







# What works in peer support for breast cancer survivors: A qualitative systematic review and meta-ethnography

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## Abstract

Breast cancer is associated with adverse physical and psychological consequences. Although research has identified the various benefits linked to psychosocial interventions, mixed results have been found in relation to peer support. The aim of the present systematic review and meta-ethnography is to explore the qualitative evidence on the experience of breast cancer survivors in peer support. A systematic search of the literature was conducted until June 2023, and a meta-ethnographic approach was used to synthesize the included papers. Eleven articles were included, collecting the experience of 345 participants. The following four core areas involved in peer support implementation were identified from the synthesis: Peer support can create understanding and a mutual therapeutic and emotional connection; peer support can facilitate an educational and supportive patient-centered journey; peer support should monitor group members for unpleasant emotional experiences; peer support should have professional supervision of recruitment and

Derek Clougher and Laura Ciria-Suarez contributed equally to this work.

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training to prioritize quality. These results can be used as patient-centered insights by healthcare professionals to provide evidence-informed peer support programs and address current limitations in the field.

### KEYWORDS

breast cancer, meta-ethnography, oncology, peer support, systematic review

## BACKGROUND

Breast cancer (BC) is the most prevalent cancer diagnosed in women globally with an estimated 2.3 million diagnoses and 685,000 deaths in 2020 (World Health Organization, 2021). A BC diagnosis may have significant impacts on physical, emotional, interpersonal, existential, and spiritual functioning (Benedict et al., 2022; Ochoa-Arnedo et al., 2020; Vila et al., 2020) in the diagnostic, treatment, and survivorship phases of the illness (Williams et al., 2018). Psychosocial treatment in oncology incorporates a diverse array of therapeutic approaches designed to help patients and their families adapt to diagnosis and treatment, manage treatment-related side effects, enhance adherence to treatment plans, and promote healthy behaviors (Benedict et al., 2022). Psychosocial interventions are non-pharmacological treatments that encompass a range of psychological and educational elements that include components, among others, from cognitive and behavioral coping strategies, cancer education/information sessions, existential therapy, relaxation training, and group social support (PDQ Supportive and Palliative Care Editorial Board, 2015). Research has demonstrated the efficacy of psychosocial interventions for BC patients (Faller et al., 2013; Fors et al., 2011) being proved to be effective in improving the quality of life of these patients (Mokhatri-Hesari & Montazeri, 2020). Nonetheless, only a minority of BC patients are screened and referred to psychosocial support services highlighting that many have unmet needs in terms of psychological care (Medina et al., 2022).

Peer support (PS), a process encompassed within the broader concept of group social support whereby individuals with the same illness meet to exchange information, share experiences, and provide mutual support and encouragement to face and overcome difficulties (Hu et al., 2019), is a unique form of support for BC patients to normalize the experience of BC. Conclusive remarks regarding the effects of PS in BC, however, have not been made because of conflicting results in the literature. In some studies, PS has shown promise in helping BC survivors (BCSS) manage difficult emotional experiences, improve quality of life, and increase adherence to treatment (Hu et al., 2019; Vilhauer et al., 2010). Conversely, further results have suggested that PS does not significantly improve depressive symptoms, reduces quality of life, and increases emotional distress (Klemm, 2012; Salzer et al., 2010; Vilhauer et al., 2010). As such, it is pertinent to identify the overall contributing factors that promote a

positive PS experience as well as the factors most associated with a negative PS experience in order to reduce their impact.

Qualitative research offers a solution to the gap in the literature on PS as it can further our understanding of the patient's experience of participating in PS. Specifically, meta-ethnography, a well-known method to synthesize qualitative research, is useful in the area of analyzing individuals' experiences (Adams et al., 2011; Atkins et al., 2008; Wanat et al., 2016), which can then be used to understand patient needs, as information and support are frequently sought by patients (Ciria-Suarez et al., 2022; Medina et al., 2022). To the best of our knowledge, no previous meta-ethnography has been conducted to explore the experience of PS in BC. Therefore, the overarching aim of the present meta-ethnography was to explore the experience of BCSs in PS and specifically identify and understand factors associated with both the positive and negative aspects of this experience.

## METHODS

### Type of literature review

The present article consisted of a systematic review and a meta-ethnography guided by Noblit and Hare's (1988) approach. A meta-ethnography aims to provide a synthesis of interpretative research by selecting the core themes identified in the qualitative research and offering a new interpretation of the studies included. Box 1 depicts the seven stages of meta-ethnography. This systematic review and meta-ethnography are reported according to Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA 2021) recommendations (Moher et al., 2009; Page et al., 2021) and the eMERGe Reporting Guidance (France et al., 2019) for meta-ethnographies.

#### **BOX 1 Seven steps of Noblit and Hare's meta-ethnography (Noblit & Hare, 1988)**

1. Getting started: Determining the aim and topic of the study.
2. Deciding what is relevant to the initial interest: making decisions about inclusion and exclusion criteria, systematic search to achieve relevant studies, and quality appraisal of included studies.
3. Reading the studies: frequent reading and thematic analysis of included studies in order to extract metaphors.
4. Determining how the studies are related: creating a list of themes and using a table for determining whether the concepts are related within and between studies.
5. Translating the studies into one another: comparing metaphors to inform reciprocal translation.
6. Synthesizing the translations: going to higher conceptualization and creating a line of argument.
7. Expressing the synthesis: presenting the findings in accordance with the requirements of audiences and policymakers.

