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FUNCTIONAL STATUS AND SATISFACTION WITH TREATMENT AMONG PATIENTS WITH ADVANCED CANCER

Stan funkcjonalny i satysfakcja z leczenia pacjentów z zaawansowaną chorobą nowotworową

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A - Koncepcja i projekt badania, B - Gromadzenie i/lub zestawianie danych, C - Analiza i interpretacja danych, D - Napisanie artykułu, E - Krytyczne zrecenzowanie artykułu, F - Zatwierdzenie ostatecznej wersji artykułu

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Abstract (in Polish):

Cel pracy: Wprowadzenie. Wraz ze zdiagnozowaną chorobą nowotworową, pojawia się ograniczenia w funkcjonowaniu, problemy z akceptacją, a także zmiany w ocenie jakości życia, które są ważnym wyznacznikiem efektywności prowadzonej terapii.

Celem badania było określenie czynników wpływających na stan zdrowia oraz satysfakcje z prowadzonego leczenia pacjentów z zaawansowaną chorobą nowotworową.

Materiał i metody: Badanie zostało przeprowadzone w grupie 75 pacjentów z rozpoznaną chorobą nowotworową hospitalizowanych w oddziale Medycyny Paliatywnej Szpitala Uniwersyteckiego w Krakowie. Do zebrania danych wykorzystano narzędzia standaryzowane tj. kwestionariusz Functional Assessment of Chronic Illness Therapy-Treatment Satisfaction-Patient Satisfaction (FACIT-TS-PS), kwestionariusz EQ-5D-5L (ocena 5 wymiarów i stanu zdrowia w oparciu o skalę wizualno-analogową) oraz skalę Acceptance of Illness Scale (AIS).

Wyniki: Ocena stanu funkcjonalnego wykazała, iż kontakt z personelem pielęgniarskim (77%) oraz kompetencje techniczne personelu medycznego (52%) zostały wysoko ocenione przez zdecydowaną większość badanych. Akceptacja własnej choroby oceniona była na poziomie średnim (52%). Wykazano istnienie korelacji pomiędzy akceptacją choroby a stanem funkcjonalnym i satysfakcją z leczenia w obszarze kontaktu z lekarzem (p<0,001) oraz w płaszczyźnie pewności i zaufania (p=0,032).

Wnioski: Wzrost akceptacji choroby wpływała na poprawę stanu funkcjonalnego i satysfakcję z prowadzonego leczenia, w grupie osób z zaawansowaną chorobą nowotworową. Czas hospitalizacji oraz wybrane dane socjodemograficzne respondentów nie miały wpływu na ocenę zdrowia oraz satysfakcję z leczenia.

Abstract (in English):

Aim: Introduction. With the diagnosis of cancer, there are limitations in functioning, problems with acceptance, as well as changes in the assessment of quality of life, which is an important determinant of the effect of treatment provided. The aim of this study was to determine the factors affecting the health status and satisfaction with the ongoing treatment of patients with advanced cancer.

Material and methods: The study was conducted in a group of 75 patients diagnosed with malignant disease hospitalized in the Department of Palliative Medicine at the University Hospital in Cracow. Standardized tools, i.e. Functional Assessment of Chronic Illness Therapy-Treatment Satisfaction-Patient Satisfaction (FACIT-TS-PS) questionnaire, EQ-5D-5L questionnaire and Acceptance of Illness Scale (AIS) were used to collect data.

Results: Assessment of functional status showed that nurse communication (77%) and technical competence of medical staff (52%) were rated highly by the vast majority of respondents. Acceptance of own illness was rated at a medium level (52%). There was a correlation between acceptance of illness and functional status as well as satisfaction with treatment in terms of the physician communication (p<0.001) and in the area of confidence and trust (p=0.032).

Conclusions: Increased acceptance of illness influenced the improvement of functional status and satisfaction with the treatment provided, in a group of people with advanced cancer. The duration of hospitalization and selected sociodemographic data of the respondents had no effect on health evaluation and satisfaction with treatment.

