

Body image concerns in breast cancer: an exploratory study on the role of partners' perceptions and well-being

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Abstract

Background: While extensive research has explored the impact of breast cancer on patients' health and quality of life, considerably less attention has been paid to understanding how the emotional and psychological well-being of intimate partners are related to women's psychological outcomes. This study investigates associations among partners' perceptions of body image and their impact on psychological distress and coping flexibility during the post-treatment period.

Methods: Using a snowball sampling method, forty Italian couples (N = 80)—each consisting of a breast cancer patient who had undergone surgery and the committed partner—were recruited. Participants completed psychometric assessments measuring anxiety, depression, distress (Hospital Anxiety and Depression Scale), as well as psychological flexibility (Perceived Ability to Cope with Trauma). Patients' body image was evaluated through the Body Image Scale, while partners' perceptions of the women's body image were captured through an ad hoc questionnaire. Finally, two separate multiple linear regression models were conducted to test associations between study variables.

Results: Patients' mean age was 48.60 ± 10.27 years, and partners' mean age was 50.60 ± 11.47 years. Most couples had been in a stable relationship for more than 5 years. Most patients had undergone mastectomy (67.50%) and received adjuvant therapies; only 5 (12.50%) underwent surgery alone. In the first regression model (Adj. $R^2 = 0.52$), patients' body image was positively associated with partners' perceptions of patients' body image ($\beta = 0.68$) and with partners' distress ($\beta = 0.30$) and depression ($\beta = 0.29$). The second model (Adj. $R^2 = 0.47$) indicated that partners' psychological flexibility ($\beta = 0.41$) was positively, and partners' depression ($\beta = -0.48$) and anxiety ($\beta = -0.51$) were negatively, associated with patients' coping flexibility.

Conclusions: The present results underscore the critical role of patients' and partners' perceptions in the clinical management of body image issues and coping with breast cancer-related concerns, particularly through flexibility-focused coping strategies. Healthcare providers should consider addressing partners' mental health symptomatology and their responses to the psychological and physical changes experienced by women when developing interventions to alleviate body image concerns.

Keywords: breast cancer, body image, psychological flexibility, partner, coping, relationships, couples

1. Introduction

Breast cancer (BC) is a life-altering disease that not only affects physical health but also has profound psychological and emotional consequences. One of the most significant aspects of the BC experience is the impact of the disease and its treatments on body image. Body image is a multidimensional construct encompassing perceptions, thoughts, feelings, and behaviors related to one's physical self.¹ Surgical and adjuvant treatments

for BC—including mastectomy, lumpectomy, chemotherapy, radiation therapy, and reconstructive surgery—can result in a range of visible and functional sequelae, such as scarring, swelling, pain, numbness, and partial or complete loss of breast tissue.^{1–6} Beyond the physical alterations, women often experience emotional distress, self-consciousness, and dissatisfaction with their appearance, leading to body image disturbances.⁷ Given that approximately 70–80% of patients reporting

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dissatisfaction with their appearance, the impact of these concerns is both widespread and long-lasting.⁸

The experience of BC, combined with the societal expectations of femininity and beauty, can exacerbate body image distress,^{9–12} particularly in younger women.^{13–15} These concerns are amplified within the Italian cultural context, where breasts are symbolically associated with femininity, motherhood, attractiveness, and self-worth, rendering their alteration or loss a particularly distressing experience.¹⁶ Within this framework, body image concerns may be particularly salient after BC surgery. Many women struggle with feelings of shame, discouragement, and a decline in self-esteem, often leading to social withdrawal and emotional distress.¹⁷ Furthermore, the long-term psychological consequences of poor body image in BC survivors include increased rates of anxiety, depression, and sexual dysfunction, which significantly affect overall quality of life.^{13,14,18–20} These cultural ideals, together with traditionally close-knit family and couple relationships, amplify the influence of partners' perceptions and reactions on women's self-image and psychological adjustment. Furthermore, gendered expectations can shape both communication patterns and coping strategies within the couple. Recognizing these culturally embedded dynamics is crucial for designing psychosocial interventions that target both individual and relational dimensions of body image in BC clinical pathways in Italy.

