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Health behaviours in a group of women treated surgically for breast cancer and selected clinical and socio-economic parameters

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Introduction

Breast cancer is the most common malignancy in women, accounting for nearly 1.7 million cases and over 0.5 million deaths worldwide. The basic solution is surgical treatment. The execution or closing of the variometer ends with the element of unpicking.

Objective

The ability to fight cancer is ongoing. Analyzed declared costs in the economic variety.

Materials and methods

The study was provided by a patient from Lublin in 2016. The concept of a diagnostic survey was used. Old plan and questionnaire. IZZ) by Z. Juczyński.

Results

In order to obtain the correct result, the following criteria should be applied: IZZycie 90.41 points, which corresponds to the standard 7-10 stena and is interpreted as a high result.

Conclusions

Patients admitted to the Lublin Oncology Center for treatment of breast cancer. In the studies, the most sensitive were psychological attitude and the lowest eating habits. In the time of interest, eating habits were not such statistical information.

Key words: breast cancer, health behaviors

Introduction

Health is a value valued by individuals as well as entire social groups. According to the official WHO definition, health can be considered in three areas: physical, mental and social assessed in terms of objective and subjective. Increasingly, health is also recognized in the context of the potential - the resource. In this context, man is without a doubt responsible for shaping his own health. [1] Behavior is considered as a set of behaviors and attitudes and the reactions and patterns of proceedings that are subject to change as a result of specific experiences and new interpretations. There are many factors that are independent of each other, including, among others, political decisions, economic conditions, the condition of the natural environment and social development, the way of eating, conditioning health. [8]

The groups of health behaviors include behaviors related to physical health: body care, physical activity, diet, hardening, adequate amount and quality of sleep. [8,9] Behavior associated with psychosocial health: psychosocial support, avoidance of excessive stress, coping with problems and situations, work and leisure. Preventive behaviors concern: self-control of health and self-examination, undergoing prophylactic examinations, safe behavior in sexual life, care for personal hygiene. Failure to take risky behavior is related to: non-smoking, limited alcohol use, non-use of drugs not prescribed by a doctor, abuse of other psychoactive substances. [6]

Breast cancer is the most common malignancy in women, accounting for nearly 1.7 million cases and over 0.5 million deaths per year worldwide. It is estimated that in 2010-2025, the upward trend in the incidence of breast cancer in all age groups will be maintained. [16] The incidence of breast cancer in Poland is lower than in the countries of Western Europe, while the frequency of deaths for this reason is comparable with other European countries. [3] Treatment of breast cancer is becoming more and more effective. The 5-year survival rate in Poland for patients diagnosed in 1995 - 1999 is 73.8% [4] in Europe 79% [3.19]. The basic method of treatment of this disease is surgical treatment, based on the excision of the tumor with a margin

of healthy tissues. An element of breast-conserving surgery is the axillary lymphadenectomy or excision of the sentinel lymph node. The aim of the treatment is to assess the involvement of the lymph nodes in the underarm process, without the need for selective lymphadenectomy. The treatment is supplemented by breast radiotherapy with an additional dose to the box after the tumor, which reduces the risk of local recurrence.

Known factors that increase the risk of falling ill are: older age, breast cancer in the family, mutations in the BRCA1 and 2 genes, some benign breast processes, exposure to ionizing radiation, previous breast cancer, late age of the first child, the first menstrual period early, and late menopause, long-term hormone replacement therapy, obesity in postmenopausal women. [17] It is important to undertake health-promoting research in this group of people, because taking health behaviors may have an impact on primary and secondary prevention of cancer and improve the quality of life of patients [16]. Despite the progress in diagnosis and treatment, mortality caused by this cancer is still at a high level, while the survival time has been prolonged and thus breast cancer began to be treated as a chronic disorder.

The most important treatment for breast cancer is surgical treatment. A breast-saving operation involves the removal of a tumor with a margin of healthy tissue or removal of the entire breast quadrant. An element of a breast-saving operation is the axillary lymphadenectomy or excision of the sentinel lymph node [13]. In addition to breast-conserving treatment, a sentinel node biopsy is the surgical procedure to limit the adverse consequences of surgical treatment. This procedure is performed routinely in women with diagnosed breast cancer, without the presence of clinically suspected lymph nodes in the axillary cavity on the tumor side. The aim of the treatment is to assess the involvement of the axillary lymph nod

es in the neoplastic process, without the need for selective lymphadenectomy. [10,12,17]

Purpose of research

The main objective of the study was to assess selected health behaviors of women after breast cancer therapy in the individual categories of four groups of health behaviors, such as correct eating habits (PN1), preventive behavior (ZP), positive psychological attitude (PN2), health practices (PZ). Two specific objectives were adopted: 1. Analysis of declared health behaviors depending on socio-demographic variables. 2. Analysis of the level of health behaviors in relation to clinical parameters.

