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Cândido Alves, Pricilla; Lavinias Santos, Míria Conceição; Carvalho Fernandes, Ana  
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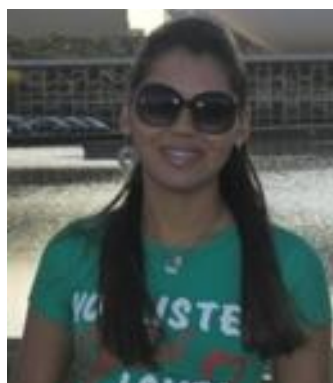
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## **Stress and coping strategies for women diagnosed with breast cancer: a transversal study**

**Pricilla Cândido Alves<sup>1</sup>; Míria Conceição Lavinas Santos<sup>2</sup>; Ana Fátima Carvalho Fernandes<sup>3</sup>**

<sup>1,2,3</sup>Ceara Federal University

### **ABSTRACT**

**Aim:** To verify the occurrence of stressful situations and the use of methods to deal/cope with such by women diagnosed with breast cancer. **Method:** Transversal study of 21 women, based on Lipp's Inventory of Stress Symptoms in Adults instrument (ISSA, in Portuguese) and the Scale on Ways to Deal with Problems (EMEP, in Portuguese).

**Results:** The presence of stress was seen in 66.7% of the women. Religious practice was the most-used coping strategy seen in the sample (52.4%), especially in the group in which stress was observed. In the no-stress group, the main coping technique was to focus on the problem (23.7%). **Discussion:** While dealing with the disease by focusing on the problem, women seemed not to feel stressed. **Conclusion:** The situations of stress provoked by breast cancer require that the patients adapt and cope with it. In terms of the research, so far, nursing staff must act to mediate the most adaptive responses to the situation created by the illness.

**Keywords:** Psychological Stress; Psychological Adaptation; Breast Neoplasm.

## INTRODUCTION

Patients diagnosed with breast cancer go through a large number of changes, from the diagnosis to the treatment, which directly reflect in their behavior. As can be seen, it is extremely stressful for women to find suffering from cancer, and then coping with all the implications<sup>(1)</sup>.

Therefore, the countless modifications in these women's routine due to their cognitive alteration - whether physical, psychological or social in nature - can become a threat to their biopsychosocial status, which leads to stress factors as the situation demands strategies to cope with the situation, and also has a strong emotional impact.

Stress has frequently been studied by researchers throughout the world due to the range of conditions related to its occurrence. Research suggests that it is an event that begins with a process performed in steps, with the symptomatology and the handling process differentiated according to the observed step<sup>(2)</sup>.

There are four phases associated with stress which constitute the Quad-Phase Stress Model: these phases are alarm (recognizing the source of stress), resistance (reparation for the physical damage caused by the source), semi-exhaustion (beginning of organism decay caused by the source) and exhaustion (overload, if stress remains active). The distinction between these elements is recognized by the duration of the action of the source, and the existence of organic and/or psychological symptoms<sup>(2)</sup>.

In terms of the source of stress, it can be defined as something that unbalances the homeostasis of the individual, and that demands some sort of adaptation, either externally or internally. This adaptation generates a reaction. If this is not effective, it can also be called a source of stress<sup>(3)</sup>.

For this reason, the coping process which is a response to stress, corresponds to the group of strategies adopted to deal with, and adapt to, stressful situations or to an event perceived by the individual as an imminent threat. This includes cognitive processes that are behavioral in nature, and emotional responses that aim to manage the crisis, or to reduce or allow the individual to tolerate the demands created by the situation. To

conclude, this conflict between the environmental or internal demands, and the efforts produced to act upon them, is called coping<sup>(4)</sup>.

Within this perspective, the coping answers can be divided in two basic categories: coping focused on the problem, which recognizes all the efforts on the part of the individual with regard to managing the problem. This describes attempts to substitute or make adequate the emotional impact, and are defensive processes<sup>(5)</sup>.

