

REVIEW ARTICLE

Impact of breast cancer on the maternal/
parental role and dependent children: A scoping
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Abstract

Introduction: Breast cancer is rising among younger women, many of whom have dependent children.**Objective:** The purpose of this scoping review is to synthesize evidence on the dynamics and impacts of breast cancer on the maternal/parental role and the dependent children of affected women.**Method:** A review of 19 qualitative and quantitative studies from 2002 to 2023 was conducted using PubMed and Scopus, supplemented by Google Scholar searches, in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses-Extension for Scoping Reviews protocol. Included studies examined the maternal role and the experiences of dependent children.**Results:** Mothers with breast cancer experience increased anxiety and emotional burden. Children and adolescents exhibit emotional and behavioral reactions, with adolescents bearing a greater burden. Open communication and psychosocial support reduce distress. However, only a small proportion receives family-centered support.**Conclusion:** Breast cancer significantly affects both the patient and her family. This reinforces the need to strengthen psychosocial support services with a family-focused approach. Early assessment of psychological needs and integration of family-centered interventions in psycho-oncological care are essential for improving patients' emotional well-being and treatment outcomes.**Keywords:** Breast cancer; Parental role; Maternal role; Dependent children; Family-centered psychosocial interventions

1. Introduction

In recent years, there has been an increase in breast cancer cases in young women, raising particular concern about its impact on family life and their parenting role. A breast cancer diagnosis generates significant emotional and practical challenges for patients, their partners, and their dependent children.¹⁻⁵

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According to 2020 United States statistics, approximately 19–22% of the cancer cases were diagnosed among individuals between the ages of 21 and 55 years.⁶ Today, it is estimated that breast cancer in women aged ≤40 years is the second leading cause of cancer-related mortality.⁷ According to recent estimates from the Global Burden of Disease (GBD) study, breast cancer remains one of the leading causes of death worldwide. In 2020, GBD reported more than 2.3 million new cases and over 685,000 deaths worldwide, corresponding to more than 21 million disability-adjusted life years (DALYs).⁴ GBD 2021 analyses confirm an even higher burden, with more than 23 million DALYs attributed to breast cancer, highlighting an increasing trend from 2019.⁵ According to the latest data from the GBD 2021 study, DALYs lost from breast cancer within the 15–49 age group increased by approximately 66.8% from 1990 to 2021, indicating a significant increase in the burden of morbidity and mortality in this dynamic age range.⁸ Parents, children, and adolescents experience a substantial burden associated with maternal breast cancer.⁹

According to previous studies, mothers with breast cancer who have dependent children experience additional emotional burden compared to patients who do not have children.^{9–11} Patients with dependent children face a conflict as they attempt to balance their roles as mothers, patients, partners, and workers. The maternal/parental role, combined with experiencing and coping with the disease, can be highly distressing.^{9,11}

This scoping review aims to investigate the impact of maternal breast cancer on dependent children and the maternal/parental role, addressing an important gap in the contemporary international literature.

2. Literature search and screening methods

This scoping review examines the impact of breast cancer on the maternal/parental role and on their dependent children. Studies were selected based on subject relevance and scientific validity, in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)-Extension for Scoping Reviews (ScR) protocol. [Figure 1](#) shows the PRISMA 2020 flow diagram, and the PRISMA-ScR checklist is provided as supplementary material (Table A1). Articles were included if they addressed the impact of breast cancer on the maternal/parental role and dependent children. A total of 20 studies were included in this scoping review, both qualitative and quantitative.

2.1. Search strategy

The scoping review was conducted across three electronic databases: PubMed, Google Scholar, and Scopus, to ensure

comprehensive coverage. PubMed was used as the primary biomedical source, Scopus for its wide indexing and citation tracking, and Google Scholar for gray literature and potentially unindexed articles. The articles published from 2002 to 2023 were included in the study. This broad period was chosen to cover two main objectives: (i) to record the historical evolution of knowledge and technologies in the field from the early 2000s, offering a holistic perspective, and (ii) to collect and analyze the most recent and relevant studies, ensuring the completeness and timeliness of the review findings.

Initially, the title and abstract of each study were examined separately, and those unrelated to the review topic were rejected. Different search strategies were adapted for each database to account for their indexing systems and structures. Boolean operators (AND and OR) were used to combine search terms appropriately.

In PubMed, both Medical Subject Headings (MeSH) terms and free-text keywords were used: (“breast neoplasms”[MeSH] OR “breast cancer”) AND (“maternal role” OR “parenting”) AND (“children” OR “family”).

In Scopus, the “TITLE-ABS-KEY” field was searched using the following keywords: (“breast cancer” AND “parental role” AND “children”) OR (“family role” AND “cancer”).

In Google Scholar, a broader search approach was applied using free-text combinations, such as “breast cancer parenting impact,” “motherhood and cancer,” “effects of breast cancer on family role,” and “breast cancer and maternal identity.”

2.2. Inclusion and exclusion criteria

To ensure the relevance and quality of the evidence synthesized, specific inclusion and exclusion criteria were established for selecting studies for this scoping review.

The inclusion criteria were as follows: peer-reviewed full-text studies published from 2002 to 2023, written in English, involving human participants, and addressing the review objective. Eligible study designs included quantitative, qualitative, and systematic review studies.

Exclusion criteria included non-English publications, studies published before 2002, non-peer-reviewed sources, case reports, letters to the editor, editorials, narrative reviews, books or book chapters, conference abstracts without adequate data, and preliminary studies lacking final results.

