

The use of therapeutic cushion in the post-operative of mastectomy

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Abstract— Breast cancer is a neoplasm caused by the multiplication of abnormal breast cells with the capacity to evolve in various ways, some of which develop quickly while others develop more slowly according to the specific characteristics of each tumor. Mastectomy is one of the forms of treatment of breast cancer, being a surgery that can be performed in a total, radical modified or prophylactic way, for oncological or preventive reasons. Objective: to verify if the use of the therapeutic pillow offered through Facimed's extension project "Heart pillow - sewing love" in the mastectomy postoperative period showed the result of providing the physical and psychological comfort initially estimated in the extension project. The methodology is a cross-sectional, quantitative descriptive field survey that interviewed 23 participants who received the pillow during the execution of the extension project. Results: of the 23 participants, 21 (91.30%) are female, 15 (65.21%) married, with a predominance of white in 12 (52.17%). The mean age of the patients was 54 years old, with the age range of 42 to 59 years old prevailing in 12 (52.17%) patients. Regarding the type of surgical procedure performed, bilateral total mastectomy prevailed in 12 (52.17%) of the cases, followed by 7 (30.43%) of partial mastectomy and 4 (17.43%) of breast reconstruction, being the breast cancer was the main reason for performing the procedures in 21 (91.30%) cases. It is concluded that the therapeutic pillow provided by the extension project presented realistic benefits to patients undergoing mastectomy surgery and breast reconstruction, assisting in the postoperative recovery of patients, preventing complications resulting from the surgical procedure, in addition to strengthening care bonds between nursing staff and patients.

Keywords— Mastectomy, Breast cancer, Heart pad.

O uso da almofada terapêutica no pós-operatório de mastectomia

Resumo— O câncer de mama é uma neoplasia causada pela multiplicação de células anormais da mama com capacidade de evolução de várias formas, uns se desenvolvem rápido enquanto outros mais lentamente de acordo com as características específicas de cada tumor. A mastectomia é uma das formas de tratamento do câncer de mama, sendo uma cirurgia que pode ser realizada de forma total, radical modificada ou profilática, por motivos oncológicos ou preventivos. Objetivo: verificar se o uso da almofada terapêutica ofertada por intermédio do projeto de extensão da Facimed "Almofada do coração – costurando amor" no pós-operatório de mastectomia apresentou o resultado de proporcionar o conforto físico e psicológico estimados inicialmente no projeto de extensão. A metodologia trata-se de uma pesquisa de campo de cunho transversal, descritivo quantitativo que entrevistou 23 participantes que receberam a almofada durante a execução do projeto de extensão. Resultados: dos 23 participantes 21 (91,30%) são do sexo feminino, 15 (65,21%) casadas com predomínio da cor branca em 12 (52,17%). A média de idade das pacientes foram de 54 anos prevalecendo a faixa etária de 42 a 59 anos em 12

(52,17%) pacientes. Em relação ao tipo de procedimento cirúrgico realizado a mastectomia total bilateral prevaleceu em 12 (52,17%) dos casos, seguida de 7 (30,43%) de mastectomia parcial e 4 (17,43%) de reconstrução mamária, sendo o câncer de mama o maior motivo para a realização dos procedimentos em 21 (91,30%) dos casos. Conclui-se que a almofada terapêutica fornecida pelo projeto de extensão apresentou benefícios realísticos aos pacientes submetidos a cirurgia de mastectomia e reconstrução da mama, auxiliando na recuperação pós-operatória dos pacientes, prevenindo complicações decorrentes do procedimento cirúrgico, além de estreitar os laços de cuidado entre equipe de enfermagem e pacientes.

Palavras chaves— Mastectomia, Câncer de mama, Almofada do coração.

I. INTRODUCTION

Breast cancer is a neoplasm caused by the multiplication of abnormal breast cells with the ability to evolve in various ways, some of which develop quickly while others develop more slowly according to the specific characteristics of each tumor (NEUMAYER AC et al., 2018; INCA, 2019a). Currently, breast carcinoma is a serious public health problem and is the most common malignant tumor in women in most parts of the world (INCA, 2019b). According to the world statistics, in 2018 breast cancer affected 2.1 million patients. It is estimated that in Brazil there will be 66,280 new cases in each year of the 2020-2022 triennium. In Rondônia, the estimated breast cancer incidence for the year 2020 is 220 new cases, with an estimated adjusted rate of 29.30 cases for every 100 thousand women (INCA, 2019).