Materials and methods

The study was conducted among patients of the Center of the Lublin Region who were operated on and treated for breast cancer in Lublin in 2016. The criterion of exclusion is the occurrence of distant metastases. The data collection was based on the diagnostic survey method. The survey method and two research tools were used: an original questionnaire containing questions about place of residence, education, marital status and professional activity; standardized questionnaire - Inventory of Health Behaviors (IZZ) by Z. Juczyński.

A proprietary questionnaire was used to collect socio-economic information.

The largest group of patients were multiparous. Two patients had 73 births (41.24%, n = 73). Three patients delivered 40 and more births (22.60%, n = 40). The average length of breastfeeding in the group of subjects was 7 months (7.73 ± 6 months). A larger group were women who did not use hormonal contraception 125 (70.63%; n = 125), one third admitted that they used hormonal contraception 52 (29.38%; n = 52), and hormone replacement therapy was used by 36 (20.34%). ; n = 36). In more than a half of the study group there is no history of family history 102 (57.63%, n = 102), and 75 patients had a family history of malignant tumors in the family. The vast majority were non-smokers 118 (66.66%, n = 118), 42 patients died after smoking (23.73%, n = 42). Nearly half of the patients were exposed to tobacco smoke (48.59%, n = 86). The smallest number of patients were those who before the disease were exposed to tobacco smoke, and now they are not. Nearly half of the respondents have sufficient financial condition (49.15%, n = 87), good (37.29%, n = 66), only 18 patients assess their financial condition as bad (10.17%, n = 18). The most numerous group were women with secondary education (44.70%, n = 79), higher (37.29%, n = 66), vocational (16.38%, n = 29), and 3 women had basic education. 32 women worked at night time (18.08%, n = 32), but as a result of the disease, the nature of work changed. 18 women took part in the night time (10.17%, n = 18). The nature of the work of the respondents mostly included mental work (29.38%, n = 52), physical work (20.9%, n = 37), mixed work (19.77%, n = 35), one third of women do not work (29.94%). Almost half of the respondents were treated for chronic diseases (44.63%, n = 79)

Results

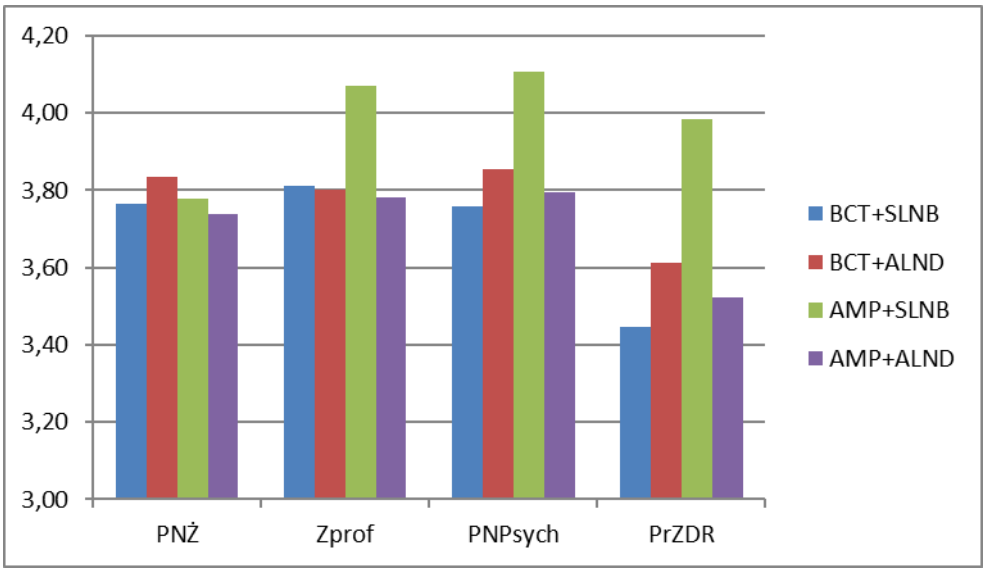
The research results indicate that in the global assessment of health behaviors for the studied group of women, the average of IZZ amounted to 90.41 points, which corresponds to the standardized level of 7-10 extended in a standardized unit and is interpreted as a high result.

