The Role of the Quality of Relationship in Couples Facing Treatment for Breast Cancer A Qualitative Italian Study

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Abstract

Introduction: Breast cancer is the leading cause of cancer death in women worldwide. Recently, the focus of research has shifted from psychiatric, psychological and social consequences on the woman who gets sick from breast cancer, to the impact on the couple. Indeed, the psychosocial perspective has developed the construct of the Quality of Relationship (QoR) that affects the quality of life of both members of the dyad.

Objective: The aim of this study was to extend knowledge in this field by identifying and analyzing what dimensions of QoR may impact on couples' psychosocial adjustment to breast cancer and related treatments.

Methods: Semi-structured interviews explored couples' experiences of breast cancer diagnosis and treatment. Transcripts were analyzed using inductive thematic analysis.

Results: 12 couples were interviewed. Results showed how the dimensions of psychosocial support, dyadic coping, communication and intimacy are associated and define the construct of QoR, thus affecting couple's adjustment to breast cancer diagnosis and to disease pathway.

Conclusion: Assessment procedures of couple functioning since and after diagnosis could increase the appropriateness and benefits of integrating existing clinical practice in oncological settings.

Introduction

Breast cancer is the deadliest cancer for women in the world (1). It is estimated that one in eight women gets sick from breast cancer during her lifetime (2). Moreover, in the last decades, statistics have shown a constant increase of incidence ratings worldwide (3, 4). In Italy, 53.500 new cases were diagnosed in 2019, and this number increased up to approximately 55.000 cases in 2020 (5, 6). Despite the increase in incidence, over the past few years, mortality rates have decreased significantly due to the development of better screening and surgical techniques (7). Indeed, the current survival rate is approximately 80-90% 5 years after the diagnosis (2).

Although many studies focus on the impact of the disease and associated treatments on people with a cancer diagnosis (8, 9, 10), other articles focus on a dyadic perspective taking an approach based on a couple-level analysis (11). Research on chronic diseases emphasizes the importance of a couple's positive Quality of Relationship (QoR) promoting mental health, physical and psychological adjustment to disease and associated treatments (11, 12, 13, 14).

The Quality of Relationship (QoR) is a construct developed from Clark and Mills' communal relationship theory (15, 16, 17). Based on it, there is a distinction between exchange relationship and communal relationship. In exchange relationships one member of the couple provides benefits to the other, thus waiting for equal benefit in return. Conversely, in communal relationships relatives, friends and partners provide support each other with the primary aim of contributing to the other's well-being. Neither the donor nor the receiver feels that the benefit is given with the expectation of receiving a comparable benefit in return (17). Based on the communal approach, the QoR consists indeed of the prevalence of behaviors that underline the mutual desire to meet other's needs.

Over the past few years, the construct of QoR has drawn the attention of several researchers. Fincham and Rogge (18), for example, developed a theory to define the QoR based on two main approaches. The first one focuses on interpersonal processes using terms such as dyadic adjustment; the other one is based on intrapersonal processes and mainly refers to relationship satisfaction. Interestingly, already in the '80s, an extensive body of studies showed that social relationships

relate to protective health effects in terms of less mortality associated with a larger number of communities and social ties (19). Specifically, compared to married people, unmarried people have been found to be at greater risk of poor mental health (20).

Nevertheless, when close relationships are mostly characterized by negative exchanges, the latter have been found to negatively affect people's daily mood and well-being (21, 22). Negative exchanges involving emotional domains such as criticism are associated with psychological distress and depression (23).

In the field of cancer research and specifically lung cancer, it has been found that partners' perception of a negative or positive couple relationship may differently impact on the quality of life of both members of the dyad (24). Moreover, Watts and colleagues (25) have emphasized the importance of adaptive dyadic coping strategies which relate to a better QoR in couples with women at high risk of developing ovarian cancer. They suggested indeed that perceived support and team approach within couples are associated with some dimensions of dyadic adjustment such as consensus, cohesion and satisfaction.