We included systematic reviews because they summarize and compare multiple studies, providing comprehensive information on the phenomenon, which

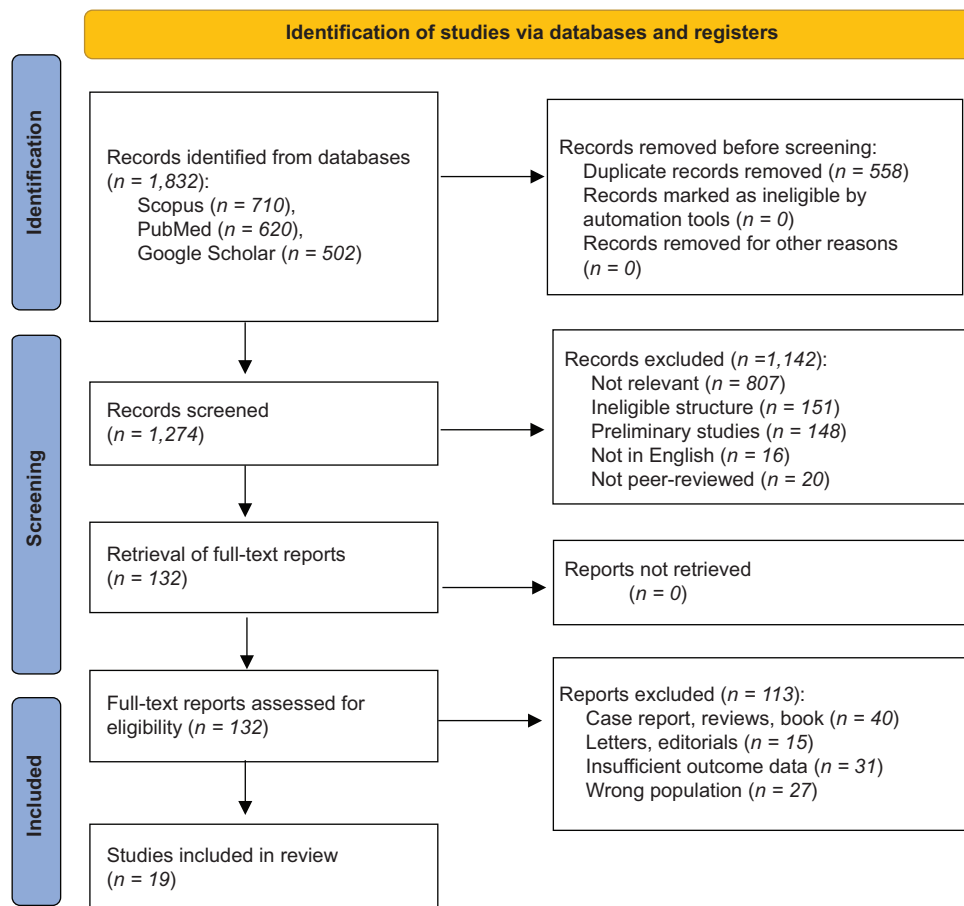


Figure 1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 flow diagram for scoping reviews (adapted from PRISMA 2020 statement)¹²

is crucial for a scoping review. In contrast, case studies were excluded due to low generalizability and a lack of systematic methodology. In addition, books, book chapters, and reviews were excluded, as they did not meet the criteria for scientific validity and are not peer-reviewed articles. A summary of the eligibility criteria is presented in [Table 1](#).

2.3. Study selection and quality assessment

Two authors (D.C. and M.A.) independently assessed the eligibility and quality of the studies based on scientific criteria, such as methodology clarity, adequacy of sample description, reliability of results, validity of data, and consistency of findings. In the event of disagreement, a third reviewer was consulted. Risk of bias and overall methodological quality were further evaluated by the same two reviewers using the Risk of Bias Tool for Cross-Sectoral Attitudes and Practices Surveys.

During the selection and analysis of the studies, the possibility of bias was examined with respect to the study participants' age, gender, and cultural background.

However, the majority of the studies that met the inclusion criteria involved mothers from Western countries, which may limit the generalizability of the results. The role of fathers and cross-cultural variations was rarely addressed in the literature.

3. Results

Of the 1832 articles identified, 19 were included in the current review. [Table 2](#) summarizes their key characteristics.

3.1. Data synthesis and main thematic sections of the scoping review and summary of its findings

The data were synthesized thematically, and the included studies were grouped into four key areas. A summary of the main findings from the scoping review is presented below:

- (i) Emotional impacts of mothers with breast cancer: Most studies indicated that breast cancer had a significant psychological impact on mothers with young children, although the severity of the impact varied depending on several factors, such as the support network, the age

Table 1. Study selection criteria

Inclusion/exclusion	Criteria
Inclusion	<p>Studies regarding the impact of breast cancer on maternal/paternal roles and dependent children that were published between 2002 and 2023</p> <p>Original quantitative, qualitative studies, and systematic reviews</p> <p>Peer-reviewed publications in English</p>
Exclusion	<p>Animal studies</p> <p>Case reports or small case series (due to low generalizability)</p> <p>Preliminary studies without complete results and non-peer-reviewed publications (e.g., theses, institutional reports, and proceedings)</p> <p>Ineligible structure (e.g., conference abstracts without sufficient data)</p> <p>Studies published before 2002</p> <p>Letters to the editor, reviews, books, book chapters, and special articles (as they are not necessarily peer-reviewed and lack systematic methodology)</p> <p>Non-English articles</p> <p>Non-full-text articles</p>

