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## Problemy funkcjonowania emocjonalnego chorych ze stomią wytworzoną z powodu raka jelita grubego w praktyce pielęgniarskiej

## Emotions of the ostomy patients due to colorectal cancer in the nursing care practice.

### Streszczenie

**Cel.** Celem podjętych badań była ocena stanu emocjonalnego chorych ze stomią wytworzoną w wyniku operacyjnego leczenia raka jelita grubego oraz analiza jego społeczno-demograficznych uwarunkowań.

**Materiał i metody.** W badaniach wykorzystano standaryzowany kwestionariusz Funkcjonalnej Oceny Leczenia Raka Jelita Grubego FACT-C (Functional Assessment of Cancer Therapy Scale – Colorectal) oraz Szpitalną Skalę Lęku i Depresji HADS (Hospital Anxiety and Depression Scale). Badania przeprowadzono na grupie 164 chorych w Świętokrzyskim Centrum Onkologii w Kielcach. W badaniach wykorzystano również grupę kontrolną.

**Wyniki.** Stan emocjonalny chorych był istotnie gorszy w porównaniu z grupą kontrolną zarówno oceniany na skali EWB kwestionariusza FACT-C ( $p<0,05$ ), jak również przy użyciu skali HADS (dla lęku  $p<0,05$ ; dla depresji  $p<0,01$ ). Lepsze wyniki na skali EWB oraz skalach lęku i depresji uzyskiwali chorzy młodsi - w wieku do 60 lat (odpowiednio  $p<0,001$ ;  $p<0,01$ ;  $p<0,001$ ), posiadający wykształcenie średnie lub wyższe ( $p<0,05$ ) oraz korzystający ze wsparcia grup samopomocy ( $p<0,001$ ; dla lęku i depresji  $p<0,05$ ). Ponadto lepsze wyniki na skali EWB uzyskali chorzy aktywni zawodowo ( $p<0,05$ ), a osoby korzystające ze wsparcia miały również niższe poczucie skrępowania posiadaną stomią ( $p<0,001$ ). Wyniki na skalach EWB oraz HADS istotnie korelowały z wynikami na skalach funkcjonowania biologicznego i społecznego ( $r_s=0,63$  do  $0,85$ ;  $r_s=-0,66$  do  $-0,89$ ) oraz skali skrępowania stomią ( $r_s=0,74$ ;  $r_s=-0,75$ ) i skali trudności w pielęgowaniu stomii ( $r_s=0,69$ ;  $r_s=-0,71$  i  $-0,74$ ).

**Wnioski.** Stan emocjonalny chorych pozostaje w zależności z poziomem ich funkcjonowania biologicznego i społecznego oraz poziomem radzenia sobie z pielęgowaniem stomii, a czynnikami różnicującymi jest wiek, wykształcenie, aktywność zawodowa oraz wsparcie grup samopomocy.

### Abstract

**Aim.** The purpose of the research was the assessment of the emotions of patients with stoma resulting from the surgical treatment of colorectal cancer and the analysis of its social-demographic conditions.

**Material and the applied methods.** A standardized FACT-C form (Functional Assessment of Cancer Therapy Scale – Colorectal) and the HADS (Hospital Anxiety and Depression Scale) were used. The research was carried out on 164 patients at the Świętokrzyskie Oncology Centre in Kielce. The control group was also used for the purpose of the research.

**Results.** The emotional condition of the patients was really worse in comparison with the control group, considering the evaluation made in the EWB scale of the FACT-C questionnaire ( $p<0.05$ ), as well with use of the HADS scale (for anxiety  $p<0.05$ ; for depression  $p<0.01$ ). Younger patients – those under 60 years old – (respectively  $p<0.001$ ;  $p<0.01$ ;  $p<0.01$ ) with secondary or university education ( $p<0.05$ ) and those who used the support from the self-supporting groups ( $p<0.001$ ; for anxiety and depression  $p<0.05$ ) achieved better results on the EWB scale, as well as on the scales measuring anxiety and depression. Moreover, the patients who were professionally active ( $p<0.05$ ) achieved better results on the EWB scale and the patients who had support also felt less embarrassed because of the stoma ( $p<0.001$ ). The results on the EWB and HADS scales really correlated with the results on the scales of biological and social functioning ( $r_s=0.63$  to  $0.85$ ;  $r_s=-0.66$  to  $-0.89$ ) and the scale of embarrassment with stoma ( $r_s=0.74$ ;  $r_s=-0.75$ ) and the scale of difficulty in caring the stoma ( $r_s=0.69$ ;  $r_s=-0.71$  and  $-0.74$ ).