## Systematic search strategy

For phase one, choosing an area of interest and research focus, and phase two, the literature search, a systematic search was conducted to identify the articles to be included in the current study and was registered within the International Prospective Register of Systematic Reviews (PROSPERO) on July 5, 2020 (registration number CRD42020189911). The primary databases used for the search were Scopus, Medline, and PsychINFO. These were complemented by the search of grey literature in BIOSIS Previews, Clinical Trials, Cochrane Central, and the ISRCTN Registry. The following search strategy terms were used in English, Spanish, and Italian: (breast AND [cancer OR oncologic\* OR tumor\* OR tumour\* OR malignanc\* OR neoplasm\* OR carcinoma\*]) AND (peer-support\* OR “peer support\*” OR peer-delivered OR “peer delivered” OR peer-led OR “peer led” OR patient-support\* OR “patient support\*” OR volunteer-support\* OR “volunteer support\*” OR peer-volunteer\* OR “peer volunteer\*” OR “peer discussion\*” OR “peer counsel\*” OR “non-professional\* support\*” OR “nonprofessional\* support\*” OR “non professional\* support\*” OR “dyadic support\*”) AND (intervention\* OR program\* OR therap\* OR treat\*) AND NOT (adolescen\* OR child\* OR teen\*).

The search was carried out between the start of records and June 11, 2020. Because the meta-ethnography could not be completed on time, the search was updated on April 21, 2022, and on June 27, 2023. Reference lists of the retained articles were also searched to avoid missing any relevant articles.

## Eligibility criteria

Studies were included when they met the following inclusion criteria: (1) featuring samples of adult (18+ years of age) oncological patients diagnosed with BC; (2) performing peer support synchronous interventions led by another cancer patient(s), both one-on-one and group format, in at least one arm; (3) described and explored outcomes on at least barriers and facilitators for engagement and adherence to the intervention, patients' expectations of peer support programs (before enrolment), and positive consequences and downsides (during or after participation) based on participants' opinions; (4) following qualitative or mixed methods; and (5) published in English, Spanish, or Italian.

Studies were excluded if they included a sample of non-cancer patients or involved cancer patients with a diagnosis other than BC. Studies that included children and adolescents were also excluded given that their support needs differ in comparison with adult oncology patients.

## Review procedure and data extraction

All search results were imported into the Mendeley system (<https://www.mendeley.com/>), and duplications were removed. The remaining articles were then screened by title and abstract (first stage) according to the established inclusion/exclusion criteria using Rayyan (<https://www.rayyan.ai/>), a program that uses semi-automation techniques to conduct the initial screening of study titles and abstracts and has been praised for its suitability in the screening process as a more advanced tool in comparison with other commonly used programs. Any articles that did not meet the necessary inclusion criteria were removed at this point. Those retained were reviewed at full-text level (second stage) to determine their eligibility for inclusion in this

review. Both stages were conducted independently by two reviewers. Discrepancies between them were resolved by consensus, via a detailed discussion. When no consensus was reached, a third investigator reviewed the data. The Kappa index after blind review was computed using the “irr” package (Matthias Gamer & Matthias Gamer, 2019) for “R” software (R Core Team, 2020).

In phases three and four, qualitative data were extracted by two reviewers from all articles that met full inclusion criteria, using a predefined template with key information from the study (see Table 1). The tables containing the extracted data were discussed to ensure congruence and support the process of identifying relevant themes and concepts across the different studies.

## Quality appraisal

A quality assessment of the selected articles was conducted using the Critical Appraisal Skills Assessment Programme (CASP) Qualitative Research Checklist (Home-CASP-Critical Appraisal Skills Programme, n.d.), which is one of the most frequently used appraisal tools in meta-ethnographies (Wanat et al., 2016). This tool addresses the three broad issues that need to be taken into consideration when appraising a qualitative study, namely, the validity of the results, the nature of the results, and the impact of the results. Box 2 depicts the CASP Checklist. Two researchers, who were previously trained by a senior researcher with expertise in this particular field, used this framework to determine the studies' overall relevance in addressing the research question. Each study was appraised independently. The senior researcher, who had previous meta-ethnography and CASP experience, acted as arbiter. No study was excluded based on quality assessment. The results of the quality appraisal are shown in Table 2.

### BOX 2 Critical Appraisal Skills Assessment Programme (CASP) Checklist

1. Was there a clear statement of the aims of the research?
2. Is the qualitative methodology appropriate?
3. Was the research design appropriate to address the aims of the research?
4. Was the recruitment strategy appropriate to the aims of the research?
5. Was the data collected in a way that addressed the research issue?
6. Has the relationship between researcher and participants been adequately considered?
7. Have ethical issues been taken into consideration?
8. Was the data analysis sufficiently rigorous?
9. Is there a clear statement of findings?
10. How valuable is the research?

The first two questions are screening questions. If the answer to both is “yes”, it is worth proceeding with the remaining questions. Record a “yes”, “no”, or “cannot tell” to all questions.

## Synthesis

For phase five of the synthesis, focused on translating studies into one another, two of the authors identified the common concepts in the articles. Reciprocal translation was managed via repeated reading and interpreting the data based on identified themes that were subsequently discussed by the authors, helping to define a line of argument by examining common themes and recurring concepts. This enhanced understanding regarding the peer support experience in BC (Table 3). All concepts were then discussed by the research team to ensure their validity and develop the concepts further.