In the survivorship phase, the presence and support of a romantic partner play a pivotal role in shaping women's adjustment to body image changes following cancer, serving as a critical factor that may buffer or intensify the psychological impact of the disease. Research indicates that partners' perceptions of and responses to patients' physical changes are closely linked to women's self-perceptions of their bodies.¹⁶ An emotionally engaged partner can provide reassurance, validation, and encouragement, helping the patient navigate feelings of loss, self-doubt, and insecurity.²¹ Conversely, negative or indifferent partner responses can worsen body image dissatisfaction and psychological distress. Effective communication and mutual support within the relationship are crucial for managing body image changes and maintaining intimacy post-treatment.²¹ Many women feel anxious about their partner's reaction to their postsurgical body, fearing rejection, or diminished attraction.²² These concerns can affect not only self-esteem but also sexual functioning and relationship satisfaction.¹⁶ However, partners who actively engage in open conversations provide reassurance and express affection contribute to improved psychological outcomes for both members of the couple.²³

While much research has focused on the experiences of BC patients, it is equally important to consider the psychological burden on romantic partners. Partners often experience heightened levels of stress, anxiety, depression, and feelings of helplessness, particularly when they perceive their loved one as struggling with body image concerns. Some partners may find it challenging to navigate the changes in appearance, intimacy, and relationship dynamics.²¹ This psychological strain can, in turn, affect the quality of support they provide, potentially leading to communication breakdowns and emotional distance.²² Interestingly, research has shown that partners who engage in reciprocal support—meaning both partners acknowledge and address each other's emotional needs—tend to cope better with the changes brought on by BC.²¹ By contrast, partners who struggle with their own psychological distress may unintentionally withdraw or become less emotionally available, which can exacerbate the patient's feelings of isolation and dissatisfaction.¹⁶ Given the

interdependent nature of body image distress and partner involvement, there is growing support for psychosocial interventions that incorporate both patients and their romantic partners.²³ These interventions may include couples-based counseling, communication training, and body image-focused therapy designed to help both partners process and adapt to the changes together.²² Studies suggest that active involvement of partners in both treatment and post-treatment care is associated with improved patient outcomes, particularly in terms of self-esteem, coping abilities, and resilience.²⁴ Resilience itself is closely linked to psychological flexibility, defined as the capacity to pursue valued goals and long-term objectives despite experiencing internal discomfort such as pain and distress. Psychological flexibility has been recognized as a key mechanism in maintaining or enhancing functioning among individuals coping with chronic pain.²⁵

While psychological distress related to body image is well-documented among survivors, its impact on romantic relationships and the well-being of partners has received comparatively less attention. Using a relational approach, this contribution aims to further elucidate how partners' perceptions of patients' body image and partners' well-being (including anxiety, depression, distress, and psychological flexibility) relate to patients' body image and flexible coping strategies after treatment. Understanding how partners' perceptions and emotional responses shape body image and adaptive skills may guide the development of more effective psychosocial support strategies, ultimately improving quality of life for BC survivors and their loved ones.

1.1. Hypothesis 1

Partners' perception of patients' body image is significantly associated with women's self-evaluations of their body image.

1.2. Hypothesis 2

Partners' psychological well-being—specifically anxiety, depression, and distress—is significantly related to patients' ability to display psychological flexibility.

2. Material and methods

2.1. Study design and ethical approval

This study uses a cross-sectional design. All research procedures were conducted in accordance with the Declaration of Helsinki and were reviewed and approved by the Ethics Committee of the Department of Psychology at Università Cattolica del Sacro Cuore, Milan, Italy (CERPS: *Commissione Etica per la Ricerca in Psicologia*), under protocol No. 94-21, approved on December 18, 2021. All participants provided written informed consent to participate in the study and for their data to be published.

2.2. Population and sample collection

Participants were recruited using a snowball sampling method. For this research, the survey was implemented through the Qualtrics XM Platform (Qualtrics, Provo, UT), with data collection starting in October 2022, during *Breast Cancer Awareness Month*. The survey remained open for 1 year.

The research team promoted the study on social media platforms (Instagram and Facebook) through short videos, digital leaflets, and advertisements in collaboration with nonprofit organizations and online support groups for BC survivors. To ensure transparency, a dedicated online account was created for

the research project, featuring information about the research team, study objectives, and direct contact details to address participants' inquiries. A total of 40 Italian couples were recruited, each consisting of a BC patient who had undergone surgery and their committed romantic partner. BC patients were eligible to participate in the study if they were proficient in understanding and expressing themselves in Italian, had received a confirmed diagnosis of BC, and had undergone surgical treatment within the past 12 months. In addition, participants were required to be in a stable romantic relationship with a partner who was willing to take part in the study. Romantic partners were eligible to participate if they were able to understand and complete self-report questionnaires in Italian.

