# RENATA STĘPIEŃ

# Ocena wpływu realizacji zadań terapeutycznych sprawowanych przez zespół pielęgniarski na jakość życia kobiet po zabiegu mastektomii

# Evaluation of the influence of therapeutic tasks performed by a nursing team on the quality of life of women after mastectomy

### Streszczenie

**Cel.** Celem pracy była ocena satysfakcji z zadań terapeutycznych realizowanych przez pielęgniarki i jej wpływ na możliwości funkcjonalne kobiet po radykalnym leczeniu raka piersi – mastektomii.

Materiał i metody. Grupę badaną stanowiło 217 pacjentek po radykalnym leczeniu chirurgicznym raka piersi. Do badań wykorzystano skalę Functional Assessment Therapy Cancer Scale-Breast (FACT-B) w opracowaniu D.F. Cella oraz Skalę Oceny Zadań Terapeutycznych Pielęgniarki w opracowaniu autorki pracy.

**Wyniki.** Blisko 62% ankietowanych pacjentek, które przebyły radykalne leczenie chirurgiczne z powodu raka piersi, przyznało wysokie oceny zadaniom terapeutycznym realizowanym przez pielęgniarki. Grupa kobiet wysoko oceniająca procedury i czynności pielęgniarskie o charakterze terapeutycznym uzyskała istotnie wyższe wyniki w obszarze życia rodzinnego i towarzyskiego (z = -3,216, p<0,01), dolegliwości specyficznych dla raka piersi (z = -2,576, p<0,05) oraz ogólnego (z = -2,247, p<0,05) i globalnego (z = -2,412, p<0,05) funkcjonowania.

Wnioski. Jedynie 2/3 badanych pacjentek oceniło wysoko jakość zadań terapeutycznych realizowanych przez pielęgniarki. Wskazane jest zatem rozwijanie i doskonalenie kompetencji zawodowych w omawianym aspekcie. Przeprowadzone badania wskazują, iż deklarowanie przez pacjentki po mastektomii wysokiego poziomu satysfakcji z otrzymanych od pielęgniarek świadczeń o charakterze terapeutycznym ma korzystny wpływ na ich możliwości funkcjonalne.

#### **Abstract**

**Aim.** The aim of the research was to evaluate the satisfaction coming from therapeutic tasks performed by nurses and its influence on functional abilities of women after mastectomy, the radical treatment for breast cancer.

Material and methods. he tested group consisted of 217 patients after radical surgical treatment for breast cancer. Functional Assessment Therapy Cancer Scale-Breast (FACT-B) by D.F. Cella and Nurse's Therapeutic Tasks Assessment Scale, designed by the author of the study, were used in the research.

**Results**. Nearly 62% of the respondents after radical surgical treatment for breast cancer assessed the value of the therapeutic tasks performed by nurses as high. The group of women who assessed the therapeutic procedures and measures taken by nurses as high, obtained significantly higher results in the sphere of family and social life (z = -3.216, p<0.01), complaints specific to breast cancer (z = -2.576, p<0.05) as well as general (z = -2.247, p<0.05) and global (z = -2.412, p<0.05) functioning.

Conclusions. Only 2/3 of the patients assessed the quality of therapeutic tasks performed by nurses as high. Therefore, it is advisable to develop and improve professional competences in this aspect. The research shows a beneficial influence coming from a high level of satisfaction from therapeutic services provided by nurses on functional abilities of patients after mastectomy

Słowa kluczowe: rak piersi, modele opieki pielęgniarskiej.

**Key words:** breast cancer, patterns of nursing care.

# INTRODUCTION

The implementation and constant modification of the extensive oncological treatment such as the surgery accompanied by chemo-, radio- and hormone therapy enhances the chances of recovery from breast cancer in women. On the other hand, the specificity of cancer and the therapeutic actions undertaken to battle with the illness place the patients in an extremely difficult and complicated biological, social and psychical situation [1-5].

A nurse is one of the members of a therapeutic team who accompany the patients in their struggle with cancer. Her professional practice in the field of therapeutic function is limited mainly to conducting tests that help to establish the diagnosis and/or the assessment of the patient's condition, as well as to participation in a pharmacological, operative and dietetic treatment plan established by a team of doctors. The above tasks, which are accompanied by medical procedures, require from a nursing team not only great skills of instrumental nature, but also an ability of thorough observation, communication and cooperation in a team. Out of concern for the quality of medical services, the nursing procedures are subject to constant verification, both in the process of accreditation of the medical institutions and the assessment of the patients' satisfaction [6-8].