Keywords (in Polish): akceptacja choroby, choroba nowotworowa, stan funkcjonalny, satysfakcja z leczenia.

Keywords (in English): cancer, functional status, satisfaction with treatment, acceptance of own illness.

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Short title

Stan funkcjonalny pacjentów z chorobą nowotworową

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Introduction

The World Cancer Report 2014 forecasts that the number of people diagnosed with malignant disease will increase up to 19 million in 2025, in 2030 – up to 22 million, and in 2035 – up to 24 million per year. Epidemiological predictions published in the European Code Against Cancer are even more pessimistic, indicating that the above numbers will double in the next 15 years, i.e. that 26.5 million people will be diagnosed with and 17.1 million will die from cancer in 2030 [1].

Chronic diseases constitute the most widespread medical problem facing developing countries and pose a considerable social challenge, mainly due to the predominant cause of death. Estimates assume that 133 million people worldwide have chronic diseases, and this rate is expected to increase by 1% per year until 2030. In the past century, the most common cause of death was infectious diseases such as influenza, pneumonia and tuberculosis. The control of infectious diseases through the ability to treat them has brought chronic diseases to the forefront in terms of mortality, the emergence of which has contributed to the extension of human life [1].

Each person has a certain role in professional, family and social life. When a chronic disease is diagnosed, limitations appear that prevent the fulfillment of a certain function as life situations change. Chronic disease contributes to multifaceted adaptive changes that take time and involve a step-by-step approach with regard to adaptation to the new situation [2]. Depending on the type of life experiences acquired, when a disease occurs there is either acceptance and entry into the role of the patient or denial and rejection of the role of the patient. Acceptance of illness is a good predictor

of disease-related quality of life, equated with a sense of satisfaction with life along with evaluation of current health [3,4].

The treatment applied may also contribute to the patient's deterioration in overall performance along with limitations in autonomy. The patient's functional performance may deteriorate especially in the following areas: cognitive, physical and emotional, which will determine to a significant extent satisfaction with the applied treatment and may contribute to a decrease in quality of life.

Malignant disease is complex, primarily for clinical reasons, which increases the intensity of stress and contributes to psychosomatic changes. Stress in the course of malignant disease is associated with constant uncertainty about the effect of treatment and is a source of long-term emotional tension related to lowered mood, endocrine disruption and psychosocial limitations caused by the disease. Limitations resulting from the disease have a significant impact on functional status, which is associated with the occurrence of long-term effects along with limitations in the ability to self-care, depending on the help of others and the applied pharmacotherapy and often medical apparatus, which translates into a significant deterioration in the quality of life and perception of the disease [4,5,6,7].

The aim of this study was to identify factors determining the functional status and treatment satisfaction of patients with advanced cancer.

Material and methods

The study was conducted among 75 adult patients (over 18 years of age) hospitalized in the Department of Palliative Medicine at the University Hospital in Cracow. Patients diagnosed with advanced cancer who remained in logical contact (Cognitive Assessment Scale; CAS 11-12 points) without cognitive impairment [8] and from whom consent to participate in the study was obtained were included. The present study used a diagnostic survey method, including questionnaire and interview techniques.

The EQ-5D-5L questionnaire was used to verify functional status, which includes 5 dimensions: mobility, self-care, ability to perform daily activities, experience of pain/discomfort, and experience of anxiety/depression. Individual areas were assessed based on a 5-degree Likert scale to determine the level of deficit (1-no problems; 2-slight problems/significant severity; 3-moderate problems/moderate severity; 4-severe problems/significant severity; 5-inability to perform activities/ very severe severity). The second part of the assessment was based on a visual-analogue scale (EQ-VAS, Euro QOL Visual Analogue Scale), with which patients could self-assess their health status, based on a score from 0 to 100; where 0 represented the poorest imaginable health status, while 100 represented the best health status [9].

Functional status and satisfaction during treatment were assessed using the Functional Assessment of Chronic Illness Therapy – Treatment Satisfaction – Patient Satisfaction (FACIT-TS-PS) questionnaire, which consists of 6 parts and each of them addressed a different sphere: physician communication (12 questions), treatment staff communication (4 questions), technical competence (3 questions), nurse communication (3 questions), confidence and trust (4 questions), and overall (3 questions) [10].