Table 2. Characteristics of included studies

Author/year	Country	Design	Main findings
Lally <i>et al.</i> (2020) ²	USA	Quantitative research	Need for support of child caregivers
John <i>et al.</i> (2013) ³	Germany	Quantitative research	Benefits of family rehabilitation
Hammersen <i>et al.</i> (2021) ⁹	Germany	Quantitative research	23% received family support
Barnes <i>et al.</i> (2002) ¹⁰	UK	Quantitative research	Communication barriers due to children's age
Ares <i>et al.</i> (2014) ¹¹	Canada	Quantitative research	Anxiety and fear of relapse in mothers
Inhestern and Bergelt (2018) ¹³	Germany	Qualitative research	Increased stress and need for communication
Tavares <i>et al.</i> (2018) ¹⁴	Portugal	Systematic review	Emotional burden and coping strategies
Xu <i>et al.</i> (2021) ¹⁵	China	Quantitative research	Adjusting maternal role
Bultmann <i>et al.</i> (2014) ¹⁶	Germany	Quantitative research	Lack of interventions in children
Wan <i>et al.</i> (2018) ¹⁷	Canada	Quantitative research	Psychological burden and maternal identity
Asbury <i>et al.</i> (2014) ¹⁸	UK	Quantitative research	Difficulty communicating with children
Stefanou <i>et al.</i> (2020) ¹⁹	Greece	Systematic review	Emotional and behavioral impacts
Altun <i>et al.</i> (2019) ²⁰	Turkey	Quantitative research	Emotional problems in school-age children
Visser <i>et al.</i> (2004) ²¹	Netherlands	Systematic review	Impact on the entire family system
Charos <i>et al.</i> (2023) ²²	Greece	Systematic review	Need for family support
Vannatta <i>et al.</i> (2008) ²³	USA	Quantitative research	Reduced social interaction
Huang <i>et al.</i> (2020) ²⁴	China	Quantitative research	Important role of fathers and grandparents
Watson <i>et al.</i> (2006) ²⁵	UK	Quantitative research	Problems related to family dysfunction
Ernst <i>et al.</i> (2013) ²⁶	Germany	Quantitative research	73% requested support for children

of the children, and the stage of the disease. Mothers experienced increased anxiety, fear of recurrence, and uncertainty about their children's future.^{9,11,13,14,16-18} Other studies reported that mothers attempted to hide their emotions so as not to burden their children, thereby leading to feelings of guilt.^{13,14,18}

- (ii) Effects of the disease on parenting and maternal roles: Most research highlighted challenges in fulfilling the

maternal/parental role, such as a reduction in time spent caring for their children due to fatigue^{13,14,16,19} and limited physical contact with their children resulting from post-operative discomfort after mastectomy.¹⁴ However, some studies suggested that adjusting parenting style and maintaining honest communication could strengthen the parent-child relationship.¹³⁻¹⁵ In addition, significant barriers to

mothers' communication with their children were documented, mainly related to the children's age.¹⁰

- (iii) The impact of the disease on both childhood and adolescence: Children reacted differently depending on age, gender, and family environment. Younger children often developed heightened attachment to the mother, as well as phobias and sleep disorders.^{19,20,22} Boys appeared to be more socially sensitive compared to their peers.²³ Adolescents were more prone to anxiety, depression, and behavioral problems, as they were more aware of the severity of the disease.^{3,11,21} However, some children adapted by developing resilience and taking on more responsibilities at home.^{2,13,25} While some studies highlighted the negative psychosocial consequences, others underscored the potential for children to develop coping mechanisms, especially when there was open communication within the family.^{13,18,24}
- (iv) Psychosocial support: Only a minority of patients with dependent children received family-centered support (23%).⁹ Interventions aimed at strengthening communication within the family were found to reduce stress for both parents and children,^{18,26} and most mothers expressed a need for counseling support.^{18,14} Despite the positive effect of family and child-centered psychosocial support in reducing the impact of the disease, access to such interventions remained limited.^{3,9,16,20,22,26} Health professionals were encouraged to pay particular attention to younger patients with children,¹⁶ to be assessed early for levels of stress and emotional distress,¹⁹ as these individuals demonstrated a greater need for support.¹⁷

3.2. Analysis of the results of the scoping review

3.2.1. Effect of breast cancer on the maternal/parental role and on mothers

A qualitative study involving 29 mothers with breast cancer showed that breast cancer affected the maternal/parental role. Almost all participants reported changes in their daily lives, 18 out of 29 participants experienced feelings of guilt, and 26 participants experienced fear and anxiety about the emotional consequences of the disease on their children. Many mothers felt unable to adequately respond to their maternal/parental role, and their interaction time with their children was reduced. At the same time, they tried to conceal their fatigue and emotional distress from their children, believing they needed to remain unaffected by the illness and treatment side effects.¹³ Mothers reported reduced parenting efficacy and feelings of sadness, guilt, worry, and inadequacy in fulfilling their maternal/parental role.¹⁴ Following a mastectomy, mothers often avoided physical contact to prevent their children from noticing the surgical changes.¹⁴

A recent study investigated family interaction in breast cancer patients at younger ages of 18–45 and reported important findings.¹⁵ Mothers readjusted their parenting role and attitudes, enhancing effective communication to help the family overcome the crisis created by cancer. They also redefined the value of health and meaning in life, striving to increase mutual respect and strengthen family relationships.¹⁵

Mothers with younger children frequently experienced symptoms of anxiety and depression due to their concern about the effects of cancer on their children³ and the difficulty of mothers in fulfilling their role and balancing the demands of the illness with the needs of caring for their children.¹¹ Furthermore, they often expressed fear about their illness, guilt toward their children, ambivalence about their parental role, and concern for both their children's emotional state and the family's future. Family life is significantly affected as their children's daily activities and routines may change.^{9,13,16} Their partners took on additional roles as they take care of the patient, their children, their daily obligations, and their work obligations.¹³

