Nursing Interventions in Woman with Breast Cancer Her2 like supported by Orem's theory. From Adjuvant to Palliative treatment. Study Case

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DOI: 10.29322/IJSRP.10.09.2020.p10530
http://dx.doi.org/10.29322/IJSRP.10.09.2020.p1530

***Abstract*- Introduction:** Breast Cancer is in Portugal and in the world, the cancer with the highest incidence in women. Nursing care centered on the person and on the interpersonal relationship aims to help women to be proactive in achieving their health project. Faced with an event as disruptive as being diagnosed with Breast Cancer, the woman will need, through a therapeutic relationship, to be supported and taught in the adaptation and self-care strategies related to the emerging health deviation. Focusing on training for self-care through educational and support interventions, we selected the Nursing Theory of Self-Care Deficit developed by Dorothea Orem. The case refers to a woman who was 36 years old at the time of diagnosis (2014) with Multifocal Invasive Ductal Carcinoma Her2 *like* type.

Objectives: Presentation of a case study based on Orem's nursing theory and identification and systematization of the most relevant nursing interventions to promote the adaptation of women to breast cancer.

Methodology: Research of the patient's clinical process, in the *SClínico Hospitalar* IT system of ULSLA E.P.E. and a systematic review of the literature in various scientific databases through the website of the Order of Nurses (EBSCO, Cochrane) and on the website of the Portuguese Oncological Nursing Association.

Results: No deficits were identified in the Development Requirements.

The deficits in the Self-Care Requirements related to Health Deviation identified were: breathing, elimination, skin, physical activity, psychological and emotional balance, body image, family and social interaction.

Nursing interventions aimed at promoting adaptation to health status and self-care in deficits related to health deviations, were based on the supportive-educative system.

Conclusions: The case presented here reveals a path of functional adaptation to a very disruptive health deviation from the person's life. She underwent surgical treatment and adjuvant chemotherapy with expectation of cure and initiated palliative treatment with the expectation of living with quality.

The strategies for adapting to health deviations and the management of adverse events (AE) used by the woman under the guidance and monitoring of the Nursing team proved to be appropriate.

***Index Terms*-** Breast Cancer, Nursing Interventions, Self-care, Adaptation, Dorothea Orem.

I. Introduction

Breast cancer is in Portugal and worldwide, the cancer with the highest incidence in women (1).

The diagnosis of Breast Cancer has a great emotional, psychological, and social impact on women. All dimensions of life are affected, and fears arise related to prognosis and survival.

Nursing care centered on the person and on the interpersonal relationship aims to help her to be proactive in achieving their health project. The quality standards defined by the Order of Nurses that must be in force in nursing care assistance, determines that nurses work in promoting functional adaptation to deficits, often through client learning processes (2). Dorothea Orem argues that all individuals are capable of learning and self-care and that nurses work through compensation systems in the identified self-care deficits (3).

Faced with an event as disruptive as being diagnosed with Breast Cancer, the woman will need, through a therapeutic relationship, to be supported and taught in the adaptation and self-care strategies related to the emerging health deviation (2) (4) (5). Focusing on training for self-care through educational support interventions, we selected the Nursing Theory of Self-Care Deficit developed by Orem, which provides a scientific framework for the implementation of the Nursing Process. This theory was validated by studies of Integrative Literature Review as being the dominant theoretical framework and the most appropriate for the provision of nursing care in the context of Oncology (4) (5) (6).

We chose this case because it represents a profoundly serious health deviation situation and a concomitant compromised socio-family situation. The situation required activation of self-care agency and coping strategies due to a functional adaptation. It was a demanding case to manage, that required good preparation by the nurses who participated in the case management.

II. PURPOSE

This work aims to present a case study based on Orem's nursing theory.

Specific objectives: identify and systematize the most relevant nursing interventions to promote self-care and adaptation

of women to breast cancer disease; to establish a theoretical framework that supports the nursing care provided; thus contributing to the affirmation of Nursing as a practical human science, with its own body of knowledge, which gives it the degree of scientific discipline.