In order to clearly illustrate the intensity of each category in the above two scales, each dimension was divided into three levels: no problems (high level, 1 on the Likert scale); occurrence of problems (medium level, 2 to 4 on the Likert scale), very high intensity of the problem (low level,

5 on the Likert scale). Choosing level 1 was equated with the best score and choosing level 5 with the poorest score.

Acceptance of illness was analyzed using the Acceptance of Illness Scale (AIS), which contains eight statements relating to the negative consequences of poor health that may contribute to psychological discomfort and reduced self-esteem. Each statement was rated on a scale of 1 to 5; where 1 means "strongly agree," while 5 means "strongly disagree." The patient could score a maximum of 40 points. The higher the score, the better the acceptance of illness [11].

The study was conducted in accordance with the principles of the Helsinki Declaration. The analysis of the relationship of general health status, acceptance of illness, sociodemographic data with the functional level and satisfaction with the applied treatment was verified by the chi-square test. The relationship between the duration of hospitalization of the subjects and the functional status and satisfaction with the treatment provided was evaluated using the Kruskal-Wallis test. The significance level was adopted as p<0.05. Statistical analyses were conducted using Statistica software.

Sociodemographic characteristics	N=75	%			
Sex					
Women	43	57			
Men	32	43			
Age					
Mean	57,9				
SD	9,4				
Min.	44,0				
Max.	83,0				
Education					
Primary	3	4			
Vocational	19	25			
Secondary	31	42			
Higher	22	29			
Marital status	S				
Married	48	64			
Single	9	12			
Divorced	18	24			
Place of living					
City	45	60			
Countryside	30	40			

Tabela 1. Charakterystyka czynników socjodemograficznych w grupie badanejTable 1. Sociodemographic characteristics of the examined group

N-number of subjects; %-percentage of respondents

Tabela 2. Kategorie stanu funkcjonalnego oceniane wg skali EQ-5D-5L i stanu funkcjonalnego oraz satysfakcji z prowadzonego leczenia oceniane za pomocą kwestionariusza Functional Assessment of Chronic Illness Therapy - Treatment Satisfaction - Patient Satisfaction (FACIT-TS-PS) Table 2. Categories of functional status to the EQ-5D-5L and functional status and satisfaction during treatment in the study group according to the Functional Assessment of Chronic Illness Therapy-Treatment Satisfaction -Patient Satisfaction (FACIT-TS-PS)

Components of functional status according to the EQ-5D-5L	High level	Medium level	Low level
Mobility	N=4 (5,3%)	N=23 (30,7%)	N=48 (64%)
Self-care	N=3 (4%)	N=22 (29,3%)	N=50 (66,7%)
Ability to perform daily activities	N=5 (6,7%)	N=27 (36%)	N=43 (57,3%)
Pain/discomfort	N=2 (2,7%)	N=24 (32%)	N=49 (65,3%)
Anxiety/depression	-	N=21 (28%)	N=54 (72%)
Components of functional status and satisfaction to the FACIT-TS-PS	High level	Medium level	Low level
Physician communication	N=25 (33,3%)	N=50 (66,7%)	-
Treatment Staff Communication	N=33 (44%)	N=42 (56%)	-
Nurse Communication	N=58 (77,4%)	N=16 (21,3%)	N=1 (1,3%)
Technical competence	N=39 (52%)	N=35 (46,7%)	N=1 (1,3%)
Confidence and trust	N=35 (46,7%)	N=36 (48%)	N=4 (5,3%)

N-number of subjects; % - percentage for respondents

Results

In the study group, the percentage of female subjects was higher than that of male subjects [N=43 (57%) vs. N=32 (43%)]. The youngest person surveyed was 44 years old, while the oldest was 83 years old. The average age was 57.9 years. Detailed sociodemographic characteristics are presented at Table 1.