Breast cancer patients who have dependent children have higher levels of anxiety and fear of disease recurrence, compared to women without children.¹¹ Cancer significantly affects patients' lives, especially their relationships with their partners. In addition, maternal age, time since diagnosis, and levels of parental stress significantly influence anxiety and fear of cancer recurrence.¹¹ An exploratory study of young breast cancer survivors raising children reported comparable findings. Cancer exacerbated emotional distress and fear of cancer recurrence, thereby negatively affecting quality of life and well-being.¹⁷

Parents were often reluctant to inform their children about the disease, believing that withholding information protected them and preserved family harmony. Open communication, externalizing the facts, informing children about the illness, and the quality of communication with parents significantly reduce children's anxiety levels. In this way, communication between families is also improved.^{10,14} Parents in this phase may benefit more from counseling to manage their illness than their children.¹⁴

A previous study concluded that mothers avoided communicating with their children about their illness before the final diagnosis, while other relatives and friends were contacted regularly. Hiding the reality took an emotional toll on them and their family.¹⁰ Older children were usually informed first, followed by younger ones, a process that placed additional stress on the family structure. Determinants of family communication barriers regarding illness are children's age and parents' educational level.¹⁰

A similar qualitative study revealed that parents' primary concern was to protect their children from sadness and other negative emotions, and they tried to achieve this by maintaining their normality using two main strategies: better information and emotion management.¹⁸ What is particularly important to mothers is open communication with their children. The factors influencing mothers' communication with their children are the child's personality, pre-existing family dynamics and their relationships, and individual information needs that differ by age and gender. Moreover, parents were considered the most appropriate individuals to inform their children about the illness due to their unique bond and deep understanding of their children.¹⁸

According to the review by Tavares *et al.*,¹⁴ mothers used various strategies to manage their disease and minimize the potential negative effects of breast cancer on their children. For example, focusing on positive experiences resulting from the illness, devoting more quality time, and increasing availability toward the children.¹⁴ Some parents use children's books and fairy tales to inform their children about their mother's illness.¹³

Regarding the father's role, some fathers experienced considerable distress and found it difficult to cope with the role of managing their wife's illness. Nevertheless, they concealed their concerns to appear strong for their families.¹³ In some cases, despite fathers' intention to take an active role in managing the situation, they appeared not to be fully aware of the children's distress and reported difficulty managing it.¹⁹

In another study, parents reported that emotional distress was significantly reduced through their interaction with their children. Their children were an important source of pleasure and happiness, and open communication with each other, as well as with the extended family, was an important source of emotional reserves.¹³ Mothers often express concerns about whether fathers can cope with the new circumstances. In such cases, an active paternal role provided satisfaction for mothers and simultaneously improved the father-child relationship. Subsequently, several children assumed new roles, focusing more on providing care and emotional support to their mothers, which further strengthened the mother-child relationship.¹⁴

3.2.2. Impact of maternal breast cancer on children and adolescents

For children and adolescents, their mother's cancer represents a traumatic event, potentially leading to psychological and behavioral problems, such as fear, anxiety, depression, social withdrawal, guilt, aggressive

behavior, poor performance at school, physical symptoms, and sleep disorders.^{19,20} Even the youngest child, who often showed excessive attachment to the mother, perceived breast cancer as life-threatening, responded with avoidance or emotional withdrawal, and showed signs of introversion.¹⁹

According to qualitative studies, adolescents with a mother diagnosed with breast cancer experience greater emotional challenges than their peers.²¹ In fact, the prevalence of emotional disorders was 3 times higher than in the general population.³ In a quantitative study by Ares *et al.*,¹¹ adolescents, in contrast to younger children, experienced more distress regarding their mother's disease. The additional responsibilities that arose for family members from the moment of diagnosis often triggered conflicts, especially among adolescents.¹¹

School-aged children often express loneliness and a lack of support; the school environment, as well as the extended family and social environments, are sources of support.^{21,22} Moreover, parents' supportive attitude may help the children.^{22,23} Children and adolescents also seek additional information and open communication from family members regarding their mother's disease.²

A recent qualitative study revealed that dependent children expressed a high need for support, either counseling or information about cancer and its effects on their mother.² The children felt that they lacked emotional support from their mother or family. The demands for emotional support increased due to anxiety and fear of loss. They described a close, supportive relationship with the family members before the illness, and the disease created a shield between them and their mothers, hindering the expression of emotions. They became more reserved, cautious, detached, and distant.² In addition, a change in family roles is observed, often accompanied by increased responsibilities for family members, decreased social activities, and a sudden loss of childhood for dependent children.^{19,20}

Children have varying reactions based on their character and personality, gender, stage of disease, side effects, and age. Several children withdraw and avoid talking about the illness, and others express numerous questions and concerns. The varying reactions include defiance, worry, anxiety, fear, and maturity. Children sense their parents' vulnerability and notice emotional changes and distress in their parents. In case, the mother is hospitalized, the anxiety and worry of their children increases.¹³

Similarly, a qualitative study revealed that breast cancer affected children emotionally, and the role of extended family, as well as those who are significant to the children, proved to be very important. Both the grandparents and

the children's father contributed significantly so that the children's daily life was not affected. It was important to explore the needs of children emerging from the impact of their mothers' disease with a view to addressing them.²⁴

