Changes in Relationship Dynamics in Men and Women After Receiving the Diagnosis of Breast Versus Prostate Cancer: A Population-based Study

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Background: Relationship changes after cancer are prevalent yet underexplored. This investigation aimed to assess factors influencing relationship changes between participants receiving the 2 most common gender-specific cancer diagnoses: breast and prostate.

Methods: Anonymous surveys were administered via Amazon Mechanical Turk. Eligible participants were 18 years or older and diagnosed with breast or prostate cancer. Relationship satisfaction and mental health were assessed via Personal Health Questionnaire Depression Scale (PHQ-8), General Anxiety Disorder (GAD-7), and Self-Esteem and Relationship Questionnaire.

Results: Of the 186 study respondents, 85.4% (159) had breast cancer and 14.5% (27) had prostate cancer. More breast cancer participants reported that their relationship worsened after cancer diagnosis (breast: 40.9%, prostate: 11.1%), whereas a majority of prostate cancer patients reported improved relationships (breast: 17%, prostate: 66.7%; $P < 0.001$). However, most participants reported no relationship status change (breast: 66.7%, prostate: 77.8%; $P = 0.508$) and remained with the same partner postdiagnosis (breast: 84.9%; prostate: 77.8%). Breast cancer participants reported higher self-esteem compared with prostate cancer participants ($P = 0.019$). There was no significant difference in overall Self-Esteem and Relationship Questionnaire ($P = 0.140$), PHQ-8 ($P = 0.689$), and GAD-7 ($P = 0.871$) scores. Average PHQ-8 and GAD-7 scores indicated moderate depression (breast: 12.62, prostate: 12.88) and moderate anxiety (breast: 10.96, prostate: 11.06).

Conclusions: Breast cancer participants reported greater perceived changes in their relationship postdiagnosis. This study supports routine, active, and preemptive involvement of a mental health provider for patients with cancer to improve mental health outcomes. *(Plast Reconstr Surg Glob Open 2025;13:e6494; doi: 10.1097/GOX.0000000000006494; Published online 21 February 2025.)*

INTRODUCTION

Breast and prostate cancer are the most common gender-specific cancer diagnoses in women and men, affecting 1 in 8 women[1] and men.[2] Unfortunately, due to the physical repercussions of cancer treatments, these diagnoses have detrimental sequelae on quality of life. As cancer is an independent risk factor for mental health disorders,[3] decreased depression rates have been reported for patients with strong interpersonal support,[4] whereas socially isolated individuals face increased risks of poorer outcomes and cancer-related mortality.[5–7] Furthermore, strong social support has been linked to improved posttreatment physical recovery, improved mental health, reduced cancer recurrence rates, and cancer-specific outcomes.[8–11] Specifically, marriage or

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an equivalent committed romantic relationship, one of the most effective forms of social supports,[12] has been linked to superior cancer-related overall survival.[13] This is likely because married individuals have a greater inclination to undergo treatment and comply with follow-up care.[14] Cancer staging also occurs earlier,[15] leading to improved outcomes.[16] As such, marital status is considered an independent prognostic factor in patients with breast[17] and prostate[18] cancer.

In both gender-equivalent cancers, treatments can have profound and often irreversible and lasting detrimental effects on physical intimacy.[19,20] These in turn negatively impact psychosocial well-being, sexual well-being, and overall quality of life.[19,20] Evidence suggests that more women are abandoned by their partners after a breast cancer diagnosis.[21]

However, to our knowledge, no one has investigated if women with breast cancer experience differential rates of relationship dissolution than men with prostate cancer because of their cancer diagnosis. Here, we aimed to elucidate perceived and actual changes in marital status among these patient cohorts as well as identifying influential factors in relationship dynamics and relevant mental health outcomes. Ultimately, we hope to identify potential areas of therapeutic intervention to improve the quality of life and thus, potentially, cancer-related outcomes for patients with breast and prostate cancer.

