as distress and anger, thereby promoting health-related behaviors. These enhanced positive behaviors, in turn, contribute to an improved QoL [2].

Several factors can delay or hinder a patient's recovery from breast cancer treatment, potentially compromising their resilience (Table 1).

Barrier	Description
Lack of awareness	✓ Lack of awareness regarding the symptoms and signs of breast cancer delays seeking assistance.
	✓ Existing myths related to the causes of breast cancer continue to contribute to delays in treatment.
	✓ Existence of stigma regarding cancer: not telling family and friends about having breast cancer.
Biological / medical barriers: insensitivity of doctors, leading to late/incorrect diagnosis.	
	✓ Insensitivity of family doctors in referring the patient to hospital care.
	✓ Late/incorrect diagnosis: receiving confusing information, misdiagnosis
Physical barriers: inability to tolerate and control chemotherapy side effects (such as tiredness, fatigue, decreased energy levels), which hinder the performance of daily tasks.	
Social barriers: shortage of familiar and social support	
	✓ <u>Lack of familial / social support</u> : lack of support from spouse and children, fostering feelings of insecurity. Some patients express solitude and a desire to have relatives or someone to talk to when they are alone at home. Colleagues pity and non-acceptance after recovery.
Psychological barriers	✓ <u>Early stages</u> : causes anxiety, panic, and non-acceptance.
	✓ <u>During treatment</u> : incapability to discuss feelings, solitude, depression, and emotional alterations.
	✓ <u>Recovery stage</u> : fear of recurrence, concern, uncertainty, and avoidance, not wanting to remember the lived experience.
	✓ <u>Inability to discuss feelings</u> : due to fears of exacerbating existing tensions or becoming a burden, women often choose to avoid discussing their struggles with close family members. Sometimes they feel that their family members do not understand what they are going through.
	✓ <u>Emotional alterations</u> : some women experience mood changes, feelings of sadness, and aloneness, and may find themselves crying when alone.
	✓ <u>Fear and neediness</u> : occur in all patients with breast cancer.
	✓ <u>Concern and uncertainty</u> : women harbor concerns regarding the adverse effects of chemotherapy, cancer recurrence, and mortality.
	✓ <u>Avoidance</u> : women prefer to avoid discussing or thinking about what occurred (or is occurring) or recalling anything related to cancer.

**Table 1:** Barriers to resilience in breast cancer.

The presence of religiosity or faith is also significant in the resilience process of breast cancer patients, as studied by Al Eid et al. [11]. In the highly religious society of Saudi Arabia, the authors investigated the relationship between religion, resilience, and mental health in 329 breast cancer patients aged 26 years to 46 years, randomly selected using

a questionnaire that assesses the role of religion. Findings indicated that within the Muslim cultural context, religion was perceived as a mechanism for coping with health, playing an important role in preserving mental health alongside resilience.

A study conducted by Boskailo et al. [12] assessed 60 women with breast cancer, divided into two groups: those undergoing chemotherapy (n = 30) and those undergoing radiotherapy (n = 30). The participants completed a sociodemographic questionnaire developed by the authors, as well as the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF) and the Connor Davidson Resilience Scale (CD-RISC-25) to measure psychological resilience.

Women treated with radiotherapy exhibited statistically significant results in the QOL subscales of mental health, social relationships, and environment compared to individuals treated with chemotherapy. No statistically significant differences were observed in the other QOL domains or the resilience scale between radiotherapy and chemotherapy groups. Additionally, no statistically significant age differences were found between subjects based on treatment type, and no statistically significant correlations were detected between resilience level and QOL domain scores in women with breast cancer [12].

Furthermore, fertility is a concern reported by young breast cancer patients undergoing treatment. Carr et al. [13] explored the impact of cancer-related fertility concerns on existential distress and meaning-making in female breast cancer patients of childbearing age (mean age 37.9 years). The authors employed questionnaires to qualitatively assess participants' experiences and support needs.