In contrast, several studies showed that children were not severely affected by their mother's illness due to already existing factors, such as dysfunctional family relationships, weak parent-child relationships, low emotional response, insufficient family cohesion, excessive parental involvement, and increased maternal psychopathology.^{19,20} It was observed that some children were more vulnerable than others and that the above risk factors may influence this response. Children develop different ways of coping with their mother's illness. In some cases, children revise their attitudes and priorities and develop a more positive assessment of their life and existence. Several children improve their behavior and participate more actively in social and school activities.¹⁹

In addition, in a similar study by Watson *et al.*,²⁵ only a small percentage of school-age children whose mothers had recently been diagnosed with breast cancer experienced behavioral and emotional problems. These problems were primarily due to their mother's depression and dysfunctional family communication rather than being directly related to the illness itself. The risk of children's problems was associated with low levels of family cohesion, reduced emotional responsiveness, as well as parental overinvolvement. Adolescents primarily manifested barriers to intrafamily communication, which were associated with externalizing behavior problems.²⁵ Finally, children who were informed about their mother's illness showed lower levels of anxiety compared to those who were not aware of it.¹⁸

3.2.3. Psychosocial interventions/psychosocial support

The need for psychosocial support among families with a member suffering from cancer was elevated, as the levels of stress and anxiety affect the entire family and their social network.²² The researchers' remarks conclude that early psychosocial intervention of families and children whose mothers are suffering from breast cancer is deemed imperative.^{20,22} In this case, psychosocial intervention services should focus on the family.⁹ However, evidence indicates that comprehensive and targeted interventions are not provided to this vulnerable population, and very little evidence is available on the impact of mothers' cancer on children, as well as the maternal/parental role in the well-being of young breast cancer survivors.¹⁷

A study that investigated the impact of parental cancer on dependent children reported that only a small

proportion of children experienced elevated levels of stress and psychosocial problems that made them appropriate to receive psychosocial support.¹⁶

A study involving 561 breast cancer patients assessed the psychosocial needs of mothers with breast cancer and concluded that family-centered psychosocial support required further improvement.⁹ Only 23% of patients used psychosocial support services based on the family-centered model. The most frequent use of the mentioned services was made by patients who were without a partner, had more children, had dysfunctional relationships in the family, and had a high level of education.⁹

Furthermore, a study investigating factors associated with psychosocial support needs among children whose parents had cancer found that 73% of patients received psychosocial support for family and children.²⁶ Both family-centered and child-centered psychosocial interventions have been shown to improve the emotional well-being of children and their families.³ Similarly, interventions that focus on strengthening family communication are also reported to enhance emotional well-being.¹⁸

A retrospective study reported similar conclusions. Several mothers expressed concern regarding the impact of the illness on their children, and others expressed an interest in psychosocial support, with a small proportion receiving psychosocial support.¹⁴

Mothers diagnosed with breast cancer should be promptly assessed for stress levels, emotional distress, and need for counseling support. Regarding their children, encouraging support and participating in active groups that develop skills and support children's conditions is deemed necessary. Most importantly, adequate training and education for professionals who come into contact with women are required to inform patients about the role and availability of psychosocial interventions.¹⁹

Finally, there is insufficient evidence on the long-term effects of breast cancer on family dynamics and mother-child relationships. Further strengthening and improvement of psycho-oncology services and psychosocial interventions is imperative so that both women with breast cancer and their families are assessed and supported in time.^{14,22}

A schematic representation of the main thematic findings of the review is shown in [Figure 2](#).

4. Discussion

This scoping review highlighted the impact of breast cancer on mothers' parenting roles and on their children and adolescents, identifying the main challenges and adaptive strategies adopted by families facing the disease.

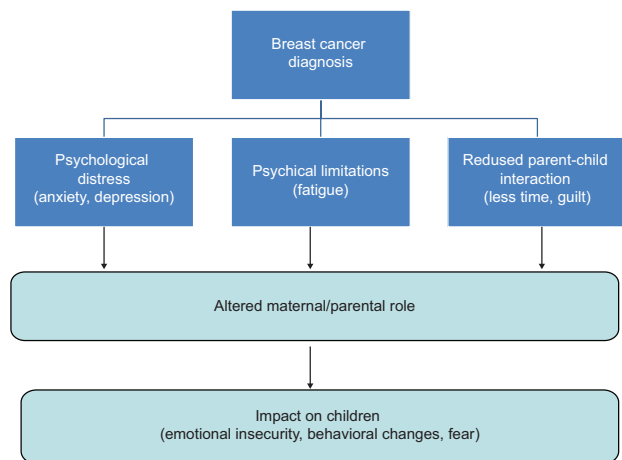


Figure 2. Schematic representation of the impact of breast cancer on the parental role and dependent children. Image created by the authors, adapted from the findings of the present scoping review.

4.1. Impact on the maternal/parental role

The reviewed studies indicate that mothers with dependent children experience a heavy emotional burden, such as anxiety, ambivalence, fear of disease recurrence, and reduced self-confidence in their parental role.^{9,13} Most mothers hide their emotions to protect their children.^{14,18} However, some mothers successfully readjusted their parental role, enhancing emotional communication with their children.¹⁵ Mothers who have a supportive family and social network showed reduced levels of anxiety and greater psychological adjustment,¹¹ in contrast to mothers without sufficient support.