		The average results of the IZZ scale assessment and the level of the health behavior index in the group of all subjects			
	Average	**SD**	**Min**	**Max**	
Health behaviors	**90.41**	**12.28**	**52.00**	**117.00**	
PNŻ	**3.76**	**0.72**	**1.67**	**5.00**	
Zprof	**3.86**	**0.61**	**1.83**	**5.00**	
PNPsych	**3.85**	**0.63**	**2.00**	**5.00**	
PrZDR	**3.60**	**0.69**	**1.67**	**5.00**	
	Sten	**N (%)**	**SD**	**Min**	**Max**
Interpretation					
Low	**1-4**	**26 (15%)**	**6.01**	**52.00**	**77.00**
Average	**5-6**	**65 (37%)**	**4.19**	**78.00**	**91.00**
Hight	**7-10**	**86 (49%)**	**6.23**	**92.00**	**117.00**

Tab 2. The average results of the IZZ scale assessment. The level of health behaviors index in the group of all subjects.

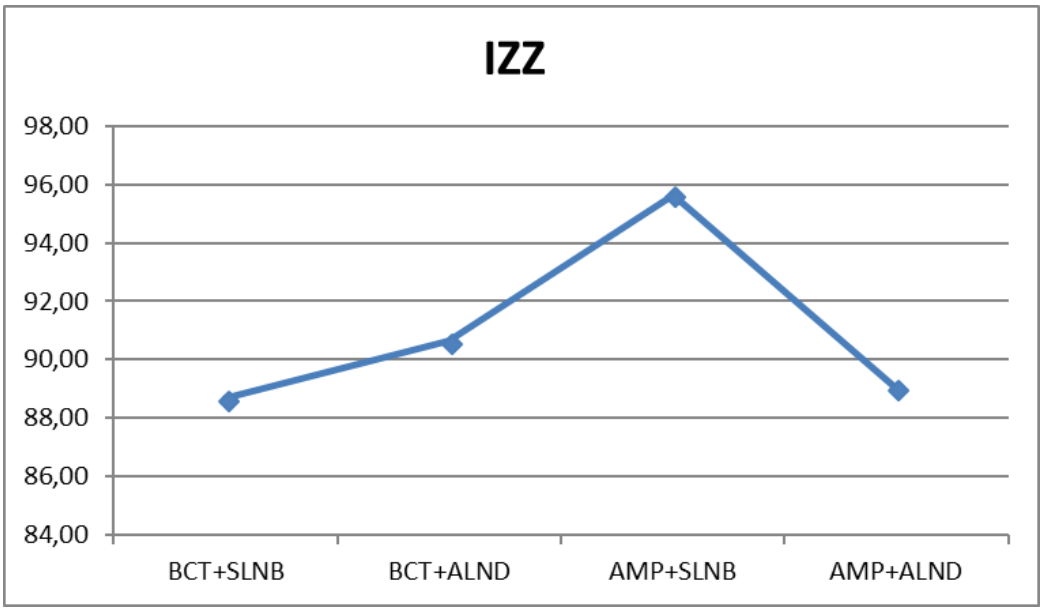
In the detailed analysis of the type of health behaviors, almost half of the patients were characterized by a high level of health behaviors (49%), the average (37%) and low (15%). In the studied group of women, the average health behavior rate amounted to 90.41 points (SD = 12.28). The minimum index reflecting the level of health behaviors among the respondents was only 52 points, while the maximum was 117 points. Analyzing particular categories of health behaviors, it was found that preventive behaviors were rated the most (average 3.86 SD 0.61). Subsequently, the positive mental attitude was assessed average 3.85 SD 0.63 correct eating habits 3.76 SD 0.72. The lowest, however, was assessed for health practices 3.60 SD 0.96.

The variability of IZZ and its categories was evaluated depending on selected sociodemographic and clinical variables (type of surgery). Treatments that save chest and lymph nodes.



Tab 3. Type of surgical treatment and the level of health behaviors.

