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Assessment of the level of quality of nursing care in an infectious diseases ward

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Abstract

Introduction. An important aspect of the market-based health care system is the provision of a high level of medical services, including the quality of nursing care. In order to provide high quality patient care the subjective and objective methods were applied, as well as assessment tools.

Objective. The aim of the study was an objective assessment of the quality of nursing care provided to patients in the infectious diseases ward.

Materials and Method. The study was conducted in 2017, and included 105 patients treated in the infectious diseases ward at the Independent Public Teaching Hospital No. 1 in Lublin, Poland. The research method was a diagnostic survey; the techniques: a questionnaire and participant observation; the tool: a standard BOHIPSZO questionnaire according to H. Lenartowicz.

Results. A very high coefficient of the quality of nursing care in the infectious diseases ward concerned therapeutic-nursing procedures (99%), and hotel services including satisfaction of existential needs and objectification of a patient (97% each), followed by protection of patients against infection (96%), patient safety (94%), and preparation of patients to self-care before discharge home (92%). A high coefficient of provided care concerned the standard of organization and documentation of nursing care (80%). The provision of information for patients in the infectious diseases ward was assessed by patients in the lowest terms – the care coefficient was 71%. The global coefficient of the quality of nursing care in the infectious diseases ward was on the level of 90.75% of the desired status. The deficit of care (9.25%) was insignificant; $p > 0.05$.

Conclusions. The results of the study confirmed that a global coefficient of the quality of nursing care in the infectious diseases ward was on a very high level. Care deficit was insignificant. The improvement of the quality of care in the infectious diseases ward should concern mainly the standard of provision of information to patients, and the organization and documentation of nursing care.

Keywords: quality of nursing care, BOHIPSZO questionnaire, care in infectious diseases.

INTRODUCTION

A high quality of medical services provided, including nursing care, is an important instrument of the maintenance and development of hospitals in a market-based system. The quality of nursing care is the degree to which the care provided contributes to the achievement of the desired outcomes in the state of health of individuals/population, increasing their capability for and independence in self-care [1].

Many methods and research tools have been developed for the assessment of nursing care. In inpatient health care the BOHIPSZO questionnaire for the assessment of the level of nursing according to eight standards may be the most optimum tool. The BOHIPSZO questionnaire provides information pertaining to patient safety, protection against infections, hotel services, provision of information, objectification, self-care, therapeutic-nursing procedures, as well as organization and documentation of nursing care [2].

The patient evaluates the quality of nursing care from his/her own point of view. This evaluation is the result of own feelings and assessment of the actions undertaken by the medical staff. The patient expects not only the reliable performance of the medical procedure, but also anticipates mainly cordiality, assistance with pain, respect for own dignity, and the provision of proper conditions of stay in the ward [3]. The level of the quality of nursing care may vary among hospital wards. Among determinants of the quality of nursing care may be an engagement of the managerial staff, focusing on patients' needs, provision of patient safety, concern about health and life of services recipients, and protection against infection [4]. Therefore, it was considered important to recognize the level of the quality of nursing care in the infectious diseases ward.

OBJECTIVE

The aim of the study was subjective assessment of the level of the quality of nursing care provided to patients in the infectious diseases ward.

MATERIALS and METHOD

Population and study design

The study was conducted within the Students' Scientific Circle at the Higher School of Business and Entrepreneurship (WSBiP) in Ostrowiec Świętokrzyski, Poland, during the period from 1 August - 30 November 2017. The study design was submitted to the Dean's Office at the Higher School of Business and Entrepreneurship in Ostrowiec Świętokrzyski by the co-author of research – member of the Students' Scientific Circle at the WSBiP in Ostrowiec Świętokrzyski (Cat. No. 17 380/2017), and consent for the study was obtained from the Dean of the WSBiP in Ostrowiec Świętokrzyski. The study was carried out among patients who received round-the-clock care in the infectious diseases ward at the Independent Public Teaching Hospital No. 1 in Lublin, after obtaining consent from the Director. The study included a total number of 105 patients with an infectious disease meeting the clinical criteria and confirmed by laboratory tests. The examined patients were aged from 18 - 69 years; mean age 27.7. A half of respondents (50.5%) were aged no more than 24 years. The number of females participating in the study was higher than that of males – 56.2% and 43.8%, respectively. More than a half of respondents were urban inhabitants (63.8%), compared to rural inhabitants (36.2%). The largest number of patients had higher education (35.3%), while the smallest number – primary school education (15.2%).

