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Brief report

Going beyond social support: Fear of receiving compassion from others predicts depression symptoms in breast cancer patients

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Abstract

Background: Recent studies have highlighted the importance of being able to receive compassion and affiliative signals from others. The main aim of the present study was to explore whether social support and fear of receiving compassion from others are predictors of depression symptoms in a sample of breast cancer patients.

Methods: The sample included 86 female patients with non-metastatic breast cancer. Participants were recruited at a Radiotherapy Service in central Portugal and completed validated self-report instruments. Multiple regression analysis were conducted to examine the predictive effects of clinical (cancer stage, comorbidities) and demographic variables (age, education), social support, and fear of receiving compassion from others on depressive symptoms.

Results: Fear of receiving compassion from others was the only significant predictor of the model, with a positive effect on depression symptomatology ($\beta = 0.44$; $p < 0.001$). These results suggest that the amount of supportive social contacts and networks may not be as important as cancer patients' ability to receive compassion from others.

Conclusions: This is the first study to focus on fear of receiving compassion from others in cancer patients and seems to be a significant contribution for the study of the social factors that may be associated with depression in breast cancer. Psychological screening interviews in breast cancer, besides assessing patients' level of depression and social support, ought to also evaluate the ability to receive empathy and emotional help and support from other people.

Keywords: breast cancer, depression, fear of compassion, psycho-oncology, social support

Introduction

Breast cancer is one of the most important cancers in the Western societies, being the most common cancer in women. Breast cancer may lead to adverse symptoms such as fatigue, sleep disturbance, pain, and endocrine symptomatology which can reduce quality of life and exacerbate psychological distress (Maass, Roorda, Berendsen, Verhaak, & de Bock, 2015). Indeed, patients often report high levels of anxiety and depression. Findings from Derogatis and colleagues (1983), showed that 50% of breast cancer patients presented maladaptive coping with the disease and among these, 20% showed a major depressive episode. These data align with more recent research demonstrating that nearly 50% of women of early stage breast cancer presented severe depressive, anxiety symptoms or both in the year after diagnosis (Burgess et al., 2005). Further, other studies point out that in a sample of 303 early stage breast cancer patients, 36.7% patients presented mood disorders (with 9.6% presenting major depression and 27.1% minor depression) (Kissane et al., 2004). Regarding anxiety, the same study revealed that anxiety disorders were present in 8.6% of the sample. Psychological distress (i.e., emotional suffering resulting from the inability to cope effectively with a significant stressor) is of special relevance to cancer patients due to its impact on patients' lives and also on survival/recurrence rates. Specifically, depression has been found to be associated with decreased breast cancer survival in several follow-up studies (Hjerl et al., 2003; Watson, Homewood, Haviland, & Bliss, 2005). In contrast, marriage (Osborne, Ostir, Du, Peek, & Goodwin, 2005) and social support (Chou, Stewart, Wild, & Bloom, 2012; Kroenke, Kubzansky, Schernhammer, Holmes & Kawachi, 2006) were associated with increased survival in breast cancer patients.

Social support is considered a determining factor of overall health and well-being in the general population (Grav, Hellzen, Romild, & Stordal, 2012), and has been the

focus of particular interest in the health context, namely in women with breast cancer. A meta-analysis conducted by Pinquart and Duberstein (2010) and a systematic review by Falagas and colleagues (2007) revealed that the amount of social support, defined as the network size, availability of family and friends, and adequacy of emotional support received by cancer patients, significantly impacted survival. Studies have found higher probability of experiencing depression among people who have a lack of social support. Indeed, Grav and colleagues (2012) have shown that perceived social support is associated with depression as measured by the Hospital, Anxiety and Depression Scale (HADS).

Although it is agreed that compassionate attitudes are associated with health and well-being indicators, some people may feel compassion and empathy from others as threating experiences (Gilbert, 2010; Gilbert, McEwan, Matos, & Rivis, 2011). It is possible that for some people, these positive feelings of affiliation and warmth may stimulate the recall of painful, abusive or neglectful social memories, leading to the onset of fear of compassion (Gilbert, 2010; Gilbert, McEwan, Matos, & Rivis, 2011). Recent research has demonstrated that being a recipient of others' compassion, defined as the sensitivity to suffering and encouraging and supportive attitude, is linked to a decreased vulnerability to develop depressive symptoms (Gilbert, McEwan, Catarino, Baião, & Palmeira, 2014). In contrast, fear of receiving compassion have been demonstrated to lead to negative affect such as depression, anxiety, and stress (Gilbert et al., 2014).