METHODS

Study Design and Population

This was a cross-sectional study conducted through Qualtrics (Qualtrics, Provo, UT) between October to November 2023. The survey was distributed by Mturk (Amazon, Seattle, WA). MTurk is a quick and cost-effective online platform to easily access an unbiased group of crowdsourcing individuals to participate in organizational research in exchange for payment.[22] It has been established as a valid and generalizable research platform.[22] The study was approved by the institutional review board. All procedures were followed in accordance with the Declaration of Helsink of 1975, as revised in 2008. Each participant received a recruitment message that outlines the risks, benefits, statement of confidentiality, voluntary participation, and implied consent by completing the survey.

All English-speaking participants 18 years or older who live in the United States were considered for inclusion. A 3-question screening survey asking the following was administered first: (1) Have you been diagnosed or ever received the diagnosis of breast or prostate cancer? (2) Were you married at the time of your diagnosis, or at any point while being treated for cancer? (3) Did the diagnosis of cancer change your relationship status? The survey automatically ended if the participant selected "no" to the first question. Participants answering "yes" to the first screening question were invited to take a 54-question follow-up survey. Participants were not allowed to repeat the survey. As the survey contained potentially sensitive

> **Takeaways**
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> **Question:** What are the factors influencing relationship status changes between participants receiving the 2 most common gender-specific cancer diagnoses: breast and prostate cancer?
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> **Findings:** Patients with breast cancer perceived negative changes to their relationship due to their cancer diagnosis more frequently than patients with prostate cancer. Both cohorts experienced moderate levels of mood disorders.
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> **Meaning:** This study supports routine, active, and preemptive involvement of a mental health provider for patients with cancer to improve mental health outcomes.

information, participants were allowed to not answer every question. Qualtrics recorded responses anonymously with a de-identified alpha numeric string. Respondents were compensated $0.02 for completion of the screening survey and $0.83 for completion of the follow-up survey, based on an hourly rate of $10 per hour for participation. Those who completed the survey too quickly (based on completion time >1.5 × interquartile range below median time determined postfactor) or had answers incongruent with the screening survey were not rewarded or included in the study.

Survey Design

The follow-up survey consisted of the 3 screening questions and questions regarding demographic data, relationship status, cancer diagnosis and treatments, qualitative assessments of shifting relationship dynamics, and mood disorders. Participants were prompted to answer the questions in the context of when they were undergoing cancer diagnosis and treatments. Demographic data included age, gender identity, race, and ethnicity. The survey also included questions about their cancer diagnosis, surgical procedures, chemotherapy, radiation therapy, reconstructive surgery, and relationship data, such as previous divorces, age of marriage, and duration of marriage. Late age of marriage was defined as 28 years or older, whereas early to on-time age of marriage was characterized as younger than 28 years old.[23]

To assess depression, the Patient Health Questionnaire (PHQ-8) was utilized.[24] The PHQ-8 is an 8-item validated questionnaire that measures depression with a score range of 0–24.[24] Higher scores represent severe depression.[24] A total score of 0–4 represents no depressive symptoms; a score of 5–9, mild depressive symptoms; 10–14, moderate; 15–19, moderately severe; and 20–24, severe.[24]

The Generalized Anxiety Disorder (GAD-7) scale was implemented to assess for anxiety during the participant's cancer diagnosis and treatments.[25] This measure is a validated survey with a score range of 0–21, with higher score representing severe anxiety.[25] A GAD-7 score of 0–4 represents minimal anxiety; 5–9, mild anxiety; 10–14, moderate anxiety; and 15–21, severe anxiety.[25]

The Self-Esteem and Relationship Questionnaire (SEAR) was used to measure relationship satisfaction, self-esteem, and confidence during the participant's cancer