Method and research tool

The research method was a diagnostic survey, the technique – a questionnaire and participant observation. The tool for investigating an objective assessment of the level of patient care in the infectious diseases ward was the standard BOHIPSZO questionnaire according to H. Lenartowicz. The name of the questionnaire comes from the Polish acronym formed from the initial letters of the standards of care under evaluation: Patient safety; Protection against infection, Hotel services together with satisfaction of existential needs; Informing; Objectification; Self-care; and Therapeutic-nursing procedures. Assessment of the quality of care concerned 8 standards: patient safety, protection against infections, hotel conditions and satisfaction of existential needs, information for patients and their families, objectification and dignity of a patient, self-care, therapeutic-nursing, organization and documentation of nursing care. Individual standards of care in the BOHIPSZO questionnaire contain detailed criteria of assessment of the level of nursing. The standard tool used allowed the determination of strengths and weaknesses of nursing, and focus on actions to optimize nursing care in individual areas. The level of nursing was evaluated by the selection of one of the following answers: 'Yes', 'No', or 'not required' if the criterion did not apply to the patient [5, 6] - Tab. 1.

Table 1. BOHIPSZO questionnaire standards.

No.	Standard	Scores	Percentage value (%)
1.	Patient safety	35	14.6
2.	Protection against infections	23	9.6
3.	Hotel services and satisfaction of existential needs	30	12.5
4.	Information for patients and their families	14	5.8
5.	Objectification	37	15.4
6.	Self-care	25	10.4
7.	Therapeutic-nursing procedures	46	19.2
8.	Organization and documentation of nursing care	30	12.5
Total		240	100.0

Source: G. Gawel, A. Kowal, A. Rak: Ocena poziomu pielęgnowania metodą BOHIPSZO. *Pielęgniarstwo XXI wieku* 2003, 2, p. 55-61.

Statistical analysis

Statistical analysis of the collected research material was performed using the software package Statistica 10.0. StatSoft, while the numerical data were elaborated and graphically processed by means of Microsoft Excel 2010.

The p values $p < 0.05$ were considered statistically significant.

Individual standards of the BOHIPSZO questionnaire were analyzed with consideration of the variables such as respondents' gender, age, and education. In order to consider that the hypothesis is satisfied it was assumed that at least 90% of answers should be 'Yes'. It was assumed that when more than 90% of answers are 'Yes', the p significance assumes the value 1.

RESULTS

Characteristics of the study group

The study included 105 patients who received round-the-clock treatment in the infectious diseases ward due to the diagnosis of an infectious disease. Patients were selected at random. The criteria of exclusion of a patient from the study were: a severe state of health (difficulty with verbal contact), and the lack of patient's consent. Table 2 presents basic socio-demographic characteristics of the patients (independent variables).

Table 2. Structure of patients in the study according to gender, age, education, place of residence.

TYPE OF VARIABLE – INDEPENDENT VARIABLE			
Variable	Category	N	%
Gender	female	59	56.2
	male	46	43.8
Age	18-24	53	50.5
	25–69	52	49.5
Education	primary	16	15.2
	primary vocational	21	20.0
	secondary school	31	29.5
	higher	37	35.3
Place of residence	rural	38	36.2
	urban	67	63.8
Total		105	100.0

The number of females participating in the study was slightly higher (56.2%), compared to males (43.8%). The largest number of respondents were aged between 18-69 (50.5%), whereas the smallest group were those aged 25-69 (49.5%). The largest number of the examined patients had higher education (35.3%), followed by those with secondary school education (29.5%), while the smallest group were respondents who had primary school education (15.2%). The majority of patients in the study group lived in urban areas (63.8%), compared to rural inhabitants (36.2%).