III. METHODOLOGY AND DATA COLLECTION

The authors consulted the patient's clinical process, in the *SClínico Hospitalar* IT system of ULSLA E.P.E., and operated a systematic review of the literature in various scientific databases through the website of the Order of Nurses (EBSCO, Cochrane) and on the website of the Portuguese Oncological Nursing Association.

IV. ETHICAL PROCEDURES

All the research was done ensuring the anonymity, respect and confidentiality of the data collected.

V. CLINICAL CASE

The case refers to a woman who was 36 years old at the time of diagnosis (2014) with Multifocal Invasive Ductal Carcinoma Her2 *like* type in the left breast. She underwent quadrantectomy with axillary dissection and adjuvant chemoradiotherapy in the first phase. By then her Eastern Cooperative Oncology Group (ECOG) Performance Status score was zero. The initial vascular access were peripheral veins in the forearm. The veins were fragile and totally implanted central venous catheter was placed.

Due to the relapse of the disease with brain, lung, liver, and bone metastasis, she underwent holocranial radiotherapy by brain metastasis and started to undergo palliative chemotherapy. At the time of the diagnosis, she was professionally active and married. She is the mother of two minor children that were 6 and 9 years old at the time and are 11 and 15 now. She went through a divorce process in the end of the adjuvant treatment and was not working. At the time of the relapse she was alone with the children.

During the adjuvant treatment, the woman had the expectation of healing. When the disease relapsed, she presented a great emotional and psychological distress related to her survival and the exercise of parenting. Her ECOG Performance Status score then was 2.

By now, this woman has 41 years old. The palliative treatment had a favorable outcome and she only has lung metastasis diagnosed. Her ECOG Performance Status score is 0 and she is working in a part-time schedule. She takes care of her children and does all the domestic chores.

VI. DOROTHEA OREM THEORY

Born in 1914 in the United States of America, Orem was a nursing theorist and created the Self-care Deficit Nursing Theory. Orem theory is known as Orem Model of Nursing and was developed between 1959 and 2001 (7).

Orem's theory comprises three main frameworks: Theory of Self-Care, Theory of Self-care -deficit and the Theory of Nursing Systems (8) (9) (10).

Dorothea Orem bases her conceptual model on the premise that integrated human functioning includes physical, psychological, interpersonal, and social aspects. She believes that what distinguishes human beings from other living beings is their potential for learning and development. Hence to point out the supportive-educative system as a method of nursing intervention assistance (11). Basically, she advocates that every person has learning and self-care potential and nurses act through compensatory systems supporting the self-care and learning deficits (3) (8). So, the aim of nursing profession is to attain independence in self-care (8). Patients are encouraged to take their own decisions through the development of a collaborative relations with nurses (3) (10).

Self-care is defined as a human regulatory function performed intentionally, with a view to acquiring the necessary conditions to ensure life, maintain physical and psychological functioning within parameters compatible with life, guaranteeing human integrity and development (3) (12)**.**

The Self-Care Theory is presented as a process based on an operational structure. This structure consists in estimative, transitional and production operations. An operation means the knowledge and attendance of each existent self-care requisite. The estimative operations regard to the existing condition, in a time and place. The transitional operations refer to the judgment of the results achieved through execution of estimative operations. The production operations are acts that guarantee the necessary resources for the self and its environment, in order to allow the realization of care measures with the use of specific methods to meet each particular requirement of self-care (3)**.**

The capacity to perform self-care is called self-care agency. Orem identifies three types of predisposing conditions to self-care agency:

Type 1 - foundational capabilities and dispositions.

Type 2 - capabilities to initiate and perform self-care at a given time and place.

Type 3 – capabilities to start and maintain estimative, transition and production operations over time. To create references from the operations performed to know, particularize and meet existent and projected self-care requisites.

These three types of allowing requirements constitute a model of structure of self-care agency (3).

Orem identifies requirements of universal, development and health deviation self-care. Universal requirements refer to structural or functional integrity; development requirements refer to life and maturation processes and health deviation requirements refer to the situation of a sick or injured person undergoing medical diagnosis or treatment (12).