Table 1. Demographic Characteristics

	Breast Cancer (n = 159)	Prostate Cancer (n = 27)	P
Male, n (%)	24 (15.1)	27 (100)	**<0.001**
Race, n (%)			0.472
African American	1 (0.6)	1 (3.7)	
American Indian/Alaskan Native	2 (1.3)	1 (3.7)	
White	135 (84.9)	23 (85.2)	
Hispanic/Latino	12 (7.5)	1 (3.7)	
Cancer stage, n (%)			**0.023**
Stage 1	57 (35.8)	5 (18.5)	
Stage 2	60 (37.7)	9 (33.3)	
Stage 3	35 (22.0)	13 (48.1)	
Stage 4	7 (4.4)	0 (0.0)	
Treatment status, n (%)			0.322
Completed treatment	66 (41.5)	16 (59.3)	
Palliative stage (in treatment)	2 (1.3)	0 (0.0)	
Recently diagnosed/not started treatment	9 (5.7)	3 (11.1)	
Relapse (off treatment)	5 (3.1)	0 (0.0)	
Undergoing treatment currently	62 (39.0)	7 (25.9)	
Breast reconstructive surgery, n (%)			—
Oncoplastic breast reduction	51 (32.1)	—	
Implant	75 (47.2)	—	
Autologous	17 (10.7)	—	
Implant and autologous	10 (6.3)	—	
None	6 (3.8)	—	

Bolded numbers signify $P < 0.05$.

diagnosis and treatments.[26] This validated 14-question survey has a score range of 14–70.[26] The survey was further divided into the sexual relationship domain (8 questions, score range: 8–40), confidence domain (6 questions, score range: 6–30), self-esteem subscale (7 questions, score range: 7–21), and overall relationship subscale (2 questions, score range: 2–10).[26] Higher SEAR scores are indicative of greater satisfaction, confidence, and self-esteem.[26]

Statistical Analysis

Data analyses were performed using descriptive and analytical statistical methods. Descriptive data were presented as categorical variables with frequency and percentage, and continuous variables with mean and SD. Fisher exact tests were used for categorical variables and 2-tailed unpaired Welch *t* tests were performed for continuous variables. Multiple linear regression models were utilized to assess the significance of the qualitative factors collected. Significant outliers were removed using the median ± 1.5 × interquartile range method. The significance level of this study was set at a *P* value less than 0.05. All data were analyzed using R (version 4.3.1).

RESULTS

Among the 186 participants who completed the survey, 135 (72.6%) identified as women and 51 (27.4%) identified as men (Table 1). A majority of the participants (27, 100%) who identified as male had prostate cancer, whereas a quarter (24, 15.1%) had breast cancer (*P* < 0.001) (Table 1). Power analysis indicated that study population size was sufficient. (**See figure, Supplemental Digital Content 1**, which displays the power analysis, **http://links.lww.com/PRSGO/D813**.) All participants who identified as

women had breast cancer (135, 100%). A majority of patients with breast cancer indicated having either stage 1 or stage 2 cancer (I: 57, 35.8%; II: 60, 37.7%; III: 35, 22.0%; IV: 7, 4.4%), whereas a majority of patients with prostate cancer indicated stage 2 or 3 cancer (I: 5, 18.5%; II: 9, 33.3%; III: 13, 48.1%; IV: 0, 0%; *P* = 0.023) (Table 1). There were no significant differences in terms of treatment status between the 2 groups (*P* = 0.322; Table 1). About half of the participants with breast cancer had implant-based reconstruction (75, 47.2%), whereas 32% had oncoplastic breast reduction (51, 32.1%), 10% had autologous (17, 10.7%), and 6% had combination of implant and autologous (10, 6.3%) (Table 1). Interestingly, a minority of patients with breast cancer had no breast reconstruction (6, 3.8%) (Table 1). The study demographics and cancer treatment and diagnoses are summarized in Table 1.

