

## DYADIC ADJUSTMENT IN BREAST CANCER: A REVIEW

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### ABSTRACT

Dealing with female breast cancer (BC) strongly modulates the patient's self-concept, hence affecting her interpersonal network, notably with the partner. In this review, we assume that the patient-partner couple reacts as a unique dyadic system when facing the experience of BC, thus influencing the disease's adjustment and coping processes. From this point of view, BC adjustment and coping studies focused on the patient-partner couple are relevant to better understand the psychosocial dimension of this disease and plan useful dyadic support programs. The paper reviews the studies on a dyadic approach to the adjustment as well as the coping consequences of BC. The dyadic features of adjustment and coping processes over the course of illness are highlighted. The association with some specific relationship patterns as well as with the communication styles is investigated to emphasize the crucial role of conjoint psychological dynamics that define the BC dyad struggle with the illness. Finally, the literature findings on these topics are discussed together with the couple post-traumatic growth phenomena.

### RIASSUNTO

Fare esperienza del cancro al seno femminile (BC) modula fortemente l'idea di sé della paziente, influenzando la sua rete interpersonale, in particolare con il partner. Il presupposto di questa rassegna di concetti, è che la coppia paziente-partner risponde come un sistema diadico unico di fronte all'esperienza del BC, influenzando così i processi di adattamento e coping alla malattia. In questo quadro di riferimento, gli studi di adattamento e coping al BC focalizzati sulla coppia paziente-partner sono rilevanti per comprendere meglio la dimensione psicosociale di questa malattia. Il testo passa in rassegna gli studi riguardanti un approccio diadico ai processi di adattamento e coping nel BC. La revisione di letteratura evidenzia le caratteristiche diadiche dei processi di adattamento e di coping nel corso della malattia. L'associazione con alcuni modelli specifici di relazione e con gli stili di comunicazione è studiata al fine di sottolineare il ruolo cruciale dei programmi di supporto psicologico congiunto per supportare il paziente e il suo partner. Infine, i risultati della letteratura su questi argomenti sono discussi insieme con i fenomeni di crescita post-traumatica della coppia.

**KEYWORDS:** breast cancer, body image, dyadic coping, couple relationship, communication.

### INTRODUCTION

The psychosocial consequences of neoplastic diseases are well known. These effects are now clearer due to the progress of oncological treatments. These

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ones more often ensure survivorship turning cancer into a chronic disease. Hence, today we can detect more frequently the psychosocial effects of these diseases involving not only the patients but also their caregivers. In recent years accredited empirical studies have been conducted which point out that the distress affecting the patient reflects on the caregiver. He, in turn, burdens the patient with his anxiety. This recursive distressing loop is considered prodromal of a worse cancer coping process. Specifically, female BC reshapes the patient's relationship with the partner. The treatments' impact on the patient's body image, a crucial aspect of her personal identity, causes a range of emotional and behavioural effects in the patient-caregiver couple. The illness burden and distress enmesh with each other and endanger the couple relationship. This review summarizes the evidence available in the literature about the psychosocial processes that we can observe in the BC patient-caregiver couple. Firstly, we will discuss the psychological impact of BC, mainly about the body image disturbance. Then, the dyadic dynamics, as well as the coping processes of these couples, will be described. The communication problems will be focused and, finally, the couple post-traumatic growth will be mentioned.

## THE BREAST CANCER PATIENT'S DIVIDED SELF

Fifty-five years ago, Donahue postulated that conflicted or disrupted family relationships could undermine the psychological adjustment processes, thus leading to the "divided self" (Donahue et al., 1993). In this review, we assume that such a version of the self-concept may attain a variety of life events including cancer. The self-concept disorganization is relevant to understand the coping processes following a cancer diagnosis (Curbow et al., 1990, den Heijer et al., 2011, Bhattacharjee 2013, Pintado S., 2017). In this regard, the body image disturbance, the sexual problems and the psychological distress following female BC negatively affect the patient's self-concept as well as their interpersonal network, mainly her dyadic attachment. Thus, the patient's "divided self" especially impinges the relationship with the partner. These couples undergo significant distress due to cancer diagnosis and treatments. They can go through troublesome steps, marked by the illness phases. The patient's distress affects the partner who, in turn, deals with the concern for the patient together with the need to cope with the mutual needs imposed by the disease. The partners experience the illness intrusiveness, face a maladaptive dyadic coping and greater difficulty in communicating their cancer-related concerns, including the fear of losing their partners. Often, the partners are prematurely concerned about the possibility of the wife's death. (Gotay 1984). When the patient's partner shares crucial decisions about the therapeutic choices or else when he must replace her parental tasks their mutual distress increases. Finally, in metastatic cancer, the couple emotional and sexual bond worsens and, in some cases, provokes an irreversible crisis. In the next paragraphs, the dimensions of such splitting experience will be synthesized.