For this study, 98 participants were recruited, mostly white (88.7%), married/cohabiting (78.5%), and with full-time employment (63.3%). During the cancer experience, over 50% of the participants expressed a need for support from an adviser or support group, 60.2% were seeking some form of help or treatment for anxiety, distress, or other emotional difficulties at the time, and 53.6% reported that these difficulties were "mainly related" or "completely related" to having had cancer [13].

Zhu et al. [13] explored the relationship between fertility concerns and resilience in young breast cancer patients. Their study involved 391 women aged between 20 years and 49 years who were aware of their breast cancer diagnosis. The majority of the participants (69%) had undergone radical mastectomy.

The authors observed that breast cancer patients of childbearing age, either childless or intending to have children, experienced higher fertility-related pressure that can strain their relationships and lead to marital crises. Higher levels of reproductive concern were observed in - patients under 35-years-old, with fewer children, lower household income, and unemployment [13].

It was also observed that self-disclosure was significantly associated with reproductive concerns. Cancer treatment can impair patients' fertility to some extent, leading to negative emotions such as worry, inferiority, and sadness [14].

Cerezo, Álvarez-Olmo, and Rueda [15] investigated the role of psychological mechanisms, specifically resilience, and well-being, in the psycho-oncological adjustment of 109 breast cancer patients aged between 31 years and 75 years, with 60.6% of the participants over 50-years-old, who completed questionnaires on general health, resilience, and well-being (life satisfaction and effect).

The authors found a correlation between resilience and overall health. Women with higher levels of positive affect reported better overall health, while those with lower overall health scores exhibited negative affect [15].

Health-related quality of life (HRQoL) is an individual's perception of their physical, psychological, and social well-being. It serves as a benchmark for evaluating the overall therapeutic effect of cancer treatment and patients' overall functional rehabilitation throughout their lives [3,6,9].

Mohin et al. [9] conducted a longitudinal study to investigate the relationship between HRQoL and resilience in the first year following a breast cancer diagnosis. The authors also investigated changes in resilience levels about demographic, clinicopathological, and treatment-specific characteristics in 418 Swedish women with primary breast cancer, aged between 31 and 69 years, of whom 81% were postmenopausal. The study population had clinicopathological characteristics similar to those of the Swedish population diagnosed with breast cancer during the same study period, September 2018 [9].

The findings showed that postmenopausal women (n = 325) had lower levels of resilience one year after diagnosis than premenopausal women (n = 74). In addition, higher levels of resilience were also observed in women with greater trust in treatment, satisfaction with treatment implementation, and a higher level of satisfaction with encounters between the team and the patient throughout the treatment process [9].

Univariate and multivariate regression analyses provided strong evidence of associations between resilience and all domains of HRQoL. One year after diagnosis, higher levels of resilience were observed to be associated with higher levels of HRQoL. This suggests that resilience is an important factor in maintaining HRQoL among women with breast cancer [9].

Velickovic et al. [3] conducted a longitudinal study to investigate changes in HRQoL from diagnosis to one-year post-diagnosis in breast cancer patients and the influence of clinical, psychological, and sociodemographic variables. The study also examined the mediating and moderating effects of resilience on changes in health-related QOL.

The study participants were newly diagnosed with breast cancer, aged between 31 and 89 years, and completed measures of health-related QOL, resilience, and

sociodemographic variables at diagnosis (n = 980) and one-year post-diagnosis (n = 780). Clinical variables were extracted from the Swedish National Quality Registry for Breast Cancer [3].

Participants completed the resilience, HRQoL, and sociodemographic measures electronically or on paper at diagnosis and again one year after diagnosis [3].

The type of treatment the patients received significantly impacted their HRQoL. Patients who underwent total mastectomy, chemotherapy, targeted therapy, and bisphosphonate therapy experienced a greater decline in HRQoL.