Patient safety in the ward

The study showed that the actions undertaken by nurses to ensure patient safety in the infectious diseases ward were on the level of 94% - Tab. 3, Fig. 1.

Table 3. Patient safety in the ward according to respondents' gender, age, and education.

Independent variable		Distribution of respondents acc. To assessment		Test
		'YES'	'NO'	
Gender	female	56	3	P = 0.035 $\chi^2 = 0,852$
	male	43	3	
Age	18-24	49	4	P = 0.647 $\chi^2 = 0,211$
	25-69	50	2	
Education	primary	16	0	p = 0.074 $\chi^2 = 6,937$
	primary vocational	17	4	
	secondary school	30	1	
	higher	36	1	
Total		99	6	

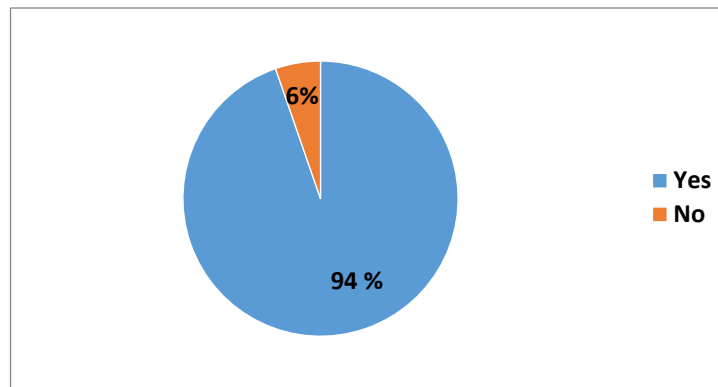


Figure 1. Patient safety in the ward (%).

The deficit of nursing care considering the standard ‘Patient safety’ ranged within 6%, and concerned mainly the lack of appropriate night lighting above the patient’s bed and no safety ring within the patient’s reach (in the bathroom, toilet). It was also found that a part of the respondents did not require the provision of safety regarding some criteria. The total score for the answer ‘*not required*’ was on the level of 6%.

Based on the statistical analyses and the patients’ answers it was found that there was no reason to reject the hypothesis: ‘*Patients treated in the infectious diseases ward are provided safety*’, because the deficit of care was statistically insignificant. No correlations were observed according to gender, age, and education; ($p > 0.05$).

Protection of patients against infection

Analysis of the collected material demonstrated that the actions undertaken by nurses to protect patients against infection were provided on the level of 96% - Tab. 4, Fig. 2.

Table 4. Protection of patients against infection according to respondents’ gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		‘YES’	‘NO’	
Gender	female	58	1	P = 0.367 $\chi^2 = 0,813$
	male	43	3	
Age	18-24	51	2	P = 0.077 $\chi^2 = 3,121$
	25-69	50	2	
Education	primary	16	0	P = 0.333 $\chi^2 = 3,409$
	primary vocational	19	2	
	secondary school	30	1	
	higher	36	1	
Total		101	4	

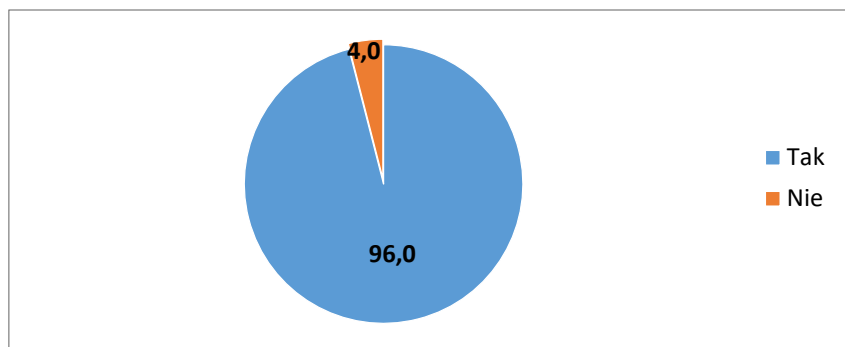


Figure 2. Protection of patients against infection %.