**Conclusions.** Emotions of the patients depend on the level of their biological and social performance, as well as on the level of coping with the stoma care; age, education, professional activity and support from self-supporting groups – are differentiating factors.

**Słowa kluczowe:** stan emocjonalny, stomia, rak jelita grubego

**Key words:** emotions, ostomy patients, colorectal cancer

Each stoma case, of serious prognosis, is a difficult situation for a patient, resulting in many functional limitations. Psychological and social behaviour of a sick person are the matters of interest of medicine, despite their biological state. Holistic treatment of the problems connected with human's health is important; in particular if a neoplastic disease is diagnosed. Both treatment and the disease result in many, multi-way consequences for a sick person and his/her family. Because of oncoming deep changes in functioning and quality of life, they also require psychological and psychiatric support provided for them [1-3]. So while performing nursing care, it is necessary to pay attention to bio-medical variables, to the assessment of the neoplastic disease, but also to the impact of treatment on functioning and psychical as well as social health of the patient and the quality of his/her life. A sick person who lost the organ as the result of the surgical treatment of colorectal cancer and whose physiological functioning is impaired is in a particularly difficult situation leading to wide psychical load [4-7].

The purpose of this study was to estimate the emotions of the patients with stoma created as a result of surgical treatment of colorectal cancer in the context of selected socio-demographic variables and definition of the nursing care indicators directed to the improvement of life quality of ill people.

## MATERIAL AND THE APPLIED METHOD

The research was done at the Stoma Clinic of the Świętokrzyskie Oncology Centre in Kielce in years 2002-2003. The research was carried out on 164 patients with stoma created as a result of surgical radical treatment of colorectal cancer. Oncological supplementary treatment (chemotherapy, radiotherapy) was administered to 62.8% of the patients. The control group, consisting of 82 people, selected in respect of gender and age was also used for the patients group – of whose medical histories did not show a diagnosed neoplastic disease, stoma or serious chronic disease resulting in a significant disability.

Life quality assessment questionnaire FACT-C (*Functional Assessment of Cancer Therapy Scale – Colorectal*) was used for the assessment of the functional state. That questionnaire consists of a general core element FACT-G (*General Scale*) and specific scale CCS (*Colorectal Cancer Subscale*). FACT-G is a compilation of 27 statements creating 4 scales: PWB (physical well-being - 7 items), SWB (social well-being - 7 items), EWB (emotional well-being - 6 items) and FWB (functional well-being - 7 items). The answers are given on a 5-grade scale, then scored within a range from 0 to 4 score points, where the result marked as '4' means no functional limits and high quality of life. The question results are summed up separately for each scale, showing the scale result. The total of the points achieved in individual scales gives the general result FACT-G. A specific CCS scale consists of 7 positions, related to the disease symptoms connected with colorectal cancer and its treatment and of 2 positions (C8 and C9) related to stoma, which are analyzed separately. The total of all the scales gives a global FACT-C result. The smaller result achieved in individual scales, or the smaller general result (FACT-G) and global result (FACT-C), the worse assessment considering the functioning

of the patients and the quality of their life. FACT-C is a reliable and exact tool. The values of Alfa Cronbach internal compliance factor achieved in various validation analyses made by the tool authors were in general between 0.85 and 0.91, although other research showed also smaller values in relation to individual scales, but they satisfied the authors [8].