Furthermore, the most stressful period was the diagnosis, characterized by uncertainty and anticipation. The lowest score and the change in HRQoL are most likely indicative of the impact of the diagnostic process on patients' mental health. This underscores the need for individualized rehabilitation plans that address areas of daily functioning impairment, complementing medical treatment for breast cancer itself. The authors emphasize that even with improvements in mental HRQoL, this should not be neglected and should not be interpreted as an indication that psychosocial support is unnecessary [3].

Zhou et al. [6] evaluated predictors of HRQoL, including coping styles, perceived social support, and resilience, in 231 breast cancer patients aged between 25 and 78 years. The study indicated resilience as a significant mediator between confrontation/resignation (mean = 52.60), perceived social support (mean = 66.50), and coping styles such as confrontation (mean = 19.05), avoidance (mean = 16.96), and resignation (mean = 10.82), in health-related quality of life (HRQoL). This suggests that resilience plays a crucial role in amplifying the positive influences of confrontation and perceived social support, or mitigating the negative influences of resignation, on HRQoL [6].

The correlation analysis demonstrated that confrontation was associated with better perceived social support and resilience, and higher levels of perceived social support were linked to greater resilience.

Zhou et al. [6] investigated the mediating roles of perceived social support and coping style (CS) in the relationship between resilience and HRQoL in Chinese women newly diagnosed with breast cancer (n = 431). They observed that these women had low QoL, particularly in functional well-being, lower levels of resilience and perceived social support, and higher levels of avoidance and resignation in coping style. The patients' HRQoL was significantly influenced by resilience, perceived social support, and confrontational and resignation coping styles.

Soyer Er e Erkan [4] examined the association between psychological resilience, spiritual well-being, and supportive care needs in women with breast cancer. They found that resilience mediates the relationship between spiritual well-being and supportive care needs, contributing to a decrease in the latter. The authors also observed lower resilience, perceived social support, and a higher avoidant coping style.

Tomic et al. [16] conducted a descriptive cross-sectional analytical study to determine the levels of social support and resilience in breast cancer patients. Moreover, they also investigated the effects of predictors on social support levels and whether resilience was a mediator between patients' sociodemographic and clinical characteristics and social support levels. Serbian women with breast cancer (n = 236) were assessed using the PSS. The majority were over 65 years old (65.7%) and had completed primary school education (55.1%). About half (50.8%) were unemployed, and 61% lived in urban areas. Additionally, 71.2% reported having a partner, and 50.8% classified their socioeconomic level as average. The majority of treatments were completed in the last 3 years (64.4%), and half of

them reported no stress in the last year. Combined treatment, including local and systemic methods, was administered to 67.8% of the study participants. Almost half of the participants (49.2% vs. 45.8%) experienced mild pain and fatigue.

## **METHOD**

This integrative literature review utilized the Mesh Terms "psychological resilience AND breast cancer" and "resilience AND breast cancer". It included articles published in English from 2019 to 2024 in the PubMed, Virtual Health Library (BVS), and ScienceDirect databases, using the Boolean operator AND to combine the search terms.

“An integrative review synthesizes and evaluates current knowledge of a topic to provide new insights therein. An integrative review enables the synthesis of knowledge from across research approaches in a fragmented field” [17].

An integrative review expands and diversifies knowledge on a topic by integrating knowledge from across the areas of practice that study it, and how, and why the topic has been studied in each area. The integrative review borrows techniques from other knowledge-synthesis vehicles: it collects and evaluates studies (systematic review), describes the landscape of research on a topic (narrative review), evaluates study conclusions regarding specific constructs (meta-analysis), and determines implications for how and why a topic should be studied (theory) moving forward. The representation and knowledge synthesis across different types of practice, however, change the way these common processes are executed. (Cronin e George, 2023, p.169). [17].

The review included cross-sectional and longitudinal studies with open access to the databases, which dealt exclusively with the topic of psychological resilience in

women with breast cancer, published in English and Portuguese in full text.