Among the types of cancer, the predominant patients were diagnosed with: bronchial and lung malignant neoplasm; N=9 (12%), breast malignant neoplasm; N=8 (11%) and gastric malignant neoplasm; N=8 (11%). The duration of hospitalization of the study subjects was a maximum of 40 days, and a minimum of 5 days. The average length of patients' stay in the ward was 13 days.

The subjects' health assessment was verified using the EQ-5D-5L questionnaire, through which it was shown that low levels prevailed in the following areas: mobility (64%), self-care (67%), performance of daily living activities (57%), perceived pain and discomfort (65%), and anxiety/ depression (72%) (Table 2).

Functional status and patient satisfaction were assessed using the FACIT-TS-PS questionnaire, which showed high values for: confidence and trust (47%), nurse communication (77%), and technical competence (52%). On the other hand, two dimensions were estimated at a medium level: physician communication (67%) and treatment staff communication (56%) (Table 2).

Analysis of functional status and treatment satisfaction with the duration of hospitalization

Analysis of study results proved that there was no statistically significant difference between the duration of hospitalization and patients' functional status and satisfaction with treatment provided. Only a subtle difference was observed in the group of patients rating treatment staff communication at a medium level, as lower time intervals of hospitalization were observed compared to others (Table 3).

Tabela 3. Wyniki analizy statystycznej pomiędzy stanem funkcjonalnym a satysfakcją z prowadzonego leczenia w grupie badanej

Scale FACIT-TS-PS		Duration of hospitalization [days]			
		N	М	SD	р
	HL	25	11,92	6,91	
Physician communication	ML	50	13,38	7,85	0,486
	LL	-	-	-	
	HL	33	13,36	7,11	
Treatment Staff Communication	ML	42	12,52	7,91	0,393
	LL	-	-	-	
	HL	39	13,56	7,53	
Technical competence	ML	35	12,29	7,65	0,679
	LL	1	8,00	0,00	
	HL	58	12,66	7,04	
Nurse Communication	ML	16	14,06	9,41	0,923
	LL	1	8,00	0,00	
	HL	35	13,03	7,57	
Confidence and trust	ML	36	13,39	7,77	0,224
	LL	4	7,25	0,50	

Table 3. Results of statistical analysis between the functional status and treatment satisfactionwith the duration of hospitalization in the study group

HL (high level), ML (medium level), LL (low level)

N -number of respondents; M-mean; SD-standard deviation; ANOVA rang Kruskala-Wallisa; p-statistical value; p \leq 0.05

Analysis of the relationship of functional status and treatment satisfaction with general health status

Patients with a low rating in the area of mobility in the vast majority (77.1%) evaluated physician communication at a medium level, the remaining respondents, which accounted for 22.9%, at a high level. Treatment staff communication was rated by patients at a medium level (64.6%). The above two areas, none of the respondents rated at a low level. Technical competence was rated at a high level by more than half of the respondents (52.1%), the same as nurse communication (77.1%). The last area, confidence and trust, was dominated by a medium level (47.9%).

Respondents with a medium rating for mobility, rated physician communication (43.5%) better compared to patients with a low rating – a high level. Treatment staff communication by the majority of respondents (60.9%), was rated at a high level. Technical competence was ranked similarly to patients with a better range of mobility (52.2% – high level, 47.8% – medium level). In this group of respondents, no one ranked this parameter at a low level. Nurse communication was rated high by the majority of patients (78.3%), similar to the previous group. Confidence and trust were rated slightly higher, compared to patients with poorer physical condition (52.2% rated high, and 43.5% rated medium). All patients who rated the mobility component as high rated physician communication in the same way. Exactly half of them ranked treatment staff communication at a medium level, and the other half at a high level. The same was the percentage distribution in the technical component. Nurse communication by 75% of patients was rated at a high level. Confidence

and trust were rated less highly compared to the previous two groups (25% of patients rated them high and 75% rated them medium).