So far, very little research has evaluated the QoR in the context of breast cancer specifically. Kraemer and colleagues (26) highlighted that dyads using adaptive dyadic coping strategies, such as problem-focused or emotional-focused, better cope with treatments and experience a greater closeness in the relationship after diagnosis. Moreover, dyadic coping strategies have been found to be associated with couples' effective communication strategies in relation to breast cancer (27). Intimacy also plays a crucial role in the process of couple's adjustment to disease (11, 28). Specifically, couples' previous approach to sexuality may influence the adjustment process to disease (29), with sexual satisfaction affecting the perception of couple's intimacy (30).

Overall, these studies underline the presence of some dimensions defining the construct of QoR, though they were evaluated separately, and their importance in adjustment to treatment. In line with these issues, the aim of this study was to extend knowledge in this field by identifying and analyzing what dimensions of QoR may impact on couples' psychosocial adjustment to breast cancer and related treatments. Findings will enrich scientific knowledge and inform researchers and practitioners working in the field of breast cancer.

Methods

Participants and recruitment

A convenience sample was used consisting of couples in which the woman had received a breast cancer diagnosis from two years before the study and had finished treatments, such as chemotherapy and radiotherapy, for at least six months. Women who were still completing the hormone therapy cycle were enrolled into the study. Moreover, their primary caregiver had to be the spouse, male or female, and had to give his/her consent to be involved into the study.

Participants were recruited through clinical practices, third sector/social support organizations and social media. Recruitment continued until data saturation was reached, the point at which no new themes or concepts arose during the analysis of three consecutive interviews (31). Professionals and volunteers firstly provided information about the study for potentially interested participants to take part. Once they were found, researchers contacted them via telephone to make an appointment for interview. Ethical approval was obtained from the Ethics Committee of the University of Bologna (Italy) [Prot. 29770].

Data collection

Participants were informed about the processing of their personal data including the right to withdraw at any time, and provided written informed consent by email. Semi-structured interviews were conducted via telephone by two researchers trained in qualitative data collection. The average length of the interviews was 45 minutes (range 30-60 minutes).

At the start of the interview, a data sheet was used to collect participants' sociodemographic details and clinical information about women's treatments and medical conditions. During each

semi-structured interview, participants were encouraged to share their experiences of diagnosis and treatment of breast cancer with focus on the role of couple relationship in adapting to disease.

Patients and partners were interviewed once, individually and at different times. This choice was made to clarify the personal experience of each member of the couple, while preventing difficulties with disclosure potentially caused by the partner's presence. Moreover, each participant was explicitly asked not to talk about the content of the interview until both members of the couple had completed it.

Data Analysis

The interviews were audio recorded, transcribed verbatim and analyzed via inductive thematic analysis (32). The coding process was carried out by two researchers experienced in analyzing qualitative data in clinical settings. They individually read each interview and used a feed-forward strategy to extract the main units of content as they emerged from data. Codes about the same issues were then clustered into subthemes and themes by each researcher. The clustering process was extended and discussed among all study authors until a consensus about consistency was achieved, and any discrepancies were overcome (33).

Results

Sample characteristics

Participants were 12 heterosexual dyads (n=24). Most couples were married (n= 8), and half of them had 1 or more children. Women were on average 53.7 years old (SD=10.6; range between 37 and 70 years old). Men's ages ranged between 34 and 71 years old (M= 55.2, SD= 11.4). At the time of interview, 14 participants (58.3%) equally distributed among women and men were in paid employment.

On average, the breast cancer diagnosis was made 19.7 (SD= 3.5) months prior to study. Amongst women, 2 (16.7%) had a breast cancer recurrence, and 2 (16.7%) had comorbidity with respiratory disease. 11 women (91.7%) underwent surgery, 7 (58.3%) radiotherapy, 8 (66.7%) chemotherapy, 7 (58.3%) hormone therapy, and 3 (25%) were subjected to all these treatments. Furthermore, at the time of the study, 3 women (25%) had not yet completed the hormonal therapy.

