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Research Article

Intrapsychic and Interpersonal Behaviours, Anxiety and Depression in Elderly and Adult Women affected by Breast Cancer: a Case-Control Study - ③

Anna Vespa^{1*}, Maria Velia Giulietti², Marica Ottaviani², Pisana Gattafoni³, Rossana Berardi⁴, Lodovico Balducci⁵, Giuseppe Pelliccioni², Cristina Meloni⁶, Paolo Fabbietti⁷, Mirco De Rosa⁷, Marco Romeo⁴ and Roberta Spatuzzi⁸

¹Scientific and Technological Area, Department of Neurology, INRCA-IRCCS National Institute of Health and Science on Aging, via Della Montagnola n. 108, Ancona, Italy

²Unity of Neurology, INRCA- National Institute of Health and Science for Aging, via Della Montagnola n. 108, Ancona, Italy

³Clinic of Internal Medicine and Geriatrics, INRCA-IRCCS National Institute of Science and Health for Aging, via Della Montagnola n. 108, Ancona, Italy

⁴Department of Oncology, Union of Hospital, Polytechnic University of Marche, Ancona, Italy

⁵Program Leader Senior Adult Oncology program, Moffitt Cancer Center, 12902 USF Magnolia Drive, Tampa, FL 33612, Florida, USA

⁶Department of Research, INRCA-IRCCS National Institute of Science and Health for Aging, via della Montagnola 81, Ancona, Italy

⁷Laboratory of Biostatistics, INRCA-IRCCS National Institute of Science and Health for Aging, via S. Margherita n. 5, Ancona, Italy

⁸U.O.C. Hospice/Palliative care Department, A.O.R. San Carlo di Potenza, Italy

***Address for Correspondence:** Anna Vespa Anna, Scientific and Technological Area, Department of Neurology, INRCA-IRCCS National Institute of Health and Science on Aging, via Della Montagnola n. 108, Ancona, Italy, Tel: +071-800-3906; E-mail: a.vespa@inrca.it

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ABSTRACT

Introduction: The profile of the anxiety and depression and structure of personality, of elderly and adult women affected by breast cancer have been evaluated.

Materials and methods: case group- 257 breast cancer woman; control group- 206 healthy woman. Questionnaires: Structural Analysis of Interpersonal Behaviour-SASB- intrapsychic processes; IPAT-CDQ- and ASQ depression and anxiety- Tests.

Results: Differences between breast cancer patients (adult and elderly) and control group: medium high levels of depression- CDQ ($p < .001$) and of anxiety-ASQ ($p < .001$); Intrapsychic level-SASB: less autonomy in their choices with low acceptance of their own feelings CI2 ($p = .004$), CL3 ($p < .001$), CI2 ($p = .004$), CL3 ($p < .001$), negative control and depression, CL5 ($p < .001$), CI6 ($p < .001$), CI7 ($p = .018$), CI8 ($p = .009$). Interpersonal level: lower levels of confidence and of acceptance of others (CI2 $p = .004$), worse attitude of taking care for others in presence of stressful situation (CI3 $p < .001$), more self control towards the others (CI5 $p < .001$); they are critical towards the others (CI6 $p < .001$), are engaged in destructive behaviours in the physical and emotional dimensions towards the others (CI7 $p = .018$) and ignore and neglect the needs and interests of the other (CI8 $p = .009$).

Conclusions: The intrapsychic factors as tendency to depression, not to be in touch with their own feelings may be linked to difficulties to face the disease treatment. This intrapsychic modalities knowledge may allows to plan the most appropriate psychotherapeutic intervention to promote a good adaptation to the disease conditions.

Keywords: Personality; Intrapsychic factors; Depression; Breast cancer

INTRODUCTION

Breast cancer is the most important cause of death, especially in women between the ages of 35 and 55, while in the over 55 year olds are the second cause of death after cardiovascular disease [1]. The “western” type incidence curve presents two peaks, the first at around 45 years and the second after 70 (plateau during menopause) [1]. There is the hypothesis that breast cancer in young and old woman can be distinguished in two separate epidemiological entities.

Older women have significantly elevated risk of developing breast cancer when compared to younger age group [2]. Many studies have shown that older women tend to have less aggressive breast cancers than younger women [1,3]. Moreover comparative research has identified that older breast cancer survivors are generally more likely to have reduced psychosocial impact (e.g. levels of depression, social ties, and, emotional well being) and that they suffer from greater impairment in physical health-related quality of life than younger breast cancer women [4,5]. Older adults may also have special vulnerability to the effects of cancer especially with advanced age due to age related co morbid illness and functional impairment [5-9].