The deficit of protection of patients against infection among the examined population was on the level of 4% and concerned mainly the handling of dirty bed linen and hospital clothing, disinfection of beds, mattresses, and bedside cabinets. With respect to some criteria a part of respondents did not require the provision of protection against infection. The total score concerning the answer 'not required' was 10%.

Based on the statistical analysis and patients' answers it was found that there was no reason to reject the hypothesis: 'Patients in the ward are provided safety against infection', because the deficit of care was insignificant. No correlations were observed according to gender, age, and education ($p > 0.05$).

Hotel services together with satisfaction of existential needs of patients

Analysis of the respondents' answers showed that actions undertaken by nurses to satisfy existential needs of patients were provided on the level of 97% - Tab. 5, Fig. 3.

Table 5. Hotel services together with satisfaction of existential needs of patients according to gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		'YES'	'NO'	
Gender	female	56	3	p = 0,593 $\chi^2 = 0,295$
	male	45	1	
Age	18-24	51	2	p = 0,367 $\chi^2 = 0,813$
	25-69	50	2	
Education	primary	16	0	p = 0,444 $\chi^2 = 2,677$
	primary vocational	21	0	
	secondary school	29	2	
	higher	35	2	
Total		101	4	

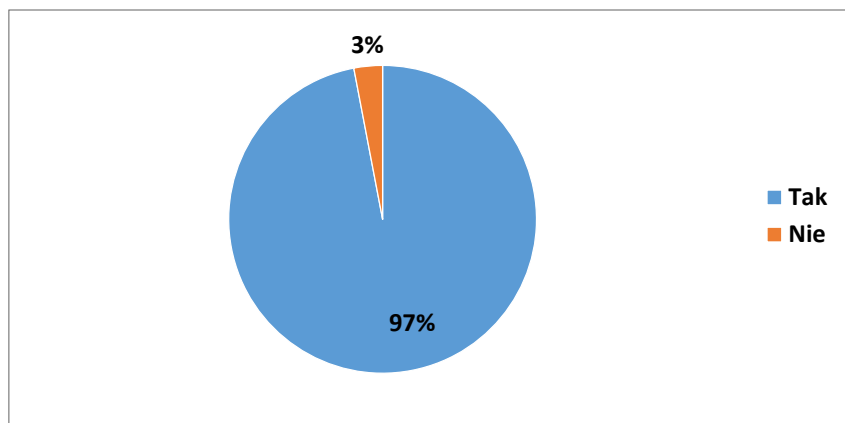


Figure 3. Hotel services together with satisfaction of existential needs of patients %.

The deficit of care within the standard ‘Hotel services together with satisfaction of existential needs’ was 3%, and concerned mainly wakening the patient to measure body temperature and provision of peace and quiet. The total score concerning the answer ‘not required’ was 5%.

Based on patients’ evaluations and statistical analysis it was found that there was no reason to reject the hypothesis: ‘Hotel services and existential needs in the infectious diseases ward are provided’, because the deficit of care was insignificant. No correlations were observed according to gender, age, and education ($p > 0.05$).

Informing

The standard of informing patients treated in the infectious diseases ward was observed by nurses on the level of 71% - Tab. 6, Fig. 4.

Table 6. Informing patients according to respondents’ gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		YES'	'NO'	
Gender	female	37	22	$p = 0,955$ $\chi^2 = 0,032$
	male	30	16	
Age	18-24	33	20	$p = 0,802$ $\chi^2 = 0,063$
	25-69	34	18	
Education	primary	16	0	$p = 0,049$ $\chi^2 = 7,851$
	primary vocational	21	0	
	secondary school	14	17	
	higher	16	21	
Total		67	38	