The assessment of emotional functioning was additionally extended by the analysis of anxiety and depression level, with use of the HADS scale (*Hospital Anxiety and Depression Scale*). That tool is designed for screening the assessment of anxiety and depression states of the hospitalized patients because of somatic disease. The HADS scale consists of two independent sub-scales for anxiety and depression. Each of them includes 7 positions related to current state of a patient. A patient answers the questions with the use of a 4-level scale, which is then transferred to the result grid within a range from 0 to 3 points. The summed up results give the scale result within a range from 0 to 21 points, both for anxiety and depression. The higher the result, the higher anxiety or depression is. Those results can be also presented in an ordered categories form as a normal level of anxiety/depression (0-7 points), a limit level (8-10 points) and the level typical for a disease (11-21 points). Alfa Cronbach ratio for Polish version of HADS tested on a group of 355 patients was within the limits 0.79 – 0.85 [9].

## THE RESULTS OF THE RESEARCH

The average age of the studied group of patients was  $X = 60.03$  years. The majority of that group were the patients living in the cities (65.2%) with elementary education (33.5%) and not working (86%), which is presented in details in Table 1.

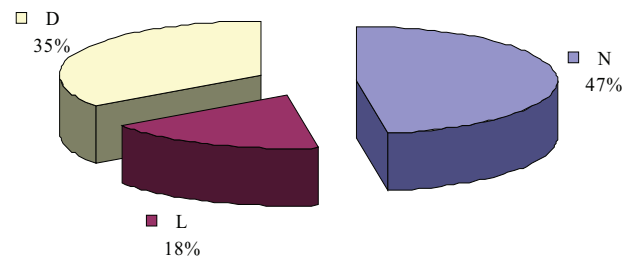
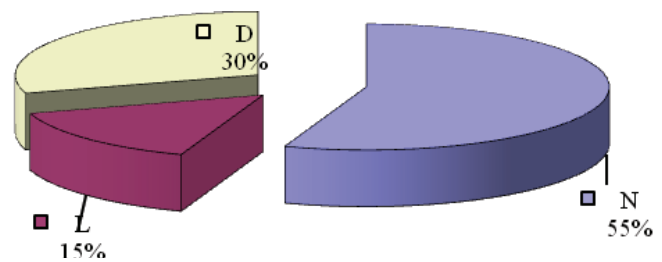
The analysis of the results on the EWB scale of FACT-C questionnaire shows significant limitations in emotional functioning of the tested sick patients, which was really worse in comparison with the control group ( $p < 0.01$ ), which is presented in Table 2.

Table 3 shows the detailed distribution of the results within a range of emotional state in the examined group of sick patients. As the data show, the tested patients present a high level of sadness and they do not cope well with their disease ( $M=2$ ). It is worthy to notice the quartile I location on the level  $QI=0$  in positions – sadness, fears connected with health and feeling of life-threatening, which shows that at least 25% of the patients tested in the emotions area, analyzed by those scale positions, achieved the possibly lowest values. Simultaneously, the level of hope was assessed on a high level ( $M=2$ ,  $QI=2$ ,  $QIII=4$ ). The patients emotional state is also characterized by single items of other scales FACT-C, specific scale – CCS in particular. The detailed analysis of that scale together with the positions designed for the patients with stoma (C8 and C9) showed that the most important problems of the tested group of sick patients concern their embarrassment caused by colostomy ( $M=2$ ;  $QI=0$  and  $QIII=4$ ) and satisfaction of the body looks ( $M=2$ ;  $QI=1$  and  $QIII=3$ ). Moreover, the sick patients do not cope themselves with stoma caring ( $M=2$ ;  $QI=1$  and  $QIII=3$ ).

Similarly as for the EWB scale, the results achieved on the scales of anxiety and depression (HADS) were statistically essentially different in the group of sick patients compared to the control group (respectively,  $p < 0.05$  and  $p < 0.01$ ), which

**TABLE 1. Characteristic of the examined group of sick patients with stoma.**

VARIABLES		N	%
Age	< 60 years	74	45.1
	> 60 years	90	54.9
Gender	Women	77	47.0
	Men	87	53.0
Place of residence	Country	57	34.8
	City	107	65.2
	Basic	55	33.5
Education	Vocational	42	25.6
	Secondary	42	25.6
	University	25	15.2
Professional activity	Active	23	14.0
	Non- active	141	86.0
Time elapsed after operations	Up to 1 year	71	43.3
	>1year	93	56.7
Type of colostomy	Permanent	145	88.4
	Periodical	19	11.6