Some authors have also suggested other answers<sup>(6)</sup>, especially in terms of social support and religion as a means of dealing with stressing events, particularly in cases of chronic disease.

The lives of women diagnosed with breast cancer are full of feelings such as low self-esteem, poor self-evaluation and the stigma of mutilation. This means the existence of an extremely difficult, stressful and limiting context. As a result, women can then present a series of difficulties that will generate many types of coping strategies in an attempt to deal with the situation they find themselves in.

Added to that, in analyzing the studies performed over the past few years, it was observed that while there is a vast bibliography about breast cancer, few studies have emphasized the existence of stress and the coping strategies which are part of the lives of patients in the area of nursing. It is submitted that this constitutes a relevant factor to better explore the topic.

Therefore, as a member of a multi-professional team involved with caring for these patients, it is extremely important to know how the stress process provoked by breast cancer is presented, and what needs to be done with the patients when trying to overcome the demands that this new reality imposes on them.

In addition, the development of studies from this perspective can have meaningful implications, with regard to both the area of nursing and to the patient, in terms of the implementation of measures aimed at reducing stress, and offering guidance with regard to the use of effective coping strategies to resolve the conflict generated by the disease.

Taking into account such aspects, this study aims to verify the occurrence of stress from the signals and symptoms evidenced, as well as the use of coping strategies in women diagnosed with breast cancer.

## **METHOD**

This study was conducted based on a transversal design. It is of an exploratory-descriptive nature, and was performed in a mastology clinic of two Centers for Cancer located in Fortaleza, Brazil. Women who presented a clinical and pathological positive diagnosis for breast cancer and who were being monitored in these locations, constituted the sample population.

The inclusion of such individuals was based on the following criteria: women over the age of 18; first breast cancer diagnosis; diagnosed for at least a month; not engaged in any chemotherapy and/or radiotherapy treatment. Patients with a previously diagnosed psychiatric disorder due to stress provoked by chronic disease other than breast cancer were excluded.

Following the established criteria, 21 women were included. All decided to participate voluntarily in the study and signed the Free and Clear Consent Agreement. They were present in the study sites from April to July 2010, the period that was decided upon for the collection of data. The research study started after receipt of the approval of the Ethics in Research Committee of the Maternity-School Assis Chateaubriand (protocol #009/10, March 10<sup>th</sup> 2010).

During the data collection process, the Lipp's Adult Stress Symptoms Inventory (ISSI, in Portuguese) was used. This is a structured research guide, referring to the characterization of the subjects and the history of the disease. It verifies the occurrence of stress and measures the level or phase of stress felt by the subject, based on the number of symptoms presented<sup>(7)</sup>. In addition, the Scale of Ways to Deal with Problems (EMEP, in Portuguese), was used to capture and process strategies which subjects who live in a stressful situation use to cope<sup>(6)</sup>.

The ISSL was constructed and validated in 1994. It is an instrument composed of three cells (Q), which refer to the four phases of stress previously mentioned, being divided into symptoms from the last 24 hours (Q1-alert phase), from last week (Q2-resistance and quasi-exhaustion phase) and from the last month (Q3-exhaustion phase). The positive diagnose is obtained from the sum of the symptoms from each cell of the inventory, and then each symptom is scored accordingly. Therefore, when the result is more than the limit in a specific phase, this indicates the occurrence of stress and the corresponding phase (Q1>6 of the appointed symptom indicates an alarm phase; Q2>3 symptoms indicates the resistance phase; Q2>9 symptoms indicates the quasi-exhaustion phase; and Q3>8 symptoms indicates the exhaustion phase) <sup>(7)</sup>.