In Brazil, in 2017 there were 16,927 breast cancer death records, 16,724 women and 203 men (INCA, 2020c). The care modalities for breast cancer treatment occur according to staging, they can be local considering surgery and radiotherapy and systemic treatment including chemotherapy, hormone therapy and biological therapy (INCA, 2019b).

Mastectomy is a method of treating breast cancer. For cancer or preventive reasons, surgery can be performed in a total, radical modified or preventive manner. The method of surgery and the type of surgery depend on the classification and clinical stage of the cancer (process of determining the location and extent of cancer in the human body), as the procedure aims to eliminate the presence of cancer. In the postoperative period of mastectomy, complications such as hematoma, edema, infection and accumulation of blood secretion can occur after the drain is removed. Trauma can cause phantom breast sensations, numbness, tingling or burning and can last for months or years after surgery. However, patients facing mastectomy still face physical, psychological and sociopsychological problems related to the diagnosis of cancer and the mutilation or alteration of the breasts (SMELTZER e BARE, 2002; SILVA et al., 2007; FARIA, FREITAS-JUNIOR & SILVA, 2013; SANTOS et al., 2017).

Having a mastectomy affects the psychological structure of women, causing emotions never experienced, feelings of shame, rejection and inferiority accompanied by fear and nervousness (NASCIMENTO, 2015). In the postoperative period, patients experience varying degrees of pain intensity and discomfort in the chest wall, in the affected arm and in the breast. In this sense, moderate elevation of the limb is a means of relieving pain, reducing tension on the surgical incision, avoiding venous retention of the affected limb (SMELTZER and BARE, 2002; HERMES & LAMARCA, 2013).

The “Heart Pillow Project” started in the United States by a breast cancer specialist at the Erlanger Breast Resource Center in Chattanooga, Tennessee, after undergoing surgery in 2002, looked for various ways to obtain comfort and postoperative pain relief feeling the need to support the arm to relieve pain and numbness, reaching the shape of the heart cushion. The project arrived in Brazil in 2010 through Ms. Ondina Almida Posiadlo active member of the Female Missionary Society of the Church of God in Brazil, after being inspired and participating in the work of the group of volunteers on a visit to Germany (CRP, 2018).

The extension project “Heart Pillow - Sewing Love” was developed at Facimed by the Academic Nursing League in Oncology and Hematology (LAEOH). In the development of the actions of the project, heart-shaped pillows were made in 100% cotton fabric with antiallergic filling, standard size and offered to patients undergoing mastectomy surgery, in order to provide physical and psychological comfort during the postoperative period together guidance on how to properly use the pillow and its benefits.

The pillows are made in order to help patients who have undergone mastectomy, are already being used by thousands of patients worldwide. They are of sufficient size and weight to help the patient feel comfortable after surgery. They are designed to be placed under the arm to rest and support the upper limb, thus reducing the pain in the surgical incision and the lymphedema caused by the surgery. The pillow can be used during sleep as an armrest,

and can also be placed under the car's seat belt to avoid possible trauma in the surgical incision.

By participating in activities at the Academic Nursing League in Oncology and Hematology at FACIMED, it was possible to live with patients in the mastectomy postoperative period who reported breast loss as something difficult and painful for women, due to issues related to both physical pain as for the psychological, there is no division of this process of significant changes, because the body and the mind are interconnected.

The objective of the research is to verify if the use of the therapeutic pillow offered through the Facimed extension project "Heart pillow - sewing love" in the post-operative mastectomy presented the result of providing the physical and psychological comfort initially estimated in the project. extension.

II. MATERIALS AND METHODS

The study was submitted to the ethics and research committee - CEP, of the educational institution of Cacoal - FACIMED - Faculty of Biomedical Sciences of Cacoal, following the recommendations of Resolution No. 466, of December 12, 2012 and Resolution No. 510, of April 7, 2016 from the CNS- National Health Council and after its approval received an opinion consubstantiating with the number 4,100,187 and CAEE n° 32889620.6.0000.5298.