## BREAST CANCER AS A "WE DISEASE"

### 1. THE EVOLUTION OF THE CONCEPT

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From a relational point of view, a woman's psychological adjustment to BC is influenced by her close interpersonal relationships (Kayser K. et al. 1999). This assumption is smartly described by the definition of cancer as a "we-disease" (Acitelli et al., 2005, Kayser et al., 2007, Traa et al., 2015). Illness, in fact, is not only an experience of physical and psychological suffering, but it also builds a psychosocial status modulating the interpersonal relationships. (Lipowsky, 1969, Fava, 2006). Cancer, as other severe illnesses, has been described, for a long time, as an individual disease, but, since the '90s, researchers have begun to consider distress and coping as interpersonal processes (Bodenmann, 1995, Traa et al., 2015). Coyne & Smith highlighted the relevance of partners' interactions in coping processes defining "relationship-focused coping" as "managing one's own distress, attending to various instrumental tasks, and grappling with each other's presence and emotional needs". Furthermore, they identified two concepts as part of these relational patterns: "protective buffering", i.e. denying worries and concerns to shield the partner from distress and "active engagement", or sharing partner's feelings and practical problems. (Coyne J.C. Smith D.A.F., 1991). Likewise, Carpenter & Scott developed an interpersonal model of coping, emphasizing the value of relational aptitudes for an individual that must cope with a stressing event. (Carpenter B.N. & Scott S.M., 1992). Hannum and colleagues, studying couples dealing with cancer, identified as the best predictors of women' distress, their partners' behaviours and expectations about the relationships (Hannum J.W. et al., 1991). Also, Northouse, examining the impact of cancer on couples, linked the distress levels to both the partners. (Northouse L.L., 1995). Kayser analysed the influence of mutuality, relationship beliefs and relationship-focused coping strategies on outcomes as quality of life, depression and self-care agency. They found that mutuality was a crucial factor in a woman's adjustment to BC; they even observed a correlation between the coping strategy of protective buffering, higher levels of depression and lower levels of self-care agency. (Kayser K. et al., 1999). Zunkel, examining how the couple experience the recovery from cancer, individuated four dyadic patterns, two of them aimed to integrate the disease into the family life: "sharing in the patient's recovery" and "helping her". The other two, "normalizing the household" and "moderating or minimizing the intrusion of cancer" have the open purpose to limit cancer's intrusion into their lives.

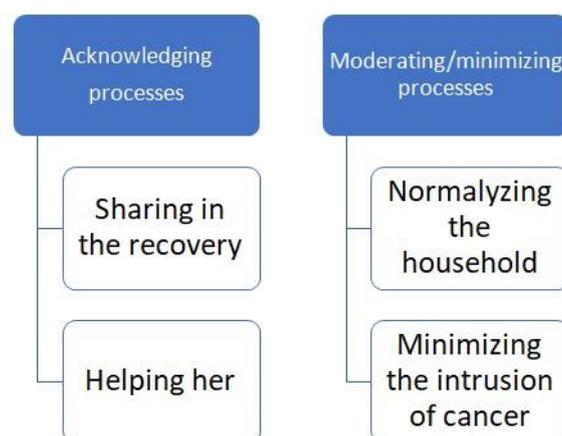


Figure 1. Relational coping processes (from Zunkel, 2003)

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Sharing in the patients' recovery is an emotion-focused process that involves behaviours such as discussing concerns and feelings with the partner and sharing aspects of their relationship. Helping her is a problem-focused process consisting of lifestyle changes to deal with and requiring that partners are more involved with their families even replacing their wives' tasks. Normalizing the household is a problem-focused approach based on the attempt to get the ménage back to the previous stability. Minimizing the intrusion of cancer occurs when both the partners try to avoid or limit the cancer distressing effects. The minimizing strategies were harmful to women at the beginning of the recovery process. (Zunckel G., 2003). Finally, Bodenmann coined the expression "dyadic stress" to report a stressful event that involves both the partners in a direct way, if both are facing the same stressor or if it arises within the relationship, or indirectly when the stress of one partner influences the couple's relationship. (Bodenmann, 2005).