The EMEP was validated in 2001. It is a scale composed of 45 items subdivided into four subscales or factors that express cognitions (intrapsychic actions) and behaviors (direct actions) to deal with stressful events, in which a focus on the problem presents factor 1 (18 items); on the emotions, factor 2 (15 items); on religious practice, factor 3 (7 items); and on a search for social support, factor 4 (5 items). The answers are given in the form of a five point Likert scale (1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree). The main strategy to cope with the situation as answered by the participants, is identified by the highest score average of the four subscales<sup>(6)</sup>.

After the collection of the data, all information was stored in a databank designed by the software Statistical Package for the Social Sciences (SPSS), version 17.0. The average was calculated for the continuous variables, and the percentage frequency for the categorical ones.

## RESULTS

The participants of the study presented, according to the continuous socio-demographic variables, an average age of 57.76 years, an average schooling of 6 years and an average monthly family income of R\$ 966,00.

In relation to information with regard to the history of the disease, 18 of the women (85.7%) were carriers of mammary carcinoma with surgery indicated as the suggested form of treatment. Concerning the type of surgery to be performed, a fairly large proportion of the participants, 9 (42.9%), were indicated to be in receipt of a total mastectomy.

When analyzing the occurrence of stress from the identified symptoms among the group of women, it was diagnosed to be present in 14 (66.7%) of the participants, while in 7 (33.3%) cases, it was not observed. In relation to the phases of stress identified in the process, it was seen that, predominantly, the alarm phase was present in 7 (33.3%) of the women, while resistance occurred in another 7 (33.3%) participants.

The symptomatology related to the presence of stress indicated the existence of a relatively high number of physiologic and psychological orders among the women, who confirmed the stress phases most commonly seen among the participants (i.e., alarm and resistance).

Change in appetite was the most common symptom when presenting the ISSL's cell 1 (Q1-alarm phase), occurring in 12 (57.6%) out of 14 (66.7%) of the women diagnosed with stress. Despite the fact that the level of evidence of this symptom was significant, only 7 (33.3%) women were classified as being in the alarm phase, because they presented other symptoms simultaneously, such as hyperventilation, cold extremities, tachycardia, xerostomia and sleepiness which, when summed up, reached the necessary level to be included in the referred phase.

Excessive irritation and general discomfort were the most commonly occurring symptoms when cell 2 (Q2-resistance phase) of the inventory was applied. They were present in 14

(66.7%) stress diagnosed women. Although these symptoms were observed in all participants with a positive stress diagnosis, only 7 (33.3%) were identified as being in the resistance phase, once they had other symptoms, such as physical wear, dizziness, emotional sensibility and unidirectional thinking, which included them in this phase.

In relation to the coping strategies used by the women, it was observed that religious practice was the main one, in that it was present in 11 (52.4%) of the participants, followed by the focus on the problem, used by 6 (28.6%) women and a search for social support, seen in 4 (19%) women. No participant focused on her emotions as a coping strategy.

When considering the coping strategies for each group of women, in other words, with and without stress, it was seen that, in the group diagnosed with stress, of 14 (66.7%) women, 9 (42.8%) women searched for religious practice as their main coping strategy. In the group of women not diagnosed with stress, 7 (33.3%), it was verified that the most commonly used strategy was to focus on the problem, as seen in 5 (23.7%) women (See Table 1).

Table 1 – Distribution of women, according to stress diagnosis and coping strategy used. Fortaleza, Brazil, 2010

Coping strategy	Stress Diagnosis				Total	
	Yes		No			
	#	%	#	%	#	%
Religious practice	9	42.8	2	9.51	11	52.4
Focus on problem	1	4.76	5	23.7	6	28.6
Search for social support	4	19.0	0	0.0	4	19.0
Focus on emotion	0	0.0	0	0.0	0	0.0
Total	14	66.7	7	33.3	21	100.0



## DISCUSSION

The average age of the women in this study was in the fifth and sixth decade, which is also the highest age associated with the occurrence of female breast cancer. The incidence of breast cancer was relatively rare before the age of 35<sup>(8)</sup>.