Furthermore, articles were excluded if they did not return the designated search terms, were letters to the editor, lacked abstracts, or were duplicates within databases. The review also excluded articles focused on Covid-19, without open access, validating research instruments, or exploring psychometric properties of questionnaires. Studies on other cancer types, existing literature reviews (integrative, systematic, bibliometric), and any results outside the research topic were also excluded.

The research, conducted on January 4, 2024, identified a total of 319 records. This study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-

Analyses (PRISMA) guidelines for reporting systematic reviews.

Following the database search, a screening based on titles was conducted to identify articles that contained the terms "breast cancer" and "psychological resilience" (resilience) and met the inclusion criteria. As a result, this process yielded 38 articles, of which 9 were duplicates and 15 were not open access, leaving 14 eligible articles for full-text review. All 14 eligible articles were included in the final analysis.

## RESULTS

A total of 14 articles were included in this study. These articles were selected from an initial pool of 319 identified through a PRISMA-compliant analysis (Figure 2).

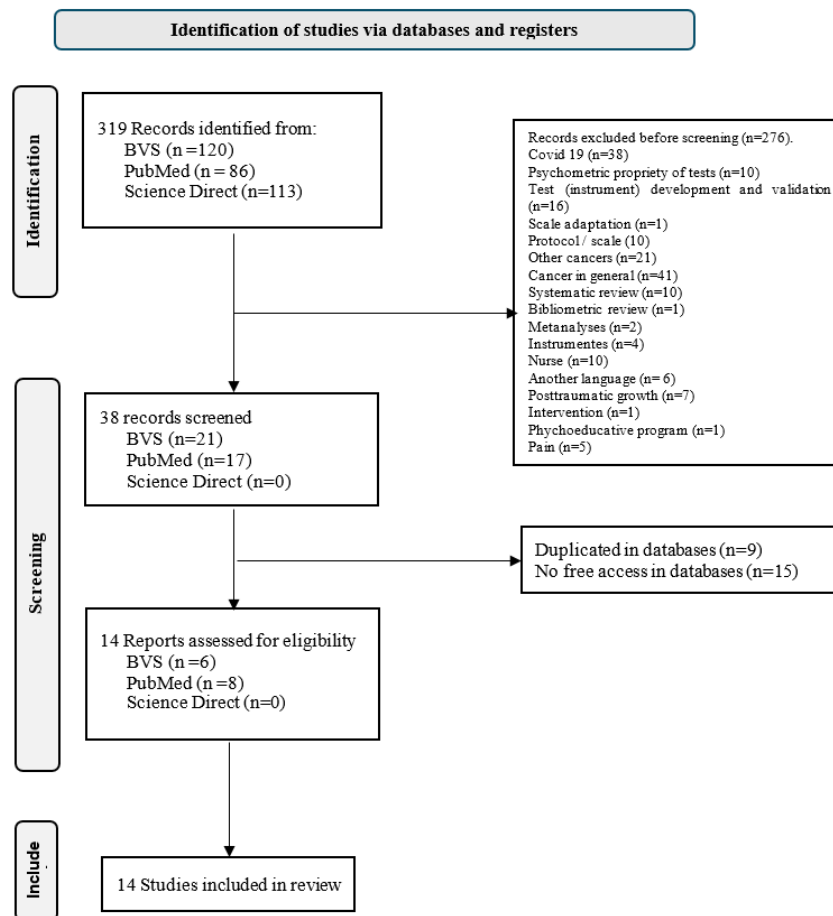


Figure 2: Study selection.

The articles included in the study are listed in Table 2.