## 2 THE DYADIC ADJUSTMENT IN BREAST CANCER

Marital adjustment is an essential feature of the psychological well-being of individuals. It is defined as "the process by which married couples meet mutual gratification and achieve common goals while maintaining an appropriate degree of individuality". (Brandão et al., 2017). This author summarized all the factors associated with marital adjustment in BC patients. He found an adequate marital adjustment in women receiving better emotional, informative and instrumental support from their partners. The quality of life too was related to a good marital adjustment, On the contrary, he found depressive symptoms to be associated with lower marital adjustment. A better marital adjustment was positively predicted by sexual issues such as the frequency and quality of sexual activity, perception of the partner's emotional involvement and partner's interest in sex. Furthermore, they found an association between marital adjustment and individual issues such as self-efficacy, hope and patient's and partner's perspective-taking whereas for partners just their own perspective-taking was associated with marital adjustment. Moreover, they identified dyadic coping, communication patterns and psychological distress as factors associated with marital adjustment (Brandao et al. 2017). One of the major problems that BC couples must face is managing pain in the advanced phase of the disease. Pain catastrophizing is the tendency to ruminate about pain, adopting a helpless orientation to it and, therefore, experiencing depression. Moreover, pain catastrophizing can cause great distress to the partner who experiences feelings of uselessness. (Ferrell B.R. et al., 1991). In general, the partner's reactions to the patient's pain plays a pivotal role in the dyadic adjustment. Badr & Shen found that when both the partners reported high level of dyadic adjustment, high levels of patient catastrophizing were linked to severe depression, regardless of the intensity of the pain, whereas, when patients and partners reported lower levels of dyadic adjustment, the effect of catastrophizing on depression was primarily due to the patient's pain intensity. Furthermore, they found that when patients and partners had low levels of dyadic adjustment both reported high levels of depression, whereas patients reported high levels of pain intensity and pain catastrophizing. Thus, in couples with a high dyadic adjustment, there is a better emotional connection and partners are more conditioned by patients'

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catastrophizing regardless of the pain (Badr H. & Shen M.J., 2014). Kim studied the actor-effect – the effect of a person’s personality on the same person’s outcomes - and the partner-effect – the effect of a person’s personality on his or her outcomes - on quality of life in couples dealing with breast cancer or prostate cancer. He found that the levels of distress of cancer survivors and their partners were similar, over the course of the disease. The convergent distress within the couple was a significant predictor of quality of life, whereas dissimilarity had a negative effect on spouses of men affected by prostate cancer, probably due to the perception of a lack of emotional reciprocity causing feelings of isolation and mental health consequences. Moreover, they found that women' distress was predictive of men' physical health regardless of their role, as patient or caregiver. Thus, he highlighted the relevance of psychological interventions for couples stressing the relevance of women’ support to improve the mental and physical health of both partners. (Kim Y. et al., 2008)

### 3 THE DYADIC COPING PROCESS

Cancer not only poses a threat to the patient’s life, but it also has implications on the life of the partner who is worried about the patient and who takes care of her/him even taking charge of its financial consequences. (Traa et al., 2015). The couple must cope with distress induced by the physical effects and a potential functional disability so that their relationship undergoes changes about roles, responsibilities and communication patterns (Zimmermann T., 2015). Therefore, dyadic coping denotes a further form of dyadic stress management. Dyadic coping has two main aims: the joint distress reduction and the maintenance of the relationship. (Bodenmann, 2005, Traa et al., 2015). According to the systematic-transactional model (Bodenmann, 1995), it could be represented as a recursive and interdependent behavioural patterns: each of the partners mitigates the stress perceived by the other while coping with the same stressful situation. The author outlined the dyadic coping process as an interplay where one partner’s stress perception is communicated to the other partner who perceives, interprets and decodes these signals responding with a dyadic coping strategy that can consist in a supportive or unsupportive behaviour. Both the partners will make efforts to maintain or restore the state of homeostasis as individuals as well as a couple in their everyday life. This model distinguishes three forms of positive dyadic coping: supportive dyadic coping, common dyadic coping and delegated dyadic coping and three negative forms: hostile dyadic coping, ambivalent dyadic coping and superficial dyadic coping.