It confirmed the currently observed tendency that the majority of breast cancer cases is diagnosed at a highly advanced stage, as seen in 60% of the cases. Consequently, in the majority of the women studied the presence of mammary carcinoma indicated surgery as a treatment. In many cases, the most indicated procedure was a mastectomy. For this reason, the number of mastectomies performed is elevated. This is because, if it is observed that there is a certain commitment of the tissues of the mammary, it is safer to completely extirpate the organ<sup>(9)</sup>.

From these findings, the complexity of breast cancer can be examined. In addition to the many policies and activities based on its control and early self-diagnosis, there is some delicate information referring to the stages of diagnosis and treatment procedure. In these, a control of the disease is increasingly emphasized, emphasising action in the area of the promotion of health, specific care and early diagnosis.

The occurrence of stress was verified in the majority of the participants, especially in terms of the phases of alarm and resistance. This complies with the findings in other studies<sup>(10-11)</sup> in which patients diagnosed with mammary neoplasm were also observed to be quite stressed.

The tendency to become stressed comes from the fact that, as soon as the cancer diagnosis is made of a disease that is known to generate suffering and worry, there is an imbalance, not only in the diagnosed woman, but also in her family, in that members are faced with an extremely stressful situation and usually this almost immediately motivates a change in behavior<sup>(11)</sup>.

At such a time it is necessary to consider the work of health professionals, especially the nursing team, who are in contact with these women on a daily basis, observing their feelings, their physical, psychological and social struggles. These professionals must

perform the role of facilitator in women self-learning strategies as part of the process of elaboration of the mechanisms necessary for the acceptance of their actual condition.

Considering the symptomatology reported by the women in this study and referred to as the alarm phase, the change in appetite as the symptom most in evidence, reflects the anxiety that they develop as part of a stressful situation. This is a scheme which should be considered as an adaptive mechanism or, in other words, a feature which works as an adequacy procedure. It is a response to an imbalance in the system, reducing initially the level of tension in an attempt to overcome the nature of the source of the stress<sup>(12)</sup>.

Emotive sensibility and excessive irritability are observed in women diagnosed with breast cancer. These symptoms are observed in the resistance phase which is enabled when the source of stress persists for a longer period. Due to the demands of the disease and/or the treatment, patients normally present an inability to appropriately deal with their emotions, especially their emotional instability and aggressiveness, presenting many periods of ups-and-downs between the two manifestations, which leads to a state of general discomfort<sup>(13)</sup>.

Referring to the main coping strategy used by the women in this study, the EMEP allowed us to determine that religious practice was the predominant coping mechanism. We can highlight this as a positive feature, as the role of faith as a coping strategy against a disease is a meaningful one. The belief in God, optimism and a positive attitude are strong influences on the development of adaptive responses to enduring situations generated by a disease<sup>(14)</sup>.

The use of a specific coping strategy by the women in the sample can have an influence on the existence of stress. Certainly, when observing both groups - stressed and not-stressed - in terms of the focus on the problem and searching for a better adaptation to the changes imposed by a mammary neoplasm, women tended not to feel stressed.

These findings also agree with discoveries made in other studies<sup>(11,15)</sup> in that they demonstrate a tendency to move to better and higher psychological levels (absence of stress) on the part of women who deal with the disease actively, by confronting the

situation and resolving their feelings with regard to the disease, or as we say above, focusing on the problem.

The presence of stress in women suffering from the disease who rely on religious practice and social support, can be understood by the fact that religion and social support, both considered as positive elements in dealing with the disease, demand a combination of other coping strategies which are considered particularly effective in situations of stress, such as focusing on the problem, and which are proven to be particularly efficient in handling stress<sup>(15)</sup>.

Therefore it is said that the best stress-handling strategy consists of an association of appropriate coping strategies, related to an improved psychological adjustment of the individual, and the development of pain relief methods.