Patients who do not have sparing treatment have higher health behaviors, while those women who have sparing treatment represent a lower quality of health behaviors due to the numerous adverse complications of complementary therapies.



Tab 4. The type of surgical procedure performed and the level of health behaviors.

In the group of patients with breast and lymphatic sparing surgery, there were no statistically significant differences in the health behaviors. In the group of patients treated with mastectomy and lymph node-saving nodes, statistical significance was demonstrated in three areas of health behaviors: the general indicator of health behaviors, prophylactic behavior, positive mental attitude, and health practice.

Mastectomy treatment, spared lymph nodes 1-yes, 2-no		Average	Standard Deviation	Mediana	Minimum	Maksimum	Z	P
Health behaviors	AMP+SLNB	95,64	13,86	99,00	63,00	117,00	-3,081	0,002063
	others	89,22	11,61	90,00	52,00	113,00		
PNŻ	AMP+SLNB	3,78	0,68	3,83	2,50	5,00	0,066	0,947446
	others	3,76	0,73	3,83	1,67	5,00		
Zprof	AMP+SLNB	4,07	0,57	4,17	3,00	5,00	-2,198	0,027966
	others	3,81	0,61	3,83	1,83	5,00		
PNPsych	AMP+SLNB	4,11	0,64	4,33	2,33	5,00	-3,092	0,001986
	others	3,79	0,61	3,83	2,00	4,83		
PrZDR	AMP+SLNB	3,98	0,78	4,17	1,83	5,00	-3,940	0,000082
	others	3,51	0,64	3,50	1,67	4,83		

Tab. 5 Mastectomy treatment and saving lymph nodes and health behaviors.

Tab. 6 Badana wielkość guza klasyfikacją TNM a poziom zachowań zdrowotnych

T:1,2,3,4 of quality life		T:1,2,3,4 of quality life		Mediana	Minimum	Maksimum	Test Kruskala-Wallisa:
Health behaviors	is	98,33	8,04	96,50	91,00	111,00	H (4, N= 177) =6,883470 p =,1422
	T1	88,90	12,54	89,00	56,00	117,00	
	T2	90,80	12,71	92,50	52,00	113,00	
	T3	92,33	9,64	93,00	74,00	106,00	
	T4	96,25	5,06	96,50	90,00	102,00	
PNŻ	is	4,14	0,40	4,25	3,67	4,67	H (4, N= 177) =4,286831 p =,3686
	T1	3,70	0,69	3,67	2,17	5,00	
	T2	3,79	0,78	4,00	1,67	5,00	
	T3	3,75	0,78	3,92	2,17	4,67	
	T4	4,08	0,17	4,17	3,83	4,17	
Zprof	is	3,81	0,39	3,75	3,33	4,33	H (4, N= 177) =1,703594 p =,7901
	T1	3,88	0,61	3,83	1,83	5,00	
	T2	3,84	0,61	4,00	2,50	4,83	
	T3	3,76	0,74	3,75	2,50	4,83	
	T4	4,21	0,58	4,25	3,50	4,83	
PNPsych	is	4,33	0,39	4,42	3,67	4,83	H (4, N= 177) =10,26266 p =,0362
	T1	3,76	0,65	3,83	2,00	5,00	
	T2	3,85	0,63	4,00	2,17	4,83	
	T3	4,19	0,42	4,17	3,17	4,67	
	T4	3,83	0,24	3,75	3,67	4,17	
PrZDR	is	4,11	0,42	4,00	3,67	4,83	H (4, N= 177) =8,157419 p =,0860
	T1	3,48	0,73	3,50	1,67	5,00	
	T2	3,65	0,70	3,67	1,67	4,83	
	T3	3,68	0,42	3,67	2,83	4,50	
	T4	3,92	0,29	4,00	3,50	4,17	

Tab. 6 Investigated tumor size with TNM classification and the level of health behaviors

TNM tumor classification and statistical analyzes show that the positive psychological attitude is statistically significant and depends on the size of the tumor in this group of subjects. According to own research, it was clear that before the diagnosis of the disease in the study group, the low level of severity of health behaviors prevailed, and after the diagnosis of breast cancer in more than half of the surveyed women, the level of severity of health behaviors was high.

Analyzing the change in age, there were no statistically significant differences in individual categories of health behaviors, except in the category of prophylactic behaviors ($p < 0.05$).