In this way, it seems important to study not only the level of available social support perceived by breast cancer patients, but also the impact of fear of receiving compassion and affiliative signals and behaviours from others on the determination of depressive symptomatology. Our hypotheses are the following: a) social support is a predictor of depressive symptomatology; b) fear of receiving compassion from others is

a more robust predictor than the level of perceived social support, i.e., cancer patients' ability to receive compassion from others will be revealed to be more important to the determination of depression symptoms than the availability of one's social network.

Materials and Methods

Procedures

The current study is part of a wider research project and clinical trial on breast cancer. The recruitment of the sample was conducted at the Coimbra University Hospital (Centro Hospitalar Universitário de Coimbra; CHUC), in the Radiation Oncology Department, during a period of 10 months. All ethical and deontological guidelines regarding research with humans were met. This project has been approved by the Ethics Committees of the institutions involved in the study (CHUC and University of Coimbra). Patients with non-metastatic breast cancer, willing to participate in the study, and with no diagnosed psychiatric disorder (e.g., major depression, anxiety disorders, bipolar disorder, borderline personality disorder, psychosis) or communication problems were included in the study (N = 86). These criteria were assessed through a clinical interview.

Measures

The research protocol included demographic questions and the Portuguese validated versions of the following self-report instruments:

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988; Portuguese version by Carvalho, Pinto-Gouveia, Pimentel, Maia, & Mota-Pereira, 2011).

This scale measures perceptions of support from 3 sources: family, friends, and a significant other. The scale comprises a total of 12 items, with 4 items for each subscale, rated on a seven-point scale with scores ranging from 'very strongly disagree' (1) to 'very strongly agree' (7). Cronbach's alphas varied between 0.85 and 0.91 in the original version of the scale, and between 0.85 and 0.95 in its Portuguese validation study.

The Fears of Compassion Scales (FCS). (Gilbert, McEwan, Matos, & Rivis, 2011; Portuguese version by Simões & Pinto-Gouveia, 2012).

These are a set of three subscales assessing fear of receiving compassion from others, fear of expressing compassion towards others. and fear of expressing self-compassion. The scale is rated on a 5-point Likert scale ranging from 0 (don't agree at all) to 4 (completely agree). In the current study, only the scale assessing fear of receiving compassion (13 items) was used. This scale has a Cronbach's alpha of 0.85 in its original study and of 0.91 in the Portuguese validation study.

Hospital Anxiety and Depression Scales (HADS). (Pais-Ribeiro et al., 2007; Zigmond & Snaith, 1983).

The HADS is a robust 14-item instrument that comprises two subscales, one measuring anxiety (7 items) and one measuring depression (with 7 items), which are scored separately. Each item is rated a 4-point scale (from 0 to 3), and so the possible scores range from 0 to 21 for each subscale, with higher scores revealing higher levels of anxiety and depression symptoms. A review by Bjelland and colleagues (Bjelland, Dahl, Haug, & Neckelmann, 2002) has proved the reliability of the HADS, with Cronbach's alphas between 0.63 and 0.93 in the anxiety subscale, and between 0.67 and 0.90 in the depression subscale. In the Portuguese validation study, the anxiety and depression

subscales had Cronbach's alphas of 0.76 and 0.81, respectively. These measures had good to excellent internal reliabilities in the current study (Table 3).

Medical data (breast cancer stage, comorbidities, and prescribed psychopharmaceuticals) were collected via medical records with the help of clinicians from the Radiotherapy Service of the Coimbra University Hospital.

Statistical analyses

Descriptive and Pearson correlation analyses were performed using the software SPSS (v. 21) to analyse the sample's characteristics and the correlations between study variables, respectively. A multiple regression analysis was also conducted to explore the predictive effects of social support and fear of compassion from others (independent variables) on depression symptoms (dependent variable). When the *p* value is less than 0.05 it is considered that the independent variable is a significant predictor of the outcome.

Results

Participants

This study's sample included 86 Portuguese female patients with non-metastatic breast cancer, with a mean age of 57.66 (*SD* = 10.08). The majority of participants presented stage IA (39.5%) or IIA (25.5%) breast cancer. Regarding marital status and education, the majority of participants were married or cohabitating (79.1%) and left school before 15 years old (39.5%). Please see Table 1 for a more detailed presentation of the sample's characteristics.

---------- Please insert Table 1 around here ----------

Descriptive and correlation analysis

Results from correlation analysis (Table 2) showed that social support presented a negative association with fear of compassion. Fear of compassion was positively linked with anxiety and depressive symptomatology. Depression and anxiety were also positively associated with each other; depressive symptomatology presented a negative link with patients' educational level.