Author	Date	Country	Type of study
Abdollahi et al. [2]	2022	Iran	Cross-sectional study
Veličković et al. [3]	2022	Sweden	Longitudinal study
Soyer Er and Erkan [4]	2023	Türkiye	Cross-sectional study
Zhou et al. [6]	2022	China	Cross-sectional study
Reis, Panobiano, Geadim [7]	2019	Brazil	Cross-sectional study
Mohlin et al. [8]	2021	Switzerland	Longitudinal study
Walton et al. [9]	2023	India	Cross-sectional study
Al Eid et al. [10]	2020	Saudi Arabia	Cross-sectional study
Boskailo et al. [11]	2021	Bosnia	Cross-sectional study
Carr et al. [12]	2022	USA	Cross-sectional study
Zhu et al. [13]	2023	China	Cross-sectional study
Cerezo et al. [14]	2022	Spain	Cross-sectional study
Zhou, Ning, Wang e Li [15]	2022	China	Cross-sectional study.
Tomić et al. [16]	2023	Serbia	Cross-sectional study.

**Table 2:** Articles selected for use.

The majority of the included studies (86.41%) were cross-sectional, with only two longitudinal studies (14.28%) [3,8]. All studies (both cross-sectional and longitudinal) 2-14 employed a 95% confidence interval (CI).

Analysis of publication dates revealed that 2022 was the year with the highest number of studies (n = 6, 42.85%), followed by 2023 with four publications (28.57%), two publications in 2021 (14.28%), while 2020 and 2019 each contributed with one study (7.14%, respectively).

One year following a breast cancer diagnosis, resilience exhibits a positive association with HRQoL [8]. Another component of HRQoL is physical health, which decreases one year after the diagnosis, while mental health-related QOL improves [3].

In contrast to findings from other studies, Boskailo et al.'s [11] investigation did not reveal a significant association between resilience levels and QOL in breast cancer patients, even though the self-care mechanism is implied in the relationship between resilience and QOL.

At the time of diagnosis, conducting a biopsychosocial assessment can help identify women in need of additional support. This assessment can facilitate the development of a multidimensional treatment plan that assists patients in

overcoming daily challenges<sup>3</sup> and enhancing the positive influences of resilience on their HRQoL [6]. Psychoeducational interventions should be prioritized to reduce reproductive concerns [13].

Women who have had cancer need resilience to face the challenges posed by society, alongside the support of their families [7], and the need to incorporate spirituality in their lives, as it can positively enhance their resilience [10].

Regarding the fertility of breast cancer patients of childbearing age, Carr et al. [12] emphasize the need for the development of psychological interventions to support and assist these women in addressing their existential distress, which arises from the potential impact of cancer treatment on their fertility.

Psychological resilience plays a crucial role in reducing the support needs of breast cancer patients, positively impacting their well-being and spirituality [4].

Therefore, healthcare professionals need to assess the resilience needs of breast cancer survivors and provide high-quality oncological care through individualized evaluation of each patient [9].



## **DISCUSSION**

This study aimed to investigate the process of psychological resilience in women with breast cancer through an integrative literature review, using the Prisma guideline for the selection and evaluation of the articles included.

Therefore, an analysis of 14 articles revealed that a strong social support network, including healthcare providers, friends, and family is positively associated with psychological resilience. Additionally, the absence of pre-existing mental health conditions, such as anxiety and depression, and good HRQoL emerged as contributing factors

The findings indicate the importance of the multidisciplinary team in acknowledging patients' need to process the experience and providing support when resilience mechanisms are not functioning effectively.

Younger women in their reproductive years may face a more challenging resilience process due to social pressure to have children. Conversely, older women may exhibit better psychological resilience as a result of having already established their families [12,13].

In addition to the previously discussed findings, the main contribution of a literature review is to consolidate knowledge and understanding of a particular topic, starting with its definition. In this case, resilience is defined as the ability to face and respond positively to adversities and their potential negative outcomes [8]. This concept applies to breast cancer [9], which involves surgery, chemotherapy, radiotherapy, and hormone therapy. Each of these interventions can exert a significant impact on

women's psyche, affecting not only their self-image but also their self-esteem, self-concept, sexuality, and both psychological and psychiatric well-being.

The limitations of this study include the small and inconsistent volume of articles published on the topic of psychological resilience and breast cancer from 2019 to 2024, despite the initially large number of articles selected (n = 319). Moreover, another limitation is the scarcity of longitudinal studies, with only two identified compared to twelve cross-sectional studies.