The analysis of health behaviors depending on the variable, which is education, allows to conclude that there are no statistically significant differences in the overall health behavior index ($p > 0.05$).

Discussion

From the studies of Farbicka and Nowicki, it appears that knowledge about the risk factors of breast cancer among women is too small. Research shows that half of the respondents are unable to name 4 of the most common risk factors. This affects the fact that women who have different methods of breast cancer have insufficient knowledge about the disease, which reduces their quality of health behavior. [5]

Obtained results of own research in the field of global assessment of health behaviors in the group of women after surgical treatment of pediatric cancer indicate its mean value at points 90, 41. The above results are comparable with the assessment of health behaviors presented by other researchers in different groups of respondents. The results of Andruszkiewicz and Oźmiańska study group of teachers and nurses were characterized by the average severity of health behaviors, i.e. care for health, nutrition, body care, safety, psychosocial health and physical activity. The highest average results in both groups were obtained for subscales care for the nurses 13.28 (SD 2.823) and for teachers 13.40 (SD 2.942), while the lowest for physical activity in nurses 5.81 (SD 2.249) and teachers 5.55 (SD 2,275).

Patients admitted to the Center of Oncology of the Lubelskie Region due to the treatment of breast cancer to a greater extent undertook pro-health behaviors. In the own research, the positive psychological attitude was rated the most, and the lowest eating habits. There was no statistical significance in terms of proper eating habits.

In Kurowska and Kalwska's studies, the results indicate that the surveyed women present the average level of health behaviors at the limit of high results. The average - 21.15 points - is

70.5% of all possible earnings. The standard deviation is over 20% of the average, which indicates a significant differentiation of results. [10]

Obtained results of Andruszkiewicz and Oźmińska, similarly to own research, indicate the relationship between the level of education and applied health practices. Higher education is associated with greater awareness of the benefits of healthy health behaviors and the dangers of inappropriate attitudes towards health. [2]

In the studies of Katarzyna Prokopowicz and Prokopowicz Grzegorz, a group of healthy women and the oncological past was compared. There were no visible changes in the behavioral level of healthy women and those with oncological history. A significant decrease in the value of health behaviors was observed in the physical activity subscale. This speaks for the lack of habit of the need for movement, and thus the lack of regularity in physical activity and the prevalence of passive forms of rest over active people. [21]

Surgical operations of women with breast cancer concern the removal of the tumor in its entirety. The area of tissues surrounding the tumor, which should be removed, is often a matter of discussion. The scope of surgery depends on intraoperative, microscopic examination of the tumor. Nowicki and Licznerska in their work notices that breast cancer-saving treatment is performed in an increasing number of women. The literature on breast cancer presents different quality of life results depending on the time elapsed after the end of treatment, in women after amputation and a saving operation. In Nowicki's research, the average level of emotional functioning was demonstrated, among women after mastectomy as well as those treated with the saving method, while they indicated a good level of cognitive functioning. Despite the disease and its consequences, most women are positive about the future. Almost half of women after mastectomy do not return to professional activity, whereas after a saving operation the majority work and evaluate their material situation as good and satisfactory. Saving treatment compared to mastectomy gives better image of life satisfaction, while in the early period after surgery there are no differences in the physical, mental and social functioning, which may change at a later date. [14,15]

Due to the clinical aspects of the quality of life assessment of women with breast cancer, it is noted that the most important prognostic factor in breast cancer is the state of involvement of the axillary lymph nodes. The sentinel node biopsy procedure in breast cancer may lead to a reduction in the radicality of the surgical procedure and thus affect the assessment of the quality of life. [22] Conservative treatment is less scarring and aggravating, however, it has a greater percentage of local recurrences. [23] The use of radiotherapy in the treatment of breast cancer

is associated with adverse reactions. In the case of sparing treatment, radiotherapy is a complementary therapy lasting longer and thus more burdened with adverse effects.

Perez and Schootman's results suggest that the irradiation of the entire breast with external beams affects the severity of fatigue compared to patients treated with accelerated irradiation of breast cancer. This is related to our own research, where cooperation between the type of surgery and the level of health behaviors in the subcategory of preventive behaviors, positive mental attitude, and health practice were shown. [24] Słowik, Jabłoński, Michałowksa - Kaczmarek confirm that the procedure saving breasts more often than mastectomy contributes to a greater severity of local operative area ailments and lowering the quality of life. [25]

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