2.3. Sample size calculation

The sample size was determined using G*Power software.²⁶ For a general linear regression model with a fixed alpha level of 0.05, a statistical power of 0.80 ($1 - \beta$ error probability), and 5 predictors, G*Power indicated that a total of 39 participants would be required to detect a moderate effect size ($f^2 = 0.40$), in accordance with Cohen guidelines.²⁷ We planned to include at least 40 patients and 40 partners. This sample size allows each individual to contribute data for all variables included in the regression model, ensuring that the analysis has adequate power to detect the hypothesized effects.

3. Measures

3.1. Body image

Patients' body image—a multidimensional construct encompassing affective, cognitive, and behavioral dimensions—was measured using the Body Image Scale.^{28,29} The BIS consists of 10 items rated on a 4-point Likert scale (0 = never to 3 = always). The total score ranges from 0 (indicating a positive body image perception) to 30 (indicating a highly impaired body image evaluation). The scientific literature does not provide clinical cutoffs for defining critical scores; however, in a previous study by the authors,¹⁶ scores were categorized into three ad hoc classes: 0–10 (“good body image”), 11–20 (“moderate body image impairment”), and 21–30 (“high body image impairment”). The internal consistency of the BIS in this study was $\alpha = 0.94$.

To evaluate how romantic partners perceived patients' body image, we administered an ad hoc questionnaire that had been previously employed in other studies.¹⁶ This instrument consisted of 10 items rated on the same Likert scale as the Body Image Scale (BIS). In addition to capturing partners' evaluations, the administration of this questionnaire also aimed to provide preliminary evidence supporting its validity in the present context. Table S1, <http://links.lww.com/OR9/A97> (Supplementary Materials), presents the items of the questionnaire. The psychometric properties of this scale are described in the Data Analysis and Results sections.

3.2. Anxiety, depression, and distress

The Hospital Anxiety and Depression Scale (HADS^{30,31}), a 14-item scale, was used to assess symptoms of anxiety (HADS-A subscale) and depression (HADS-D subscale), as well as an overall measure of distress. Based on established clinical cutoffs, scores were classified as follows: 0–7 indicated a “normal level”, 8–10 a “borderline level” (i.e., the individual is at high risk), and 11–21

an “abnormal level” (i.e., clinically significant symptomatology). Internal consistency for this measure ranged from $\alpha = 0.70$ to $\alpha = 0.91$.

3.3. Psychological flexibility

Psychological flexibility was assessed using the Perceived Ability to Cope with Trauma (PACT^{32,33}). The PACT consists of 20 items rated on a 7-point Likert scale (1 = not able at all to 7 = extremely able). This scale evaluates two key coping orientations: (1) trauma-focus, which reflects an individual's psychological elaboration of cancer-related trauma, and (2) forward-focus, which represents an individual's orientation toward the future. The flexibility score, conceptualized as the ability to employ these two coping strategies adaptively—modulating one's subjective response based on the nature of the stressor and the perceived controllability of the situation—is derived from the combination of the sum and discrepancy scores of trauma-focus and forward-focus subscales. Internal consistency for this measure ranged from $\alpha = 0.65$ to $\alpha = 0.93$. In this study, only the general measure of psychological flexibility was considered.

3.4. Sociodemographic characteristics and medical variables

Sociodemographic characteristics and medical variables (for patients) were collected using open-ended questions embedded in the online survey.

4. Data analysis

Data were analyzed using IBM SPSS version 29.0.1.³⁴ Descriptive statistics were used to summarize the demographics and psychological characteristics of couples as well as the medical characteristics of patients.