In Brazil, as in other countries, cross-sectional studies are more common (12 in this review versus two longitudinal studies) due to the ease of carrying them out and the lower cost involved, for example. Therefore, further longitudinal studies are needed, such as the one currently being conducted by this author, which aims to evaluate the resilience process in women with breast cancer in Brazil over a year, with quarterly reassessments. This approach will enable a comprehensive understanding of the resilience trajectory of these patients from the time of diagnosis.

### **Acknowledgment**

Fabricio Saad reviewed the article and contributed to the development of the discussion section.

### ***Contribution***

MF conducted the literature review and wrote the article. LM reviewed the article and contributed to the development of the discussion section.

### ***Declaration of interests***

The authors have no conflict of interest to declare.

## **REFERENCES**

1. [National Cancer Institute \(INCA\) \(2022\) Estimativa: INCA estima 704 mil casos de câncer por ano no Brasil até 2025. National Cancer Institute.](#)

2. Abdollahi A, Panahipour H, Hosseinian S, Allen KA (2022) The effects of perceived stress on hope in women with breast cancer and the role of psychological hardiness. *Psycho-Oncology* 28.
3. Veličković K, Borrebaeck CAK, Bendahl PO, et al. (2022) One-year recovery from breast cancer: Importance of tumor and treatment-related factors, resilience, and sociodemographic factors for health-related quality of life. *Frontiers in Oncology* 12: 891850.
4. Soyer Er Ö, Erkan HN (2023) The mediating role of psychological resilience in the relationship between spiritual well-being and supportive care needs in women with breast cancer. *European Journal of Breast Health* 19(4): 297-303.
5. [National Cancer Institute \(INCA\) \(2022\) Tratamento: Tratamento do câncer de mama. National Cancer Institute.](#)
6. Zhou K, Ning F, Wang X, et al. (2022) Perceived social support and coping style as mediators between resilience and health-related quality of life in women newly diagnosed with breast cancer: A cross-sectional study. *BMC Women's Health* 22(1): 198.
7. Reis APL, Panobianco MS, Gradim CVC (2019) Enfrentamento de mulheres que vivenciaram o câncer de mama. *Revista de Enfermagem do Centro-Oeste Mineiro* 9: e2758.
8. Mohlin Å, Bendahl PO, Hegardt C, et al. (2021) Psychological resilience and health-related quality of life in 418 Swedish women with primary breast cancer: Results from a prospective longitudinal study. *Cancers* 13(9): 2233.
9. Walton M, Lee P (2023) Lived experience of adult female cancer survivors to discover common protective resilience factors to cope with cancer experience and to identify potential barriers to resilience. *Indian Journal of Palliative Care* 29(2): 186-194.
10. Al Eid NA, Alqahtani MM, Marwa K, et al. (2020) Religiosity, psychological resilience, and mental health among breast cancer patients in kingdom of Saudi Arabia. *Breast Cancer* 14: 1178223420903054.
11. Boškailo E, Franjić D, Jurić I, et al. (2021) Resilience and quality of life of patients with breast cancer. *Psychiatria Danubina* 33(Suppl 4): 572-579.
12. Carr AL, Roberts S, Bonnell LN, Kolva E (2022) Existential distress and meaning making among female breast cancer patients with cancer-related fertility concerns. *Palliative & Supportive Care* 196-204.
13. Zhu H, Tao L, Hu X, Jiang X (2023) Effects of self-disclosure and resilience on reproductive concern in patients of childbearing age with breast cancer: A cross-sectional survey study. *BMJ Open* 13(2): e068126.
14. Cerezo MV, Álvarez-Olmo A, Rueda P (2022) General health and resilience of breast cancer patients: The mediator role of affective well-being. *International Journal of Environmental Research and Public Health* 19(9): 5398.
15. Cronin MA, George E (2023) O porquê e como da revisão integrativa. *Métodos de Pesquisa Organizacional* 26(1): 168-192.