**FIGURE 1. The level of normal anxiety (N), limiting anxiety (L) and the anxiety typical for a disease (D) for the group of patients with stoma.****FIGURE 2. The level of normal sadness (N), limiting sadness (L) and the sadness typical for a disease (D) for the group of patients with stoma.****TABLE 2. Emotional state of the examined patients with stomy (ST) compared with a control group (CG).**

EMOTIONAL STATE		X	OD	M	Q I	QIII	MIN	MAX	p
EWB (FACT-C)	ST	14,0	8,5	15	6	22	0	24	z=-2,75 p<0,01
	CG	17,5	5,5	17,5	14	23	5	24	
Anxiety (HADS)	ST	8,2	6,8	8	2	13	0	21	z=-2,1 p<0,05
	CG	5,9	4,4	5	2	9	0	16	
Depression (HADS)	ST	7,4	6,5	7	1,5	11,5	0	21	z=-3,0 p<0,01
	CG	4,6	4,0	4	0,5	7	0	15	

**TABLE 3. The detailed distribution of the results within a range of emotional state (FACT-C) in the examined group of patients.**

SCALE / ITEMS		M	Q I	QIII	MIN	MAX
EWB	depression level	2	0	4	0	4
	coping with a disease	2	1	4	0	4
	fear of health	2,5	0	4	0	4
	fear of life	3	0	4	0	4
	irritability level	3	1	4	0	4
	hope level	3	2	4	0	4
CCS	body appearance (C7)	2	0	3	0	4
	embarrassment with stoma (C8)	2	0	4	0	4
	difficulties in care of stoma (C9)	2	1	3	0	4

**TABLE 4. Emotional state (FACT-C) and social-demographic variables.**

VARIABLES	EWB scale			Feeling of embarrassment with stoma (C8 - CCS)			
	X	OD	$\chi^2$	X	OD	$\chi^2$	
Age/years	< 60	16.5	8.4	14,2 p<0.001	2.1	1.6	p>0.05
	> 60	11.9	8		1.8	1.5	
Gender	W	14.4	8.0	p>0.05	2.0	1.5	p>0.05
	M	13.7	8.9		1.8	1.6	
Place of residence	Country	12.4	9.1	p>0.05	1.6	1.5	p>0.05
	City	14.9	8.1		2.1	1.5	
Education	B/V	12.7	8.7	5,2 p<0.05	1.8	1.5	p>0.05
	S/U	15.9	7.8		2.1	1.5	
Professional activity	Yes	16.6	9.6	4,2 p<0.05	2.1	1.7	p>0.05
	No	13.6	8.2		1.9	1.5	
Support from the self-supporting groups	Yes	15.8	8.4	7,3 p<0.01	2.3	1.4	11,1 p<0.001
	No	12.6	8.4		1.6	1.5	

**TABLE 5. The anxiety and depression scale (HADS) compared to social-demographic variables.**

VARIABLES	Anxiety			Depression			
	X	OD	$\chi^2$	X	OD	$\chi^2$	
Age/years	£ 60	6.7	7.0	9,2 p<0.01	5.4	6.1	15,1 p<0.001
	>60	9.5	6.4		9.0	6.4	
Gender	W	8.2	6.4	p>0.05	7.4	6.6	p>0.05
	M	8.3	7.2		7.4	6.5	
Place of residence	Country	9.6	7.6	p>0.05	8.7	6.9	p>0.05
	City	7.5	6.3		6.7	6.2	
Education	B/V	9.2	7.0	5,1 p<0.05	8.4	6.8	5,5 p<0.05
	S/U	6.8	6.3		5.9	5.8	
Professional activity	Yes	7.0	8.3	p>0.05	5.9	7.3	p>0.05
	No	8.4	6.6		7.7	6.4	
Support from the self-supporting groups	Yes	7.2	6.5	3,9 p<0.05	6.3	6.0	4,1 p<0.05
	No	9.2	7.0		8.3	6.28	

