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Is the link between posttraumatic growth and anxious symptoms mediated by marital intimacy in breast cancer patients?

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A B S T R A C T

Purpose: This study aimed to determine whether marital intimacy mediates the association between posttraumatic growth (PTG) and anxious symptoms in women who had recently completed breast cancer treatments and breast cancer survivors.
Methods: Forty-eight patients who had completed their treatment six months prior to the study and 46 disease-free survivors who had completed their treatments at least one year prior to the study completed the Posttraumatic Growth Inventory, the Personal Assessment of Intimacy Scale, and the Hospital Anxiety and Depression Scale.
Results: Recently off-treatment patients reported higher levels of intimacy than survivors did. Path analyses showed that higher levels of the Appreciation of Life dimension of PTG were associated with less anxious symptoms through higher levels of marital intimacy. The type of group did not moderate these associations.
Conclusion: Regardless of the disease phase, the experience of positive changes after breast cancer in terms of an enhanced appreciation of life seems to be associated with an increased perception of intimacy in the context of a dyadic relationship, which, in turn, is associated with less anxiety.

Introduction

The diagnosis and treatment of breast cancer, which is one of the most the most common cancers in women worldwide and the most common in Portugal (Ferlay et al., 2013), threatens patients' life as well as their well-being and quality of life (Montazeri, 2008). Several studies have evidenced that women's emotional distress is particularly high during the first 12 months after the diagnosis (Manne et al., 2004; Millar et al., 2005; Saboonchia et al., 2014; Schroevers et al., 2006), a period during which about one-quarter of women present criteria for a psychological disorder, including an anxiety disorder (Hewitt et al., 2004; Knobf, 2007; Moorey and Greer, 2002). In addition, some studies have shown that approximately half of the women who receive the diagnosis of cancer perceive it as traumatic experience (Cordova et al., 2007; Silva et al., 2011).

The prevalence estimates of abnormal anxiety in cancer patient populations range from 10% to 30% (Stark et al., 2002) and are particularly high during the initial phases of cancer (Saboonchia et al., 2014). For instance, Schwarz et al. (2008) found that levels of anxious and depressive symptoms were significantly high in the diagnosis phase, decreasing 6 and 12 months after surgery. Notwithstanding this normative decrease over time, we cannot neglect the importance of the emotional distress. High levels of anxiety may affect the woman's ability to cope with the diagnosis and treatment of breast cancer and may intensify or lead to the development of physical symptoms such as nausea, vomiting, and sleep problems, consequently interfering with the woman's psychological adjustment and quality of life. In addition, although anxiety is typically a transient response, some patients may exhibit enduring anxiety, requiring specialized treatment (Saboonchia et al., 2014).

It is well established that the struggle to cope with breast cancer can lead to negative outcomes, such as anxiety, but it can also lead to positive outcomes or to the perception of benefits or positive

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changes in the woman's perception of herself, her relationships and her life priorities (Tedeschi et al., 1998). According to Tedeschi and Calhoun (2004), these benefits or positive experiences constitute what these authors named Posttraumatic Growth (PTG) and defined as "the positive psychological change experienced as a result of the struggle with highly challenging life circumstances" (p.1). PTG tends to occur in five general areas, including a greater appreciation of life, increased personal strength, enhanced interpersonal relationships, strengthened spirituality and revised life priorities or goals (for a review see Tedeschi and Calhoun, 1996).

In the last years, several studies have evidenced that most patients experience at least one positive change after the diagnosis of cancer (Sears et al., 2003; Stanton et al., 2006; Taylor, 1983). For instance, Petrie et al. (1999) and Sears et al. (2003) found that the most frequently reported positive change after cancer is the strengthening of interpersonal relationships, which is a change characterized by a greater sense of closeness and connection to others, including an increased satisfaction with the marital relationship (Cordova et al., 2001; Fromm et al., 1996; Gritz et al., 1990; Klauer, 1998; Sears et al., 2003). Many patients also report a greater appreciation of life and a shift in life priorities and goals resulting from a revision of one's attitudes toward life. Additionally, some patients report strengthened spirituality (Cordova et al., 2001; O'Connor et al., 2008) and perceive themselves as being stronger and more capable to cope with life adversities (Fritz and Williams, 1988; Fromm et al., 1996).