Nurses work through compensation systems in the identified self-care deficits. The Self-care deficits occurs when self-care needs are larger than the person's ability to provide for them; refers to the limitations of individuals in achieving their self-care (8) (12).

The systems are the actions nurses perform and the relations they develop when they practice nursing (3) (9).

There are three levels of compensatory systems: wholly compensatory system, partly compensatory system, and supportive-educative system (8).

Nursing systems are implemented through aid methods. These help methods are: acting or doing for patients, guiding patients, supporting patients physically and psychologically, providing the environment that promotes personal development and teaching patients (8) (12) (9).

The supportive-educative system was identified as the one that best meets the needs of the cancer population undergoing chemotherapy treatment (4) (13) (14) (15).

The theory developed by Orem was validated by studies of Integrative Literature Review as being the dominant theoretical framework and most appropriate for the provision of nursing care in the context of Oncology (6) (4) (16).

Orem's conceptual model lacks the inclusion of the Spirituality dimension. This is a dimension particularly present in the mind of the person who is in a life-threatening situation. Spirituality gives us a sense of the meaning of life. In a situation in which survival is threatened, it is important that the person feels that her/his life has and had meaning, that it is important. Spirituality means knowing that life has meaning beyond the mundane existence of everyday life (17).

Even without regarding the questions related to spirituality, the theory developed by Orem is the one that best responds to deficits in development self-care requisites comprising the transitional aspect of adaptation and to health deviations, especially in an oncological scenario.

VII. RESULTS / FINDINGS

The implementation of the nursing process presumes the use of critical thinking. There are four structured cognitive operations that are required: diagnostic, prescriptive, regulatory and control (10). We will use the term “operation” has it is in the original theory, but this “operations” mean nursing interventions.

Diagnostic Operations: Basic conditioning factors related to housing, basic sanitation and economic resources were guaranteed.

The Universal Self-Care deficit requirements identified were induced by the disease and were adverse events caused by the treatments. So, they are also Health Deviation deficits requirements that demanded therapeutic Self-care. They are: inadequate effective respiration related with cough, inadequate eliminative process related with constipation, inadequate skin integrity related with Doxorrubicine administration in a peripheral vein, body image modification related with alopecia, inadequate physical activity related with fatigue, inadequate psychological and emotional balance related with a life threatening disease and potential parenting disruption, and inadequate social interaction related with social isolation because of the fatigue.

No Developmental Self-Care requirements deficits were found. The woman revealed adequate Self-care Agency to deal with the initial diagnosis and with the transition between adjuvant and palliative treatment.

Prescriptive Operations: Self-care Agency was assessed by a semi-structured interview. We set with the patient what was the acceptable level of deviation for each condition.

We identified the supportive-educative system has the most appropriate for this situation.

Regulatory Operations:

Self-care Agency was developed and the adherence to treatment and management of adverse events were enhanced by the helping methods used. They were guiding and directing, teaching, providing psychological and emotional support and providing and maintaining environment that supports personal development. We also provide written information support with the management strategies of the adverse events.

Control Operations: This woman revealed decreased level of worry and anxiety. She is independent in all daily life activities and instrumental life activities.

She has a normal weight and low risk of malnutrition.

She cares of her central vascular access avoiding sudden movements and carry weights. Her central access is functional and well implanted.

She cares of her left upper limb doing the preventive lymphedema exercises. Does not present lymphedema signs.

She used facial make-up and wore a turban when her body image was altered. She referred sadness about her image, but she did not isolate herself.

Demonstrated adherence to the treatment and correct management of cough, pain, constipation, fatigue, and drowsiness with non-pharmacological, and pharmacological strategies.

Her speech and behavior are suggestive of functional adaptation as she accepts quality of life as a main goal.

VIII. DISCUSSION

The theory developed by Orem covers the needs of women with breast cancer in nursing care as well as the type of professional help to be provided (4) (12).