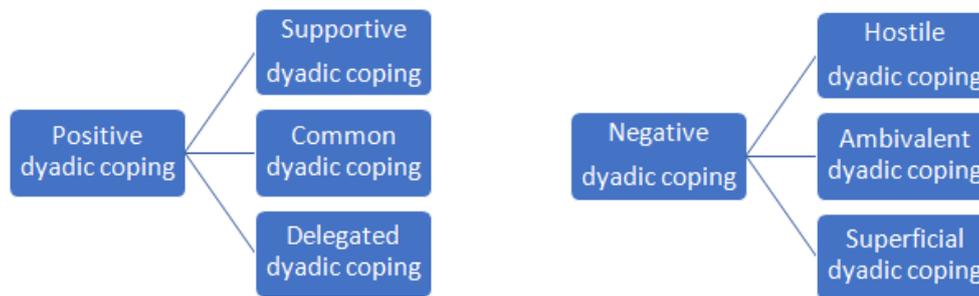


Figure 2. Forms of dyadic coping (from Bodenmann, 2005)

Positive, supportive coping is characterized by mutual support behaviours helping the partner to deal with a specific stressor, showing emphatic comprehension and being sympathetic; in common dyadic coping both the partners are equally involved in coping with the problem while in delegated dyadic coping a partner is expected to give support to the other one, taking over responsibilities in order to reduce his or her mate's stress. As regards to negative dyadic coping, hostile dyadic coping is characterized by a blaming behaviour of one partner that supports the other with some coldness, disinterest or sarcasm, minimizing the partner's stress. Ambivalent dyadic coping occurs when one partner considers useless his or her support to the other one or does not want to provide it. Finally, superficial dyadic coping is based on a misleading support, provided without empathy. Notably, not all positive dyadic coping strategies can be similarly beneficial for the couple. Rottmann highlighted that supportive dyadic coping was associated with a better relationship for both the partners; (Rottmann et al., 2015). However, the correlation between a supportive coping strategy with distress is controversial. Some studies found it unrelated to distress (Badr et al., 2010). These latter results could be explained as the consequence of the patient's perception of an undermined self-concept. Common dyadic coping has been found to be beneficial for couples because it may help to restore a sense of "normalcy" (Rottmann et al., 2015, Badr et al., 2010) but, again, the correlation with distress is disputed: while Rottmann did not find any correlation, Badr observed a correlation with the development of greater distress for patients and decreased distress in their partners. In hypothesis, it could be interpreted as an opportunity for the partner to continue to seek support from the companion while, from the patient's point of view, it could be a further emotional burden. (Badr et al., 2010). Delegated dyadic coping seems to be beneficial only for partners that are likely to provide support to the patients because they feel "they are doing something" while patients could find difficult to take care of their partners. Unsupportive coping behaviors are inversely related to relationship adjustment and distress. The use of Negative dyadic coping strategies is more detrimental for patients than for partners, due to their vulnerability due to the disease's and treatments' burden. Moreover, it could be considered as a gender effect as women tend to be more attuned to the emotional quality of the relationship.

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#### 4 BREAST CANCER AND COUPLE BONDS: CORRELATIONS WITH THE DISEASE COURSE