As previously specified, to date there are no validated instruments specifically designed to assess how romantic partners perceive, experience, and emotionally respond to the body image of women who have recently undergone BC surgery. This construct represents a critical variable for the investigation of relational and psychosocial dynamics in the aftermath of BC treatment. Its relevance is underscored by the multidimensional definition of body image proposed in the literature,¹ which emphasizes its inherently relational and socially mediated nature. In light of this gap in the literature, this study pursued the objective of providing a preliminary exploration of an ad hoc questionnaire specifically developed by the authors to capture romantic partners' perceptions of patients' body image. This instrument, which consists of 10 items rated on a 4-point Likert scale and was previously used in other exploratory studies,¹⁶ was conceived as a first step toward generating a reliable measure that could be systematically applied in future research. Establishing this measure is essential for advancing the empirical investigation of how partners' perceptions intersect with patients' own body image evaluations and broader relational functioning. This tool would also allow researchers to begin testing preliminary hypotheses regarding the relational processes through which physical changes, after BC surgery, are perceived and negotiated within intimate relationships. In this study, we labeled the construct measured by this tool as “Partners' Perceptions of Patients' Body Image”. The scale ranges from 0 to 30, with 0 indicating no concerns regarding the patient's body image and 30 reflecting a high level of concern. Internal consistency was

assessed using Cronbach alpha (values ≥ 0.65 are considered acceptable for self-report questionnaires³⁵) and was 0.95 for this scale. An ad hoc cutoff score of ≥ 11 was established to define moderate to high body image concerns, consistent with the classification used in the Body Image Scale (BIS^{28,29}) administered to the women.¹⁶

Subsequently, we examined the preliminary associations among psychometric variables related to romantic partners' health-related measures, patients' body image, and psychological flexibility.

Finally, two separated hierarchical regression analyses were performed to assess the relation between partners' psychological measures (independent variables) and women's body image and psychological flexibility (dependent variables). Effect sizes were interpreted using Cohen f^2 , where values ≥ 0.02 indicated a small effect, ≥ 0.15 indicated a medium effect, and ≥ 0.35 indicated a large effect.²⁷

5. Results

5.1. Participant characteristics

Participants' characteristics are summarized in Table 1. The average age of patients was 48.60 ± 10.27 years and that of their partners was 50.60 ± 11.47 years. Most couples were in a stable relationship for more than 5 years ($n = 30$; 75%), were married ($n = 27$; 67.50%), and had one or more children ($n = 25$; 62.50%). Regarding medical characteristics, most patients ($n = 35$; 87.50%) had received a breast cancer diagnosis more than 6 months before study enrollment and did not present with metastases ($n = 37$; 92.50%) at recruitment. Mastectomy was the most frequent surgical procedure ($n = 27$; 67.50%), and more than half of the patients ($n = 25$; 62.50%) underwent at least 2 types of adjuvant therapies (e.g., radiotherapy, chemotherapy, hormonal therapy). Only 5 patients (12.50%) underwent surgery alone without additional treatment.

5.2. Patients' and partners' psychological characteristics

In general, patients' and partners' psychological characteristics are comparable and are summarized in Table 2. Regarding women's body image, both patients (mean score: 17.20 ± 8.85) and their partners (mean score 17.03 ± 8.47) expressed moderate concerns. Considering mood states, both patients (mean score: 9.15 ± 4.62) and partners (mean score: 7.83 ± 3.70) exhibited borderline levels of anxiety, while depression levels fell within the normal range (mean score of patients: 5.80 ± 4.10 , and of partners: 4.68 ± 3.13). Finally, the perceived psychological flexibility was quite high for couples (mean score of patients: 0.87 ± 0.04 , and of partners: 0.85 ± 0.07).

5.3. Correlations between patients' and partners' psychological characteristics

Pearson's correlation results are summarized in Table 3. The analysis revealed that patients' body image was significantly associated ($p < 0.05$, two-tailed) with all the partners' psychological measures—including partners' perception of patients' body image, anxiety, depression, and distress—except for psychological flexibility. Conversely, patients' psychological flexibility was significantly associated ($p < 0.05$, two-tailed) with all the partners' psychological measures—namely, anxiety,

Table 1
Patients' and partners' characteristics (N = 40 couples).