---------- Please insert Table 2 around here ----------

Predictors of depression symptoms

Considering depression symptoms as a possible outcome of clinical and social factors, we tested the predictor effects of the variables that were found to be significantly correlated with depressive symptomatology. Therefore, cancer stage, comorbidities, age, social support, education, and fear of receiving compassion from others were entered (in order of their respective correlation magnitudes with the outcome) as predictors in the regression analysis (Table 3). This analysis produced a significant model [$F_{(6, 68)} = 4.12$, $p < 0.001$] This model explained 27% of the variance of depression symptoms and had only one significant predictor: fear of receiving compassion from others. This variable presented a positive and large effect of 0.44 ($p < 0.001$) on depression symptoms. To visually demonstrate the relationship between fear of compassion from others and depression symptomatology, a graph was plotted (see Figure 1).

---------- Please insert Table 3 around here ----------

---------- Please insert Graphic 1 around here ----------

Discussion

According to the literature, availability of social support is an important factor on the determination of cancer patients' quality of life, well-being, and survival (Falagas et al., 2007; Hjerl et al., 2003; Pinquart & Duberstein, 2010; Watson, Homewood, Haviland, & Bliss, 2005). Further, recent studies have highlighted the importance of being able to receive compassion and affiliative signals from others (Gilbert et al., 2014). The main aim of the present study was to explore the effects of perceived social support and fear of compassion from others on depression in a sample of breast cancer patients.

Results from correlation analysis revealed an interesting finding. The level of perceived social support was negatively linked to fear of being a recipient of the empathy, affection, and compassion from others. This may suggest that fear of receiving compassion may lead to a decreased perception that others are available to offer support, which may in turn increase one's fear of receiving compassion. The current data are in line with previous research that demonstrated that fear of affiliative emotions are linked to decreased sense of security and connectedness in social relationships (Gilbert et al., 2009).

Regarding the main focus of the present study, our first hypothesis was not corroborated: the level of social support did not significantly predict depressive symptomatology. Interestingly, the number of completed years of education, although not a significant predictor as well, presented a stronger effect on depression than social support. Our second hypothesis was nonetheless corroborated: fear of receiving compassion from others significantly and positively impacted on depression severity (β

= 0.44; $p < 0.001$). This variable was the only significant predictor of the model (among clinical, demographic, and social support variables). This finding corroborates previous studies with community samples which have demonstrated the pertinent role of fear of compassion on mental health (Gilbert, McEwan, Matos, & Rivis, 2011), and seem to suggest that being able to receive compassionate and affiliative signals and behaviours from others seems to be more important to the determination of depression severity than the level of perceived social support. That is, it seems that the amount of supportive social contacts and relationships may not be as important as cancer patients' perceived ability to receive compassion, empathy and emotional help and support from other people.

Some limitations should be noted while interpreting these data. The size of the sample may have prevented the attainment of significance in some studied relationships; future studies should examine our hypotheses in larger samples of breast cancer patients. Further, future research should include clinical interviews to assess depression symptoms instead of using a self-report measure. Finally, our findings are based on a cross-sectional design which does not allow causal assumptions. Data should therefore be interpreted with caution. Nevertheless, this is the first study to focus on fear of receiving compassion from others in cancer patients and seems to be a significant contribution for the study of the social factors that may be associated with negative affect and psychological distress in breast cancer. Practitioners should be aware of patients' ability to receive compassion and care from the people present in their social group. In addition, psychological screening interviews in breast cancer, besides assessing patients' level of depression and social support, ought to also evaluate the ability to receive compassion, help and emotional support from others. Interventions aiming to improve patients' quality of life and mental health should cultivate compassion skills, including the availability and openness to receive and accept compassion from others.

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Table 1

Sample's demographic and medical characteristics (N = 86)

		n	%
Education	Left school before the age of 16	34	39.5
	9th grade	18	20.9
	Secondary education	16	18.6
	Bachelor's degree	15	17.4
	Master's degree	2	2.3
	PhD	1	1.2
Marital status	Married or cohabitating	68	79.1
	Single	7	8.1
	Widowed	7	8.1
	Divorced	4	4.7
Breast cancer stage	IA	45	52.3
	IB	1	1.2
	IIA	22	25.5
	IIB	9	10.5
	IIIA	6	7
	IIIB	1	1.2
	IIIC	2	2.3
Most frequent comorbilities	high blood pressure	20	23.26
	dyslipidaemia	13	15.12
	thyroid pathology	13	15.12
	asthma	3	3.49
Prescribed psychopharmaceuticals?	Yes	19	22.90
	No	64	77.10

