

Influence of the problem-oriented program of physical rehabilitation on the type of attitude to the disease in women with postmastectomy syndrome

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Abstract:

The investigation of the types of attitudes toward diseases is an integral part of developing a specific psychological and physical rehabilitation program for patients with different diseases. Objective: We aimed to determine the types of attitude changes toward the disease in women with post-mastectomy syndrome via the influence of a problem-oriented program of physical rehabilitation. Methods: theoretical analysis of scientific-methodic literature data; Internet and empirical data; sociological methods (surveys); mathematical statistical methods. Materials: In total, 50 women were involved in the research, and the women exhibited early symptoms of post-mastectomy syndrome. The study was conducted during their stationary rehabilitation stage after they underwent a radical mastectomy by Madden. Results: We revealed attitudes that included a relatively adequate adaptation and those that were accompanied by symptoms of psychological maladjustment (intra- and inter-psychical). The intra-psychical mental maladjustment attitudes included anxiousness and a neurasthenic and diffuse response toward the disease. For maladjustments with an inter-psychical orientation, the presence of sensitive and egocentric attitudes toward the disease were observed. Conclusions: The results indicate that the developed problem-oriented program for the physical rehabilitation of women with post-mastectomy syndrome increases the number of women with a rational attitude toward the disease and reduces inter- and intra-psychic mental maladjustment compared with traditional physical rehabilitation.

Key Words: post-mastectomy syndrome, attitude, adaptation, physical rehabilitation.

Introduction

Breast cancer is quite common cancer pathology of women not only in Ukraine but throughout the world. Modern trends in incidence and mortality rates show a steady share increase of the tumors localization for women (Fedorenko et al., 2015; Torre et al., 2015). There about 163,256 patients with breast cancer are registered in oncologic institutions of Ukraine in 2013. Increasing attention to this disease is caused by the fact that 709 women were diagnosed with the breast cancer and the number of registered deaths totaled 401 cases according to Zaporizhzhya Regional Oncology Center in 2013 (Fedorenko et al., 2015). One of the cancer features is the psychopathological changes that occur in most patients because of disease specificity. However, these changes deeply affect both somatic and mental component (Volodin et al., 2006; Odinets, 2013).

Modern conception of breast cancer treatment is based on usage of complex impact, which includes radiation therapy, chemical therapy, hormone therapy, immune therapy. But a priority method is still the surgery, after which there are a number of postoperative complications (Grushina, 2006; Vinnik et al., 2012; Carayol et al., 2012). All of these complications are called post-mastectomy syndrome (PMS). PMS is expressed in such symptoms as lymphostasis, weakening of muscular strength, restriction of movements' amplitude in shoulder joint, disordering of sensitivity, vegetative trophic disorders of upper limb and negative psycho-emotional effects. Advanced randomized researches (Carayol et al., 2012; Lin et al., 2012; Mehnert et al., 2011; Schmitz et al., 2012; Briskin & Odinets, 2015) clearly show that all of the patients, who underwent radical treatment for breast cancer, extremely needed physical and psychological rehabilitation, which adequate conducting not only contributes to a noticeable improvement in health and physical condition, but also significantly improves the quality of life. The stressful factors are the detecting of malignancy, the presence of public understanding of the absence of the recovery possibility, a high percentage of deaths, possible surgery, radiation and chemotherapy which are closely related to somatic discomfort (Smoot et al., 2009; Park et al., 2012; Rashid et al., 2012;). It serves as an additional stressful factor, since in the women' minds occurs psychological identification of breast cancer with female substance. The above has a direct impact on the recovering process, further prognosis for future disease, and patients' quality of life (Schmitz et al., 2012).

All the above shows the relevance of determining attitudes toward diseases in women under the influence of physical rehabilitation, which is aimed at leveling of psychological maladjustment of women.

We aimed to determine the types of attitude changes toward the disease in women with post-mastectomy syndrome via the influence of a problem-oriented program of physical rehabilitation.