A majority of the participants with breast cancer (113, 71.1%) and a minority of participants with prostate cancer (4, 14.8%) indicated having a male partner (*P* < 0.001; Table 2). Participants with breast cancer were more likely to get married younger compared with the prostate cancer group (breast: 89, 56%; prostate: 9, 33.3%; *P* = 0.049) (Table 2). Prostate cancer participants' marriage since diagnosis lasted longer on average than participants with breast cancer (prostate: 3.07 y, breast: 2.66 y; *P* = 0.022) (Table 2). There were no significant differences in terms of relationship status change after receiving a cancer diagnosis, with a majority of the participants having no change in relationship status (*P* = 0.508) (Table 2). However, about 40% of participants with breast cancer indicated that their relationship worsened after cancer diagnosis (breast: 65, 40.9%, prostate: 3, 11.1%), whereas a majority of prostate revealed that their relationship got better after diagnosis (breast: 27, 17%, prostate: 18,

Table 2. Marriage and Relationship Characteristics

	Breast Cancer (n = 159)	Prostate Cancer (n = 27)	*P*
Male partner, n (%)	113 (71.1)	4 (14.8)	**<0.001**
Marriage age at <28 y, n (%)	89 (56.0)	9 (33.3)	**0.049**
Marriage duration since diagnosis, mean (SD)	2.66 (0.85)	3.07 (0.92)	**0.022**
No. marriages, n (%)			0.513
1	38 (25.3)	10 (37.0)	
2	39 (26.0)	5 (18.5)	
3	54 (36.0)	7 (25.9)	
4	18 (12.0)	5 (18.5)	
5+	1 (0.7)	0 (0.0)	
Relationship status change after diagnosis, n (%)			0.508
No	106 (66.7)	21 (77.8)	
Yes, divorced	7 (4.4)	1 (3.7)	
Yes, separated	46 (28.9)	5 (18.5)	
Belief that relationship changed, n (%)			**<0.001**
No change	46 (28.9)	6 (22.2)	
Unsure	21 (13.2)	0 (0.0)	
Relationship got worse	65 (40.9)	3 (11.1)	
Relationship got better	27 (17.0)	18 (66.7)	
Current relationship status to partner with during diagnosis			**<0.001**
Divorced or separated	7 (4.4)	3 (11.1)	
Widowed	0 (0.0)	3 (11.1)	
Remarried/in a domestic partnership with a different person	17 (10.7)	0 (0.0)	
Still married/in relationship	135 (84.9)	21 (77.8)	

Bolded numbers signify *P* < 0.05.

Table 3. Average Questionnaire Scores: Breast Versus Prostate Cancer

Questionnaire	Breast Cancer (n = 133)	Prostate Cancer (n = 17)	*P*
SEAR score, mean (SD)	41.82 (6.59)	39.35 (5.26)	0.140
SEAR sexual relationship domain, mean (SD)	23.73 (3.61)	22.82 (3.19)	0.326
SEAR confidence domain, mean (SD)	18.09 (3.56)	16.53 (2.94)	0.085
SEAR self-esteem subscale, mean (SD)	12.28 (2.34)	10.88 (1.83)	**0.019**
SEAR overall relationship subscale, mean (SD)	5.81 (1.67)	5.65 (1.50)	0.698
PHQ-8 score, mean (SD)	12.62 (2.53)	12.88 (2.87)	0.689
GAD-7 score, mean (SD)	10.96 (2.50)	11.06 (2.44)	0.871

Bolded numbers signify *P* < 0.05.

66.7%) (*P* < 0.001) (Table 2). Currently, most of participants with breast and prostate cancer are still in a relationship with the same person that they were with during the cancer diagnosis (breast: 135, 84.9%; prostate: 21, 77.8%) (Table 2). Participants with breast cancer had a higher rate of remarriage or new relationship (breast: 17, 10.7%; prostate: 0, 0%), whereas participants with prostate cancer had a higher divorce/separation rate (breast: 7, 4.4%; prostate: 3, 11.1%) and widow rate (breast: 0, 0%; prostate: 3, 11.1%) (*P* < 0.001).

Participants with breast cancer had higher SEAR self-esteem subscale scores compared with participants with prostate cancer (breast: 12.28, prostate: 10.88; *P* = 0.019). There were no significant differences between participants with breast and prostate cancer in terms of overall SEAR score (*P* = 0.140), SEAR sexual relationship domain (*P* = 0.326), SEAR confidence domain (*P* = 0.085), SEAR overall relationship subscale (*P* = 0.698), PHQ-8 (*P* = 0.689), and GAD-7 (*P* = 0.871) (Table 3). Logistical regression analysis showed similar effects. (**See table, Supplemental Digital Content 2**, which displays linear regression analysis: breast versus prostate cancer, **http://links.lww.com/PRSGO/D814**.)