Table 2. Means (M), Standard Deviations (SD), Cronbach's alphas (α) and intercorrelation scores of the study variables (N = 86)

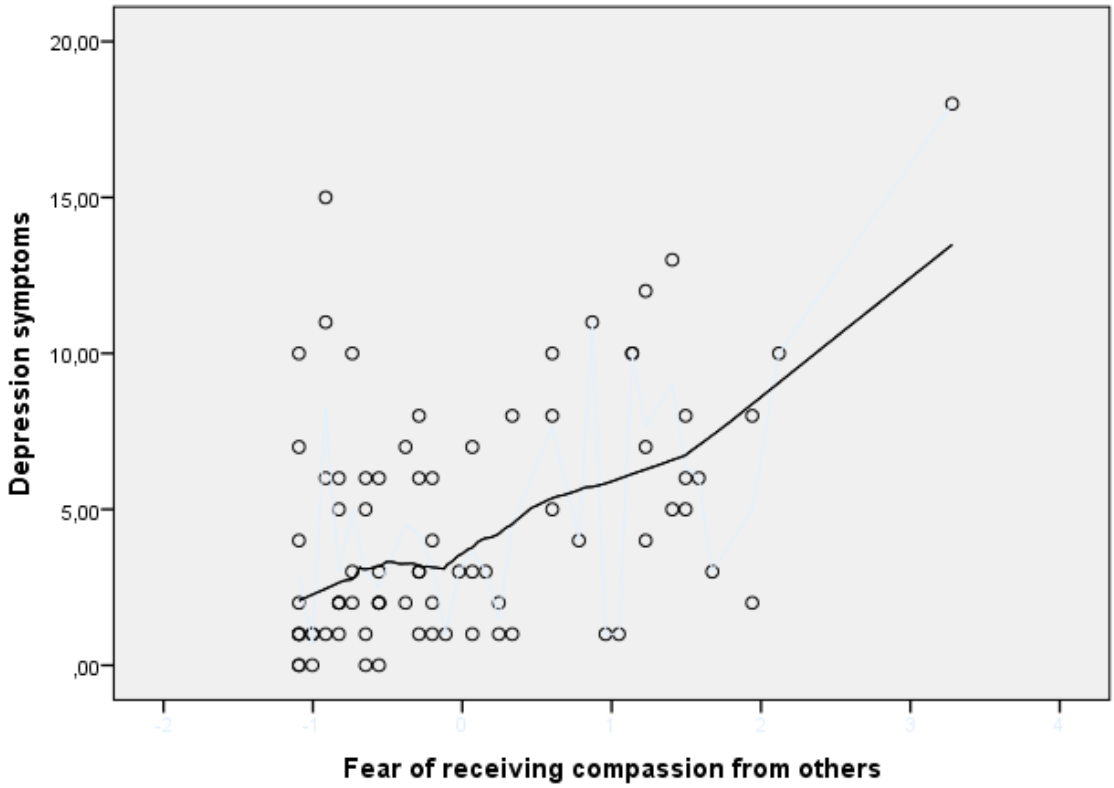
	M	*SD*	α	1	2	3	4	5	6	7
1. Age	57.66	10.08	-	-						
2. Years of education	9.49	4.99	-	-0.44***	-					
3. Cancer stage	-	-	-	-0.22*	0.16	-				
4. Comorbidities	-	-	-	0.39***	-0.09	-0.25*	-			
5. Social support	71.11	10.99	0.93	0.03	0.06	0.12	-0.12	-		
6. Fear of compassion - others	12.25	11.20	0.93	0.21	-0.28*	-0.10	0.12	-0.40***	-	
7. Anxiety	7.01	3.85	0.81	0.04	-0.07	-0.10	0.04	-0.15	0.45***	-
8. Depression	4.59	3.78	0.80	0.11	-0.23*	-0.04	0.04	-0.19	0.45***	0.69***

Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

Table 3. Multiple regression to analyse the predictor effects of clinical and demographic variables, social support and fear of compassion from others on depression symptoms.

	Depression symptoms		
Predictor	R^2	β	*p*
-	0.27	-	-
Cancer stage		0.02	0.863
Comorbidities		-0.06	0.634
Age		0.02	0.905
Social support		-0.02	0.851
Years of education		-0.17	0.162
Fear of receiving compassion from others		0.44	***

*** $p < .001$.



Graphic 1. Regression figure of the relationship between fear of compassion and depression symptomatology in breast cancer patients.