To decipher the interrelation of the included research articles, a grid was compiled that contained key concepts and second- and third-order constructs (Table 4). Second-order constructs are the interpretations of the authors of the studies included. Third-order constructs are the synthesis of the first- and second-order constructs into a new model or theory. As Atkins et al. (2008) recommended, each research team member independently created their own model by linking the translations and interpretations. These individual models were merged, discussed, and used to generate hypotheses, resulting in a synthesized line of argument. The grid is used to further understand the relationship between each article and to clearly explain the concepts and their interpretations.

## RESULTS

The search retrieved 363 citations in Scopus, 336 in MEDLINE, and 213 in PsycINFO, yielding 912 primary literature documents. Regarding grey literature, we found 127 studies in Cochrane CENTRAL, 58 in Clarivate BIOSIS Previews, 3 registered in Clinical Trials, and none in the ISRCTN Registry, therefore 188 additional records. There was a considerable overlap, with 485 duplicates removed. Among the 615 documents entering the first-stage review, 465 did not meet inclusion criteria and were excluded, with reviewers reaching a substantial agreement ( $k = 0.643$ ,  $p < .001$ ). The full text of all documents retained after the first stage was searched and downloaded. When not available, they were requested to authors through email. The same procedure was followed for protocols whose results were not found published elsewhere. However, 19 documents were discarded at this point mainly from grey literature sources, either because authors replied that results had not been published yet, or no reply was received. Among the remaining 128 documents, 13 were systematic reviews and meta-analyses whose cited articles were extracted and compared against our inclusion and exclusion criteria and finally deleted from the list. This process led to the inclusion of 44 new references for the full-text review, and therefore, an overall number of 162 articles were included in this second stage. Among them, 11 finally met all eligibility criteria and were retained for analysis. This time, the agreement between reviewers was moderate ( $k = 0.413$ ,  $p < .001$ ). The included studies spanned the period of 1997 to 2018, included five countries, and involved up to 345 participants. Figure 1 provides a detailed overview of the review process using the PRISMA flowchart.

## Study characteristics

In total, 11 studies are included in the present review, focused on adult women's experience of PS in BC. Study characteristics are summarized in Table 1. The quality appraisal of each article follows this in Table 2.

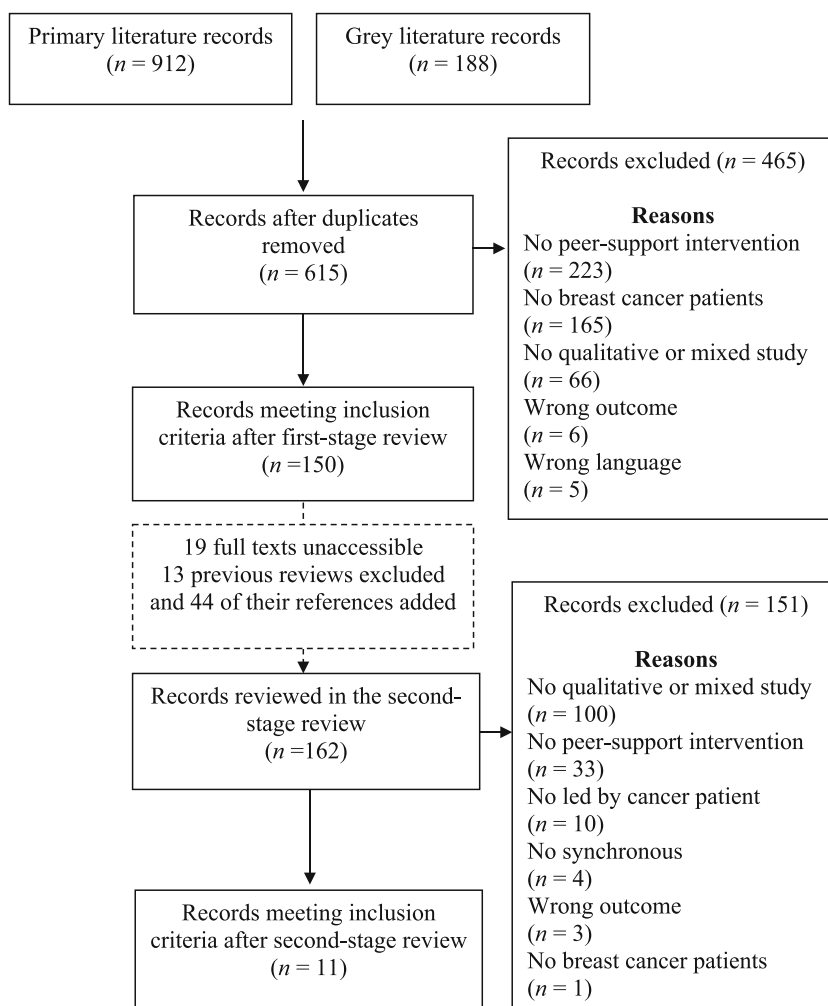


FIGURE 1 PRISMA flowchart.

## Concepts and synthesis results

Tables 3 and 4 describe the concepts from the meta-ethnography and their interpretations.

Third-order interpretations that emerged included the following: PS can create understanding and a mutual therapeutic and emotional connection; PS can facilitate an educational and supportive patient-centered journey; PS should monitor group members for unpleasant emotional experiences; PS should have professional supervision of recruitment and training to prioritize quality. Each of these interpretations is individually reviewed.