Rottmann observed a worsening in the couple relationship quality as an effect of the cancer trajectory despite the recovery phases after a treatment (Rottmann et al., 2015). It could be ascribed, according to Badr, to the evidence that couples dealing with early-stage BC tend to feel less distress as time goes on after the diagnosis, while patients in a metastatic phase must cope with fearful themes like death and progressive disability (Badr et al., 2010). These findings are supported by the study of Canavarro who found a higher level of marital intimacy in post-treatment patients than in long-term survivors, even if these last ones tend to restore their previous routine and need less support by their partners. (Canavarro et al. 2015). Although it is well known that the end of cancer treatment is a milestone in the breast cancer journey, nevertheless many women report less psychological support couples are on edge about returning to their previous routine, and unready for the changes they will have to face. (Zimmermann et al., 2015) Furthermore, the beliefs of both partners do not coincide. Some women expect that their partners will give up their supportive function returning to their usual role, others report that their partners are not so supportive as before. (Keesing et al., 2016). These authors investigated the experiences and opinions of women and their partners during early survivorship identifying three significant themes. Firstly, most women reported the need to focus on their personal needs to keep control of their life, resulting in an emotional distance with their partners; on the other hand, their partners reported a feeling of impotence and withdrawal, “a sort of non-intimate”. Furthermore, women want their needs understood by the partners using open and sympathetic communication in order to improve their relationship. Finally, these authors observed a lack of a mutual plan to let the couple moving in the same direction and renegotiate the future of their relationship. As BC can have a disruptive effect on some couples, it is likely that some women become single during the cancer course and unable to invest in a new love affair, a condition that causes anxiety. Notably, dating someone can exacerbate one of the main concerns of BC survivors, their own body image. (Shaw L.K. et al., 2016). Shaw identified several factors associated with relationship distress post BC, comparing mates vs. single women. Single women reported higher levels of dating anxiety, lower self-reported interpersonal competence, greater self-evaluation salience (i.e. the importance attributed to the appearance of their self-concept). On the contrary, body image dissatisfaction was not so different between mates and single women. Shaw supposed that body image concerns influence the patients’ interpersonal behaviour, especially in early phases of a new relationship when the first feeling is based on appearance. (Shaw L.K. et al. 2018)

#### 5 BREAST CANCER-RELATED COUPLE COMMUNICATION

The quality of the communication between the partners predicts the couple’s coping with cancer. Recent studies have focused on the association between psychological distress and three dyadic communication styles: the demand-withdraw communication is a pattern where one partner urges the other to talk about the disease and the other withdraws; it is related to high distress for

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both the partners and lower marital satisfaction. The mutual avoidance communication is associated with more distress for the patient and partner, but not with relationship satisfaction. The mutual constructive communication, a form of active engagement, is associated with less distress for both the partners and good marital satisfaction. (Manne et al., 2006, Milbury et al., 2013, Brandao et al. 2017). In this communication style, patients talk with their partners about their perceptions of the quality of communication, thus positively influencing their outcomes. (Manne et al., 2006). On the other hand, the partners' engagement in emotional disclosure and informative conversation with patients predicted better patients' adjustment (Robbins et al., 2014) as well as better physical health for women with BC. (Manne et al., 2004) In one study, BC patients, in contact with their emotions and with a good marital relationship, had a lower risk of recurrence and mortality (Weihs et al., 2008). Noteworthy, a naturalistic observation of couples dealing with cancer showed that cancer conversations were more informal than emotional or supportive. Robbins has highlighted the role of substantive and informal conversations, whose purpose is decision making about a stressor, because they may facilitate cognitive processing, hence improving the couple adjustment. (Robbins et al., 2014). Natural language is also suggestive of social processes: the way people use a plural personal pronoun, we-talk, is related to interdependence in relationships and it is indicative of the way they cope with illness. (Robbins et al. 2013). Moreover, a qualitative study in BC patients argues that patients feel supported when their partners talk about their disease using the we-talk pronoun (Kayser et al. 2007). Robbins found that the partner's use of we-talk was associated with better patient adjustment, probably due to the perception of sharing the disease burden. Further, the partner's use of we-talk was associated with better dyadic adjustment and related to the patient's depression. Conversely, the use of "you" is common in more distressed couples and reflects unhealthy relationships. According to Robbins, the use of "you" in couples' conversations is denoted as a finger pointed at the other person while talking. Recent literature suggests that, even when dealing with adversities such as BC, sharing the daily good news with the partner enhances the shared well-being regardless of sharing bad news. A recent study revealed that capitalization attempts, i.e. the individual's emotional disclosure to connect to the partner through shared positive emotions, induces feelings of intimacy. Additionally, perceiving the partner responsiveness to own capitalization attempts enhances the sharer's positive feelings of intimacy and decreases the sharer's negative emotions. (Otto et. al., 2015). Communication processes have an important role even in couples' adaptation to sexual problems. Impaired communication may lead not only to emotional disengagement, but it can also induce feelings of fear of abandonment in women based on the belief of being sexually undesirable because of the side effects of treatments. Sexual problems in women with BC vary from 25% to 100%, depending on the type of population examined, the kind of disease and treatment adopted, the phase of the disease (Boquiren et al., 2016). While partners tend to avoid sex for fear of being harmful to their spouses', women may withdraw from sexual affection to prevent requests for sexual activity (Milbury et al., 2013). The perception of an altered femininity, in fact, can decrease the inclination to connect emotionally and physically to the partner (Boquiren et al., 2016). Results from an English study exploring men' feelings about body image changes of their partner consequent to

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the mastectomy have shown that some men found it difficult to discuss with their partners about the sexual aspects of their relationship. Furthermore, they reported a sense of loss due to the lack of intimacy, regardless of their age or length of the relationship. Several men declared that they were less sexually attracted by their partners and so they avoid touching them or engage in a sexual intercourse; other men said that they forced themselves to have sex with their partners so that they would not have realized they were no longer sexually interested in them (Rowland et al., 2014).