The next area of the EQ-5D-5L questionnaire, which was self-care, also showed a statistically significant difference in physician communication (p=0.007) (Table 4). Patients reporting poor self-care, in the majority (76%), rated physician communication at a medium level. Also, treatment staff communication was rated better by this group of patients (36% – high level, and 64% – medium level). Technical competence by more than half of the respondents (52%) was rated high, the same as nurse communication (74%). Patients with a low level of self-care mostly (52%) rated the area of confidence and trust at a medium level.

Patients with a medium range of self-care distinguished better physician communication compared to patients with low self-care capabilities. Also, they rated better treatment staff communication (59.1% at a high level), nurse communication (81.8%), confidence and trust (59.1%), and technical competence (values equally distributed between high; 50% and medium; 50%).

Patients with the highest level of self-care rated physician communication and nurse communication at 100%. Also, treatment staff communication was rated the highest among all scopes of self-care (66.7%; high level). The same values were obtained in the evaluation of technical competence (66.7%; high level). However, the area of confidence and trust were rated the poorest among all levels.

The third area of the EQ-5D-5L questionnaire, related to the performance of daily activities – showed no statistically significant difference. In this group, the low assessment of daily activities showed the following correlations: patients mostly ranked physician communication (72.1%) and treatment staff communication (62.8%) at a medium level. Technical competence was equally rated high and medium by 48.8% of patients. Nurse communication, again, was rated high by the majority of patients (74.4%). However, the category of confidence and trust was rated at medium (48.8%) and high (44.2%) The average rating of daily activities indicated a higher rating of physician communication (33.3% of those surveyed). In addition, the spheres related to: treatment staff communication, technical competence, nurse communication, confidence and trust were rated higher.

Patients with the highest range in performing daily activities, 80% rated physician communication at a high level. Treatment staff communication and technical competence were rated the highest among all levels according to the EQ-5D-5L scale. Nurse communication was rated at a high level (80%). Meanwhile, confidence and trust was rated the highest among all levels.

Analysis of the relationship between the EQ-5D-5L scale and the FACIT-TS-PS scale categories indicated the only statistically significant (p=0.002) difference in the mobility and physician communication categories. The other components of the FACIT-TS-PS scale showed no statistical significance (Table 4).

Another area of the EQ-5D-5L scale subjected to analysis included pain/discomfort. Here the physician communication (p=0.02) and the area of confidence/trust (p=0.02) showed a statistically significant difference (Table 4). The remaining "p" values proved the lack of statistically significant differences. Patients who experienced pain or discomfort at a low level mostly (75.5%) rated physician communication at a medium level. Treatment staff communication was rated at a medium level by 59.2% of respondents. Also, technical competence by the majority of patients (54.2%) was rated at the medium level, the same as physician communication (54.2%). Nurse communication (70.8%) as well as confidence and trust (53.1%) were rated at a high level. Technical competence and communication

with treatment staff were rated in the same way. Nurse communication was rated high (71.8%), in contrast to the area of confidence and trust, where a medium level prevailed (70.8%). Patients who experienced pain or discomfort of high intensity also rated the other components highly.

The last area of the EQ-5D-5L questionnaire analyzed was anxiety and depression, where only in the area – physician communication – a statistically significant difference was distinguished (p=0.032) (Table 4). In the group with the lowest level of feeling anxious or depressed, the majority of patients (74.1%) rated physician communication at a medium level, the same as treatment staff communication (63%). Technical competence, just over half of the respondents (51.8%) rated high, as it was in case of nurse communication (75.9%) as well as confidence and trust (50%).

Respondents who felt anxious or depressed at a medium level rated physician communication (52.4% – high level) and treatment staff communication (61.9% – high level) higher. In addition, technical competence was rated at a similar level. Nurse communication was also rated at a high level (81%). Confidence and trust were rated less highly compared to the group with lower levels of feeling anxious or depressed (38.1% – high level). None of the respondents felt anxious and depressed at the highest level.