Material & methods

In this article the following methods were applied: theoretical analysis of scientific-methodic literature data; Internet and empirical data; sociological methods (surveys); mathematical statistical methods. The research was performed at the Zaporozskiy Regional Cancer Center. In the experiment, 50 women participated that had early symptoms of post-mastectomy syndrome. Using a random sampling method, we formed a main group (MG) and a group for comparison (CG) with 25 people in each group. The mean age of the tested individuals in each group was 55.44 ± 1.06 and 55.60 ± 1.14 years, respectively. Initial surveying of the patients took place on the 2nd day after surgery and at the end of the rehabilitation stationary stage (12-14th day). To determine the type of attitude toward the disease, we used a questionnaire that was developed at the Laboratory of Clinical Psychology at the V.M. Bekhterev Institute, which allowed us to define 12 types of attitudes toward the disease: harmonious, erhopaty, anozognozic, anxious, hypochondriac, neurasthenic, melancholic, apathetic, sensitive, self-centered, paranoid, dysphoric. Each type of attitude toward the disease consisted of common feelings (wellness, mood, sleep, and appetite), patient perceptions about their disease, treatment, attitudes toward medical staff, their family, their environment, their work (studying), and loneliness in the past and future (Vasserman et al., 2001).

Women in the comparison group were treated with the program of T.I. Grushina (Grushina, 2006). The main group was treated with our problem-oriented program. This program uses a reasonable choice of means, methods and forms of physical rehabilitation. All of the following are these concerns: the process of post-surgery process period, the age, characteristics of their physical, functional and psycho-emotional status, as well as the presence of collateral pathology, their type of attitude toward the disease, and the volume extent of surgery. The means, forms and methods of physical rehabilitation that would reach the target in the most effective way were selected individually for each patient in the main group. Main means were general and special physical exercises; static and dynamic breathing exercises; breathing through preloaded lips, controlled coughing, autogenic drainage, manual pressing, manual vibration; post-isometric relaxation; elements of labor therapy; lymphatic drainage massage and self massage; topical talks; consultations; auto training. The trainings were conducted individually 2-3 times a day; 20-30 minutes every session. The patients' independent trainings included: fulfillment of therapeutic positions, selfmassage, relaxation exercises and auto-training.

Results and discussion

Summarizing the results, all attitudes toward diseases were grouped into three groups. The first group included the harmonious erhopaty and anozognozyc attitudes which point out at the most favorable patient's response to the disease, the second group included – anxious, hypochondriac, neurasthenic, melancholic, apathetic ones which indicated on the intrapsychological personal response to the disease with disorders of social adaptation of patients and the third group – sensitive, self-centered, paranoid and dysphoric pointing to inter-psyche attitudes. Diffuse attitude predicted the presence of three or more assessment scales in the diagnostic area, while this type of women after radical mastectomy at inpatient phase was connected with intrapsychological direction (Vasserman et al., 2001).

According to the primary analysis of women's attitudes to breast cancer it was found that the rational attitude to the disease, which is accompanied by relatively sufficient mental adaptation, was observed only in 22 % of patients; symptoms of intra-psychological and inter-psyche maladjustment were observed in 54 % and 24% women respectively.

Among the attitudes toward diseases describing the relative psychological and social adaptation, erhopaty is the predominant type (escape from the disease to the work), which was observed in 14 % of women after radical mastectomy for Madden. For these women the main point was a job and they showed excessive liability and willful attitude to activity and therefore, despite the severity of the disease they continued to perform their duties sought to maintain their professional status.

The anxious and neurasthenic types observed in 12% and diffuse – 16 % of women dominated among the types of intra-psychological maladjustment. The presence of such anxiety in women after radical mastectomy was characterized by excessive anxiety, suspiciousness attitude to unfavorable course of the disease or its treatment. The result is a constant anxiety to depression and mental activity. These patients are trying to get some advice on diagnose and treatment from various doctors. They are characterized by constant validation of diagnostic procedures based on new information from the medical literature and the Internet.

Inter-psyche attitude is characterized by prevalence of sensitive type at 16 % of women. This is manifested in excessive concern and effort to hide his illness, vulnerability, concern about the possibility of a negative impression on others through information about the disease and, as a result, avoidance of communication.

The analysis of attitudes toward diseases after rehabilitation (Table 1) it was found that the rational attitude was observed in 88 and 56% in patients of main and comparison group respectively; intrapsychological maladjustment symptoms were observed in 8 and 28% of women, intrapsychological – in 4 and 16% of patients respective groups.

Among the attitudes toward diseases, which describe the relative mental and social adaptation prevailed erhopaty type (52% women of MG and 28% of CG) and anozognozc type (24 and 16% of women respectively), harmonious type was observed only in 12% of patients in both groups. Among the types of intra-psyhic attitude in GM was only a diffuse type of response that was observed in 8% and in12% of patients of CG.