In the sphere of medical care, the notion of satisfaction is defined as a feeling of content experienced by a patient about the services provided by a particular medical unit, and it is usually the outcome of the patient's expectations combined with the obtained results. Patients can assess the quality of medical services for its reliability, material packaging, as well as responsibility, competence and communicative skills of the staff, and for the ability to trigger a feeling of trust, safety, recognition and understanding of the health needs [8].

# **AIM**

The aim of the research was to assess the professional role of a nurse, based on the therapeutic tasks performed by nurses and their influence on functional abilities of women after mastectomy performed due to breast cancer.

# MATERIAL AND METHODS

The research was conducted at the Świętokrzyskie Oncology Centre in Kielce, on a group of 265 patients after radical surgical treatment for breast cancer, who were registered at the Surgical Clinic. The questionnaires completed by 217 women, which equalled 81.9% of all the respondents, were subjected to a statistical analysis. The participation in the research was voluntary. Each respondent was given measuring instruments accompanied by an instruction describing the methodology in which the questionnaire was to be filled, and an introductory letter with information concerning the author's identity, aim of the research and the rules governing the research project, as well as an assurance of anonymity and a security statement certifying that the obtained details will be used in a collective statistical analysis. A methods of diagnostic survey and a

questionnaire survey technique were used in the research and the research instrument was a questionnaire. To assess the functional abilities of women after mastectomy, a standardized measuring instrument, the Functional Assessment of Cancer Therapy Scale-Breast (FACT-B), was used, whereas the satisfaction coming from the therapeutic tasks performed by a nurse was analysed with an application of a scale designed by the author. The Functional Assessment of Cancer Therapy Scale-Breast is an instrument that has been tested in terms of psychometrics, and includes z general scale (FACT-G) and a sub-scale closely connected to the symptoms and the treatment for breast cancer - Breast Cancer Sub-scale (BCS). The scale FACT-B includes a total of 36 questions, and each of them can be assessed within the scope of 0-4 points. Higher results express better functioning [9]. Nurse's Therapeutic Tasks Assessment Scale was designed by the author in order to learn about the opinions of the patients, who underwent radical surgical treatment, on the subject of nursing care in the analysed aspect. The assessment of the patients' opinions was conducted with an application of an approximate numerical scale. The criteria for the assessment were presented according to the frequency of occurrence of a tested feature on a four-grade scale: "never", "seldom", "often", "always". The numbers 0, 1, 2, 3 were attributed to the above statements [10].

### RESULTS

An analysis of the subjective functional abilities of women after radical surgical treatment for breast cancer was conducted by applying the Functional Assessment Therapy Scale-Breast (FACT-B). The scale consists of two parts. The first part, the Functional Assessment Therapy Scale-General (FACT-G), is the core of the instrument and it enables to obtain results in four basic areas: physical condition (Physical Well-Being-PWB), family and social life (Social Well-Being-SWB), emotional state (Emotional Well-Being-EWB) and everyday life functioning (Functional Well-Being-FWB). The second part is a module which deals with discomforts specific to breast cancer (Breast Cancer Sub-scale- BCS). The patients, examined within the range of general functioning measured with the FACT-G scale, could express their opinions by giving points from 0 to 108. The average result in the tested group was 68.05 points. Total functioning assessment at 87.12 points (range 0 – 144 points) was also on a similar level, with the score being obtained by adding up the general results (FACT-G) and the sub-scale BCS result. The detailed data are presented in Table 1.

The analysis of the level of satisfaction of women after mastectomy, resulting from the therapeutic tasks performed by a nurse, was conducted with the use of the indexes listed in Table 2, which also presents the percentage layout of the assessments given by the respondents. The patients claimed that medical actions undertaken by the nurses concentrated mainly on preparing them for cooperation in the field of the therapy applied. Nearly 80% of the women admitted that the aforementioned sphere was "always" within the line of duty of the nursing staff, whereas 11.5% of patients thought it was "often" so. It is significant that a high assessment was given

TABLE 1. Results in a group of patients after radical mastectomy on FACT-B scale .