Average PHQ-8 scores for both participants with breast and prostate cancer indicated moderate depression (breast: 12.62, prostate: 12.88). Average GAD-7 scores for respondents with breast and prostate cancer indicated moderate anxiety (breast: 10.96, prostate: 11.06).

Breast cancer participants with reconstruction had higher self-esteem scores compared with participants with prostate cancer (breast: 12.23, prostate: 16.53; *P* = 0.01) (Table 4). There were no significant differences between breast cancer patients with reconstruction and participants with prostate cancer in overall SEAR score (*P* = 0.10), SEAR sexual relationship (*P* = 0.29), SEAR confidence (*P* = 0.07), SEAR overall relationship (*P* = 0.09), PHQ-8 (*P* = 0.72), and GAD-7 (*P* = 0.86) (Table 4).

There were no significant differences amongst participants with different types of breast reconstructions in terms of overall SEAR score (*P* = 0.36), SEAR sexual relationship domain (*P* = 0.13), SEAR confidence domain (*P* = 0.58), SEAR self-esteem subscale (*P* = 0.40), SEAR overall relationship subscale (*P* = 0.68), PHQ-8 (*P* = 0.14), and GAD-7 (*P* = 0.21) (Table 5).

Participants with both breast and prostate cancer that had an early/on-time marriage (ie, married at less than 28

Table 4. Average Questionnaire Scores: Breast Cancer Patients With Reconstruction Versus Prostate Cancer

Questionnaire	Breast Cancer (n = 130)	Prostate Cancer (n = 17)	P
SEAR score, mean (SD)	41.75	39.35 (5.26)	0.10
SEAR sexual relationship domain, mean (SD)	23.73	22.82 (3.19)	0.29
SEAR confidence domain, mean (SD)	18.02	16.53 (2.94)	0.07
SEAR self-esteem subscale, mean (SD)	12.23	10.88 (1.83)	**0.01**
SEAR overall relationship subscale, mean (SD)	5.79	5.65 (1.50)	0.09
PHQ-8 score, mean (SD)	12.62 (2.53)	12.88 (2.87)	0.72
GAD-7 score, mean (SD)	10.96 (2.50)	11.06 (2.44)	0.86

Bolded numbers signify *P* < 0.05.

Table 5. Average Questionnaire Scores: Breast Cancer Reconstruction

Questionnaire	Oncoplastic (n = 48)	Implant and Autologous (n = 10)	Implant (n = 66)	Autologous (n = 14)	P
SEAR score, mean (SD)	42.48 (6.4)	39.00 (9.7)	41.03 (8.2)	42.36 (11.8)	0.36
SEAR sexual relationship domain, mean (SD)	24.42 (3.8)	21.80 (4.8)	23.42 (4.6)	23.00 (7.6)	0.13
SEAR confidence domain, mean (SD)	18.06 (3.1)	17.20 (5.1)	17.61 (4.2)	19.36 (5.0)	0.58
SEAR self-esteem subscale, mean (SD)	12.10 (1.9)	11.70 (2.7)	11.98 (2.8)	13.50 (3.0)	0.40
SEAR overall relationship subscale, mean (SD)	5.96 (1.7)	5.50 (2.7)	5.62 (1.8)	5.86 (2.3)	0.68
PHQ-8 score, mean (SD)	12.10 (3.3)	12.90 (3.6)	13.15 (3.9)	12.21 (3.7)	0.14
GAD-7 score, mean (SD)	10.38 (3.2)	11.10 (3.9)	11.35 (3.8)	11.36 (3.1)	0.21