Sociodemographic information	Patients (n = 40)	Partners (n = 40)
Age: M \pm SD (min–max)	48.60 \pm 10.27 (30–70)	50.60 \pm 11.47 (29–72)
Educational level: n (%)		
Middle school	0 (0)	7 (17.50)
High school diploma	15 (37.50)	20 (50)
University degree	25 (62.50)	13 (32.50)
Couples (N = 40)		
Civil status: n (%)		
Civil union/cohabitation		13 (32.50)
Marriage		27 (67.50)
Duration of the relationship: n (%)		
<1 year		4 (10)
Between 1 and 5 years		6 (15)
>5 years		30 (75)
Living together: n (%)		
Yes		33 (82.50)
No		7 (17.50)
Children: n (%)		
Yes (1 or more)		25 (62.50)
No		15 (37.50)
Medical information		
Patients (n = 40)		
Presence of metastases: n (%)		
Yes		3 (7.50)
No		37 (92.50)
Year BC diagnosis: n (%)		
Between 1 and 3 months ago		2 (5)
Between 3 and 6 months ago		3 (7.50)
≥ 6 months ago		35 (87.50)
Type of surgery: n (%)		
Quadrantectomy		13 (32.50)
Mastectomy		27 (67.50)
Therapies in addition to surgery: n (%)		
Radiotherapy		1 (2.50)
Chemotherapy		4 (10)
Hormonal therapy		5 (12.50)
Radiotherapy and chemotherapy		4 (10)
Radiotherapy, chemotherapy, and hormonal therapy		8 (20)
Radiotherapy and hormonal therapy		6 (15)
Chemotherapy and hormonal therapy		7 (17.50)
No therapies (only surgery)		5 (12.50)

depression, distress, and flexibility—except for partners' perception of patients' body image.

5.4. Predictors of patients' body image concerns and psychological flexibility

Two separate multiple linear regression analyses were conducted to examine the associations between partners' psychological variables—specifically, their perception of patients' body image and well-being indicators (anxiety, depression, distress, and psychological flexibility)—as independent variables, and patients' body image and psychological flexibility as dependent variables. The results of both models are presented in Table 4.

In the first regression model (Adj. $R^2 = 0.52$), patients' body image was positively related to partners' perception of patients' body image ($\beta = 0.68$), as well as to partners' levels of depression ($\beta = 0.29$) and distress ($\beta = 0.30$). The second regression model (Adj. $R^2 = 0.47$) revealed a significant association between partners' mental health conditions—specifically depression

Table 2**Patients' and partners' psychological characteristics (N = 40 couples).**

Variables (range of scores)	BC patients (n = 40); M ± SD (min–max)	Partners (n = 40); M ± SD (min–max)
Patients' body image Partners' perceptions of patients' body image (0–30)	17.20 ± 8.85 (0–30)	17.03 ± 8.47 (0–30)
Anxiety (0–21)	9.15 ± 4.62 (2–21)	7.83 ± 3.70 (1–15)
Depression (0–21)	5.80 ± 4.10 (1–21)	4.68 ± 3.13 (0–14)
Distress (0–42)	14.95 ± 8.18 (4–42)	12.50 ± 6.37 (2–25)
Psychological flexibility (0–1)	0.87 ± 0.04 (0.75–0.93)	0.85 ± 0.07 (0.59–0.92)

($\beta = -0.48$) and anxiety ($\beta = -0.51$)—and patients' psychological flexibility as a coping strategy. In addition, partners' psychological flexibility ($\beta = 0.41$) emerged as a significant predictor of patients' psychological flexibility. These findings support both of our hypotheses: namely, that the way romantic partners perceive patients' body image is significantly related to how women evaluate their own body image, but also that partners' anxiety and depressive symptoms are related to patients' ability to adopt trauma reworking skills, such as psychological flexibility, as a coping strategy. However, the analysis also identified additional significant factors that were not initially considered, suggesting a more complex interplay of variables influencing patients' body image and psychological flexibility.

6. Discussion

Research on couple-based dynamics highlights that the quality of the partner relationship significantly influences patients' emotional and psychological adjustment to BC. Couple interactions play a critical role in shaping how women cope with post-treatment body image changes, with partner support and the overall relational climate emerging as key factors in mitigating the emotional challenges posed by the illness.^{16,36,37} This study investigated how partners' perceptions of patients' body image related women's self-evaluations of their own body image. In addition, it explored how partners' psychological well-being—including symptoms of anxiety, depression, overall psychological distress, and flexible coping skills—affects patients' ability to exhibit psychological flexibility during the post-treatment period. Our study revealed a complex interplay between BC patients and their intimate partners: patients' body image was closely linked to how their partners perceived it, as well as to partners' levels of depression and distress. Conversely, partners' mental health conditions—such as symptoms of depression and anxiety—and their degree of psychological flexibility were found to be associated with patients' own psychological flexibility, which served as a crucial coping strategy during and after cancer medical treatments.