Scale FACT-B		Range	Tested group		
	Scale FAC 1-B		X	SD	
PWB	Physical condition	0-28	17.23	5.53	
SWB	Family and social life	0-28	18.97	5.55	
EWB	Emotional state	0-24	13.50	5.55	
FWB	Everyday life functioning	0-28	18.35	5.49	
FACT-G		0-108	68.05	16.28	
BCS	Breast cancer subscale	0-36	19.08	5.46	
FACT-B		0-144	87.12	20.09	

x - arithmetic mean, SD- standard deviation

to treatment-related tasks, performed by the nurses. Taking care of the postoperative wound with the aid of a tourniquet, assurance of its cleanliness and efficient functioning of the performed drainage were marked as "always" by 71.90% of the patients and as "often" by almost 24%. A high percentage of the respondents expressed a positive opinion about the nurses' actions aimed at soothing pain ("always" 61.76%, "often" 24.42%) and informing on the therapeutic functions of the prescribed medications ("always" 56,68%", often" 27.19%). However, the results showing that nearly ¼ of the respondents could get no basic information from a nursing team concerning the risk and/or reasons for an occurrence of undesirable symptoms during the therapy are alarming. The knowledge obtained could direct the process of selfobservation in women after mastectomy and allow to notice possible complications earlier.

An attempt was made in a further stage of the research to determine the relationship between the patients' functional abilities and the feeling of satisfaction obtained from therapeutic tasks performed by a nurse. In order to achieve this goal, individual categories of the choice, included in the Nurse's Therapeutic Tasks Assessment Scale and assessed by the respondents as "never" and "seldom," were classified as a group of low evaluation of the therapeutic tasks, whereas "often" and "always" were classified as a high evaluation group, Then, as shown in Table 3, the results were analysed in connection to the data representing functional abilities of the respondents on a TACT-B scale. The group of women who assessed the therapeutic procedures and the actions taken by the nursing staff as high obtained significantly higher results in the sphere of family and social life (p<0.01), other complaints specific to breast cancer (p<0.05) as well as general (p<0.05) and global (p<0.05) functioning.

# **DISCUSSION**

The situation of the patients faced with cancer is extremely difficult and often described as critical. It results from the necessity of adaptation to the oncological care system, processing a great deal of information and taking critical decisions, as well as forming relationships with the staff and other patients, and sometimes having to undergo various kinds of oncology treatment, like surgery, chemotherapy, radiotherapy or hormone therapy [11-14].

TABLE 2. The results obtained on the Nurse's Therepeutic Tasks Assessment Scale in a group of women after radical mastectomy.

	Nurses Therapeutic Tasks	Group of low assessment			Group of high assessment						
N.		Never 0		Seldom 1		Often 2		Always 3		Total	
1		Performing a systematic control and observation of the patient's health condition in the postoperative period	9	4.15	18	8.29	74	34.10	116	53.46	217
2	Protecting the postoperative wound with dressing, making sure of its cleanliness and a correct drainage activity	3	1.38	6	2.27	52	23.96	156	71.90	217	100
3	Soothing pain complaints	13	5.99	17	7.83	53	24.42	134	61.76	217	100
4	Knowledge about the therapeutic value of the medications administered by the doctor	11	5.07	24	11.06	59	27.19	123	56.68	217	100
5	Shaping the patient's awareness about taking medications in accordance to the recommended dose and not overuse it	6	2.76	12	5.53	25	11.52	174	80.19	217	100
6	Explanation of the risks of and/or reasons for the occurrence of undesirable symptoms during therapy	16	7.37	35	16.13	72	33.18	94	43.32	217	100
	Total	58	4.45	112	8.60	335	25.73	797	61.22	1302	100

TABLE 3. Results of the FACT-B scale depending on the level of satisfaction from nurse's therapeutic tasks.

			Therape				
FACT-b scale		Group with low assessment (n=84)			gh assessment 133)	Z	P
		x	SD	x	SD		
PWB	Physical condition	16.75	5.35	17.53	5.63	-0.932	0.352
SWB	Family and social life	17.36	5.93	19.98	5.06	-3.216	0.001**
EWB	Emotional state	13.10	6.04	13.75	5.23	-0.784	0.433
FWB	Everyday life functioning	17.69	5.94	18.77	5.16	-1.122	0.262
FACT-G		64.89	17.77	70.04	14.99	-2.247	0.025*
BCS	Breast cancer subscale	17.96	5.35	19.78	5.44	-2.576	0.010*
FACT-B		82.86	21.30	89.82	18.88	-2.412	0.016*

Abbreviations used in Table:  $\bar{x}$ -arithmetic mean, SD - standard deviation, Z - result of test Z, p - gravity level, \*p<0.05, \*\*p<0.01

The most important topics in the complicated sphere of oncological care are: a patient as the subject of the undertaken medical action, retaining an individual approach and shaping the competences of high-quality professionals. Accepting these principles will allow, on one hand, to eliminate the high level of stress that the patients experience, support them in order to create an effective preventive behaviour in the battle against cancer, and help them participate in the process of making decisions concerning themselves, their lives and bodies, and, on the other hand, help to relieve the feeling of loss of autonomy and helplessness [2,3,11].

