Qualitative and quantitative analysis of the defensive profile in breast cancer women: A pilot study

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Abstract

This study analyzed the defensive functioning and profile of nine breast cancer women and identifies the differences from other cancer patients (N0) in the way they deal with internal conflicts and stressful situations related to the illness. Patients were interviewed and evaluated using the Defense Mechanisms Rating Scale Q-sort. Mean differences analysis showed that breast cancer patients use more reaction formation, omnipotence, and rationalization and less idealization of others-image and autistic fantasy, compared with other-site cancer patients. From the qualitative analysis of the defensive profile, displacement and repression appeared among the most representative defense mechanisms of breast cancer patients.

Introduction

The role of personality factors in breast cancer (BC) development has been extensively investigated (Bleiker et al., 2008; Liste, 1998; Price et al., 2001). Several studies support the idea that the development of BC is associated with stressful life events (Cardenal et al., 2008; Chen et al., 1995; Roberts et al., 1996) and coping style (Drageset and Lindstrøm, 2003; McKenna et al., 1999), whereas other studies have found no association between BC and personality characteristics (Minami et al., 2015; Sawada et al., 2016). A plausible explanation for such inconsistency could be found in the variety of measures and research designs used in the multitude of studies in this area (Garssen, 2004). In this study we focused on one specific aspect of personality, namely, ego defense mechanisms (American Psychiatric Association (APA), 2013; Perry, 1990; Vaillant, 1977). We examined the defensive functioning of BC patients in comparison with other-site cancer patients using a standard criterion measure (Di Giuseppe et al., 2014; Perry, 1990).

Despite varying evidence about the role of personality in BC, there is general agreement concerning the influence of defense mechanisms in adaptation to the illness (Di Cheng et al., 2019; Di Giuseppe et al., 2018; Porcerelli et al., 2017). Recent findings have shown that defense mechanisms are associated with various physical and psychological symptoms (Di Giuseppe et al., 2019a), cancer progression (Ollonen and Eskelinen, 2007), and survival probability (Beresford et al., 2006). Anxiety and depression are two psychiatric disorders commonly associated with BC (Anderson et al., 2018) and their presence is also related to higher levels of immature defense mechanisms (Hyphantis et al., 2013a;

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Lueboonthavatchai, 2007). However, only a few studies have used observer-rated methods and applied measures assessing the whole hierarchy of defense mechanisms (Andruccioli et al., 2009; Perry et al., 2015).

In this study, we analyzed the profile of defensive functioning of BC women using the Q-sort version of Defense Mechanisms Rating Scale (DMRS-Q) applied to clinical interviews (Di Giuseppe et al., 2014). The main aims of the study were the identification of differences in defensive functioning of BC patients, compared with other-site cancer patients, and analysis of the unconscious meaning of the BC defensive profile. Our first hypothesis was that BC women differ from other-site cancer patients in the way they deal with internal conflicts and stressful situations related to the illness. In addition, a peculiar defensive profile in BC patients, characterized by the avoidance of feelings of powerlessness and need of support, was anticipated.

Methods

Participants and procedure

This pilot study analyzed the differences in the defense mechanisms of BC women (N = 9) compared with other-site cancer patients (N = 9). Participants were recruited from the Oncology Department, of Santo Spirito Hospital, in Pescara, Italy. Inclusion criteria consisted of having received a formal diagnosis of cancer within the past 2 months, being older than 18 years, and not having known psychotic disorders nor intellectual disabilities. The average age was 59.9 years (standard deviation (SD) = 16.04) and 68.4 percent was female.

Each participant was asked to provide written informed consent to be observed by two graduate students (DMRS-Q raters) during the routine psychological diagnostic interview. After each interview, a consensus rating, to be used for data analysis, was derived from the independent defense mechanisms assessments. Demographic information was provided by the patient, although we considered only age and gender in the analyses.

Measure

For the assessment of defense mechanisms, we used the DMRS-Q (Di Giuseppe et al., 2014). DMRS-Q is an observer-rated method providing quantitative scores of 30 defense mechanisms hierarchically organized into 7 defense levels, and a global index of defensive maturity (ODF). In addition, the DMRS-Q provides a qualitative description of the patient's defensive profile based on the most salient defenses rated.

The DMRS-Q requires the rank-ordering of 150 items into a 7-rank forced distribution that needs approximately 30 minutes to complete. Raters do not require specific intense training, although sufficient patient information and basic clinical experience are necessary for a reliable assessment of defense mechanisms. Preliminary validation studies have found good convergent validity and interrater reliability of quantitative scores (Di Giuseppe et al., 2014; Lingiardi et al., 2010). The results of repeated qualitative evaluations of Defensive Profile Narratives have shown that DMRS-Q is a good detector of changes in defense mechanisms during psychotherapy (Di Giuseppe et al., 2014).