Moreover the stressors event has a role in determining depression and mood disturbance [10-12]. In fact women who are diagnosed with breast cancer are at high risk for experiencing affective distress [13-16]. However, previous studies suggest that age is a salient factor to consider in the psychological adjustment of women with breast cancer, especially near the time of initial diagnosis, with younger women exhibiting greater affective distress [9,17,18] and a tendency to engage in less adaptive ways of coping [5,9,19]. As epidemiological studies show, life events, stress and personality influence the individual’s ability to cope [20-23].

The personality characteristics (intrapsychic processes) mediate are more common in people who are affected by cancer, being contributory causes of the various factors associated with genetic, biological and social aspects. Moreover, certain personality traits, in particular trait anxiety and neuroticism [24], are associated with high levels of physical and psychological symptoms among cancer patients [9,22,23,25].

Many studies have repeatedly reported the presence of emotional repression with less expression of aggression, more emotional

masking and adaptation to social norms in breast cancer women [19,23]. Other studies point out the presence of tendencies to be emotionally constricted and/or depressed with behaviors linked “to blame” inappropriately and often destructively [26-28]. Others have theorized that in woman with cancer it may not be repression itself [19], but rather ambivalence over the expression of emotions that is the important health-related factor especially after the menopause [8,19]. Several studies in this area have showed contradictory empirical evidence about the importance of psychological factors in the onset and progression of cancer [22,23,29].

Several symptoms have been shown to trigger or intensify depression among women with coexisting stressors, a previous history of depression or a negative attitude in facing stress [5,19,22].

In agreement with these considerations depression in women affected by breast cancer has been shown to be closely associated with high level of health complications [8,19,30].

Moreover medical treatment, as hormonal treatment of breast cancer, may also cause depression and other emotional disorders.

Finding out how these individuals’ psychological traits relate to the psychological health of patients would help researchers and clinicians to understand the influence of certain personality traits on patient’s difficult adaptation to disease condition and, to develop efficacious psychosocial interventions for improving patients’ well-being [31-35].

This study on breast cancer has just tried to look more closely at intrapsychic and interpersonal process in order to find a possible description of these psychological determinants in elderly and adult women and to know the differences between these two groups. The investigation of intrapsychic processes by using SASB Model (Benjamin, 2006) may be an interesting contributes to better describe these modalities [36,37]. Moreover this Model allow to understand which psychotherapeutic intervention may be planned to face on the maladjustment modalities in older breast cancer woman which have special vulnerability to the effects of cancer especially with advanced age due to age related co morbid illness and functional impairment.

MATERIALS AND METHODS

Sampling - Choice of patients - The study groups was composed of n = 257 women (age range: 40-75 years; adult (40-59 yrs = 132)

and older breast cancer patients (60-75 yrs = 125). All subjects were evaluated after surgery (maximum in a month). Histological diagnosis (first diagnosis) of breast cancer was an eligibility requirement. It was decided to evaluate patients with all stages of the disease (low risk (37%), medium risk (35%) and high risk (28%).

All the patients were subdivided on the basis of: age, marriage status and educational level (Table 1).

The Control group was composed of n = 215 healthy subjects chosen on the basis of the same independent variables (Table 1).

Inclusion criteria included an age (40-75 yrs); first time diagnosis of breast cancer confirmed by biopsy. Exclusion criteria included: Refusal to participate; inability to provide informed consent; inability to fill the study forms (for fatigue); chemotherapy during the past year; previous history of malignancy; use of psychotropic drugs (all, included antidepressant) and adrenal disorders.

There hundred and twenty three patients were approached in the clinic by the physician and asked to participate in the study. All participants signed a consensus form regarding study protocol after detailed explanation by the physician at the Oncology Clinic.