Research in recent years^{16,38–40} have suggested further investigation into how partners' emotional responses to the marks left by cancer treatments on patients' bodies affect relationship

dynamics (e.g., for perceived closeness and intimacy) and contribute to the patients' psychological well-being and overall quality of life, highlighting their significance in clinical and therapeutic contexts. However, there are no specific tools to evaluate how romantic partners perceive the body image of women during the post-treatment period. To address this, we used a tool previously used with partners in a study by authors,¹⁶ which demonstrated strong preliminary psychometric properties and its potential relevance for the study of the partners' perceptions of patients' body image.

These perceptions vary significantly across different cultural and societal contexts, influencing both individual and collective attitudes toward the disease. Consistently, a previous study by the authors,⁴¹ involving a cohort of Italian women diagnosed with locally advanced BC, found that family and relational factors can impede access to treatment, potentially leading to significant consequences for disease prognosis.

At the same time, female survivors and partners could unconsciously attribute idealized characteristics to bodily attractiveness, as if bodies must be flawless (e.g., free of scars or marks left by illness) to be considered desirable. Previous scientific studies,^{42,43} conducted both within the Italian cultural context and internationally, have investigated how changes in body image affect couples' sexual health following BC treatment. These studies highlight that changes in patients' sexual self-image and the physical consequences of breast surgery—particularly mastectomy—result in significant impairments in sexual functioning, affecting both the psychological and physical dimensions of intimacy. Consistently, statistics indicate that BC patients experience sexual dysfunction at significantly higher rates than women in the general population, and this highlights the considerable impact of the disease and its treatments on sexual health and overall quality of life.⁴⁴

According to Davis and colleagues,⁴⁵ the sociocultural theory of Vygotsky⁴⁶ helps explain the connection between body image issues and psychosocial health in patients undergoing BC treatment and invasive medical procedures by emphasizing how social interactions shape consciousness and how cultural experiences influence cognitive processes. In Western society, the rise of idealized beauty standards, amplified by social media exposure,^{47,48} has led individuals to assess their appearance

Table 3**Pearson's correlations between partners' psychological characteristics and patients' body image and psychological flexibility.**

Partners' psychological characteristics	Patients' body image	Patients' psychological flexibility
Partners' perceptions of patients' body image	0.74 ^a	-0.26
Partners' anxiety	0.44 ^b	-0.36 ^b
Partners' depression	0.50 ^a	-0.56 ^a
Partners' distress	0.50 ^a	-0.48 ^b
Partners' psychological flexibility	-0.16	0.54 ^a

^a $p < 0.001$ (two-tailed).

^b $p < 0.05$ (two-tailed).

Table 4
Multiple linear regression models.

Dependent variable		Standardized Coeff. (Beta)	t	Sign.	Adj. R ²	Effect size (Cohen's f ²) ^b
Patients' body image	F (3, 36) = 15.31; $\rho < 0.001$				0.52	1.05
	(Constant)	NA ^a	1.07	0.29		
	Partners' perception of patients' body image	0.68	4.99	<0.001 ^c		
	Partners' depression	0.29	0.76	0.04 ^d		
	Partners' distress	0.30	1.04	0.03 ^d		
	Excluded Variable: Partners' anxiety					
Patients' psychological flexibility	F (3, 36) = 10.49; $\rho < 0.001$				0.47	0.94
	(Constant)	NA ^a	9.41	<0.001		
	Partners' depression	-0.48	-2.57	0.02 ^d		
	Partners' anxiety	-0.51	-0.32	0.04 ^d		
	Partners' psychological flexibility	0.41	3.20	<0.001 ^c		
	Excluded Variable: Partners' distress					

^a NA, not applicable.

^b Cohen f² standardized measure of effect size²⁷: ≥ 0.02 small effect; ≥ 0.15 medium effect; ≥ 0.35 large effect.

^c $\rho < 0.001$.

^d $\rho < 0.05$.

through a sociocultural lens, constantly comparing themselves to societal norms and expectations. This persistent comparison can significantly impact self-perception, body satisfaction, and overall mental well-being, underscoring the profound influence of social and cultural factors on the development of body image concerns.