Table 6. Average Questionnaire Scores: Early/On-time Versus Late Marriage

Questionnaire	Early/On-time Marriage: Breast (n = 117)	Early/On-time Marriage: Prostate (n = 12)	Late Marriage: Breast (n = 16)	Late Marriage: Prostate (n = 5)	P
SEAR score, mean (SD)	42.44	40.75	37.25	36.00	**0.02**
SEAR sexual relationship domain, mean (SD)	24.03	23.83	21.56	20.40	**0.02**
SEAR confidence domain, mean (SD)	18.42	16.92	15.69	15.60	**0.03**
SEAR self-esteem subscale, mean (SD)	12.46	10.92	10.94	10.80	**0.02**
SEAR overall relationship subscale, mean (SD)	5.96	6.00	4.75	4.80	**0.04**
PHQ-8 score, mean (SD)	12.30	11.92	14.94	15.20	**<0.0001**
GAD-7 score, mean (SD)	10.73	10.17	12.62	13.20	**0.01**

Bolded numbers signify *P* < 0.05.

years of age[23]) had higher overall SEAR (*P* = 0.02), SEAR sexual relationship domain (*P* = 0.03), SEAR self-esteem subscale (*P* = 0.02), SEAR overall relationship subscale (*P* = 0.04), PHQ-8 (*P* < 0.0001), and GAD-7 (*P* = 0.01) compared with participants with late marriage (Table 6).

DISCUSSION

A cancer diagnosis deeply affects both the patient and their partner, raising difficult existential questions.[27] Although committed romantic relationships often protective against mental health challenges and can improve cancer-specific outcomes,[28] cancer and its treatments can place considerable strain on these relationships.

In this study, patients with breast cancer were more likely than patients with prostate cancer to perceive negative changes in their relationships. Cancer treatment imposes physical and emotional burdens, with side effects that can incapacitate the patient, requiring the partner to take on caregiving roles. Male partners, in particular, may find this role challenging, potentially leading women with breast cancer to feel less supported.[29]

Differences in how men and women value emotional intimacy may contribute to these perceptions. Research shows that although both sexes report higher relationship satisfaction when they feel emotionally close to their partners, men report higher satisfaction when their partners are sexually satisfied, whereas this is not a significant factor for women.[30] This suggests that men and women prioritize different aspects of intimacy, impacting their relationship satisfaction during illness.[30]

Higher self-esteem was reported among breast cancer participants. One explanation for these results is that a majority of the participants with breast cancer had breast reconstruction, which has been shown to help with regaining a sense of normalcy over their body and appearance.[31] In contrast, patients with prostate cancer have fewer options to address physical changes, which may lower their self-esteem. Although awareness of prostate cancer has increased, it may not receive the same level attention or support as breast cancer.[32] This can result in fewer support resources and less awareness about the emotional and psychological challenges faced by patients with prostate cancer, contributing to feelings of isolation and low self-esteem. Societal norms around masculinity and stigma can make patients with prostate cancer feel emasculated, especially if sexual side effects arise.[33]

Participants with both breast and prostate cancer reported similar overall SEAR, sexual relationship, confidence, and relationship scores. One explanation for these results is that the treatment of reproductive organ cancers often disrupt anatomic function, affecting a person's "sense of self" and gender identity.[19,20,34] Sexual performance and libido in patients with prostate cancer can be adversely affected by various therapies.[35] Similarly, patients with breast cancer experience decreased sexual well-being, particularly in the absence of reconstruction and due to antiestrogen therapy, which can lead to vaginal dryness, making intercourse painful and leading to less sexual desire.[36–38] Conversely, sexual satisfaction and emotional intimacy are predictive of relationship satisfaction,[39–41] and sexual satisfaction is a critical factor for marital stability. Therefore, in patients grappling with emotional and physical barriers to intimacy and sexual performance, relationship satisfaction suffers.