Only two hundred ninety eight decided to participate and to fill out and sign the consent form. The patients were free to complete the questionnaire either in the clinic or at home. Patients who decided to complete forms at home were given a self-addressed, stamped envelope to return the forms. Forty one patients don't answer all the questions in the questionnaires: it was therefore decided not to consider them for the analysis. All subjects (case and control groups), were asked to complete the following psychological and psychosocial questionnaires:

A. - Social schedule, which describes all demographic characteristics like sex, age, marital status, educational level

	Controls (n = 215)	Breast Cancer Patients (n = 257)	Total (n = 472)	P value
Age	47.6 (9.6)	54.9 (10.6)	51.6 (10.8)	<0.001
Civil Status:				
Single	77(35.8%)	53 (20.6%)	130(27.5%)	<0.001
Married	138 (64.2%)	204(79.4%)	242(72.5%)	
Educational level:				
low	45(20.9%)	161(62.6%)	206(43.6%)	<0.001
high	170 (79.1%)	96 (37.4%)	266(56.4%)	
ASQ	5.9 (1.9)	4.5 (1.7)	5.3 (2.9)	<0.001
CDQ	6.7 (1.9)	5.0 (1.8)	5.9 (2.0)	<0.001
SASB CI1	4.2 (1.3)	4.3 (1.3)	4.3 (1.3)	0.55
SASB CI2	6.0 (1.3)	6.3 (1.5)	6.1 (1.4)	0.036
SASB CI3	5.4 (1.3)	5.9 (1.4)	5.7 (1.4)	<0.001
SASB CI4	5.3 (1.4)	5.7 (1.4)	5.6 (1.4)	0.276
SASB CI5	5.5 (1.5)	4.9 (1.5)	5.2 1.5)	<0.001

Standard deviation and percentages appears in parenthesis

and diagnosis, date of disease onset, disease severity, and so on.

B. - SASB Model (Structural Analysis of Social Behavior) - Anint A-Questionnaire by L.S. Benjamin [36,37] that describes the psychic processes of the personality structure at the intrapsychic and interpersonal level (Appendix A).

The SASB Model is used in the clinical practice for the diagnosis, programming and verification of psychotherapeutic intervention.

This questionnaire was chosen because of its brevity and reliability this test describes the actual experience of the subjects examined. The test has the appropriate reliability and validity to evaluate the personal structure at an intrapsychic and interpersonal processes and is validated on the basis of DSM-V. The Italian version is validated on the Italian population. The 36 questions of the questionnaire provide an exhaustive picture of intrapsychic experience from which the interpersonal one can be inferred.

When completing the questionnaire, respondents must describe their behaviours during the last year.

The ranges of the 8 clusters describe the personality profile (intrapsychic experience) [26,27].

The 8 clusters of "Oneself" - Intrapsychic experience- are the following:

SASB-Cluster (CI) 1 = Autonomy -Assertive and separating;

SASB-Cluster (CI) 2 = Autonomy and love - Self-accepting and exploring;

SASB-Cluster (CI) 3 = Love - Self-supporting and appreciative;

SASB-Cluster (CI) 4= Love and control - Self-care and development;

SASB-Cluster (CI) 5= Control - Self-regulating and controlling;

SASB-Cluster (CI) 6= Control and hate - Self-critical and oppressive;

SASB -Cluster (CI) 7= Hate -Self-refusing and annulling;

SASB-Cluster (CI) 8= Hate and autonomy-Self-negligent and mentally absent.

C. IPAT-ASQ and IPAT-CDQ Tests by Cattell [38,39] have been used as self report methods which describe anxiety and depression respectively. The Italian version is validated on Italian population. The range is subdivided between: 0-3 which indicates absence or low anxiety or depression; 4-7 which indicates medium and medium high level of anxiety and depression; 8-10 which indicates high level of depression and anxiety.

STATISTICAL ANALYSIS

A bivariate analysis was carried out in which qualitative variables (educational level and marriage status) were compared using the χ^2 test and quantitative data was analyzed using Student's t-test.

A 2x2x2 between-subjects Multivariate Analysis of Covariance (MANCOVA) was performed on two set of dependent variables (DVs), respectively ASQ-CDQ scores and the scales SASB (8 clusters), to test the effects of the breast cancer. Adjustment was made for age as covariate, to control the influence of age on the two set of variables.

The independent variables (IVs) in these analysis were: study

groups (breast cancer and control subjects), educational levels (low and high) and civil status (married or single). With the use of Wilk's Lambda multivariate statistical test the main and interaction effects were evaluated.

Effects of IVs on each psychological factors and anxiety and depression (DV's) after adjustment for age were investigated in univariate analysis (ANCOVA).

The power analysis for a 2x2x2 fixed effects analysis of covariance with one covariate have to include a total of 220 cases to yield a power of 0.85.

Probability value less than .05 was considered statistically significant for all statistical tests. Data were analyzed with SPSS/Win program (version 16.0; Spss Inc., Chicago, IL) and Gpower 3.1.5 to computing sample size.