Taking into account the characteristics of the sample, we observed that couples were in their 50s and, on average, had been engaged in a stable relationship for several years, most of them being married and having children. The literature^{49,50} emphasizes that long-term stable relationships and social support act as protective factors against psychological distress and health decline. In contrast, in our sample, mastectomy was the most prevalent surgical procedure, indicating more advanced or delayed diagnoses. In addition, this factor was found to be correlated with greater disfigurement, leading to poorer body image and reduced quality of life.⁵¹

Considering mental health, patients and partners showed comparable mood states, with borderline levels of anxiety and depressive symptoms within the normal range. The similarity in outcomes between partners is not surprising since BC always affects couples as patient-partner dyads, with both individuals responding as a collective unit rather than separately, particularly in the coping process. Research^{52–55} has conceptualized stress within couples as a dyadic phenomenon, characterized by shared concerns. The concept of “*we-disease*” underscores that both members of the couple experience cancer-related stressors: for example, while patients face the physical and emotional consequences of the disease and its treatment, partners—typically the primary informal caregivers—are tasked with addressing the patient's physical and emotional needs and managing changes in family roles.^{56,57} For this reason, it is not surprising to observe an interdependence in the well-being of the members of the dyad.

Of particular interest is that psychological flexibility emerged as a significant psychological characteristic among couples. This trait was found to be at an overall high level, suggesting its potential role in helping partners adapt to the challenges posed by BC and related treatments, while also contributing to keeping anxiety and depressive symptoms below the clinical

threshold.^{58,59} Furthermore, regarding body image perception, both patients and partners exhibit moderate concerns, which are positively associated. This implies that both individuals are influenced by alterations caused by the illness and treatment. These changes are intricately linked to how perceptions, thoughts, emotions, and actions regarding one's physical appearance are shaped within the couples.^{16,60}

In conclusion, our analyses underscore the central role of interpersonal dynamics in post-treatment adjustment to BC. Patients' body image appraisals were strongly aligned with their partners' perceptions, suggesting that external validation substantially shapes self-perception. Partners' depressive symptoms and overall distress were associated with poorer patient body image, highlighting the emotional interdependence of the dyad. By contrast, greater partner psychological flexibility was linked to more adaptive coping in patients, reinforcing evidence that flexible, value-consistent responses within the relationship promote resilience. Conversely, heightened anxious-depressive symptomatology appeared to compromise this flexibility, indicating that psychological distress may hinder adaptive adjustment processes.

These findings underscore the need for interventions that target both members of the couple rather than focusing exclusively on the patient. Integrating romantic partners into psychoeducational, therapeutic, and support-based programs could facilitate open communication, shared coping strategies, and mutual understanding.⁶¹ Such dyadic-oriented approaches have the potential to enhance body image, bolster psychological flexibility, and ultimately improve psychological adjustment, relationship satisfaction, and quality of life for both partners.

7. Conclusion, limitations, and future perspectives

Present findings add to the growing evidence that adaptation to BC challenges is a dyadic process. Couple-based factors proved pivotal in the clinical management of body image concerns and coping—especially psychological flexibility—because patients' views of their bodies and self-worth are continually shaped and reinforced within their intimate relationships. Given this interdependence between partners' well-being and patients' body

image symptomatology, interventions aimed at improving post-treatment adjustment should purposefully engage both members of the dyad and foster mutual support.

Several limitations should be acknowledged. First, the sample was small and recruited through snowball sampling, which, although useful for accessing hard-to-reach populations, can lead to biased and non-representative samples, thereby limiting the generalizability of findings. This recruitment method also depends on participants' willingness to refer others, further constraining sample diversity and size. In addition, the absence of a defined sampling frame prevents the estimation of sampling error and complicates statistical inference. Second, although the study was guided by a relational lens, the use of individual-level regression analyses rather than dyadic analytic approaches limited the ability to capture reciprocal influences within couples. Third, clinical heterogeneity (e.g., variation in age, surgical procedures, and adjuvant treatments) introduced additional variability that complicates interpretation.

Future research should use larger and more representative samples, integrate dyadic statistical models, and account for key medical variables to elucidate how partner involvement shapes adaptation in BC survivorship. Moreover, psychometric evaluations with larger samples are needed to further appraise and validate the instrument (i.e., "Partners' Perceptions of Patients' Body Image Scale"), ensuring its robustness and applicability across diverse contexts.

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