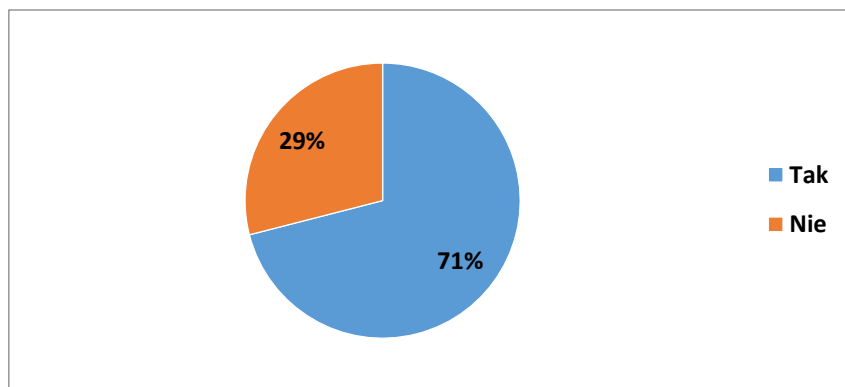


Figure 4. Informing patients %.

The deficit of care with respect to the standard ‘Informing’ was 29%, and concerned mainly not knowing by patients the surname of the attending physician, charge nurse, and the nurse responsible for patient nursing. Regarding some criteria a part of respondents did not require informing. The total score pertaining to the answer ‘*not required*’ was approximately 15%.

Based on patients’ evaluations and statistical analysis it was found that there was no reason to reject the hypothesis: ‘*Patients in the infectious diseases ward are informed by nurses in accordance with their wishes*’, because the deficit of care was insignificant; ($p > 0.05$). The assessments did not correlate with gender, age, and education ($p > 0.05$). A significant relationship was observed between the respondents’ opinions about informing in accordance with wishes, and their level of education ($p = 0.049$). The higher the level of education of patients, the more frequently they mentioned not being sufficiently informed.

Objectification of a patient

The examined patients most frequently considered that during treatment in the infectious diseases ward they were not objectified by nurses, the care coefficient was 97% - Tab. 7, Fig. 5.

Table 7. Objectification according to respondents’ gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		‘YES’	‘NO’	
Gender	female	55	4	$p = 0,333$ $\chi^2 = 0,938$
	male	44	2	
Age	18-24	51	2	$p = 0,307$ $\chi^2 = 1,040$
	25-69	48	4	
Education	primary	15	1	$p = 0,744$ $\chi^2 = 1,238$
	primary vocational	21	0	
	secondary school	29	2	
	higher	34	3	
Total		99	6	

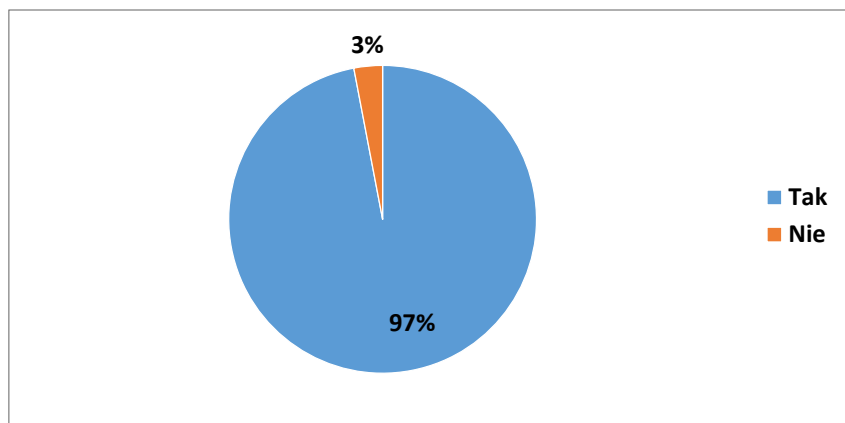


Figure 5. Objectification (%).

The value of deficit of care regarding objectification of patients was 3%, and concerned the organization of patient's free time. Concerning the answer 'not required' none of the respondents provided an answer.

Based on patients' evaluations and statistical analysis it was found that there was no reason to reject the hypothesis: 'Nurses respect objectification and dignity of patients treated in the infectious diseases ward', because the deficit of care was insignificant; $p > 0.05$. Analysis using the chi-square test did not show any correlations between answers and respondents' gender, age, and education; $p > 0.05$.

Self-care

Patients were prepared by nursing staff for self-care in home conditions on the level of 92% - Tab. 8, Fig. 6.