Experiencing positive changes or PTG has been shown to influence the psychological adjustment of women with breast cancer. Despite the lack of consensus on this topic, various studies reveal that PTG is associated with lower levels of emotional distress or better psychological adjustment (for a review see Stanton et al., 2006). Sears et al. (2003) found that 12 months after the end of treatment, higher levels of PTG were associated with increased levels of vigor and positive mood. In a longitudinal study, Carver and Antoni (2004) observed that finding benefits from the experience of cancer during the first 12 months after the diagnosis predicted a significant reduction in emotional distress and depression five to eight years later. A stress-buffering effect of PTG on psychological adjustment was also found in other studies (Morrill et al., 2008; Silva et al., 2012b).

With regard to the amount of time needed to experience PTG after a traumatic event, research has provided some inconsistent results. Most studies reveal that the longer the time since the event, the greater the opportunity to process cognitive and emotional information, find an adaptive meaning and discover positive changes (McMillen et al., 1997; Park et al., 1996). Therefore, the effect of PTG on the individual's psychological adjustment seems to be strengthened with more time since the diagnosis (Bower et al., 2005; Carver and Antoni, 2004; Sears et al., 2003). In fact, in a literature review, Stanton et al. (2006) suggested that PTG is usually higher in the first and second years after the diagnosis; subsequently, the discovery of positive changes tends to stabilize and the improvement that was initially achieved tends to decrease over time. However, other studies have shown that people may also report positive changes soon after a traumatic event (Frazier et al., 2001; Manne et al., 2004). Nevertheless, it is important to note that it has been suggested that the positive changes that occur a short time after the event can in fact be an avoidance strategy that prevents the development of more active coping efforts and, consequently, constrains the individual's psychological adjustment (Tomich and Helgeson, 2004).

Another factor that is known to play a significant role in the individual's psychological adjustment to cancer is the perception of social support provided by the individual's social network (Northouse, 1988). Among women with breast cancer, the majority identify their partner as their main source of emotional support (Kaiser, 2008). Therefore, it is reasonable to suppose that the perception of marital intimacy may play an important role in women's adjustment. Marital intimacy has been defined as an interpersonal and transactional process through which a partner shares with the other intimate feelings, thoughts and information, consequently feeling validated and cared for as a result of the partner's responsiveness (Reis and Patrick, 1996; Reis and Shaver, 1988). In the context of breast cancer, several studies have shown that higher levels of intimacy are associated with better adjustment in women (Moreira et al., 2011; Talley et al., 2010) and their partners (Moreira and Canavarro, 2013).

Although the relationships between psychological adjustment and PTG or intimacy have been strongly supported in the literature, studies on the link between PTG and intimacy are still scarce. In addition, the few investigations exploring this relationship have not focused specifically on intimacy but have examined other variables, including marital condition (Carpenter et al., 1999), marital satisfaction (Kausar and Saghir, 2010) and relationship-specific positive and negative qualities, such as an emotionally comforting marital environment (Pierce et al., 1996). Furthermore, other studies have not found a significant association between PTG and these dyadic variables (Lechner et al., 2003; Sears et al., 2003; Tomich and Helgeson, 2004; Urcuyo et al., 2005). For instance, Manne et al. (2004) found that marital quality did not predict a couple's sense of growth, which led the authors to suggest that marital quality may suffer the impact of psychological growth rather than being a predictor of PTG. Because empirical studies are inconclusive regarding the associations between marital relationship and PTG, more research is needed to more thoroughly understand this relationship.

The present study had two objectives. First, we intended to investigate whether the association between the five dimensions of PTG and anxious symptoms was mediated by marital intimacy. Second, because most data on the prevalence of PTG have been collected long after the cancer experience, we aimed to explore whether these associations were significant shortly after the end of treatment or whether they only became significant after a longer period of time. Therefore, we included two distinct groups of patients and explored the moderating role of the type of group on the proposed mediating model: (1) a group that had completed cancer treatment approximately six months before the study and (2) a group of survivors who had completed cancer treatment at least one year before the study. We hypothesized that higher levels of PTG would be associated with higher levels of marital intimacy, which, in turn, would be associated with lower levels of anxiety. With regard to the moderating role of the type of group, we did not propose a hypothesis because of the scarce and inconsistent results in the literature.

Methods

Participants and procedure

The sample included 94 women diagnosed with breast cancer. Of these, 48 were recently off-treatment patients (G1) and 46 were disease-free breast cancer survivors (G2). Recently off-treatment patients should had completed their treatment six months prior to the study and should not have undergone neo-adjuvant chemotherapy prior to the primary surgery; disease-free breast cancer survivors should have completed their treatments at least one year prior to the study. Other criteria for inclusion in this study were: (1) a diagnosis of non-metastatic breast cancer; (2) no other major medical or psychiatric conditions; (3) being in a committed relationship; and (4) being at least 18 years old. The