Qualitative findings

Thematic analysis identified four overarching themes across the interviews (Table 1): (1) Dyadic coping strategies (two sub-themes: adaptive coping strategies, maladaptive coping strategies); (2) Communication (two sub-themes: constructive communication, communication avoidance); 3) Dyadic support (two subthemes: emotional support, instrumental support); 4) Intimacy (three subthemes: conflicts, body image, sexuality). Each theme is fully described below with verbatim extracts of participants' interviews.

Table 1.
List of themes and sub-themes from participants' interviews.

Themes	Sub-Themes
Dyadic coping strategies	Adaptive coping strategies Maladaptive coping strategies
Communication	Constructive communication Communication avoidance

Dyadic support	Emotional support Instrumental support
Intimacy	Conflicts Body Image Sexuality

Theme 1: Dyadic Coping Strategies

Adaptive coping strategies

Couples who were mutually involved in the process of adjustment to breast cancer, trying to reduce partner's perceived load and distress, reported a positive coming-back in the disease pathway and treatments as a couple. They tended to use emotion or problem-focused dyadic coping strategies. The former were based on an empathic response to the other's distress, consisting of an open communication about feelings and emotional concerns around the illness. Through continuous dialogue both members of the couple tried to regulate their emotions, thus reducing each other's negative emotional responses associated with illness.

"We spent nights crying holding each other's hands, trying to accept the diagnosis." **(Woman, 55 years old)**

Problem-focused dyadic coping strategies were based on couple's active and effective engagement in finding practical solutions together to face the situation. They indeed looked for information about available treatments and specialist assistance, and/or compared each other about medical choices.

"*I discussed with her, she discussed with me and we tried to make the right decisions*." **(Man, 52 years old)**

Overall couples using adaptive coping strategies reported a positive relationship characterized by mutual trust and support prior disease, which was strengthened at the end of disease pathway.

"*We overcome it because we have been married for so many years, we always told each other everything, we respected each other*." **(Man, 59 years old)**

Maladaptive coping strategies

Couples using maladaptive dyadic coping strategies, such as avoidant or ambivalent/hostile, perceived a minimum dyadic support and greater adjustment difficulty throughout the disease pathway. Couple's avoidant coping strategies consisted of little to no communication on feelings and emotional concerns around the illness, mutual avoidance or withdrawal.

"She was severely exhausted, she withdrew to pray, she told me <perhaps it's better if we break up.> She's able to deny but the truth is that my wife took some things off from her mind." **(Man, 68 years old)**

Ambivalent/hostile dyadic coping strategies were characterized by one partner's negative responses to the other's distress associated with the illness. Examples were giving support unwillingly, minimizing the situation, distancing or even mocking.

"I felt very lonely during the two days after diagnosis. I didn't understand if he was aware or he hoped that I was exaggerating. After two days he came into the room asking me what we should eat for dinner." **(Woman, 59 years old)**

Theme 2: Communication

Constructive communication

Couples who openly communicated how they felt during the treatment pathway better adjusted to disease. They also shared information, feelings and worries around the illness with family and friends, above all with survivals or patients who were met during treatments.

"I talked to people, I never closed in on myself. In particular I had a friend who had already had this disease, and we often went out in the afternoon. I felt reassured by her." **(Woman, 59 years old)**

Since the initial stages of diagnosis and throughout treatment communication between couples and health professionals was important, thus building a positive alliance and a climate of trust and openness from both the patient and her partner.

"*The doctor approached me in a way that I'd say it was wonderful. I was very happy with his job*." **(Woman, 58 years old)**

Communication avoidance

Couples who had little to no discussion since the first steps after diagnosis were more likely to develop an avoidant style of communication on breast cancer-related concerns between themselves and with the others. This took couples off the chance of any emotional relief gained through talking about the illness and its adverse outcomes.