Table 8. Self-care according to respondents' gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		'YES'	'NO'	
Gender	female	53	6	P = 0.909 $\chi^2 = 0,013$
	male	42	4	
Age	18-24	49	4	P = 0.767 $\chi^2 = 0,088$
	25-69	46	6	
Education	primary	16	0	P = 0.733 $\chi^2 = 1,283$
	primary vocational	19	2	
	secondary school	28	3	
	higher	32	5	
Total		95	10	

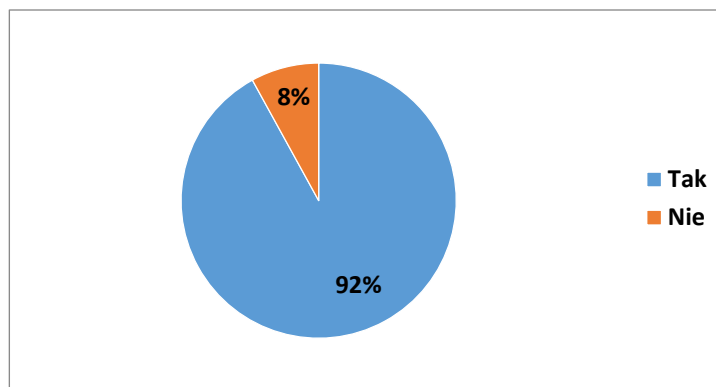


Figure 6. Self-care %.

The value of deficit in the area of the preparation of a patient for self-care in home conditions was 8%, and concerned mainly information pertaining to health promoting life style. With respect to some criteria a part of respondents did not require preparation for self-care. Total score with respect to the answer ‘*not required*’ was approximately 6%.

Based on patients’ evaluations and statistical analysis it was found that there was no reason to reject the hypothesis: ‘*Nurses in the infectious diseases ward prepare patients to self-care in home conditions*’, because the deficit of care was statistically insignificant; $p > 0.05$. Analysis using the chi-square test did not show any correlations between answers and respondents’ gender, age, and education; $p > 0.05$.

Therapeutic-nursing procedures are professionally performed

Based on the result of study it was confirmed that therapeutic-nursing procedures with respect to patients were professionally performed on the level of 99% - Tab. 9, Fig. 7.

Table 9. Therapeutic-nursing procedures according to respondents’ gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		‘YES’	‘NO’	
Gender	female	58	1	P = 0.367 $\chi^2 = 0,813$
	male	43	3	
Age	18-24	51	2	P = 0.077 $\chi^2 = 3,121$
	25-69	50	2	
Education	primary	15	1	P = 0.901 $\chi^2 = 0,582$
	primary vocational	20	1	
	secondary school	30	1	
	higher	36	1	
Total		101	4	

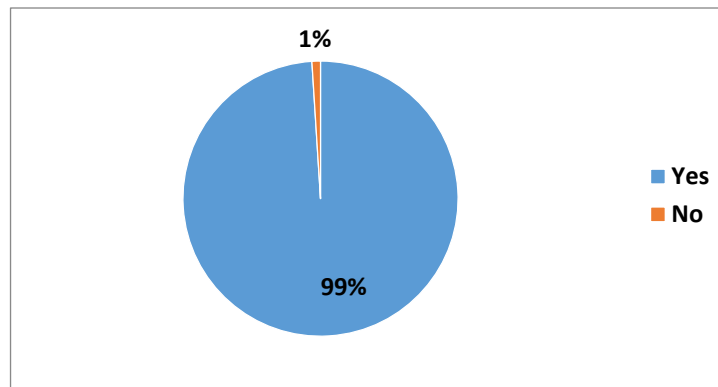


Figure 7. Therapeutic-nursing procedures %.

Deficit of nursing care with respect to professional performance of therapeutic-nursing procedures was 1%, and concerned mainly the performance of anti-inflammation procedures. Regarding the answer 'not required' none of the respondents provided an answer.

Based on patients' evaluations and statistical analysis it was found that there was no reason to reject the hypothesis: 'Nurses in the infectious diseases ward professionally perform therapeutic-nursing procedures', because the deficit of care was statistically insignificant. No correlations were observed between assessments and the respondents' gender, age, and education; $p > 0.05$.