4.2. Impact on children and adolescents

Children and adolescents whose mothers had breast cancer are more likely to develop emotional and behavioral problems. Children of breast cancer patients are affected depending on their age, personality, stage of the disease, gender, and family environment. Younger children typically exhibited fear, excessive attachment to the mother, emotional internalization, social withdrawal, and sleep disturbances.^{2,19,20,23} Adolescents, by contrast, experienced higher levels of anxiety and sadness, and family conflict as they became more aware of the disease's severity.^{11,21}

While several studies documented negative psychosocial impacts, others highlighted that children may develop resilience and emotional maturity, especially when the family provides open communication and support.²⁵ Children who are adequately informed about their mother's illness show lower levels of anxiety compared to those who are unaware.^{10,18}

4.3. The gaps and prospects in psychosocial support

Although psychosocial and family support are considered critical, only a small proportion of mothers with breast cancer received support.⁹ For families that express a need for support,¹⁸ interventions have been shown to be effective in reducing anxiety in both parents and children.^{3,26}

There is currently insufficient evidence on the long-term impact of maternal cancer on children. According to current evidence, comprehensive and targeted family-centered interventions are not provided to this vulnerable population. In particular, only 23% of patients utilized psychosocial support services based on the family-centered model, despite the beneficial psychological effects on the entire family.^{9,17}

Despite the effectiveness of psychosocial interventions, patients are not adequately informed about psycho-oncology and psychosocial support services and express unmet needs, such as managing their illness in relation to their children.^{9,18} Similarly, health professionals are often inadequately trained or informed about psychosocial interventions, including their role in early detection and referral to psycho-oncology services.¹⁹ The quality of life, especially of younger patients with children, is affected, and health professionals should be vigilant.¹⁶

Psychosocial support for both patients and their families is important.^{9,20,26,27} Health systems should strengthen psycho-oncology services and adapt their organizational structures to address the needs of families and dependent children. Young patients with breast cancer should be assessed early, to provide them with immediate access to psychosocial support services based on the family-centered model and to encourage emotional support for their children. In addition, health professionals across all oncology care settings should systematically assess and document the psychosocial needs of patients, their children, and their families. Family members of young patients should be regularly included in psycho-oncological care, and their psychosocial needs should be met. Furthermore, modern interventions, such as digital psychosocial support, can empower families and improve access to services.²⁸

In addition, health professionals and clinicians should be adequately trained and informed about the family-centered model, timely psychosocial care for young patients and their families, and the contribution of this care to the well-being of patients and their families. For this reason, oncological care should be based on a multidisciplinary approach, be organized and staffed, and include the family members in psycho-oncological care.

Therefore, we conclude that early psychosocial intervention for families and children affected by maternal breast cancer is effective. However, current mental health services for breast cancer patients require better organization and a stronger focus on the family-centered model of psychosocial support.

Finally, recent advances in targeted therapies, including the use of magnetic nanomaterials, are expected to improve treatment outcomes and significantly reduce side effects in breast cancer patients.^{29,30} These innovative therapies may substantially reduce patients' emotional distress, enhance overall well-being, and indirectly strengthen their parenting role.

4.4. Comparison with previous literature

This scoping review highlights the significant psychosocial impact of breast cancer on mothers with dependent children, as well as the effects on adolescents and the family system as a whole. The findings are consistent with those of other recent reviews that highlight the multiple roles of the mother (patient, parent, spouse, and worker) as a major source of psychological stress.^{5,22} This burden is intensified when there are dependent children, a finding that is also confirmed by the international literature.^{1,9,13,24}

Previous systematic reviews have shown that children of parents with cancer exhibit higher rates of anxiety, depressive symptomatology, and behavioral disorders.^{19,21,22} The results of this scoping review confirm these findings, however, highlighting that children's reactions vary significantly depending on age and the availability of a support network. In agreement with the observations of Watson *et al.*²⁵ and Huang *et al.*,²⁴ it was found that younger children mainly exhibit attachment and phobias, while adolescents show increased anxiety and disturbances in school and social functioning.

While several studies from Western countries highlighted the need for interventions involving the entire family,⁹ other studies from Asian countries have emphasized the crucial role of grandparents and the extended family system.^{15,24} This difference suggests the need to develop culturally sensitive interventions to ensure that psychosocial services are responsive to diverse social contexts.

Finally, contemporary psycho-oncology guidelines emphasize the integration of families into the care process. The results of the present review are in agreement with this approach, highlighting that only a small percentage of families actually receive family-centered support, despite the clear need. This finding highlights a significant gap between theory and practice that should be addressed through organizational and policy interventions in health systems.

5. Strengths, limitations, and future direction

This scoping review has certain limitations. One limitation concerns language: only English-language articles were included in this review. Studies written in other languages were excluded.

A second limitation is that the review did not follow the full methodological criteria of a systematic review or meta-analysis; nevertheless, it employed a systematic approach consistent with the PRISMA protocol. The purpose of this review was to focus on and highlight this specific issue, and the selection of studies was based on the relevance of the topic and the scientific validity of the studies. In the future, it would be beneficial to conduct more studies, either systematic reviews or meta-analyses, quantitative or qualitative, that highlight the psychosocial and psycho-oncological importance of family-centered interventions for patients with breast cancer.

The third limitation concerns the heterogeneity of the studies' variables, methodologies, and sample sizes. The fourth limitation was the lack of longitudinal data; most studies are cross-sectional and do not capture family adjustment over time. The fifth limitation is temporal: the review covered studies published up to 2023, so more recent research was not included. Future systematic reviews may incorporate these novel studies. In addition, there is a lack of research across different cultural contexts: most studies included were conducted in Western countries, limiting the generalizability of the findings. Finally, the lack of focus on fathers' needs is a gap in the literature that future studies could address through specialized interventions.

Despite these limitations, this review aimed to highlight the psychosocial consequences of breast cancer for young mothers, emphasizing its effects on their parenting role and on their young children. The review also aimed to identify factors that play an important role in the well-being of patients and their children.