"*Each of us kept its own thoughts and worries inside*." **(Woman, 69 years old)**

Communication avoidance tended to persist during the treatment pathway, thus hindering the adjustment to disease and negatively influencing relationship quality and couple satisfaction.

"You realize things don't work out. But I'm having a hard time talking to her about these things." **(Man, 53 years old)**

Theme 3: Dyadic Support

Emotional support

The diagnosis of breast cancer emerged abruptly in participants' lives, thus changing their life perspective and causing distress, demoralization and anxiety. Whilst these negative emotions were exacerbated by perceived poor dyadic support in couples, mutual emotional support was considered by participants to be vital throughout the disease pathway. Empathic listening allowed each partner to feel and understand what the other was experiencing about the disease. By putting themselves in the shoes of their partners, participants achieved greater understanding of mutual emotional difficulties and perspectives around the illness. This facilitated the overall adaptation to disease, thus leading to couple's greater emotional closeness which was also maintained at the end of treatment.

"The support from my husband was crucial. Being alone wouldn't have given me any purpose in life. He was always there." **(Woman, 43 years old)**

Instrumental support

Along with emotional support, practical and instrumental one played an important role in couple's dealing with and adjusting to disease. This consisted of providing help with practical things and everyday activities such as cooking or doing housework, thus reducing potential additional distress for women. In particular, the latter benefited from their partners' presence during medical visits and the practical support provided after surgery, such as in disinfecting drains. By providing

instrumental support that women were not able to do or feel unable to cope with, couples also reported positive outcomes in terms of overall relationship satisfaction and closeness.
"*A practical type of support: I take you home, I take you to visits, I take you back, I do the housework."* **(Man, 52 years old)**

Theme 4: Intimacy

Conflicts

Couples reported greater internal cohesion and closeness immediately following the diagnosis, regardless of pre-existing intimacy levels.
"*Before the disease we were in a severe crisis, we were thinking of meeting a counselor. Then everything changed and there was nothing but my disease, it brought us closer so much."* **(Woman, 53 years old)**

However, after surgery, conflicts could emerge and were more easily resolved by those couples who had a positive relationship before the onset of disease. Conflicts were caused by apparently trivial matters associated with higher levels of both partners' distress. They could also consist of infertility problems arising after surgery especially in younger couples, or different ideas about the role of religion and spirituality in coping with the illness.
"*With my wife you had to live praying 24 hours a day, we always raised our prayers, I couldn't take it longer*". **(Man, 68 years old)**

Body image

Women's difficulties to recognize and accept body changes after surgery or hair loss after chemotherapy were associated with their feelings of femininity loss. This threatened couple's intimacy especially when men did not recognize or minimized the psychological consequences of breast cancer and, specifically, women's physical changes and their difficulty accepting them after treatment ended.
"Physical changes bother me, he tells me <you're so beautiful>, but unfortunately it's not like that for me." **(Woman, 55 years old)**

Sexuality

Couples avoided sexual activities in the post-operative period and during treatments (chemotherapy, radiotherapy). This was due to both physical difficulties, such as women's pain after surgery or vaginal dryness associated with treatments, and to husbands' fear to cause pain to their wives. However, many couples naturally resumed sexual activities once postoperative recovery or treatments had ended.
"*Intimacy was forced by treatment pathway, but then everything works out. We feel like a rock through the whole*". **(Woman, 42 years old)**

Concerning older couples, they were not affected by changes in sexual activities and they easily shifted to other forms of intimacy. Conversely, those couples who found it difficult to get intimate again felt a sense of dissatisfaction regarding their relationship to the point of avoiding any sexual activity.
"Our couple is experiencing several problems because now I'm rebelling against things that don't suit me. Maybe he no longer recognizes the person next to him. Menopause has led to no desire, it's not easy when you're 34 years old and have a woman who doesn't want you." **(Woman, 37 years old)**

Discussion

This study highlights how breast cancer treatment pathway and overall adjustment to disease are influenced by different but interrelated aspects of couple functioning. Specifically, dyadic support was found to be associated with open couple communication and effective coping strategies for managing practical and emotional issues associated with disease. Couples with a positive and balanced relationship prior to diagnosis experienced few conflicts through the disease journey, and were at the end satisfied about their relationship. Conversely, couples who experienced mutual alienation in the disease course were characterized by high pre-illness conflicts and poor internal cohesion. Moreover, these couples implemented maladaptive coping strategies, communication avoidance, and had difficulties recovering several aspects of couple relationships including a healthy sex life.