**TABLE 6. Biological and social functioning of the examined patients and their emotional state.**

SCALES FACT-C	EWB	Embarrassment with stoma	Anxiety (HADS)	Depression (HADS)
PWB	rs=0.84 ****	rs=0.59 ****	rs=-0.83 ****	rs=-0.80 ****
SWB	rs=0.63 ****	rs=0.58 ****	rs=-0.66 ****	rs=-0.68 ****
EWB	-	rs=0.74 ****	rs=-0.93 ****	rs=-0.91 ****
FWB	rs=0.85 ****	rs=0.68 ****	rs=-0.85 ****	rs=-0.89 ****
CCS	rs=0.85 ****	rs=0.67 ****	rs=-0.86 ****	rs=-0.85 ****
Embarrassment with stoma (C8 scale CCS)	rs=0.74 ****	-	rs=-0.75 ****	rs=-0.75 ****
Difficulties in care of stoma (C9)	rs=0.69 ****	rs=0.72 ****	rs=-0.71 ****	rs=-0.74 ****

\*\*\*\* p<0,000;  $r_s$  – Spearman's correlation factor

is presented in Table 2. The classification of the achieved results in the categories of anxiety and depression of normal, limited intensity and the intensity typical for a disease, show that the big group of researched people shows a higher level, which is presented in Figure 1 and Figure 2.

The emotional state evaluated with the EWB scale was really different depending on age ( $p<0,001$ ), education ( $p<0,05$ ), professional activity ( $p<0,05$ ) and on the support achieved from the self-supporting groups ( $p<0,01$ ). Considering the embarrassment connected with living with a stoma (C8, CCS scale), the only factor which positively modified it, was achieving supporting aid in the self-supporting group ( $p<0,001$ ). The detailed data have been presented in Table 4. While the anxiety and depression level in the researched group of sick patients was different, it depended on age ( $p<0,01$ ;  $p<0,001$ ), education ( $p<0,05$ ) and support from supporting-groups ( $p<0,05$ ), which is presented in Table 5.

The analysis of correlation between the emotional state of the sick patients with a stoma and Rother elements of functioning, evaluated with use of the FACT-C questionnaire showed the presence of Essential statistical dependences between those variables ( $p<0,0001$ ), which is presented in Table 6.

## COMMENTS ABOUT THE ACHIEVED RESULTS

A neoplastic disease, perceived by society as heavy and incurable disease, is a strong experience for a patient, disturbing his/her physical and social safety; some patients treated because of malignant neoplasm show psychic disorders - where the states of anxiety, depression are most often confirmed [2, 3, 10, 11]. The results achieved in this thesis show significant limitations in the area of emotional functioning of the sick patients with a stoma. The researched sick patients show high level both of anxiety and depression as well. Moreover, they are embarrassed because of a stoma and suffer from the changes in their own body appearance. They also express strong fears of the deterioration of their health and feeling of their life threatening. The examined group of sick patients whose treatment terminated with the creation of abdominal anus orifice –change of the body appearance, loss of anal sphincters and their physiological function can be one of important reasons of highly negative emotion level. The results achieved in this thesis are convergent, among other things, the

results of Kuchtyń research [12] done on a group of sick patients with colostomy, where psychological results concerned 90% of the researched patients, where they also showed their fear of health (60%) and life threatening. In this research, up to circa 90% of the researched sick patients were ashamed of their stoma and 75% of sick patients felt fear connected with permanent damage of their body. The problem of low evaluation of their own body among the sick patients with a stoma has also been confirmed in other research studies [13, 14].

Moreover, the analysis made with our own research results shows that functioning of emotionally sick patients (evaluated on the scales: EWB, anxiety, depression, feeling of embarrassment because of owned stoma) is in essential relationship with their biological and social functioning. Modifying the influence of social-demographic factors on the emotional state of sick patients was also showed there – where age and education were of high importance. The support achieved in the self-supporting groups was a particular condition for emotional state of the sick patients, which was expressed in other reports as well [4, 3, 15]. So it may be assumed that offering the sick patients non-professional care of the self-supporting groups, delivering a multi-surface support aid, result in the increase in life activity and decreases negative emotions as well as the destructive concentration of patients on their own problems only.

The achieved results of our own research also showed strong links between the emotional state and the opportunities in care of patients living with a stoma. The awareness of many limitations in care of patients with a stoma, lack of possibilities to cope with the limitations – coexist with worse results presented on the anxiety and depression scales. It is of particular importance for nursing care and it justifies the importance of the preparation of patients to self-care [7, 15] thus causing reduction of negative emotions and improvement of life quality.

