



Innovation Article

Innovative post mastectomy bra for increasing self-convenience and confidence patients

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ABSTRACT

Background: The act of mastectomy can affect body image because it loses part of the body and affects their social relationships with others. The existed bra is felt uncomfortable when worn so it is necessary to develop a special post mastectomy bra to increase the confidence and comfort of post mastectomy patients.

Purpose: This study aimed to examine and develop a special post mastectomy bra to increase self-confidence in post-mastectomy patients.

Research Methods: This is a Research and Development (R & D) research. This study consisted of 3 phase, namely research phase I, phase II, and phase III or product testing.

Results: The results of a post mastectomy special bra tested to 10 respondents mentioned that a special post mastectomy bra is comfortable to wear and they are not ashamed anymore do activities outside the home.

Conclusion: Special post mastectomy bras are proven to increase post-mastectomy patients' convenience and confidence.

INTRODUCTION

The World Health Organization (WHO) identified breast cancer as the leading cancer in women in developed and developing countries (1.7 million cases) ¹. By 2018 there are 18.1 million cases of breast cancer worldwide with a total death of 9.6 million deaths². According to the data, as many as 68.4% of breast cancer patients choose mastectomy as a management of breast cancer³. Management of breast cancer that is often used is mastectomy. Mastectomy is an operation to remove breast affected by cancer. The mastectomy is mostly taken because it has the highest cure rate compared to other treatments⁴.

The existence of a mastectomy will cause physical changes in patients of breast cancer that will affect the body image showing a person's self-image which in turn will affect self-esteem. Threats to body image and self-esteem are often accompanied by feelings of shame. The breast removal through surgery is the main thing in the body image problem because of losing body parts⁶.

When breast cancer sufferers use conventional bras, it will lower their confidence and comfort. It also will show breast conditions that are not in accordance with the actual conditions so that these conditions will lower their self-confidence. Based on the description above, there is a need for innovations related to bras that can increase the self-confidence and convenience of post-mastectomy patients, because it is necessary to develop a post mastectomy special bra to increase self-confidence in patients with post mastectomy breast cancer.

METHOD

Design

This research is a type of research that adopts Research and Development (R & D)⁷. This research consists of 3 phases, namely research of phase I, phase II, and phase III or product testing.

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Phase I Research

The research of phase I is a literature study that aims to find comparisons of suitable materials for the manufacture of post mastectomy special bras and interviews with post mastectomy patients regarding the convenience of bra use. The results of interviews with 10 respondents said that they felt uncomfortable when using conventional bras because the material was rather rough and their breasts do not seem in balance so that they felt embarrassed when they left home. Researchers look for comparisons between existing products and products that will be developed in terms of the material and shape of the bra.

Phase II Research

This phase is the stage of product development with reference to the results of phase I research. The researcher designed a special post mastectomy bra according to the patient's needs, with a convenient shape and design to use for post-mastectomy breast cancer patients. Special post mastectomy bras are made with cotton cloth equipped with pockets and pads made of dacron. There is a zipper on the side of the bra that makes it easy to insert the pads into the bra. While the bra pad serves as a counterweight between the remaining breast and the breast that has been removed.

Phase III Research

Stage III is the stage of testing or experiment. At this stage the research uses a post only design⁸ approach. The population used in this study was post-mastectomy breast cancer patients in the Purwokerto area with a total sample of 10 people⁹. This research was conducted at each respondent's house. The variables assessed were the level of confidence and comfort in the use of bras. The instrument used in this study is a questionnaire with structured statements regarding self-confidence and comfort. Data analysis used simple descriptive analysis.

RESULTS

From the literature study on phase I, it was found the materials used for the manufacture of post mastectomy special bras, namely cotton and dacron¹⁰. From the

results of interviews, post-mastectomy patients said that they were uncomfortable when using a regular bra because the shape of their breasts looked unbalanced.

In the second phase of the study, the product design and shape were obtained according to the needs seen in Figure 1. Figure 1 shows the product design of a post mastectomy bra specifically equipped with bags and pads. This special post mastectomy bra is made of cotton and is equipped with pads that can be inserted into a bra bag made of dacron. The use of a special post mastectomy bra can make the breasts of respondents who have undergone a mastectomy look balanced and look like breasts in general. While Figure 2 shows the use of conventional bras where the breasts look unbalanced.