Analyses

Interviews were coded by two independent raters previously trained on the DMRS-Q. For each interview raters reached a consensus rating, which was used for statistical analyses. Normality was checked for all studied variables as described in Table 1. Mean differences in defensive functioning between BC women and patients with other types of cancer were tested using independent samples t-test. The analysis of frequencies was used for extracting those items that better described the qualitative defensive profile narrative of BC patients.

Results

Quantitative analysis

Table 2 shows the analysis of mean differences between independent samples of BC and other-site cancer patients. According to gender differences (Di Giuseppe et al., 2019a), BC patients' score on obsessive defense level ($p < .05$), containing defenses as isolation of affects, intellectualization, and undoing, was significantly lower than in other-site cancer patients. Statistically significant results emerged also on five defense mechanisms of reaction formation ($p < .05$), idealization of others-image ($p < .01$), omnipotence ($p < .05$), rationalization ($p < .05$), and autistic fantasy ($p < .05$). In particular, we found that BC patients were more likely to use reaction formation ($M = 7.64$; $SD = 1.86$), omnipotence ($M = 6.31$; $SD = 1.12$), and rationalization ($M = 8.00$; $SD = .89$) compared with patients affected by other types of cancer. In contrast, BC patients showed significantly lower use of idealization of others-image ($M = 1.16$; $SD = .73$) and autistic fantasy ($M = 1.16$; $SD = .73$) in comparison with other-site cancer patients.

Qualitative analysis

A qualitative analysis of the defensive profile of BC patients was obtained from the 10 highest scored DMRS-Q items, which included three items of reaction formation, two items of displacement, two items of omnipotence, two items of rationalization, and one item of repression. The Defensive Profile Narrative describes the most representative defensive patterns used by an individual for dealing with internal

Table 1. Description of the sample's demographic characteristics and defensive functioning.

	Frequency	Percentage	Mean	SD	Skewness	Kurtosis
Gender						
Male	6	33.3%				
Female	12	66.7%				
Age			59.94	16.04	−.68	−.012
ODF			4.70	.54	−.78	−.31
High-adaptive defenses			30.26	10.30	−.30	−.81
Obsessive defenses			7.35	3.72	1.56	3.25
Neurotic defense defenses			19.41	5.96	.63	1.42
Minor I-D defenses			17.10	4.30	−.42	−.23
Disavowal defenses			14.40	3.68	−.39	−1.51
Major I-D defenses			3.45	2.68	1.67	3.94
Action defenses			8.18	3.14	1.00	1.55

ODF: index of defensive maturity; I-D: image-distortion.

or external stressors. In particular, we found that the BC patient *does not show expected fear, but reacts with exaggerated enthusiasm or courage failing to acknowledge the fear* (item #99), and *when confronting a personal wish about which the subject may feel guilty, she does not acknowledge or express it, but substitutes an opposite attitude against the wish* (item #52). *The subject acts in a very self-assured way and asserts an "I can handle anything" attitude, in the face of problems that she in fact cannot fully control* (item #10) and *there is excessive bravado in discussing problems or personal accomplishments that stands out as excessive or unrealistic* (item #126). I*n relationships, the subject has an attitude of giving much more than she receives, but is unaware of the imbalance* (item #96) and *when confronting emotionally charged topics, the subject tends not to address concerns directly and fully but wanders off to tangentially related topics that are emotionally easier for the subject to discuss, or prefers to pay attention to someone else dealing with a similar situation* (item #69). At times, *when certain feelings or wishes arise, the subject gives some evidence of them such as crying or appearing anxious, but cannot clearly identify in words the specific feeling or the specific ideas that give the wish a clear meaning* (item #136), whereas at other times *the subject skips to a different problem, thereby dismissing rather than engaging others in any suggestions offered* (item #149). *When discussing a problem that the subject contributed to, the subject explains his or her own actions far more than necessary, as if explaining away his or her own fault* (item #59) and *whenever confronted about his or her own feelings or intentions, the subject avoids acknowledging them by giving a plausible explanation that covers up the real subjective reasons* (item #86).

Discussion

The present report examined differences in defensive functioning of BC patients compared with other cancer patients.

In addition, a deep analysis of the most representative defensive patterns of BC patients was conducted in order to characterize the typical defensive profile.

The results from the quantitative and qualitative analyses confirmed both our hypotheses. In comparison with other-site cancer patients, BC patients used more reaction formation, omnipotence, and rationalization and, simultaneously, less idealization of others-image and autistic fantasy. These defense mechanisms help patients in dealing with feelings of powerlessness and helplessness, replacing them with exaggerated enthusiasm and self-assurance. Undesirable cognitive and affective experience are managed via an increased tendency toward rationalization, defined as the attitude of giving plausible explanations that hide the real subjective reasons and feelings. In comparison with other-site cancer patients, BC patients displayed lower use of idealization of others-image and autistic fantasy, reflecting their unwillingness to accept help from others and to recur to magical thinking.