Table 1. Comparison of the attitudes toward diseases in women of the main group (MG) and comparison group (CG) with post-mastectomy syndrome after rehabilitation

Types of disease response	MG (n=25)		CG (n=25)	
	Number of cases	%	Number of cases	%
rational attitude				
harmonious	3	12	3	12
erhopaty	13	52	7	28
anozognozc	6	24	4	16
intra-psyhic attitude				
anxious	-	-	2	8
hypochondriac	-	-	-	-
neurasthenic	-	-	1	4
melancholic	-	-	1	4
diffuse	2	8	3	12
inter-psyhic attitude				
sensitive	-	-	-	8
egocentric	1	4	2	8

The results of frequency responses analysis to chosen themes after rehabilitation are presented in Fig. 1 and characterizing the common feelings (wellness, mood, sleep, appetite).

Analysis of the most frequently selected statements suggest that after rehabilitation 40% of women MG and 20% of CG feel cheerful and full of energy, 32% of women in both groups are trying to overcome bad health, 32 and 20% of respondents respective groups trying not to show their poor health.

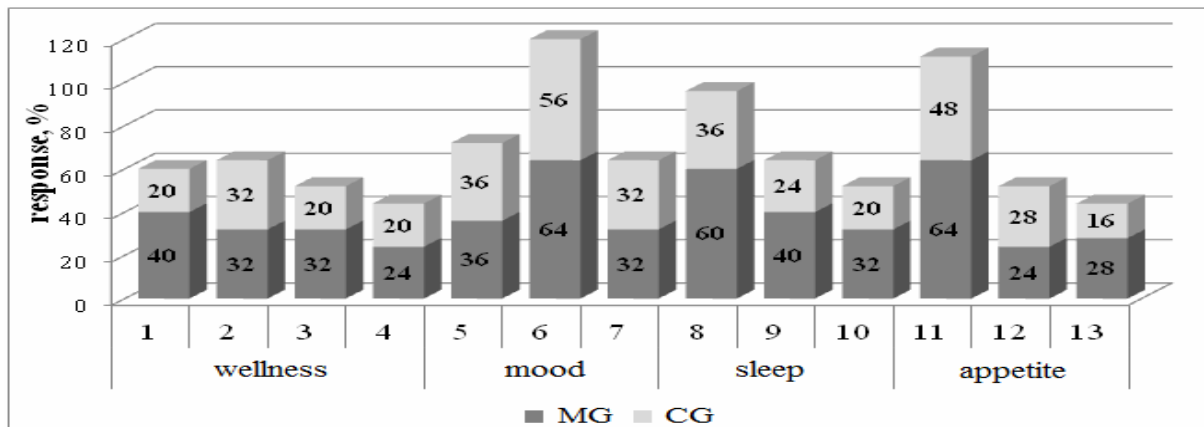


Fig. 1. The results of frequency analysis of women's responses of MG and CG with postmastektomy syndrome on topics which characterize the common feelings (wellness, mood, sleep, appetite): 1 – I always feel myself cheerful and full of energy, 2 – I am trying to overcome the poor health, 3 – I do not to show others my poor health, 4 – I'm trying to endure patiently physical pain and suffering, 5 – Usually my mood is very good, 6 – I do not allow myself to be sad because of the disease, 7 – My bad mood depends on the illness, 8 – Waking up, I force myself to get up immediately, 9 – I am more active in the morning and I find it easier to work in the morning, 10 – I wake up and think about what I can do today, 11 – I have a good appetite, 12 – I love to have a hearty meal, 13 – I am interested in food as a means of maintaining my health.

Analysing the responses in the 'mood' scale showed the presence a very good mood in 36% for women in both groups, do not allow themselves to resort to sickness sorrow 64% of women MG and 56% of CG, the dependence the mood of the illness reported in 32% of patients.

The statement 'Waking up, I force myself to get up immediately' was approved by 60% of respondents of MG and 30% of CG; 'I am more active in the morning and I find it easier to work with than in the evening' – 40 and 24%, 'I wake up and think about what I can do today' – 32 and 20% of patients respectively.

The presence of a good appetite typed in 64% of women MG and 48% of CG, while with the statement 'I am interested in food as a means of maintaining health' agreed 28 and 16% of women respectively.

The results of frequency analysis of responses to chosen themes characterizing relation to the environment after rehabilitation are presented in Fig. 2.