## CONCLUSIONS

1. Emotional state of the patients with stoma, created as a result of operational treatment of colorectal cancer is in close connection with their biological and social performance and the level of difficulties in coping with stoma and is different depending on age, education, professional

activity and support achieved within the self-supporting groups.

2. The diagnosis in the area of emotions, considering the socio-demographic conditioning – is an integral element of a nursing diagnosis in patients after surgical treatment of colorectal cancer and creation of stoma. It determines the necessity to undertake nursing interventions providing particular care for older and less educated people – to offer them support from self-supporting groups and helping them to cope independently with stoma problems.

#### REFERENCES:

1. Miniszewska J, Chrystowska-Jabłońska B. Strategie radzenia sobie z chorobą nowotworową a jakość życia. *Psychoonkologia* 2002;6(4): 89-94.
2. Trzebiatowska I. Zaburzenia psychiczne w chorobie nowotworowej. W: de W-GK, red. *Psychoonkologia*. Kraków: Biblioteka Psychiatrii Polskiej; 2000.71-81.
3. Kubacka-Jasiecka D, Łosiak W. (editors). *Zmagając się z chorobą nowotworową*. Kraków: Wyd. Uniwersytetu Jagiellońskiego; 1999.
4. Fryc-Martynańska J. Wsparcie społeczne jako forma pomocy w procesie zmagania się z krytycznymi wydarzeniami życiowymi. *Wolontariusze Polskiego Towarzystwa Opieki nad Chorymi ze Stomią*. *Psychoonkologia* 1997; 1: 99-102.
5. Gooszen AW, Geelkerken MD, Hermans J, Lagaay MB, Gooszen G. Quality of life with a temporary stoma. *Dis Colon Rectum* 2000;43(5): 650-5.
6. Wiraszka G, Stępień R. Jakość życia chorych a występowanie miejscowych powikłań stomijnych. *Polski Przegląd Nauk o Zdrowiu* 2008;16(3):86-91.
7. Wiraszka G, Stępień R, Wrońska I. Lifestyle and functional state of patients with stomy created after surgical treatment for colorectal cancer. *Pol J Environ Studies* 2008;17(4B):299-304.
8. Ward WL, Hahn EA, Mo F, Hernandez L, Tulsy DS, Cella D. Reliability and validity of the Functional Assessment of Cancer Therapy – Colorectal (FACT-C) quality of life instrument. *Qual Life Res.* 1999;8(3):181-95.
9. Majkowicz M, Chojnacka-Szawłowska G. Metodologiczne problemy badania jakości życia. W: de W-GK, MM, red. *Jakość życia w chorobie nowotworowej*. Gdańsk: Akademia Medyczna Gdańsk; 1994. 65-84.
10. Stępień R. Uwarunkowania społeczno-demograficzne poziomu lęku i depresji u kobiet po radykalnym leczeniu chirurgicznym raka piersi – mastektomii. *Probl. Piel* 2007;15(1):20-5.
11. Stępień R, Wrońska I. Lęk i depresja jako emocjonalne uwarunkowania możliwości funkcjonalnych kobiet po radykalnym leczeniu raka piersi. *Studia Medyczne* 2008;10:31-5.
12. Kuchtyń K. Obraz własnej choroby a przebieg procesów emocjonalnych u pacjentów ze stomią. W: *Pamiętniki 56 Zjazdu Towarzystwa Chirurgów Polskich*. Lublin; 1993.1322-1325.
13. Sprangers MAG, Taal BG, Aaronson NK, te Velde A. Quality of life in colorectal cancer. *Dis Colon Rectum* 1995;38:361-9.
14. Camilleri-Brennan J, Steele RJC. Prospective analysis of quality of life and survival following mesorectal excision for rectal cancer. *Br J Surg.* 2001;88:1617-22.
15. Wiraszka G. Poziom wiedzy i zachowań chorych ze stomią a wsparcie grup samopomocy. *Annales UMCS Sectio D Medicina* 2007; vol.LXII, suppl. XVIII,9:869-73.

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