In the breast cancer literature, Kraemer and colleagues (26) argue that emotion and problem-focused coping strategies positively impact on the adjustment to disease, thus promoting relationship growth at the end of the journey. Conversely, couple's ambivalent/hostile coping strategies are associated with more psychological distress, little to no communication, poor mutual psychosocial support and greater risk of conflict, demoralization and dissatisfaction (27, 34). Manne and colleagues (35) found that couple's dysfunctional communication was predictive of worse psychological adjustment to disease and lower relationship satisfaction. Conversely, active constructive communication, linked with the use of adaptive coping strategies, was predictive of positive dyadic adjustment to disease and greater relationship satisfaction (13).

Our findings show that dyads who used adaptive coping strategies and actively communicated around breast cancer reported effective psychosocial support, both emotional and instrumental, with increased feelings of closeness in their relationship at the end of disease pathway. Dorval and colleagues (36) also highlighted that perceived psychosocial support by couple leads to positive outcomes, such as higher emotional intimacy and better adjustment to treatment. Conversely, poor dyadic support may exacerbate feelings of demoralization in patients with disease, dissatisfaction and loneliness in relationship (37).

Intimacy represents a key dimension of QoR and, specifically, healthy intimate relationships play a crucial role in adjustment to disease as couple (28, 38). More than 60% of women who undergo treatments for breast cancer suffer from sexual dysfunction during treatments, and about 45% of them still have problems after treatments ended (39). Reasons are several such as the lack of sexual desire, sexual aversion or painful intercourse due to lubrication problems (39). In such a context, we found that women also experienced radical changes in their body image, thus leading to intense feelings of body alienation and incompleteness with severe consequences on their self-esteem (40).

In our study, all couples reported a sharp decline in sexual desire, many sexual concerns and discomfort during sexual activity due to severe vaginal dryness (41, 42). Zimmermann (43) found that the lack of sexual intercourse after treatment negatively impacts on couple's relationship satisfaction and correlates with high levels of conflict. Interestingly, these results were influenced by socio-demographic variables such as age and, specifically, older adults' sexual desire was found to be associated with patients' health status (43, 44, 45). Furthermore, couple cohesion resulted to be closely linked with the quality of sexual intimacy and higher relationship satisfaction (46, 47).

Our study shows that, regardless of pre-existing relationship, couples reported conflicts after breast cancer surgery or during chemotherapy treatments which were associated with drain on personal resources by both members of the couple, along with imposed changes in their role and caregiving responsibilities (48, 49, 50). It is interesting to note that major conflicts emerged when couple's members had different subjective perceptions regarding treatment pathway, with men struggling to understand the psychological consequences of breast cancer on women after treatments ended. Other sources of conflicts were associated with the overall consequences of disease, for example, infertility issues due to treatments were challenging for women especially. However, couples who were strongly involved in their relationship prior to disease better faced the

breast cancer experience, and also strengthened their relationship over the course of disease. Instead, those couples who were in severe crisis, reported misunderstandings before the onset of disease or had different interests and values showed more conflicts and little cohesion during the disease journey. These couples, though felt closer immediately after diagnosis, then experienced the exacerbation and worsening of previous relationship problems and were unable to effectively cope with them.