Analysis of functional status and treatment satisfaction with acceptance of illness

The patients were divided according to the achieved adaptation level using the Acceptance of Illness Questionnaire (AIS). Among the patients, the predominant acceptance of own living situation was at the medium level (52%). What is interesting, none of the surveyed people rated their own adaptation at the highest level. Statistical analysis showed a correlation between acceptance of illness and the functional status and satisfaction with the treatment provided in the categories of physician communication (p<0.001) as well as confidence and trust (p=0.032). The other components of FACIT-TS-PS scale showed no statistical significance (Table 5).

Tabela 4. Analiza związku między stanem funkcjonalnym i satysfakcją z leczenia a ogólnym stanem zdrowia w grupie badanej

	Scale EQ-5D-5L				
FACIT-TS-PS	Mobility	Self-care	Ability to perform daily	Anxiety/	Pain/
	•		activities	depression	discomfort
Physician communication	p=0,002	p=0,007	p=0,075	p=0,032	p=0,02
Treatment Staff	m 0 125	m 0 120	m 0.269	m 0.052	m 0 172
Communication	p=0,125	p=0,138	p=0,368	p=0,052	p=0,172
Technical competence	p=0,922	p=0,890	p=0,837	p=0,718	p=0,418
Nurse Communication	p=0,92	p=0,614	p=0,843	p=0,667	p=0,588
Confidence and trust	p=0,773	p=0,652	p=0,332	p=0,121	p=0,02

Table 4. Analysis of the relationship of functional status and treatment satisfaction with generalhealth status in the study group

p-statistical value; p≤0.05

Tabela 5. Analiza związku między stanem funkcjonalnym i satysfakcją z leczenia a akceptacją choroby w grupie badanej

Table 5. Analysis of the relationship of functional status and treatment satisfaction withacceptance of illnessin the study group

FACIT-TS-PS	Scale AIS
Physician communication	p<0,001
Treatment staff communication	p=0,186
Technical competence	p=0,37
Nurse communication	p=0,184
Confidence and trust	p=0,032

p-statistical value; p≤0.05

Analysis of the relationship of functional status and treatment satisfaction with selected sociodemographic data

In the study group, there was no relationship between gender, age, marital status and education and the functional status and satisfaction with the treatment provided among the subjects. Only place of residence was significantly statistically associated with the category (FACIT-TS-PS scale) – confidence and trust (p=0.002) and marital status with competence related to technical competence (p=0.006) (Table 6).

Tabela 6. Analiza związku między stanem funkcjonalnym i satysfakcją z leczenia a wybranymi danymi socjodemograficznymi w grupie badanej

Table 6. Analysis of the relationship of functional status and treatment satisfaction withselected sociodemographic data the study group

FACIT-TS-PS	Sociodemographic data					
FACI1-15-P5	Sex	Age	Marital status	Education	Place of living	
Physician communication	NS	NS	NS	NS	NS	
Treatment staff	NS	NS	NS	NS	NS	
communication						
Technical competence	NS	NS	*p=0,006	NS	NS	
Nurse communication	NS	NS	NS	NS	NS	
Confidence and trust	NS	NS	NS	NS	*p=0,002	

*p-statistical value/significance level; p≤0.05

Discussion

Advanced cancer disease, which is classified as a chronic disease, is associated with many difficulties, both in the physical and psychological spheres. Attention should be paid not only to the clinical effects of a given therapy, but also to the functional status and satisfaction with treatment of the cancer patient. The study investigated the relationship between general health status, acceptance of illness, sociodemographic data and evaluation of contacts with the physician, nurse, treatment staff, technical competence of those providing care, and the area related to confidence and trust in the treatment process.

The assessment of general health of patients experiencing malignant disease, was analyzed in five areas: mobility, self-care, daily activities, pain/discomfort, anxiety/depression. Analysis of the study results showed a reduction in the following areas: moving around, performing daily activities and self-care, and feeling anxious and uncomfortable. It is interesting to note that no higher values were obtained within anxiety/discomfort, which would be understandable and expected in relation to the malignant disease experienced.

The study conducted by Borchert et al. showed the predominance of self-care problems, while about two-thirds of patients reported minor or at most, moderate problems in performing usual activities. This included about half of the patients who had problems with mobility, pain/discomfort (60,5% of patients), anxiety/depression (56,4% of subjects) [12].