Cross-sectional, quantitative descriptive field research. The collection instrument was a questionnaire prepared by the researcher based on the research objectives. Data collection was carried out between June and July 2020 and comprised a sample of 23 participants according to the inclusion criteria: patients who underwent surgical procedures for total or partial mastectomy and received the cushion for the extension project; The informed consent form - TCLE was authorized through videos and / or signed by the project participants.

III. RESULTS AND DISCUSSION

The "Cushion of the heart - sewing love" extension project was developed on the premises of the Regional Hospital of Cacoal during the months of September 2019 to March 2020 where on Wednesdays the academic always entered the surgical clinic and patients were given pillows of heart-shaped fabric and folders guiding the way of use and the benefits provided. The good receptivity of the information and the acceptance of the pillow by the

patients provided the academic to realize the importance of the individualized look to the condition of each patient.

From the conclusion of the project, the analysis of the records was carried out, thus the initiative to verify the result of the actions carried out under the eyes of the patients who were contemplated with the pillows.

Of the 23 participants, 21 (91.30%) are female, 15 (65.21%) married with a predominance of white in 12 (52.17%) followed by 8 (34.79%) brown and 3 (13, 04%) black. The mean age of the patients was 54 years old and the median was 52 years old, with a predominance of the 42-59 year old age group with 12 (52.17%) of the participants.

According to Borges et al., (2016) & Azevedo et al., (2017) the highest incidence of patients undergoing breast cancer treatment is married (53.0%), with the white color having the highest percentage (56.8%) of breast cancer mortality in females with 56.8% of cases and the average age at which women are diagnosed with breast cancer is 56 years, which confirms that women over 50 have higher risk of developing breast cancer (AZEVEDO et al., 2017).

Table 01 - Distribution of the type of procedure, location and reason for the mastectomy performed at the HRC during the execution of the Heart Pillow Project. Cacoal / RO, 2020.

Variables	N	%
Type of mastectomy		
Total	12	52,17
Partial	7	30,43
Breast reconstruction	4	17,40
Procedure location		
Unilateral	11	47,83
Bilateral	12	52,17
Reason for surgery		
Cancer	21	91,30
Gynecomastia	2	8,70
Used the pad in the postoperative period		
Yes	23	100,00
No	0	0

Source: MEDEIROS & SOARES, 2020.

Regarding the type of surgical procedure performed, bilateral total mastectomy prevailed in 12 (52.17%) of the cases, followed by 7 (30.43%) of partial mastectomy and 4

(17.43%) of breast reconstruction, being the breast cancer was the main reason for performing the procedures in 21 (91.30%) cases. Of the interviewees, 23 (100%) reported having used the pillow in the postoperative period as indicated and received guidelines.

Mastectomy is a surgical procedure used for partial or total removal of the mammary glands in order to provide improvement in the woman's clinical condition and prevent the evolution of the disease or metastases to other areas of the body (MAJEWSKI et al, 2011). According to Moreira and Canavaro (2012) mastectomy is a breast-conserving surgery, that is, it is removed to avoid worsening of breast cancer.

Even with breast reconstruction, patients may suffer impacts on the quality of life, on physical aspects and on the level of independence, that is, from the reconstruction, there may be noticeable effects of anatomical manipulation and cause permanent and physical discomfort in the mobility of the breast and limbs et al., (2013).

Research carried out at the cancer center of Cacoal-RO showed that about 12% of the population that undergoes cancer treatment at the institution are carriers of breast cancer (FARIA, GUDE & LIMA, 2020). According to the INCA (2020) the incidence of female breast cancer in the year 2020 is 29.7% and possible changes over the years may occur with the increase in cases.

Breast cancer is more prevalent in women worldwide, tends to grow constantly, where the mortality rate is lower in women under 40 years of age, and over 60 years of age the risk is 10 times higher (BRASIL, 2020a).