RESULTS

On the basis of the comparison between elderly and adult breast cancer no significant difference emerged for 8 clusters of SASB questionnaire.

The differences between adult and elderly patients and healthy subjects on the basis of age have been evaluated.

Multivariate Analysis of covariance indicates that there are differences in the 8 cluster of SASB questionnaire (Wilks' Lambda = .957, $F(2,413) = 2.53, p = 0.011$), CDQ and ASQ tests (Wilks' Lambda = .915, $F(2,413) = 18.83, p < 0.001$) between breast cancer patients and healthy subjects adjusted for age (Table 2).

So the profile that will be described concerns both adult and elderly subjects affected by breast cancer.

CDQ and ASQ

The results show a significant difference between the two groups of subjects (affected by breast cancer and healthy subjects) for the test CDQ describing depression ($F(1,419) = 76.48, p < .001$) and for the test ASQ describing anxiety ($F(1,413) = 48.40, p < .001$) as expected. The range of the scores reached by the control group is medium-low.

The experimental group show medium high ranges for anxiety and high for depression.

Sasb - intrapsychic behaviours

In terms of intrapsychic modalities the two groups have obtained different scores in all Clusters except SASB Cl 1 and SASB Cl 4. In fact no significant difference is reached in SASB Cl 1= Autonomy - Assertive and separating and in SASB Cl 4 = Self-care and development. It is mean that breast cancer patients are prone to protect themselves and to express a realistic evaluation of themselves as the healthy control group (Figure 1).

Significant difference is found in the intrapsychic processes of SASB questionnaire of the two groups in the following clusters: SASB Cl2 = Autonomy and Love ($F(1,460) = 8.32, p = .004$), SASB CL3-Love ($F(1,460) = 15.53, p < .001$), SASB CL5-Control ($F(1,460) = 12.17, p < .001$), SASB Cl6-Control and hate ($F(1,460) = 12.31, p < .001$), SASB Cl7 Hate $F(1,460) = 5.68, p = .018$, SASB Cl8- Hate and Autonomy ($F(1,460) = 6.89, p = .009$) (Figure 1).

SASB Cl 2 = Self acceptance: Individuals with breast cancer have manifested higher levels of self confidence and of acceptance of their own emotions; SASB Cl 3 = Self supporting and appreciate (self-esteem); Patients with breast cancer have worse attitude toward themselves and toward self care. They were less likely to show self esteem and to care for themselves in the presence of stressful situation;

SASB Cl5 = Self control. Patients with breast cancer scores exercise more self control. In particular, these subjects are more prone to manage and program themselves towards pre-fixed aims. In other words they express less spontaneity and flexibility;

SASB Cl6 = Self-criticism and oppression. Patients are more likely to self abuse and self criticism;

SASB Cl7 = Hate and self destruction. Patients are more likely to engage in self-negation and even self-destructive behaviours in physical and emotional dimensions;

SASB Cl8 = Hate and autonomy-Self-negligent and mentally absent. Patient is more likely to neglect themselves and their basic needs.

In conclusion, adult and elderly breast cancer patients show the following profile: they are less prone to be in touch with their own feelings and emotion, to be satisfied with themselves, their lives and their entourages and to cope with stress. They don't manifest self appreciation and self esteem and may not be able to achieve emotional and psychic equilibrium in the presence of stress. In addition they are less likely to protect themselves and to utilize crisis and stress for their own emotional development. In presence of stress they are likely to become disoriented and to engage in behaviours that may be self defeating and self abusive, because of their low self-esteem, lack of self confidence, inability to face and accept their own emotions, excessive expectations and self-criticism. Because of this poor coping they may be more subject to depression and depressive mood.

Table 2: MANCOVAs

Models	Sources	Wilks' Lambda	p value
ASQ-CDQ	(A) Group	0.915	<0.001
	(B) Married	0.997	0.534
	(C) Educational level	0.983	0.03
	A x B (interaction)	0.997	0.563
	A x C (interaction)	0.996	0.491
	B x C (interaction)	1	0.987
	A x B x C (interaction)	0.996	0.987
	Age*	0.999	0.881
SASB	(A) Group	0.957	0.011
Questionnaire	(B) Married	0.971	0.099
	(C) Educational level	0.975	0.192
	A x B (interaction)	0.989	0.746
	A x C (interaction)	0.979	0.286
	B x C (interaction)	0.99	0.814
	A x B x C (interaction)	0.982	0.416
	Age*	0.951	0.004
*Covariate			