### PS can create understanding and a mutual therapeutic and emotional connection

According to the literature reviewed, PS as a mutual therapeutic, emotional, and understanding connection in a safe and non-judgmental space was an important factor related to the PS



TABLE 1 Summary of included studies.

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
Ashing-Giwa et al. (2012)	USA	62 AA BCSs	Examine impact of support groups among AA BCSs.	Community-based participatory research approach.	Five focus groups	Embedding cultural background is essential for support groups	Cultural peer-based groups respond to cancer-related and personal needs, expanding the paradigm of supportive care and reaching underserved and underrepresented BCSs.	Potential sample and selection bias. Findings highlight favorable outcomes only. Provided evidence for the need of diverse models in psychosocial care.
Cameron et al. (1997)	USA	14 program participants and 23 volunteers	Gather qualitative data to help develop a framework and tools to evaluate PS programs.	Semi-structured telephone survey.	1-on-1 cancer survivor volunteer with cancer patient OR family member of someone who had cancer with family member of cancer patient.	Additional perspectives aside from program objectives from both participants and volunteers. Program delivery and recruitment vary.	Cancer survivors in unique position to deliver program.	Programs are difficult to evaluate as there are often discrepancies between what is described and how it is delivered. Evaluation using both quantitative and qualitative strategies will provide important evidence on the general effectiveness of 1-on-1 peer support programs.
Carlsson et al. (2005)	Sweden	8 BC PS receivers and 3 PS workers	Explore how women with BC experience contact with PS workers	Audio-tape narratives.	Unlimited meetings with a BC survivor	Relationship with PS worker is sensitive to timing, correct information, and understanding.	Shared experiences offer new perspectives on illness, feelings of isolation are part of the process, and relations with other	Need to identify how these results translate in other cultures and patient's associations.



TABLE 1 (Continued)

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
Gray et al. (1997)	Canada	24 BCSs members of self-help groups.	Understand and describe: (1) women's perspectives on their personal experiences with BC self-help groups including perceived benefits and limitations; and (2) the processes and structures of groups, including perceived strengths and weaknesses.	Semi-structured interviews	Self-help groups for BC	Overall, the group is helpful for navigating short- and long-term impact of BC.	Group membership helps women overcome BC stigma, and to feel less isolated in their experience. Self-help groups provide an overall humanizing element in the healthcare context.	Selection bias may exist in sample. Women who dropped out of groups were not contacted which may have provided important insights.

Mollica et al. (2014)	USA	4 BCS	Explore feasibility and acceptability of a peer navigation survivorship program for AA BCSs and its potential effects on short-term outcomes according to the quality of life model applied to cancer survivors.	Convergent parallel approach to explore feasibility and investigate whether changes in scores are favorably using interview and self-administered questionnaires.	One-to-one peer support both in person and via telephone calls for a 2-month period.	Program feasible in outcomes of recruitment, cost, and time requirements. Over time, improvements in symptom distress, perceived support from God, and preparedness for recovery are observed.	AA BCSs are an important source of support, knowledge, and motivation for women receiving treatment which is achieved by implementing culturally tailored PS.	Sample size may limit inferences that can be made and restrict matching stage. Methodological limitations in general study design. Combination of inductive and deductive approaches strengthens study
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(Continues)

TABLE 1 (Continued)

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
Nápoles et al. (2018)	USA	Women ( $n = 80$ ) who completed program (min. 6/8 sessions) or control group. Spanish-speaking Latinas with non-metastatic BC in year prior to study.	Evaluate the <i>Nuevo Amanecer</i> peer support program in terms of program delivery and fidelity, treatment receipt, perceived benefits, quality, ease of use, usefulness of components, and suggested improvements.	Mixed methods analyzing tracking forms from sessions, descriptive statistics, and qualitative thematic analysis.	Spanish language 8-week intervention led by colleagues (BC survivors trained to deliver the program) to teach cognitive-behavioral coping skills to manage stress and emotions.	Fidelity rates are high for program deliverers. Program increased coping with BC. More sessions and simplifying exercises were suggested to improve program.	Feasible for Spanish-speaking Latina BCS. Peers can implement cognitive-behavioral stress management programs. Results are important for non-English-speaking populations. Peer-delivered, evidence-based, and culturally relevant programs may reduce disparities in distress due to BC.	Development of a culturally relevant program for Latinas with BC that focused on the dominant psychosocial issues identified by this population. Community setting addressed access barriers to cancer psychosocial programs. Difficulties found with workbook.
Nicks et al. (2018)	USA	24 AA BCS in two groups.	Study the role of structured, community-based PS in BC experiences of AA survivors.	Quasi-experimental design and in-depth interviews to compare the BC experiences of AA survivors within their first 5 years of survivorship who received peer support to those who did not.	Facilitated monthly support group meetings, one-on-one support in which members serve as "Breast Health Buddies" to AA BC patients, and education and screening services to women at risk for BC.	BCSs who used PS reported increased access to and utilization of alternative support sources, greater capacity to process BC-related stress, and improved quality of life and life adjustment in comparison to those	PS offers consistent, quality social support which helps to cope with the consistent stress of BC with implications for psychosocial health and quality of life.	Recall bias (women interviewed up to 5 years into PS relationship). Selection bias as a convenience sample of 24 BCSs was used. Study design limits generalizability beyond BCI. Results inform future, hypothesis-driven