Furthermore, the review provides the impetus for the design of new studies that monitor the psychosocial adjustment of the family in the long term, examines cross-cultural differences in the impact of breast cancer on maternal/parental role, and contributes to policy-making, the development and organization of specialized support structures for patients and their dependent children, and the improvement of the quality of psycho-oncology services with an emphasis on empirically documented family-centered psychosocial interventions.

Finally, this review offers valuable insights into the development of training programs for health professionals to support parents with cancer and the development of

digital interventions for the psychological support of children and mothers.

Future studies should further explore targeted family-centered psychosocial interventions, assess the long-term impact of maternal cancer on child development, and promote collaborative care models that integrate oncology, mental health, and social support services.

Specifically:

- Development and evaluation of psychosocial interventions specifically designed for mothers with breast cancer
- Support and enhancement of the parental role
- Individualized support programs based on the age of the children
- Qualitative and quantitative studies on how children experience maternal cancer
- Interventions that provide emotional support for children
- Integrating psychological support and family counseling into oncology care
- Studies in different sociocultural contexts to understand how the parental role is influenced by social structures and values
- Longitudinal studies to monitor mothers and children over time to understand the evolution of the parental role and the long-term psychosocial effects on children who live with a mother with cancer
- Development of e-health applications and teleconsultation for families with a mother with cancer.

Our findings are consistent with recent international guidelines that emphasize the need for integrated psychosocial care in oncology. The National Comprehensive Cancer Network Breast Cancer Guidelines (Version 4.2024) and Distress Management Guidelines (Version 2.2023) underline the importance of screening for psychosocial distress and providing supportive interventions.

6. Practice implications

This scoping review highlights important practical implications for clinical practice and psychosocial support for families with mothers with breast cancer:

- Many mothers report reduced confidence in their ability to fulfill their parental role. Psychosocial programs should include interventions to strengthen parental identity and self-efficacy, emotional adjustment, and stress management
- Studies show that many mothers have difficulty communicating with children about the disease. Health professionals should be trained to provide appropriate communication strategies, based on the age and developmental stage of the children

- Provision of holistic, family-centered care: Only a small percentage of women received systematic support for the family. Oncology centers should integrate family support into treatment protocols
- Inclusion of fathers and extended family: Some studies have highlighted the active role of fathers and grandparents in childcare, demonstrating the need for psychosocial interventions that involve the entire family.

7. Conclusion

This scoping review highlights the impact of breast cancer on both mothers and their dependent children. However, a supportive family network can be protective. Both patients and their dependent children need empowerment and enhanced psychological support. Therefore, it is necessary to organize individualized psychosocial interventions that incorporate the needs of both parents and children.

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Conflict of interest

The authors declare no conflict of interest.

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Availability of data

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References

1. Weaver KE, Rowland JH, Alfano CM, McNeel TS. Parental cancer and the family: A population-based estimate of the number of US cancer survivors residing with their minor children. *Cancer*. 2010;116(18):4395-4401.
doi: 10.1002/cncr.25368

2. Lally RM, Hydeman J, Brooks C, Akter H, Yoerg MT. Experiences and needs of African American children and adolescents in supportive care roles for a relative with breast cancer. *Oncol Nurs Forum*. 2020;47(2):165-176.
doi: 10.1188/20.ONF.165-176
3. John K, Becker K, Mattejat F. Impact of family-oriented rehabilitation and prevention: An inpatient program for mothers with breast cancer and their children. *Psychooncology*. 2013;22(12):2684-2692.
doi: 10.1002/pon.3329
4. GBD 2020 Breast Cancer Collaborators. Global burden of breast cancer in 204 countries and territories, 1990-2020. *Lancet Oncol*. 2021;22(11):1430-1441.
doi: 10.1016/S1470-2045(21)00456-7
5. Sha R, Kong XM, Li XY, Wang Y. Global burden of breast cancer and attributable risk factors in 204 countries and territories, from 1990 to 2021: Results from the global burden of disease study 2021. *Biomark Res*. 2024;12:87.
doi: 10.1186/s40364-024-00631-8
6. Sung H, Ferlay J, Siegel RL, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2021;71(3):209-249.
doi: 10.3322/caac.21660
7. Zhu JW, Charkhchi P, Adekunle S, Akbari MR. What is known about breast cancer in young women? *Cancers (Basel)*. 2023;15(7):1917.
doi: 10.3390/cancers15061917
8. Cai Y, Dai F, Ye Y, Qian J. The global burden of breast cancer among women of reproductive age: A comprehensive analysis. *Sci Rep*. 2025;15:9347.
doi: 10.1038/s41598-025-93883-9
9. Hammersen F, Pursche T, Fischer D, Katalinic A, Waldmann A. Psychosocial and family-centered support among breast cancer patients with dependent children. *Psychooncology*. 2021;30(3):361-368.
doi: 10.1002/pon.5585
10. Barnes J, Kroll L, Lee J, Burke O, Jones A, Stein A. Factors predicting communication about the diagnosis of maternal breast cancer to children. *J Psychosom Res*. 2002;52(4):209-214.
doi: 10.1016/S0022-3999(02)00296-9
11. Ares I, Lebel S, Bielajew C. The impact of motherhood on perceived stress, illness intrusiveness and fear of cancer recurrence in young breast cancer survivors over time. *Psychol Health*. 2014;29(6):651-670.
doi: 10.1080/08870446.2013.879136
12. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71.
doi: 10.1136/bmj.n71
13. Inhestern L, Bergelt C. When a mother has cancer: Strains and resources of affected families from the mother's and father's perspective-a qualitative study. *BMC Womens Health*. 2018;18(1):72.
doi: 10.1186/s12905-018-0562-8
14. Tavares R, Brandão T, Matos PM. Mothers with breast cancer: A mixed-method systematic review on the impact on the parent-child relationship. *Psychooncology*. 2018;27(2):367-375.
doi: 10.1002/pon.4443
15. Xu J, Wang X, Chen M, Shi Y, Hu Y. Family interaction among young Chinese breast cancer survivors. *BMC Fam Pract*. 2021;22:122.
doi: 10.1186/s12875-021-01476-y
16. Bultmann JC, Beierlein V, Romer G, Möller B, Koch U, Bergelt C. Parental cancer: Health-related quality of life and current psychosocial support needs of cancer survivors and their children. *Int J Cancer*. 2014;135(11):2668-2677.
doi: 10.1002/ijc.28904
17. Wan C, Ares I, Gareau A, Collins KA, Lebel S, Bielajew C. Motherhood and well-being in young breast cancer survivors. *Breast Cancer Manag*. 2018;7(1):31-43.
doi: 10.2217/bmt-2017-0015
18. Asbury N, Lalayiannis L, Walshe A. How do I tell the children? Women's experiences of sharing information about breast cancer diagnosis and treatment. *Eur J Oncol Nurs*. 2014;18(6):564-570.
doi: 10.1016/j.ejon.2014.04.006
19. Stefanou K, Zografos E, Zografos GC, Vaslamatzis G, Kolaitis G. Emotional and behavioural problems in children dealing with maternal breast cancer: A literature review. *Br J Guid Couns*. 2020;48(3):394-405.
doi: 10.1080/03069885.2018.1487530
20. Altun H, Kurtul N, Arici A, Yazar EM. Evaluation of emotional and behavioral problems in school-age children of patients with breast cancer. *Turk J Oncol*. 2019;34(1):12-20.
doi: 10.5505/tjo.2018.1824
21. Visser A, Huizinga GA, Van Der Graaf WTA, Hoekstra HJ, Hoekstra-Weebers JEHM. The impact of parental cancer on children and the family: A review of the literature. *Cancer Treat Rev*. 2004;30(8):683-694.
doi: 10.1016/j.ctrv.2004.05.007
22. Charos D, Andriopoulou M, Lykeridou K, Deltsidou A, Kolokotroni P, Vivilaki V. Psychological effects of breast cancer in women and their families: A systematic review. *World J Adv Res Rev*. 2023;18(2):1263-1279.
doi: 10.30574/wjarr.2023.18.2.1034