Either way, the situations of stress generated by the diagnosis of breast cancer require an answer from the woman in terms of being more adaptive. In this sense, women who live in a situation such as a mammary neoplasm must develop ways to discover possible mechanisms as part of the confrontation process. It is believed that, at this point, nursing staff have an important role to perform, mediating the most adaptive responses to the situation observed.

In this continuous and dynamic process, the role of the nurses is crucial, as they are the professionals who spend most time with the patient. For this reason, they can establish a dialogue, acquire the patient's trust and can clarify the concept the woman has about herself, providing aid and common sense, pointing the best way forward.

## **CONCLUSION**

A life without stress is not possible. It is a feature that exists in our everyday lives, in our thoughts and on our bodies, especially when we are victims of brutal alterations to our life situation, such as structural changes in the mammary due to cancer. The changes transcend the physical repercussions, developing psychological conflicts in the women who are forced to deal with the disease.

This study has generated the conclusion that the verification of the occurrence of stress and the use of coping strategies in women diagnosed with breast cancer is relevant, as the emotional repercussions from the confirmation of the diagnosis represent a significant psychological trauma, and demand a further investigation into the possibility of developing nursing intervention procedures capable of provoking changes in the type of care provided to this clientele.

On the other hand, the occurrence of stress among the women in this study is a concerning discovery, as the ability of every person, healthy or not, to evaluate and re-evaluate the source of stress, and to opt for a more effective aspect of adaptation, is strongly based on their psychological state.

Based on that, we have highlighted the need for combined and synchronized action by the multidisciplinary team that is assisting such women. These professionals must recognize and ease the presented psychosomatic reactions resulting from a situation of anxiety and stress, by offering patients an effective strategy which is well-recognized as being effective in coping with the psychosocial effects of breast cancer.

It is the responsibility of health professionals to assist the patient in finding such strategies to overcome the stress caused by the discovery and treatment of the illness. Thus, it is also expected that each woman will be able to choose the most adaptive coping method for dealing with the situation, with such a method being based on her own experiences, values and culture. On the other hand, if there is no coping process, or it is not the most indicated one, a situation of crisis can occur, damaging even more the woman's rehabilitation in terms of the healing process.

We must also mention the reparation element from the adoption of combative and realistic attitudes by the women in this study compared to the stress caused by breast cancer. This is because they can represent the possibility of allowing the self domain of these women, providing the best adjustment. Consequently, assuming such a posture towards their illness can make a difference, leading to more favorable clinical and prognostic outcomes.

The use of specific and validated instruments to evaluate stress and the related coping strategies assumes a significant importance, once they are validated, in that they can measure *de facto* what they were designed for. The specifics of each one allows us to identify stress in predetermined stages and to determine the specific coping procedures. This in turn permits intervention on the part of the professional in the early stages, allowing them to act promptly and appropriately.

In spite of using a small sample, it is believed that this study can provide support and a certain applicability of its findings for health professionals in general. This will permit more qualified interventions in terms of understanding what women go through when dealing with breast cancer, consisting of highly stressful periods that can be overcome successfully if properly addressed.

Added to this, this study can offer directions to future researchers making use of a larger sample population, both national and international. Such a study could examine the stress caused by breast cancer, not only as an etiologic factor, but as a process that needs to be faced, from diagnosis to treatment.

The answers to these questions can contribute to the quality of assistance provided to these patients, as well as to built knowledge in nursing, because it is relevant for nursing staff to acknowledge many topics in order to assist the patient, independently of her pathology.

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**Participation in the study:**

- 1 Pricilla Cândido Alves: Concept and research design, analysis and interpretation, article composition, data collection and critical review of the article.
- 2 Míria Conceição Lavinias Santos: Concept and research design, analysis and interpretation, critical review and final approval of the article.
- 3 Ana Fátima Carvalho Fernandes: Concept and design, analysis and interpretation, final approval and bibliographical review.