TABLE 1 (Continued)

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
Ono et al. (2017)	Japan	10 women with BC.	Determine subjective evaluation of a BC PS program based on a survey of participants who completed it.	Semi-structured interviews. Qualitative inductive study design.	Coordinator selects peer supporter that matches the patient's request and arranges the date, time, and a private room for them to meet.	PS tailored support, easy communication, and excellent coordination. Emotional support, specific experimental information, re-examining yourself, and preparing to move forward were further benefits associated with PS.	Women felt that the PS program had many benefits and some disadvantages. Results suggest the potential of PS programs in medical services that are complementary to support offered by professionals.	Original study plan was abandoned, negatively impacting study design. Only surveyed BC women who had received PS. Study provides insights based on the experiences of BCs and identifies the true needs of the patients.
Power and Hegarty (2010)	Republic of Ireland	8 women with BC participate in pre-program and post-program focus group interviews.	Conduct a pre-and post-program evaluation of a 7-week facilitated BC PS program in a cancer support house.	Qualitative descriptive design implemented. Data were collected through focus groups and analyzed using content analysis.	7-week peer support. Program led by a BC nurse counselor, a volunteer retired counselor, a trainee counselor, and a React to Recovery volunteer (a BCS who has received training in providing peer support to individuals from the Irish Cancer Society).	Eight themes and 5 themes were found following the analysis of pre-and post-program data.	Facilitated PS programs must be tailored to meet the needs of women with BC specifically for mutual sharing and support for hair loss.	Small sample size limits generalizability of findings. Participants were at different stages of treatment and support needs according to different stages must be accounted for. Study design addresses gap in literature which fails to evaluate at both stages.

(Continues)

TABLE 1 (Continued)

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
St-Pierre et al. (2018)	Canada	French-speaking, female BRCA1/2 mutation carriers considering prophylactic mastectomy.	Describe the topics covered between recipients and peers, and explore the perspectives of the participants regarding a telephone-based support intervention.	Evaluation questionnaires and logbook control. Data collection consistent with accepted methods within a phenomenological approach.	Telephone-based peer support	Three main areas were discussed in this intervention: physical, psychological, and social.	Sharing experiences about surgery and a sense of mutual support contribute to intervention satisfaction.	Potential social desirability may influence women's responses. Recall effects may be present as logbooks are filled retrospectively. Level of detail logged may also have varied. The first study of its kind to demonstrate the utility of telephone-based PS may help inform genetic services to provide PS services for women considering prophylactic mastectomy.
Sutton and Erlen (2006)	USA	66 women with BC	Describe the interpersonal relationship that occurs during a mutual dyadic support between newly diagnosed women with BC and BCSSs, and the	Questionnaires and logs of contacts	Matched peer support. 8-week intervention.	Conversations tended to focus on health and functioning of newly diagnosed women. Peers offer informational and emotional support.	Further research is required in a more diverse population in order to understand the effects of PS on quality of life in women with BC.	Homogenous sample limits generalizability of results. Matching difficulties according to predetermined criteria occurred as the recruitment

TABLE 1 (Continued)

Author	Country	Sample	Aim	Method	Peer support type	Findings	Conclusion	Limitations/ strengths
			changes in interpersonal relationships and quality of life following participation in PS intervention.					of newly diagnosed women continued. Tools used were untested prior to this study. Lack of clearly defined intervention that can be replicated. The study identifies advantages and disadvantages of PS and recommends further research using a multidimensional approach that includes identifying support needs via professionals.

Abbreviations: AA, African American; BCS, breast cancer survivor; PS, peer support.

**TABLE 2** Critical Appraisal Skills Assessment Programme (CASP) quality appraisal for selected papers.

CASP criteria	1	2	3	4	5	6	7	8	9	10
Ashing-Giwa et al. (2012)	Y	Y	C	Y	Y	Y	Y	Y	C	Y
Cameron et al. (1997)	Y	Y	Y	Y	Y	C	Y	Y	Y	Y
Carlsson et al. (2005)	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Gray et al. (1997)	Y	Y	C	Y	Y	Y	Y	Y	Y	Y
Mollica et al. (2014)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nápoles et al. (2018)	Y	Y	C	Y	Y	C	Y	Y	C	Y
Nicks et al. (2018)	Y	Y	C	Y	Y	Y	Y	Y	Y	Y
Ono et al. (2017)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Power and Hegarty (2010)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
St-Pierre et al. (2018)	Y	Y	C	Y	Y	Y	Y	Y	Y	Y
Sutton and Erlen (2006)	Y	Y	C	Y	Y	Y	Y	Y	Y	Y

Abbreviations: N, no, Y, yes; C, cannot tell.

**TABLE 3** Concepts derived from the meta-ethnography on peer support in breast cancer.

Concept: Emotional support and benefits in PS: subthemes; non-judgmental, feeling relieved, understanding, sensitive listener, non-threatening, nonmedical, feeling identified with survivors, giving to and getting from the group, sense of belonging, comfort and hope, reassurance, emotional expression, connecting, bonding, sharing a common journey, feel less isolated, neutral environment different to family and friends, preparing to move forward, empowerment.