From the analysis defensive profile, we identified the five most common defense mechanisms in BC women. This profile included reaction formation, omnipotence, and rationalization and two more defenses, repression and displacement, widely used in cancer patients (Hyphantis et al., 2013b). This qualitative finding enriches the quantitative results, adding a more specific description of the defensive patterns used by BC patients (see Table 2). Although defense mechanisms can be distinguished by their definition, function, and level of adaptiveness (Perry, 1990; Vaillant, 1977), there are different ways in which a defense can be expressed. Using the DMRS-Q assessment (Di Giuseppe et al., 2014), we detected those patterns of specific defense mechanisms that better describe the BC defensive profile.

The present report has several limitations related to the small convenience sample and the assessment of defense mechanisms only, all of which limited the statistical analyses possible. Further studies should include larger samples and

Table 2. Mean scores of individual defenses, defense levels, and ODF of BC women compared with other-site cancer patients.

	Breast cancer		Other cancer		T	p
	M	SD	M	SD		
ODF	4.69	.32	4.70	.72	−.034	.973
7. High adaptive	30.22	5.88	30.28	13.81	−.012	.990
Affiliation	2.00	1.67	4.34	3.03	−2.028	.060
Altruism	3.62	2.46	3.65	2.73	−.027	.979
Anticipation	2.74	1.76	2.11	2.79	.575	.573
Humor	4.74	2.02	4.20	2.84	.468	.646
Self-assertion	4.84	2.23	5.23	3.13	−.303	.766
Self-observation	5.90	1.54	4.50	2.04	1.641	.120
Sublimation	1.31	1.61	1.95	1.61	−.848	.409
Suppression	5.04	1.85	4.30	2.68	.685	.503
6. Obsessive	5.59	1.94	9.11	4.31	−2.228	.041*
Isolation of affects	1.01	1.36	3.21	3.52	−1.745	.100
Intellectualization	1.97	2.63	2.42	2.00	−.403	.693
Undoing	3.78	2.25	3.45	2.20	.317	.755
5. Neurotic	20.67	4.06	18.13	7.44	.896	.383
Repression	5.80	2.02	4.77	3.03	.840	.413
Dissociation	1.87	.96	3.75	2.79	−1.908	.075
Reaction formation	7.64	1.86	4.78	3.04	2.404	.029*
Displacement	5.37	1.49	4.83	2.09	.634	.535
4. Minor image-distortion	17.83	1.54	16.36	5.96	.716	.485
Devaluation of others-image	4.47	1.77	2.73	3.08	1.471	.161
Devaluation of self-image	1.82	1.50	2.53	2.06	−.835	.416
Idealization of others-image	1.46	1.09	4.55	2.94	−2.953	.009**
Idealization of self-image	3.72	1.61	2.92	2.34	.844	.411
Omnipotence	6.31	1.12	3.58	3.50	2.218	.041*
3. Disavowal	15.13	2.46	13.67	4.63	.834	.417
Denial	3.05	1.47	3.24	2.56	−.192	.851
Projection	2.92	2.10	1.52	1.24	1.714	.106
Rationalization	8.00	.89	6.34	2.12	2.158	.046*
Autistic fantasy	1.16	.73	2.54	1.73	−2.191	.044*
2. Major image-distortion	2.98	2.01	3.91	3.27	−.718	.483
Splitting of object	1.26	.93	1.72	2.10	−.593	.561
Splitting of self	.62	.40	1.08	.66	−1.788	.093
Projective identification	1.08	1.27	1.08	1.20	.000	1.000
1. Action	7.86	1.88	8.49	4.14	−.418	.682
Acting out	1.33	1.38	3.02	1.97	−2.103	.052
Help-rejecting complaining	3.27	1.34	2.4	1.21	1.453	.166
Passive aggression	3.30	1.21	3.12	2.10	.213	.834

ODF: index of defensive maturity; BC: breast cancer.
DMRS-Q mean scores of BC versus other-site cancer patients.
*p < .05.
**p < .01.

incorporate other aspects of personality. Both observer-rated and self-reported measures should be considered in the research design for an appropriate psychological assessment.

Conclusion

Despite its limitations, this preliminary study identified differences in the defense mechanisms used by BC patients compared with patients affected by other types of cancer.

Moreover, a peculiar defensive profile specific to BC patients was evident. These findings highlight an involvement of unconscious defense mechanisms in dealing with, and finding meaning in, BC (Di Giuseppe et al., 2018). The early detection of maladaptive defense mechanisms is considered important for preventing adverse progression of the illness (Beresford et al., 2006). Better detection and understanding of the peculiar defensive manifestations of BC patients might support psychological interventions

promoting adaptive management of their illness (Cheli et al., 2019; Perry and Bond, 2012; Perry et al., 2009), with the effect of better cancer progression and wellbeing (Koh et al., 2005; Kreitler et al., 1993).

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