Information on the importance and range of the professional functions, performed by the nurses who take care of the oncology patients, can be found in numerous visual publications [7,12,15]. However, there are very few empirical papers which are aimed at assessing the level of satisfaction from the performance of these functions. In the research conducted by Książek [16] and dedicated to the assessment of the quality of care concerning the patients who were operated because of lung cancer at the Thorax Surgery Clinic of Medical Academy in Gdańsk and the Thorax and Cancer Surgery Clinic of Regional Oncology Centre in Bydgoszcz, the level of satisfaction from the nursing care was assessed as high, with indexes between 59.98 and 64.42, and the difference between them turned out to be statistically significant (p<0.001). Similar results were obtained by Regula and his associates [17], who assessed the level of satisfaction from palliative care provided at the stationary ward expressed by the patients and their families. The issues concerning the nursing care were assessed very high in general (4.85, range 2-5). The results presented in this work correspond to above reports. The professional tasks, which are included within the therapeutic functions of a nurse, obtained, in the opinion of women after mastectomy, a high percentage of positive reviews. The assessment concerned mainly with the actions aimed at preparing the patients for cooperation during the therapy and the protection of the postoperative wound (choice category "always," respectively 80.19% and 71.90%). However, there proved to be a shortage of therapeutic tasks, which included providing the patients with answers and explanations concerning the risk of and/or reasons for an occurrence of undesirable symptoms during the therapy (choice category "always," 43.32%). To sum up the above results, it should be stated that the tested group of women gave positive opinions on the therapeutic tasks performed by the nurses, choosing the categories marked as "often" and "always." Depending on the analysed index, the above opinions were expressed by 76.50% to 95.22% of the respondents (a total of 86.95%). However, a lower percentage of the respondents, ranging from 43.32% to 80.19% (a total of 61.22%), expressed full satisfaction from the therapeutic services provided by the nurses (choice category "always"). The professional commitment of the nurses in performing the therapeutic tasks was also substantiated in the research conducted by Jankowiak and his associates, whose subject of deliberations was the analysis of the nurses' opinions on the nursing actions most often performed for the patients. The authors showed that the nursing staff usually perform tasks which result from the therapeutic function (100% of respondents), the function of providing care (95%) and

the prophylactic function (85%). The nurses admitted that they rarely took action connected with the rehabilitation, education and health promotion [18].

The high level of satisfaction from the therapeutic tasks performed by the nurses turned out to be a significant variable, making a favourable distinction between a global (z = -2.412; p<0.05) and general (z = -2.247; p<0.05) functioning of the patients after mastectomy, as well as the indexes on the breast cancer sub-scale (z = -2.576; p<0.05) and in the sphere of family and social life (z = -3.216; p<0.01).

The above correlation shows that a professional group of nurses are significant providers of medical care and whose quality of work becomes an important determinant of the patients' functional abilities. A similar statement can be found in Hietanen's publication, in which the nursing service was mentioned as one of the main factors in the medical care system, influencing the quality of life during a cancer therapy [19].

To sum up, it should be stated that a constant monitoring of the patients' opinions on the quality of the therapeutic tasks performed by nurses makes it possible to verify and optimize the existing procedures connected with nursing. Therefore, the improvement of the oncological tasks performed by nurses should not only be an organizational challenge, but also a factor creating better functional possibilities for patients in many spheres of their lives.

# **CONCLUSION**

- Only 2/3 of the patients assessed the quality of the therapeutic tasks performed by the nurses as high. Therefore, it is advisable to develop and improve the professional competences in the discussed aspect.
- 2. The research shows that a significantly lower level of complaints specific to breast cancer and a considerably better functioning in the sphere of the family and social life, as well as a better general functioning, were observed in the patients after mastectomy, who declared a high level of satisfaction from the therapeutic service provided by the nurses.

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