The breast self-examination should be inserted regardless of the age group in the daily lives of women throughout the year, thus, in order to prevent future neoplasms (FARIA, GUDE & LIMA, 2020). However, there are controversies about the effectiveness of the self-examination, for the Ministry of Health and the Brazilian Society of Mastology, the self-examination of the breasts has already been widely used and recommended, as it helps the woman to touch and get to know her body, but it does not replace an evaluation breast clinic. For more than ten years, self-examination is no longer recommended in developed countries because it does not detect tumors below 1 cm. When there is no change in self-palpation, the concern is that the woman will stop seeking medical attention and undergo the examination. Failure in screening and the delay between confirmation and treatment can lead to death (SBM, 2019).

The mammography exam is recommended for women over 35 years of age who are at high risk for breast cancer since the exam allows the visualization of unnoticeable

changes. From the age of 40, the general recommendation is the clinical examination of the breasts and the performance of mammography for women between 50 and 69 years old, with a maximum interval of two years between examinations.(SILVA & RIUL, 2012; BRASIL, 2014; BRASIL, 2020b).

In study 2 (8.70%) male patients underwent mastectomy due to gynecomastia, which is the benign growth of the male breast. Gynecomastia undergoes hormonal changes of estrogen and androgen and the appearance of secondary ducts and stromal hyperplasia, which must be differentiated from the increase in volume caused by the accumulation of fat called lipomas or pseudogynecomastia (CANHAÇO, ELIAS & NAZÁRIO, 2015). There are controversies about the relationship between male breast cancer and gynecomastia, vary in 2% to 35% of patients and idiopathic causes are the reason for most cases. Surgery is the main method of treatment when there is no spontaneous regression or worsening of psychosocial disease. The second main reason is the use of drugs that trigger gynecomastia: risperidone, phenothiazine, selective serotonin reuptake inhibitor, methyl dopa, tricyclic antidepressants, marijuana, heroin, saquinavir, minocycline, finasteride, domperidone and others (MEDEIROS, 2012; CANHAÇO, ELIAS & NAZÁRIO, 2015).

Table 02 - Distribution of the variables time and form of use of the pillow, presence of complications and opinion of the participants about the Pillow of the Heart - Sewing Love project developed at HRC. Cacoal / RO, 2020.

Variables	N	%
Pad use time		
<30 days	3	13,05
31 - 60 days	7	30,43
> 60 days	13	56,52
Presence of lymphatic edema in		
Yes	4	17,39
No	19	82,61
Using the pillow at night while		
Yes	23	100,00
No	0	0
Did the use help to rest the		
Yes	23	100
No	0	0
Use during transportation		
Yes	22	95,65
No	1	4,35
Presence of complication in the		
Yes	0	0
No	23	100
Pain relief at the surgery site		
Yes	23	100
No	0	0

Feeling when receiving the		
Sad	0	0
Happy	17	73,91
Afraid	0	0
Watch out	6	26,09
Approval of pad use		
Yes	23	100
No	0	0
Information on complications of		
Yes	13	56,52
No	10	43,48
Project classification		
Very important	15	65,21
Required	8	34,79
Not necessary	0	0
Bad	0	0
Indicating the pillow to other		
Yes	23	100
No	0	0

Source: MEDEIROS & SOARES, 2020.

Upon receiving the diagnosis of breast cancer, the woman experiences several feelings of mourning according to her intensity of pain when facing breast cancer, both patients and their families suffer from fear, anger, pain and anxiety from diagnosis to treatment, causing a significant impact on people's lives (LORENZ & LOHMANN, 2018). Based on the results, it was found that 23 (100%) of the participants used the pillow, denying the occurrence of complications in the postoperative period, stating that the pillow helped to relieve pain at the surgery site and decrease tension and tingling in the arm and shoulder. used it at night during sleep and stated that the use helped to rest the shoulder / arm improving the quality of sleep and rest. Regarding the time of use, 13 (56.52%) said they had used it for more than 60 days and 19 (82.61%) replied that in the postoperative period, the upper limbs affected by the surgery did not develop lymphatic edema and 22 (95.65%) reported using the cushion during transportation by car.