Moderate levels of anxiety and depression were reported among both groups of participants. Cancer diagnosis often brings fear and uncertainty,[42,43] compounded by side effects such as fatigue and changes in body image.[44] Survivors also commonly fear recurrence, causing ongoing anxiety.[45,46]

Despite these challenges, most participants remained in the same relationship as before diagnosis. Marriage, especially when early or on time, was linked to lower levels of depression and anxiety and higher self-esteem. Relationships provide vital emotional support; partners can offer comfort and empathy, crucial for coping with cancer's emotional toll.[47] Despite the stress and uncertainty brought on by a cancer diagnosis, many couples remain committed to each other and prioritize supporting each other through the ups and downs of the cancer journey.[48] Additionally, many patients with cancer and their partners maintain hope for the future, focusing on life beyond cancer treatment.[49]

This study highlights the opportunity for therapeutic interventions that support both partners in a relationship. Proactive marriage counseling, which shifts focus from "patient-centered" to "relationship-centered" support,[50] could help couples cope together. Reducing other stressors, such as household and childcare responsibilities, may lessen the burden on both patient and spouse.[51] Plastic surgeons can contribute to patient well-being by offering reconstructive options, which improve body image and sexual satisfaction. Mental health support is also critical, particularly for patients with breast cancer, as studies show psychiatric care improves mental health outcomes.[52]

By offering reconstruction to patients with breast cancer, plastic surgeons are in a unique position to positively affect patient-reported outcomes such as body satisfaction and sexual well-being.[36,37] In fact, a majority of the breast cancer cohort in this study had reconstruction after cancer treatment. However, these findings underscore the importance of mental health providers as a routine part of the treatment team in women with breast cancer. Previous studies have clearly demonstrated that mental health outcomes are significantly improved in patients with breast cancer under the regular care of a psychiatrist.[53]

Although it is difficult to ascertain whether the cancer diagnosis, tumultuous relationship dynamics, or a combination thereof are more important factors for negatively impacting mental health, the psychologically vulnerable state of this patient population is undeniable. Routine and vigilant surveillance of these patients and their partners by a trained mental health professional is critical to recognize the early signs of marital discourse, identify anxiety and depression, and intervene in an expeditious and time-sensitive manner. As reconstructive surgeons routinely follow their patients throughout their breast cancer treatment journey and beyond, it behooves us to be aware of this phenomenon and facilitate timely referrals for potentially struggling patients. Furthermore, understanding these psychological phenomena presents an opportunity for patient education to be aware of these risks, patient empowerment, and proactivity to recognize signs and symptoms in their own partner relationships and to provide resources to seek professional support.

Limitations of the study include the small sample size of participants who completed the survey and that only 15% represented prostate cancer patients. As a result, despite being adequately powered, no subgroup analysis was performed due to insufficient power. Furthermore, by default, participants were limited to those with access to the internet and competency with the Amazon Mturk platform. Although Amazon Mturk has been shown to be of good quality, with acceptable internal consistency,[54,55] test–retest reliability,[56] and interrater reliability within the sample,[20,57,58] the Mturk platform itself also has various limitations, including false answers, reliability bias, and possible sampling bias. Given the cross-sectional design of the study, there is a possibility of recall bias from respondents to the survey. There are a multitude of other factors that can impact relationship status, mental well-being, and quality of life in addition to just a cancer diagnosis that were not controlled for in this study. The study was also skewed toward respondents having a lower-stage cancer, which may be less stressful than patients dealing with more advanced stage cancers. In the future, further stratification of relationship type, for example, married versus domestic partnership and oppositive versus same sex relationship, would be interesting to examine. Future research investigating potential differences in emotional and sexual intimacy and mental health between patients with breast and prostate cancer who remain in committed relationships through their cancer diagnosis and those who experienced divorce/separation are currently underway. The role of reconstruction on relationship status and relationship satisfaction is also currently being investigated.

CONCLUSIONS

Women with breast cancer perceived negative changes to their relationship because of the cancer diagnosis more frequently than men with prostate cancer. However, both cohorts experienced moderate levels of mood disorders. Given the known beneficial effects of healthy romantic relationships on cancer outcomes, vigilant monitoring and proactive protocols to support not only the patient with cancer, but the couple as they navigate the cancer treatment journey, should be standardized.

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DISCLOSURE

ETHICAL APPROVAL

The institutional review board approved this investigation at Stanford University, and all methodology conforms to standards set in the Declaration of Helsinki.

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