Concept: Content of PS: subthemes; health information, navigating cancer process, getting what you need, information about hair loss, sharing information, economic and functional relief, practical support, first-hand information, learning to ask the right questions with professionals, discussing side effects, personalized coping resources

Concept: Negative experiences with PS: subthemes; dealing with death in the group, feeling isolated due to mismatching of partner characteristics in terms of age and illness stage, feelings of indifference with contact person, strict management of personal information

Concept: Characteristics contributing to quality PS: subthemes; understanding cultural background, participant recruitment by professional referral, evaluating readiness for participation, home visits powerful, peer supporter training sessions, mixed views about type of support (telephone vs. face to face).

experience. Specifically, emotional support appeared to be key for sharing cancer experiences as participants conveyed that it was related to providing them with a sense of comfort, hope, and purpose (Ashing-Giwa et al., 2012; Cameron et al., 1997; Carlsson et al., 2005; Gray et al., 1997; Nápoles et al., 2018; Power & Hegarty, 2010), as well as belonging by validating each other's experiences (Ashing-Giwa et al., 2012; Power & Hegarty, 2010). In this way, belonging to this safe space allowed women to feel more comfortable expressing their emotions and ask what they want (Ashing-Giwa et al., 2012; Ono et al., 2017; Sutton & Erlen, 2006). Comfort and hope were provided by forming part of a community that understood first-hand the experience of cancer, which was reassuring as there appears to be a deeper level of understanding

TABLE 4 Synthesis of concepts and second and third-order interpretations.

Concepts	Second-order interpretations	Third-order interpretations	Quotations
Emotional support and benefits in PS: subthemes; understanding, feeling identified with survivors, sense of belonging, comfort and hope, reassurance, emotional expression, connecting, bonding, sharing a common journey, feeling less isolated, neutral environment different to family and friends, preparing to move forward, empowerment, sense of purpose.	(a) Providing a safe space that promotes emotional support, mutual understanding, and a sense of connection is important for the PS experience.	(b) PS can create understanding and a mutual therapeutic and emotional connection.	<p>“Whether I happen to like these people or not is totally irrelevant. Because on the level of what experience we share, I love them all. And we’re all in the same boat” (Gray et al., 1997)</p> <p>“We need to have someone who has gone through it. My boyfriend doesn’t understand, and my children don’t understand, even though they are supportive. I needed to hear from another woman who had been through it. That’s why we are so close now – we both have a journey” (Mollica et al., 2014)</p>
Content of PS: subthemes; health information, navigating cancer process, getting what you need, information about hair loss, sharing information, economic and functional relief, practical support, first-hand information, learning to ask the right questions with professionals, discussing side effects, personalized coping resources.	(c) Tailoring peer support to individual needs ensures that participants feel supported in receiving the information they are looking for.	(d) PS can facilitate an educational and supportive patient-centered journey	<p>“I started to feel like I was getting some control back in my life with the support of the women”; “I’m a lot more aggressive, and I always take one of them (peer support) with me to my doctor’s appointment” (Gray et al., 1997)</p> <p>“I felt much better before the surgery because she told me about her experiences, gave me tips and her perceptions” (St-Pierre et al., 2018)</p>
Negative experiences with PS: subthemes; dealing with death in the group, feeling isolated due to mismatching of partner characteristics in terms of age and	(e) Fear of isolation due to sharing experiences with people of different illness characteristics, dealing with death	(f) PS should monitor group members for unpleasant emotional experiences	<p>“I did not feel comfortable during visits and calls ... I didn’t talk about much and after a couple times, I felt that I was almost</p>

(Continues)



TABLE 4 (Continued)

Concepts	Second-order interpretations	Third-order interpretations	Quotations
illness stage, feelings of indifference with contact person, strict management of personal information.	and restrictions regarding sharing deterrents from engaging.		invasive, that she chose not to discuss things.” (Sutton & Erlen, 2006) “They didn’t want to hear it ... the few times that death got brought up at the meeting were the times that people didn’t come back. And that made me angry, but again, now I’m accepting and realizing maybe they just couldn’t”. (Gray et al., 1997)
Characteristics contributing to quality PS: subthemes; understanding cultural background, participant recruitment by professional referral, evaluating readiness for participation, home visits powerful, peer supporter training sessions, mixed views about type of support (telephone vs. face to face).	(g) Ensuring cultural sensitivity, effective communication in the recruitment process, and sufficient training for peer supporters are additional factors that favor the PS environment.	(h) PS should have professional supervision of recruitment and training to prioritize quality	About the training session for peer support: “it allowed me to assist the ladies in a more productive way. I knew what my limits was, and what my limits wasn’t”. (Mollica et al., 2014) “I would do all home visits. I really got a lot out of sitting with her, and we talked and talked, and I really found that to be really helpful. The phone calls were ok, but the home visits really helped because I looked forward to them” (Mollica et al., 2014)

(Ashing-Giwa et al., 2012; Cameron et al., 1997; Carlsson et al., 2005; Gray et al., 1997; Mollica et al., 2014; Nápoles et al., 2018; Nicks et al., 2018; Ono et al., 2017; Power & Hegarty, 2010; St-Pierre et al., 2018; Sutton & Erlen, 2006). At times, participants reported feeling more comfortable asking their peer supporter questions as opposed to their medical healthcare provider (Ono et al., 2017). Providing these emotional pillars, PS appears to reduce feelings of isolation before and after treatment (Carlsson et al., 2005; Mollica et al., 2014; Ono et al., 2017; Power & Hegarty, 2010; St-Pierre et al., 2018). On this note, returning to a sense of normality and moving forward was important for many BCSSs, and PS helped prepare women for this (Mollica et al., 2014; Ono et al., 2017; Power & Hegarty, 2010).