Also, a study conducted by Jankowska and Golicki among patients with diabetes showed limitations in the following areas: mobility, pain/discomfort and anxiety/depression [13].

The study by Miret et al. indicates significant limitations in performing basic activities of daily living and in the pain/discomfort dimension, which deteriorated with prolonged malignant disease duration and progression [14].

The greatest impact on the reduction in quality of life, in relation to health status, was the ability to self-care and mobility, which coincides with the results carried out by Ciećko et al. indicating that in chronically ill people it represents the basis in terms of reduced quality of life [5]. Similarly, Lewandowska et al. study on the quality of life, using the EQ-5D-5L questionnaire, showed that patients had the greatest problem in self-care (81%, 95% CI: 76-89) and anxiety/depression (63%, 95% CI: 60-68) [15].

The limited availability of papers on the evaluation of functional status and satisfaction with treatment using the FACIT-TS-PS questionnaire posed quite a difficulty in comparison with the results of other authors. The questionnaire allowed to assess not only the communication with staff who provide care to patients in the hospital, but also technical competence and the extent of trust. This allowed a broad evaluation and selection of areas that have a significant impact on satisfaction with treatment. Observing the results, which were statistically significant, it can be concluded that patients faced with malignant disease positively assessed treatment staff communication, which particularly affected the assessment of satisfaction with treatment.

A comparison of general health status, as measured by the EQ-5D-5L questionnaire, with the areas of FACIT-TS-PS questionnaire indicates that patients with better health status rated physician communication at a higher level. This may have been related to the fact that good health and well-being was the result of treatment provided, which satisfied the patient and translated into a better assessment of physician communication.

Another area that was addressed in the study was the effect of illness acceptance on treatment satisfaction. It is important to emphasize the fact that none of the subjects rated the acceptance of their illness at a high level, mainly focusing on the medium and low levels. In our study, the relationship between the level of illness acceptance and satisfaction with the treatment provided was confirmed. Patients who assessed the acceptance of their own illness at a moderate level had an increasing satisfaction level, compared to respondents with worse adaptation to the life situation.

The study conducted by Glińska et al. in a group of patients with thyroid cancer, distinguished the relationship between the level of illness acceptance and satisfaction with treatment, where there was a proportional increase. However, it is worth noting that satisfaction mainly focused on the overall evaluation of own life [16].

The study investigated the relationship between sociodemographic data and the variables analyzed. Age, gender, education level, according to the study, had no statistically significant effect on the patient's functional status and satisfaction with treatment. A statistically significant difference was observed with regard to the place of residence and marital status of the subjects. Patients who lived in the city rated the level of trust as medium (60%). In contrast, patients who lived in rural areas rated the level of trust mostly (57%) at a high level. In the area of marital status, among widowed and unmarried people; technical competence was rated at a high level, while among married patients, the above parameter was estimated at a lower level. Based on the study, it can be concluded that assessment of satisfaction with the treatment provided changes under the influence of various factors, from acceptance of illness to general health status and sociodemographic data. However, there is no doubt that such studies should be conducted, especially in the wards of chronically ill patients in order to provide them with the best possible care, multidimensional, with the aim of making them feel trust and confidence in the treatment being provided and the people caring for them.

Conclusions

- 1. There is a relationship between general health status and functional status as well as treatment satisfaction among people with advanced cancer.
- 2. The higher the level of acceptance of illness, the better the functional status and treatment satisfaction of patients with advanced cancer.
- 3. Age, gender, education level have no effect on functional status and treatment satisfaction among patients with advanced cancer.
- 4. Place of residence affects assessments in terms of trust and confidence among respondents. In contrast, marital status affects assessment of technical competence.

The limitations of the above study are related to the lack of monitoring of the patients' functional status in the study group, along with comparisons in terms of treatment methods used and types of cancer, which fundamentally determines quality of life. Moreover, in the future, the study group should be expanded and a detailed analysis should be carried out in terms of psychological and social dimensions.