Overall, the adjustment to breast cancer pathway and couple's satisfaction concerning relationship were influenced by previous levels of communication, closeness and cohesion. According to Tedeschi & Calhoun (51), the term 'cohesion' refers to positive changes experienced by people after traumatic experiences, such as self-transformation (52) and identity reconstruction (53). As found in our study, these changes were reflected in the use of the pronoun 'we' and plural terms according to the concept of breast cancer as 'we-disease' (27). In the field of chronic illness, it is more likely that couples in a strong relationship prior to disease maintain a positive relationship and even find new ways of relating as a couple (54). Differently, couples with high levels of relationship conflicts and distress before diagnosis tend to more easily deteriorate, as found in our study. Specifically, Northouse and colleagues (55) found that these couples remained highly distressed even one year after diagnosis, thus having trouble adjusting to treatment and experiencing a decrease in marital and family functioning overall.

To conclude, the dimensions of dyadic coping, communication, psychosocial support and intimacy appear to be central in couple's adjustment to breast cancer diagnosis and to overall disease pathway. Interestingly, in the social relationship's theory, Spanier & Lewis (56, 57) had already identified some relationship dimensions that affect couples, thus highlighting how they dynamically compose the construct of QoR. In their view, the type of communication, conflict, relationship satisfaction and intimacy characterize and shape couple's psychological adjustment to major and minor life changes. Similarly, Hassebrauck and colleagues (58) found that all these dimensions are interconnected and mutually influencing, that is changes in one dimension would lead to changes in the other dimensions and, in turn, to the overall QoR. In this context, we offered empirical evidence on some couple's relationship dimensions that are involved in the adjustment to breast cancer pathway, which resulted to be associated and to define the construct of QoR.

Limitations and future directions

This study explored the experiences of couples dealing with breast cancer, with focus on identifying specific couple relationship dimensions that may influence the adjustment to the disease. Notwithstanding the validity of our findings, they deserve to be expanded on larger and more representative samples in future researchusing a mix-method design. Indeed, the limited sample size could have flawed the study results. Confounders such as participants' age, patient's diagnosis (e.g., onset date and time, first diagnosis versus recurrent breast cancer), treatment type, the duration of relationship and family composition might differently impact on couple relationship functioning and on their associations with couple's wellbeing.

Moreover, it would be interesting to obtain longitudinal data on trends in the identified four dimensions of a couple relationship and their associations with patients' health-related quality of life and partners' mental health during the first year after diagnosis. It would also be interesting to collect quantitative data longitudinally to monitor clinical outcomes in terms of patients' compliance to treatment and care service use, and their associations with the specific dimensions of a couple relationship. To better interpret and discuss quantitative data, in-depth interviews should explore patients and partners' subjective experience about changes that may occur in their relationship since and after diagnosis, and their role in the process of psychological adjustment to breast cancer.

Finally, future research could capitalize on more comprehensive results to finalize interventions targeting specific dimensions of couple relationship. which, in turn, are expected to improve the overall relationship functioning. For example, couple therapy focused on improving

communication should help dyads to uncover each other's emotional needs and to respond to them appropriately, thus increasing dyadic support and perceived connection with each other. This would be important to strengthen relationship resources and to guarantee a better relationship functioning, that is associated with partners' higher well-being and faster recovery from illness (59, 60). Last but not least, interventions for couples should be empirically evaluated to provide evidence on their efficacy and effectiveness, thus improving quality of care for both patients and their partners.

Conclusions

Caring for patients in healthcare contexts mostly occurs by using an individualized approach that overlooks the role of psychosocial factors, including couple relationships, in adjustment to disease. Couple-based interventions are indeed applied in very few public and private contexts, though there is increasing empirical evidence about the appropriateness and benefits of integrating existing clinical practice with assessment procedures of couple functioning since and after diagnosis.

Carrying out preliminary assessment of couple functioning is important to provide timely, effective and tailored specialist support, if necessary. Consequently, better support for couples would likely benefit patient care. Based on couple's needs, resources and disease stage, interventions should be aimed to prevent and enhance couple's abilities to cope with and adjust to breast cancer, thus restoring intimacy and dyad's psychological well-being.

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Conflict of interest

The authors report no conflict of interest.

Data sharing statement

No additional data available.

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