23. Vannatta K, Grollman JA, Noll RB, Gerhardt CA. Impact of maternal breast cancer on the peer interactions of children at school. *Psychooncology*. 2008;17(2):123-132.
doi: 10.1002/pon.1232
24. Huang X, Lee S, Hu Y, Gao H, O'Connor M. Chinese children's experience when the mother has breast cancer: Voices from mothers and children. *Cancer Nurs*. 2020;43(2):158-166.
doi: 10.1097/NCC.0000000000000695
25. Watson M, James-Roberts IS, Ashley S, *et al*. Factors associated with emotional and behavioural problems among school age children of breast cancer patients. *Br J Cancer*. 2006;94(1):43-50.
doi: 10.1038/sj.bjc.6602892
26. Ernst JC, Beierlein V, Romer G, Möller B, Koch U, Bergelt C. Use and need for psychosocial support in cancer patients: A population-based sample of patients with minor children. *Cancer*. 2013;119(12):2333-2341.
doi: 10.1002/cncr.28021
27. Charos D, Merluzzi TV, Kolokotroni P, Lykeridou K, Deltsidou A, Vivilaki V. Breast cancer and social relationship coping efficacy: Validation of the Greek version. *Women Health*. 2021;61(10):939-950.
doi: 10.1080/03630242.2021.1994101
28. Charos D, Andriopoulou M, Vivilaki V. The role of psychosocial support and digital psychosocial intervention in empowering breast cancer patients. *EC Psychol Psychiatry*. 2023;12(5):26-34.
29. Winkler R, Ciria M, Ahmad M, Plank H, Marcuello C. A review of the current state of magnetic force microscopy to unravel the magnetic properties of nanomaterials applied in biological systems and future directions for quantum technologies. *Nanomaterials (Basel)*. 2023;13(18):2585.
doi: 10.3390/nano13182585
30. Dongsar TT, Dongsar TS, Abourehab M, Gupta N, Kesharwani P. Emerging application of magnetic nanoparticles for breast cancer therapy. *Eur Polym J*. 2023;187:111898.
doi: 10.1016/j.eurpolymj.2023.111898

Appendix

Table A1. Preferred Reporting Items for Systematic Reviews and Meta-Analyses - Extension for Scoping Reviews checklist

Item	Checklist item	Reported on section and page
1	The title identifies the report as a scoping review	Title page, p. 1
2	Structured summary includes background, objectives, eligibility criteria, etc.	Abstract, p. 1
3	Rationale for the review	Introduction, p. 1
4	Objectives or questions addressed	Introduction, p. 1
5	Eligibility criteria for sources of evidence	Methods, p. 2
6	Information sources and search strategy	Methods, p. 2
7	Selection process for sources of evidence	Methods, p. 3
8	Data charting process	Methods, p. 3
9	Data items	Results, p. 3
10	Critical appraisal of individual sources	Methods, p. 2
11	Synthesis of results	Results, p. 3
12	Summary of evidence	Discussion, p. 7
13	Limitations of the scoping review	Limitations, p. 9
14	Conclusions and implications	Conclusion, p. 10
15	Funding	Funding statement, p. 10