Nursing operations founded on this theoretical framework and based in a supportive-educative system, aim to help patients increase their self-care resources and encourage decision-making. This system allows for greater involvement in the process of adaptation and management of health problems (4).

Regarding the diagnostic operations, we consider that the Self-care Agency should be supported by a structured interview where the power components for performing estimative, transitional, and productive operations would be assessed. The better moment to make this assessment is before treatments initiation (14).

We also consider that before the first treatment and between the subsequent treatments a quality of life assessment should be applied (18). The quality of life assessment allows nurses to identify the impact of the disease and adverse events in life and the human responses to that. From here we can guide and direct management strategies that better suit this person.

Also, in the first contact, information should be given in order to prepare the person to what will probably happen (4). This previous knowledge allows the person to activate their internal Self-care power components to deal with the situation and gives the sensation of being in control. This emotional and psychological state predisposes the person to engage in the learning process (14).

The prescriptive and regulatory nursing operations proved themselves to be adequate. In the control operations we can observe the absence of complications and the adoption of health-promoting behaviors.

IX. CONCLUSION

The case presented reveals a path of functional adaptation to a very disruptive health deviation from the person's life. The woman underwent surgical treatment and adjuvant treatment with the expectation of cure. And then palliative treatment with the expectation of living with quality.

The strategies of adaptation to health deviations and management of adverse events used by the woman under the guidance and monitoring of the nursing team proved to be appropriate.

Nursing interventions were supportive-educative as recommended by the literature.

A host nursing consultation should be implemented. This consultation allows the identification of self-care resources and deficits using an appropriate instrument for this purpose, as well as the preparation for the treatment of chemotherapy and associated adverse events (4) (19) (20).

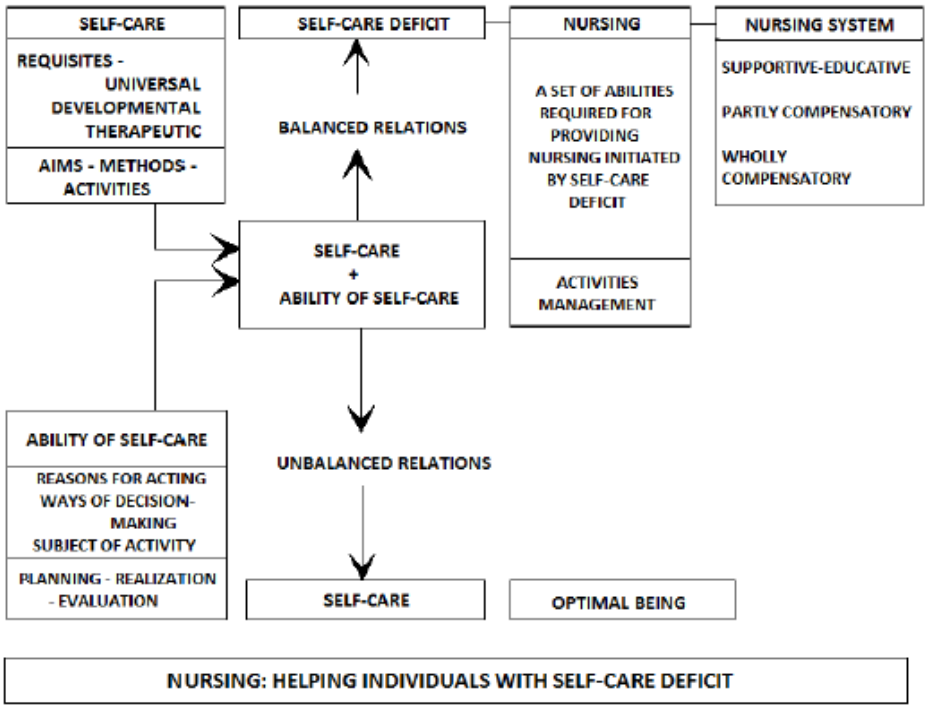

Figure 1. Model of self-care deficit. In: Jarosová, D. (2014). Supporting Material. Nursing Theories and Models. (8)

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