As a result, we have observed that the various studies emphasize the importance of peer support experiences in providing a safe space that fosters emotional support, mutual comprehension, and a feeling of connection.

## PS can facilitate an educational and supportive patient-centered journey

Accessing the most relevant illness information and how to cope from an experiential point of view was a concern for most participants in PS (Ashing-Giwa et al., 2012; Carlsson et al., 2005; Gray et al., 1997; Nápoles et al., 2018; Ono et al., 2017; Power & Hegarty, 2010; Sutton & Erlen, 2006). Ensuring that guidance on the various associated medical issues with BC, as well as treatment side effects (Nicks et al., 2018) such as hair loss (Power & Hegarty, 2010), is an important aspect of the PS experience. In doing so, this encouraged women to feel more secure in asking the right questions and the companionship offered by the PS environment increased confidence (Ashing-Giwa et al., 2012; Mollica et al., 2014; St-Pierre et al., 2018). Furthermore, PS provided information on practical support, and economic and functional relief that appeared to be a concern for many women during the cancer process (Ashing-Giwa et al., 2012; Cameron et al., 1997).

## PS should monitor group members for unpleasant experiences

BC participants also commented on some of the negative aspects of participating in PS. Oftentimes, when not suitably matched, women feel that they cannot connect with their peer supporters (Carlsson et al., 2005; Ono et al., 2017; St-Pierre et al., 2018; Sutton & Erlen, 2006). Matching refers to ensuring that people are paired based on characteristics such as age group, illness stage, and lifestyle (Ono et al., 2017). Moreover, feelings of indifference also emerged depending on the type of PS offered; more educational environments appeared to be less personal and therefore generate more indifference and less connection between participants in comparison with direct contact where emotional expression was promoted (Carlsson et al., 2005). Dealing with the death of fellow members is a notable challenge that emerged (Gray et al., 1997). In some PS, there were strict rules regarding sharing personal contact information that was experienced negatively by participants (Ono et al., 2017; Power & Hegarty, 2010).

Thus, in the included studies, we observe that participants may be discouraged from engaging in PS because of the fear of isolation resulting from sharing experiences with individuals who have different illness characteristics, as well as concerns about death and restrictions on sharing.

## PS should have professional supervision of recruitment and training to prioritize quality

Several ideas that may be kept in mind to improve the PS environment emerged from the present study. In terms of recruitment, offering multiple routes to raise awareness of PS was a positive factor to increase participation; at times, participants felt that PS was not promoted enough, thus reiterating this general need to ensure wider promotion of PS (Cameron et al., 1997). To achieve this, participants felt that it was particularly important to ensure that all patients were offered a PS referral (Cameron et al., 1997). In this case, the preferred modality (Cameron et al., 1997; Mollica et al., 2014) of PS was also disputed as participants highlighted the necessity of offering home visits and follow-up visits as well as some form of telecommunication (Sutton & Erlen, 2006). Likewise, the length of programs was also widely disputed with all articles mentioning this aspect suggesting that longer duration was preferred (Nápoles et al., 2018; Power & Hegarty, 2010). Furthermore, in several studies, women reported different needs in terms of when to start PS. Thus, evaluating the readiness of patients to participate in PS is an extra factor that should be considered (Carlsson et al., 2005; Gray et al., 1997; Mollica et al., 2014). Additionally, cultural sensitivity is important in PS (Ashing-Giwa et al., 2012; Nápoles et al., 2018; Nicks et al., 2018; Ono et al., 2017). Another important aspect to consolidate the PS environment was to offer training to peer supporters on how to give support and understand what to expect (Carlsson et al., 2005; Mollica et al., 2014; Nápoles et al., 2018; Ono et al., 2017; St-Pierre et al., 2018).

## DISCUSSION

The results found in our systematic review and meta-ethnography highlight this approach as a useful method for synthesizing qualitative studies. Specifically, the synthesis of 11 qualitative studies led to the identification of four core areas regarding the experience of PS in BC including the following: PS can create understanding and a mutual therapeutic and emotional connection; PS can facilitate an educational and supportive patient-centered journey; PS should monitor group members for unpleasant emotional experiences; and PS should have professional supervision of recruitment and training to prioritize quality.

Existing literature has provided numerous studies that demonstrate that the diagnosis of BC can have a significant impact on patients' mental health and well-being (Carreira et al., 2018; Ramírez-Vélez et al., 2021). For many of the women included in the identified studies, the emotional impact begins at diagnosis and continues both during and after treatment. The literature corroborates that the diagnosis and treatment of BC entail a radical change in patients' day-to-day lives (Ciria-Suarez et al., 2021). This can result in feelings of pessimism, distress, symptoms of anxiety and depression, and a general sense of living with an illness shrouded in uncertainty (Calderon et al., 2019; Connolly-Zubot et al., 2020). Consequently, the PS environment, when carefully curated (i.e., by ensuring matching characteristics), provides a simple way to help women deal with this emotional upheaval as the peer supporters have been through the same experience as them, and this offers a sense of hope and deeper understanding than they would experience with people who have no prior oncological experience. Peer support participants tend to experience a sense of safety, mutual understanding, and connection, which gives rise to a feeling of belonging and support. However, there may be various circumstances that could hinder this connection, such as sharing experiences with individuals who have different

illness characteristics, concerns about mortality, and restrictions on disclosing personal information. To reduce the likelihood of negative experiences and to promote factors contributing to quality PS, we recommend onsite, accessible, and supervised peer support programs led by health professional experts who (1) guarantee optimal referrals and recruitment, (2) monitor unpleasant emotional experiences, and (3) train and support for peer supporters to promote therapeutic user's experience and potentially offer professional care.