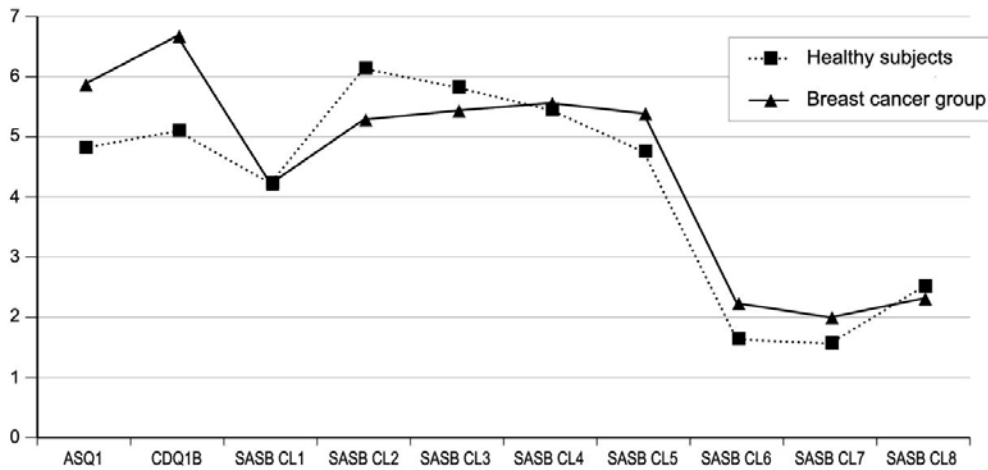


Figure 1: Mitochondrial auto-reactivity in BC and non-cancer sera IFA of a serum from a patient with IDC of the breast [A] showing cytoplasm studded with stained mitochondria. [B] Shows an occasional BBD control serum with mitochondrial staining on HEP-2 cells [dilution 1:500 in both A and B].

The profile of the SASB model shows high likelihood of depression in breast cancer group. Moreover these patients displayed a low assertiveness, and low ability to accept themselves and support themselves (to treat, care for, console and consolidate). These patients may be oppressive towards them and may accuse themselves of inadequacy, evoking feelings of guilt and shame, which purport low self-esteem and self-neglecting behaviours.

In general, breast cancer patients exercise greater self control aimed to specific objectives, such as attempting to achieve an ideal behaviour and exhausting themselves toward predetermined goals instead of control group.

Sasb interpersonal behaviors

In terms of interpersonal modalities the two groups have obtained different scores in all clusters except SASB Cl 1 and SASB Cl 4. In fact no significant difference is reached in SASB Cl 1 = Autonomy - Liberating and forgetting and in SASB Cl 4 = Love and control - Helping and protecting. It is mean that breast cancer patients are prone to liberate and to protect the others as the healthy control group (Figure 1). Significant difference (between study and healthy control groups) is found in the interpersonal processes of SASB questionnaire of the two groups in the following clusters: SASB Cl2- Autonomy and Love-Confirming and understanding ($F(1,460) = 8.32, p = .004$), SASB CL3-Love - Caring and consoling; ($F(1,460) = 15.53, p < .001$), SASB CL5-Control -Looking after and managing ($F(1,460) = 12.17, p < .001$), SASB CL6-Control and hate - Belittling and blaming ($F(1,460) = 12.31, p < .001$), SASB CL7 Hate - Assaulting and refusing ($F(1,460) = 5.68, p = .018$), SASB CL8- Hate and Autonomy - Ignoring and forgetting ($F(1,460) = 6.89, p = .009$) (Figure 1).

SASB Cl2 = Individuals with breast cancer have manifested lower levels of confidence and of acceptance of others than control group;

SASB Cl3 = Patients with breast cancer have worse attitude to taking care for others than control group. They were less likely to take care for others in the presence of stressful situation;

SASB Cl5 = they exercise more self control towards the others than control group. In particular, these subjects are more prone to manage, program and control the others by reminding them what

they should think, do and say. In other words they express less flexibility;

SASB Cl6 = they are more likely to abuse and be critical towards the others than control group;

SASB Cl7= Patients are more likely to engage in destructive behaviours in the physical and emotional dimensions towards the others than healthy control group;

SASB Cl8 = Patient are more likely tendency to ignore and neglect the needs and interests of the other than control group.