The results of product trials or phase III involving 10 post-mastectomy breast cancer patients proved that the use of a special post mastectomy bra by post-mastectomy breast cancer patients can increase their comfort and confidence. This post mastectomy bra was tested on 10 respondents of various ages. Before using a special bra, respondents had a low level of confidence, they felt uncomfortable when using a regular bra after undergoing a mastectomy surgery. These results were reinforced by respondents' statements during interviews which stated that they felt embarrassed when they left home because their breasts were not in balance.

The level of respondents' confidence and comfort after using a special bra for post mastectomy patients experienced a significant increase. Respondents' self-confidence levels were higher than before and respondents felt comfortable with the new-developed special bra. Respondents also stated that they were no longer ashamed to leave home because their breasts seemed in balance again. The difference in the use of regular bras and a special bra for post mastectomy can be seen in Figures 1 and 2.

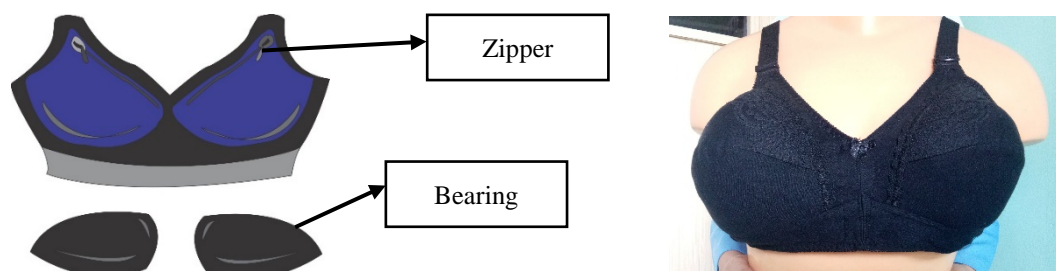


Figure 1. Special bra for post mastectomy

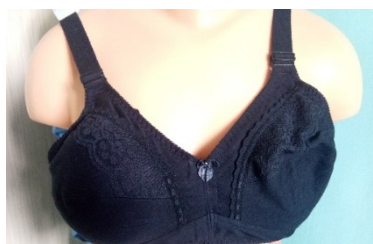


Figure 2. Conventional Bra

DISCUSSION

From the results of trials on 10 respondents, they stated that they felt more confident using the special bra than using a conventional bra. The level of respondents' confidence of before using a special post mastectomy bra was low, they felt insecure when doing activities outside the home because their breasts look unequal. The existence of a special post mastectomy bra as a result of this research and development has been proven to increase the breast cancer patients' confidence after mastectomy. This is because the post mastectomy special bra has pockets and pads that can be inserted into the bra, so that the breast for post mastectomy of cancer patients seem equal.

This special post mastectomy bra can also increase comfort when used by post mastectomy patients. Based on the data, when the respondents still used conventional bras, they say that they were less comfortable. After using a special post mastectomy bra, respondents stated that they were more comfortable for daily activities because this bra is made of cotton that is soft and comfortable to wear. Cotton fabric is a fabric that is 100% derived from natural plant fibers and does not contain chemical substance with hypo allergenic properties. In addition, this fabric is more comfortable to wear because the fiber is hollow like a vent so that the skin can breathe¹⁰. Moreover, the size of a special post mastectomy bra is also adjusted to the patient's bra size before undergoing a mastectomy surgery so that it will be comfortably worn and fit to the size of the patient's breast. This developed special post mastectomy bra is made of qualified and comfortable material to wear. In the variables of self-confidence and comfort, the 10 respondents said that a special post mastectomy bra is comfortable when used and they are

not ashamed anymore to leave home because their breasts look balanced.

CONCLUSIONS AND RECOMMENDATION

The post mastectomy bra specifically developed has been proven to increase the confidence of post mastectomy breast cancer patients. Post-mastectomy breast cancer patients who experience low self-confidence should use a special post mastectomy bra as a result of this research and development so that it can increase their comfort and confidence. The development of special post mastectomy bras is expected to continue since it needs development and measurement of other variables so that a better post mastectomy special bra can be found to increase the self-confidence of post mastectomy breast cancer patients.

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