According to Rossi (2016), the correct use of the pillow provides a reduction in pain caused by mastectomy, it also provides physical and psychological support. The time of using the pillow varies from patient to patient, and can exceed 150 days. The incidence of post-mastectomy pain syndrome is high, affecting 20% to 50% of patients. Recovery is quick after surgery and may require hospitalization for 1 to 2 days, depending on the type of surgery (bilateral or unilateral). The recovery period of the treated patient is very important, depending on the individual characteristics, the severity of the disease and the treatment received. The nursing team must pay attention to keep the arms of mastectomized patients about

20 cm away from the body and support them by installing them above the center of the cushion to reduce edema and tension (COUCEIRO; MENEZES & VALENCA, 2009; RIBEIRO & RIBEIRO, 2018).

The characteristics of the surgery can bring functional complications to the shoulder and arm joint on the same side of the breast to be treated. The more extensive the procedure, the greater the chance of disease (VELLOSO; BARRA & DIAS, 2009; GÓIS et al., 2012). The pain may start immediately after the operation and last for a long time, and may even cause dysfunction. These complications can cause discomfort during sleep and while driving, changes in posture and decreased ability to do housework, which can lead to distress and severe dysfunction (AMARAL, 2010).

Few patients and health professionals know the project Cushion of the Heart - Sewing Love. The pillows were designed to be placed under the arm to facilitate your rest, reduce the pain of the surgical incision, decrease the lymphatic edema caused by the surgery, reduce the pressure on the shoulders and support the patient's arm even during sleep (CRP, 2018). Therefore, the information found in this study becomes relevant mainly to nursing professionals who will be promoting care and guidance to patients who need to undergo mastectomy surgery.

About 17 (73.91%) of the patients who received the pillow reported feeling happy and 23 (100%) said they approved the project initiative for the use of the pillow in the postoperative period, 15 (65.21%) rated the extension project developed at the Hospital Regional de Cacoal as "very important" and 23 (100%) of the patients answered that they would recommend the pillow to other people who were in the same surgical condition.

Another important point to be highlighted is that 13 (56.52%) of the interviewees answered that, before the procedure, they did not receive information about possible complications resulting from mastectomy. The most common complications in mastectomy surgeries are: appearance of edema, seroma, dehiscence, limited range of motion, infection, adherence, inflammation at the place where the drain is inserted and cellulite (PANOBIANCO et al., 2009; NASCIMENTO et al. , 2012; CRUZ et al., 2017).

It is important to emphasize the role of nursing in preventing lymphedema, such as surgical dressings and suction care. Protective care for the area to be exposed during radiation therapy; educational activities related to arm care and exercises on the same side of the operation

(PANOBIANCO et al., 2009; NASCIMENTO et al., 2012; CRUZ et al., 2017).

IV. FINAL CONSIDERATIONS

Based on the research data, it can be concluded that the therapeutic pillow used by Facimed's extension project "Heart pillow - sewing love" developed realistic benefits for patients undergoing mastectomy and breast reconstruction surgery, helping in postoperative recovery of patients, preventing complications resulting from the surgical procedure, in addition to strengthening the bonds of care between the nursing team and patients.

The results obtained are classified as satisfactory based on the opinion of the patients who used the pillow, reporting that they did not develop pain, tension, numbness and lymphatic edema in the upper limbs, inferring that the use of the pillow provided the same physical comfort and psychological, therefore, they would indicate the use of the pillow to other people who performed the same procedures and by demonstrating the feeling of happiness and care when receiving the pillow during the post-surgical hospitalization period.

All patients participating in the Facimed extension project "Cushion of the heart - sewing love" demonstrated satisfaction and declared and considered an important initiative by the nursing student.

The nurse's role goes beyond the scope of planning, organizing, coordinating, executing and evaluating, since "assisted nursing" is to put oneself in the other's place, it is to promote physical, psychological and social well-being with a humanized and individualized look for each patient it is doing for the other everything that he cannot do for himself. However, the nurse promotes the participation of self-care activities, teaching the importance of paying attention to the surgical incision and suction of the drain to prevent the accumulation of bloody secretion, infections, hematoma, edema and lymphedema. However, instructing them to perform normal home activities promoting a better quality of life and a sense of normality on the part of patients.

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