Breast cancer interpersonal profile. These patients don't fully promote independence in their relationship with others, by expressing trust and confidence of others; they are not always appreciative and empathic towards the other accepting difference of opinion and not always actively help or be close to the other person. However these behaviors may include elements of neglect and forgetfulness.

They tend to control the others in a positive and negative way and may express behaviors of belittling, blaming or manipulating the other. In extreme cases these patients may ignore and neglect the needs and interests of the other.

DISCUSSION

With respect to non cancer patients, adult and elderly women with breast cancer present a higher level of both depression and anxiety. Moreover these patients show less autonomy in their choices and lower acceptance of their own feelings. These individuals are less spontaneous in their behavior, they are unable to get in touch with and accept their deeper feelings. Being unappreciative of themselves they are unable to treat, console, care for and reconsolidate them. If left unmanaged these attitudes may hamper the patient's ability to receive anticancer treatment. The elderly and adult breast cancer patients don't differ in intrapsychic processes. So Women with breast cancer, adult and elderly have the same profile (SASB) and therefore the same are the intrapsychic issues [1,7,23] So, even if as many studies show the stages related to stress may be different between the two groups of age the basic intrapsychic behaviours does not change. In addition, if elderly and adults patients with cancer do not differ in intrapsychic

processes which factors are related to the different reactivity to stress in different stages of the disease? It would be interesting to study intrapsychic factors over time (initial diagnosis, at the end of medical treatment, and after one year from the end of this to evaluate the disease process in adult and elderly patients. In addition to study simultaneously intrapsychic factors, coping styles and social support in the various stages of the disease could better clarify these issues. Moreover many studies show that people with breast cancer may be likely to experience serious adjustment problems without adequate social support [3] with particular attention to the elderly. This aspect may be important in elderly subject without social support and or interpersonal difficulties. Our findings show that interpersonal relationship may be problematic in breast cancer women. The quality of relationships is crucial for support in dealing with the disease condition. This is especially true for the elderly suffering from cancers. The interpersonal problems emerged in this study suggest interventions that also include the caregiver and the family.

In conclusion this study raises other two questions

- 1) Depression and anxiety and maladaptive intrapsychic processes may be markers of patients at risk for maladjustment to cancer treatment (chemotherapy-cobalt therapy, and so on) and its side effects?
- 2) Depression and anxiety and intrapsychic processes may be markers of patients at risk for development of breast cancer?

Studies on the psychological factors and onset of cancer are controversial. No direct link has yet been established between psychological factors and cancer onset and progression Eskelinen (2010). In the same time many studies show the link between depressions, Intrapsychic factors and cancer adjustment [10]. So, further studies are necessary in this field.

Psychotherapeutic intervention

Given the profile of the SASB test, possible psychotherapeutic interventions must take into consideration the dimensions of acceptance and empathy, bringing the patient's awareness to the reality of the not adaptive aspects of his experience. It is necessary to guide patients to the awareness of their self-neglecting aspects, as well as their neglect towards themselves both at a physical and at an emotional level.

On the basis of the SASB Model this implies that the subject needs to develop the intrapsychic dimensions which indicate "positive control": SASB CI 3 = Self-support and

Appreciation, and SASB CI 4 = Self-care and development. Figure 1 complementary to those dimensions of "negative control" which indicate self-criticism and, in extreme cases, self-deprivation (clusters 6 and 7).

It is both important and fundamental (psychotherapeutic process) that the patient recognizes the self-critical model linked to guilt feelings [36]. Only through such awareness can the patient begin to cultivate a more satisfying quality of life. This entails developing interests, having more leisure time, discovering new dimensions in relationships, and not just for improving physical health but for overall well-being.

The psychotherapeutic intervention can help these patients to listen to their needs and allow them to let go maladjusted behavioural patterns in order to acquire a satisfying and full quality of life. The Holistic psychotherapeutic approach may be realized by using:

Psychotherapy from Humanistic Existential Psychology, Therapeutic Psycho synthesis, Transpersonal Psychology, Symbolic techniques with bodily involvement patients [31-33].

Unless these patients receive adequate psychological support, their great anxiety will prevent them from looking after themselves and their health. It is important for the oncologist to be aware of these personality aspects and recognize them as possible predictors of maladjustment to disease in order to correctly guide patients to adapt a more global and multidisciplinary approach.

CONCLUSIONS

In any case, the study suggests that intrapsychic factors and depression screening in breast cancer elderly and adult woman may help to plan a psychotherapeutic. Intervention to prevent not adaptation to the condition of disease.

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