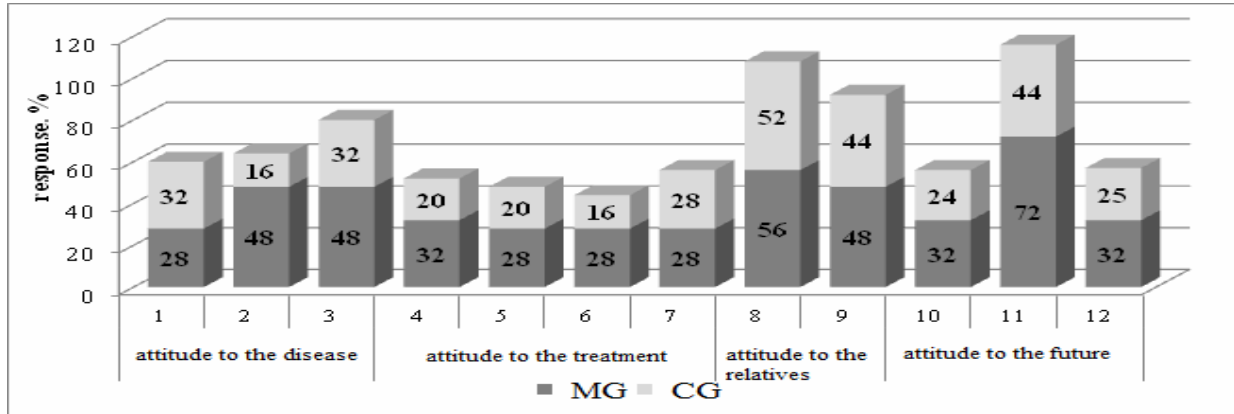


Fig. 2. The results of frequency analysis of women's responses of MG and CG with postmastectomy syndrome on topics which characterize the relation to the environment: 1 – I try not to think of the illness and live by carefree life, 2 – I try to resist disease by all means, 3 – I try to overcome illness, work as before and even more, 4 – I avoid any treatment and hope that the body will overcome the disease, if will less think about it, 5 – I was afraid of difficulties and dangers related to future treatment, 6 – I do not need any treatment, 7 – I avoid to talk about the treatment with other people, 8 – I try not to show relatives and friends that I am sick, 9 – I try to bring less hardships and worries of my family from my illness, 10 – my health gives no grounds to worry for the future while, 11 – I always hope on the happy future, even in the most hotshot positions, 12 – I hope neat treatments and observances of the mode to obtain the improvement of health in the future.

The retest of answers about attitude attitude to the disease indicates that women of both groups showed active position in relation to opposition illness, with a statement 'I try to resist disease by all means' agreed 48 % patients of MG and only 16 % of CG. The statement 'I try to overcome illness' was approved by 48% respondents of MG and 32% of CG. At the same time there is a tendency in relation to the casting-out of illness presence, to what avoidance of every treatment testifies for the women of MG and CG in 32 and 20 percents of cases, and also that it did not need them in 28 and 16% respectively. Regarding the attitude to family, almost half of women in both groups tried to show family and friends that they are sick and fewer burden and worry deliver their loved ones due to illness.

Analysis of responses in the 'Attitude to the future' subscale showed the presence optimistic mood in 72% women of MG compared to 44% of CG; 32 % and 25% of respective groups women believe that better health in the future need to follow a particular treatment and mode.

Discussion

As a conclusion, the results of our research give us right to assert that type of attitude to the disease has a significant impact on the effectiveness of the rehabilitation process, causing the patient's degree of participation in this process and creating compliance, which is especially important for rehabilitation. The physical rehabilitation program of women with post-mastectomy syndrome, which foresees complex effects on physical, functional and psychoemotional state, based on a synthesis of existing physical rehabilitation methods of cancer patients, individual selection means according with the attitudes toward diseases has been worked out and verified.

The key to the effectiveness of physical rehabilitation after mastectomy is consistent and full implementation of the tasks that will maximize physical and functional state, improve quality of life after leaving the hospital. The results being obtained confirm the effectiveness of the proposed physical rehabilitation method and could be the reason for its practical use.

Conclusion

In most cases women with postmastectomy syndrome are characterized by intra-psychological personal attitude to the disease that causes the violation of social adaptation of patients. Maladaptive behavior of such women manifested anxiety, depression, and complete focus on their illness. The inter-psychic attitude was observed at a lesser extent and characterized by sensitized attitude toward their disease and aggressive moods.

The results of the study indicate that the developed problem-oriented program of physical rehabilitation of women with the post-mastectomy syndrome helps to increase the number of cases in women with the rational

type of attitude to the disease and reduce inter- and intrapsychic compared with the traditional physical rehabilitation.

The prospects for future research include determining the effect of the traditional physical rehabilitation and author's program on the quality of life of women with post-mastectomy syndrome.

Conflict of interests

The authors declare that there is no conflict of interests.

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