Nevertheless, the emotional support aspect of PS is not the only factor to take into account. Our review clearly demonstrates that patients have a desire not only to feel emotionally supported but also to feel comfortable enough navigating the cancer experience and receiving the information they need related to the illness. Literature describes that women with BC often have unmet information needs and experience difficulties when communicating with healthcare professionals (Collie et al., 2005; Parker et al., 2009) and that emotional aspects and more disease-specific information are the most demanded (Benedict et al., 2022; Ciria-Suarez et al., 2022; PDQ Supportive and Palliative Care Editorial Board, 2015). It seems that achieving the right balance between information and emotional support is a core challenge as, on the one hand, patients appear to appreciate relevant illness information, but on the other hand, there is a risk that too much information reduces emotional connection and can contribute to increasing fears in PS users' experience.

In addition, according to the present synthesis, the PS environment appears to offer a safe space of mutual understanding that allows for the sharing of information from people who have lived experience of BC. This aspect may play a central role in ensuring adherence and satisfaction in PS programs as well as in treatment and therefore could be a useful tool in promoting and supporting the patient.

## Limitations

This study has some limitations that should be considered upon interpreting the results. Perhaps one of the most difficult aspects of evaluating PS programs is seen in the fact that the majority of participants either actively seek PS or agree to participate once offered by their healthcare professional. As such, this means that there is a potential pool of data that is lost: patients who have decided not to participate and patients who do not seek PS. In this sense, it seems pertinent to suggest that qualitative studies that synthesize the current literature could help to better understand the existing evidence in exploring the reasons for and against participating in PS programs. Also, this study only focuses on BC and does not provide evidence for PS programs that may be useful for other people living with other types of cancer who also have unmet psychosocial needs. Future research should look to explore the role of PS in BC and other cancers in depth to better understand the patients' experience in these programs. Specifically, we believe that mixed method studies including qualitative data, which will allow patients to explain their own personal experiences, are fundamental in gaining greater insight in PS in the context of oncology. In turn, these insights could provide information to design future empirical studies validating the efficacy of PS in oncology as well as creating performance indicators for healthcare professionals. Nonetheless, our study does provide evidence for people from different backgrounds and countries providing insight into the importance of considering cultural and language barriers. Finally, we must acknowledge that the inclusion of a broader set of databases might have resulted in the retrieval of further studies to complement our results, especially regarding grey literature. For example, the trials' registries explored did not

prove to be efficient in including trials providing qualitative data, a scenario that may progressively improve in the future (Clement et al., 2018). Similarly, although we conducted a reference search (backward searching) and deemed the combination of sources capable to cover the target evidence to our review, an additional citation search (forward searching) might have provided additional inputs.

## Implications

The findings of this review can be used to develop and inform PS programs as a means to support BC patients' psychosocial well-being. Patient-centered interventions based on the evidence provided by the qualitative synthesis give a unique insight into what patients need when developing PS interventions. Our findings highlight the importance of offering a space where patients can feel involved and supported while also receiving illness-related information that they may be apprehensive to discuss directly with healthcare professionals. Furthermore, the importance of matching peers and peer supporters is brought to our attention. In fact, this could be a key performance indicator as a negative experience with PS resulting from poor program management could have a counterproductive effect on the user's mental health and well-being. Therefore, research developing novel methods that improve upon traditional matching techniques and discussing these approaches with participants (e.g., telemedicine and machine-learning models) may be warranted. At the same time, cultural sensitivity is also needed to ensure that barriers are not being encouraged against the PS experience. In line with barriers, we suggest that PS should look to offer a wider variety of options of programs in terms of delivery by testing online versus face to face as some patients may feel more comfortable staying at home because of illness side effects, economic restraints, or geographical location among others. Taken together, these strategies could improve the overall PS experience in BC.

## CONCLUSIONS

To the best of our knowledge, the present systematic review and meta-ethnography offer the first detailed overview of the experiences of patients with BC who participate in PS. The overarching conclusion seems to be that in order to improve and offer feasible and accessible PS interventions in BC, it is vital to consider the patient's unmet emotional and information needs and their cultural background to reach a wider community and consolidate the PS environment. Likewise, it is equally important to develop informed responses to potential negative stressors as part of the PS experience, which may lead to increased attrition rates. We believe that adopting this approach could provide patient-centered insights for healthcare professionals in the field of BC to inform and successfully develop PS programs. Finally, the results of our review should not be taken as a final interpretation but rather as a tool to encourage critical thinking and reflection regarding PS to inform further research with the aim to continue providing quality psychosocial interventions for the BC community who to date have many unmet psychological needs.

## CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

## DATA AVAILABILITY STATEMENT

N/A

## ETHICS STATEMENT

Ethical approval was not required for the present systematic review and meta-ethnography.

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