#### THE OTHER SIDE OF THE COIN: INDIVIDUAL AND DYADIC POST-TRAUMATIC GROWTH

Coping with cancer can also be productive for some individuals who experience personal growth even known as post-traumatic growth. Post-traumatic growth refers to “positive psychological changes and growth beyond previous levels of functioning and thereby implies both an outcome and a process” (Rajandram et al., 2011, Lim et al., 2018,). It does not concern only the patient, but even his/her partner if we consider the couple as a unique system dealing with the disease experience. Post-traumatic growth seems to be higher in female patients than in men. A mutual influence on post-traumatic growth over time is described: the personal growth seems to develop sooner in male patient couples than in female patient couples. Putatively, the explanation is inherent to women’s attitude to empathize with their spouses’ feelings (Kunzier et al., 2014). Spirituality has a significant role in supporting the post-traumatic growth. An interesting evidence has been collected in the study of Gesselman. He did not find a correlation between survivors’ and partners’ distress and spirituality. In his opinion, it could be that emotional distress has declined over time, their sample was 3-8 years post-diagnosis, while positive changes were happening. They also studied the dyadic effect of spirituality on post-traumatic growth. Spirituality in BC survivors did not impact their partners’ wellness, whereas greater spirituality in partners was associated with less development of intrusive thoughts in the survivors but not linked to their post-traumatic growth. They conclude that the private nature of the spiritual dimension makes it not easy to share with others. (Gesselman et al. 2017). The analysis of the concept of post-traumatic growth identified five constitutive dimensions: appreciation of life, increased personal strengths, enhanced interpersonal relationships, spiritual change, new possibilities. Canavarro has examined the associations between these dimensions and marital intimacy of couples dealing with BC. He highlighted that the appreciation of life dimension was indirectly associated with anxiety symptoms through marital intimacy: women tend to be more prone to appreciate every moment of their life according to the quality of the intimate relationship with their partner and this has a positive effect on their psychological adjustment to the disease. (Canavarro et al., 2015). Post-traumatic growth could be beneficial to some BC survivors who take into account their growth experience to accomplish positive behaviour changes. A Korean study illustrates a model to better understand the recursive relation between the various dimensions of post-traumatic growth and healthy behaviours. The dimensions relating to others and new possibilities highlighted an actor-effect on healthy behaviours of survivors like eating and physical exercise, whereas it did not find this association in

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spouses and it did not identify a partner effect for both. Perceiving positive changes can induce people to be more open to be involved in interpersonal relationships, underlying the importance of social support. Appreciation of life had an actor-effect on survivors' healthy behaviours influencing their partners' behaviours, whereas it is not true the contrary. It could be that survivors who appreciate life are more able to communicate with their partners. (Lim J.W., 2018). In sum, a good relationship functioning during or after the treatment for cancer may, from a dyadic perspective, depend on how well the couple integrated cancer into their lives.

## CONCLUSIONS

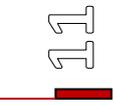
BC, a life-threatening disease, represents a challenge to the woman's body image as well as to the emotional and physical intimacy of the couple. Body image and couple intimacy are both entangled in the patients' everyday life. What was once routine becomes unpredictable and the relationship is endangered while the couple faces the spectrum of rejection loss, and abandonment. It is important to identify couples at high psychological risk, counselling in order to empower their mutual support behaviours, sharing negative feelings, promoting an adaptive version of their relationship, reducing psychological outcomes such as distress, anxiety, and depression, enhancing the couple cohesion.

In this sense, coping with BC should be always interpreted as a dyadic affair to consider when planning psychological support for BC patients. The literature enumerates a variety of psychological interventions that share these psychosocial goals (Zimmermann et al., 2015). In our opinion, dyadic interventions achieve the empowerment of the patient's self-image, her intimacy, sexuality and couple attachment.

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