Organization and documentation of nursing care

Based on the study of the level of nursing of patients in the infectious diseases ward it was found that organization and documentation of nursing care was provided on the level of 80% - Tab. 10, Fig. 8.

Table 10. Organization and documentation of nursing care according to respondents' gender, age, and education.

Independent variable		Distribution of respondents acc. to assessment		Test
		'YES'	'NO'	
Gender	female	16	43	P = 0.753 $\chi^2 = 0,0989$
	male	10	36	
Age	18-24	12	41	P = 0.763 $\chi^2 = 0,0909$
	25-69	14	38	
Education	primary	2	14	P = 0.019 $\chi^2 = 9,96$
	primary vocational	1	20	
	secondary school	6	25	
	higher	17	20	
Total		26	79	

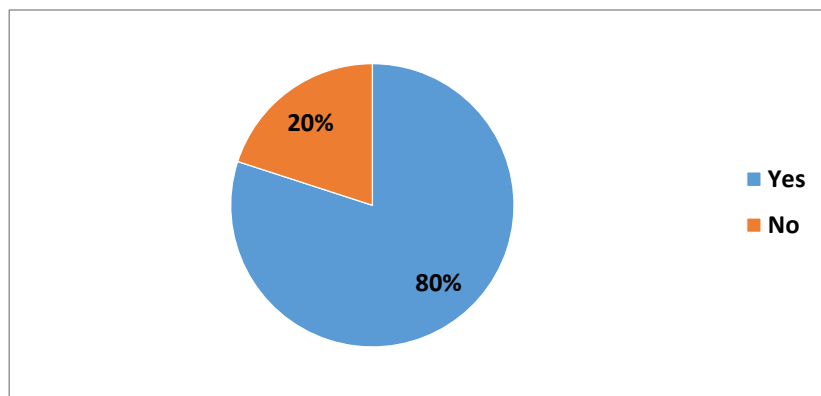


Figure 8. Organization and documentation of nursing care %.

Based on the collected research material it was confirmed that the deficit regarding the organization and documentation of nursing care in the infectious diseases ward was 20%. The study showed that this deficit concerned the nursing care plan, which should be agreed with and available for the patient. Participant observation demonstrated that there were shortcomings concerning the nursing roster while reporting to the next shift. The total score with respect to the answer ‘*not required*’ was approximately 8%.

Based on patients’ evaluations, participant observation, and statistical analysis it was found that there was no reason to reject the hypothesis: ‘*Nurses correctly organize and document care provided in the infectious diseases ward*’; $p > 0.05$. Analysis using the chi-square test did not show any correlations between assessments and respondents’ gender, age, and education; $p > 0.05$. However, a statistically significant relationship was observed between the respondents’ opinions concerning the organization and documentation of care, and their level of education. The higher the level of education, the larger the number of patients who reported shortcomings in the nursing documentation; $p < 0.05$.

Global coefficient of the quality of nursing care in the infectious diseases ward

After analysis of the collected research material the global coefficient of the provided nursing care and the global deficit of nursing care in the infectious diseases ward were calculated with respect to all standards dealt with in the BOHIPSZO questionnaire – Tab. 11, Fig 9.

Table 11. Global coefficient of the quality of nursing care in the infectious diseases ward according to the BOHIPSZO questionnaire.

No.	Standard	'YES' care provided (%)	'NO' deficit of care (%)	Significance of deficit
1.	Patient safety	94.0	6.0	p>0.05
2.	Protection against infections	96.0	4.0	p>0.05
3.	Hotel services with satisfaction of existential needs	97.0	3.0	p>0.05
4.	Informing	71.0	29.0	p>0.05
5.	Objectification	97.0	3.0	p>0.05
6.	Self-care	92.0	8.0	p>0.05
7.	Therapeutic-nursing procedures	99.0	1.0	p>0.05
8.	Organization and documentation of nursing care	80.0	20.0	p>0.05
Global coefficient		90.75	9.25	p>0.05

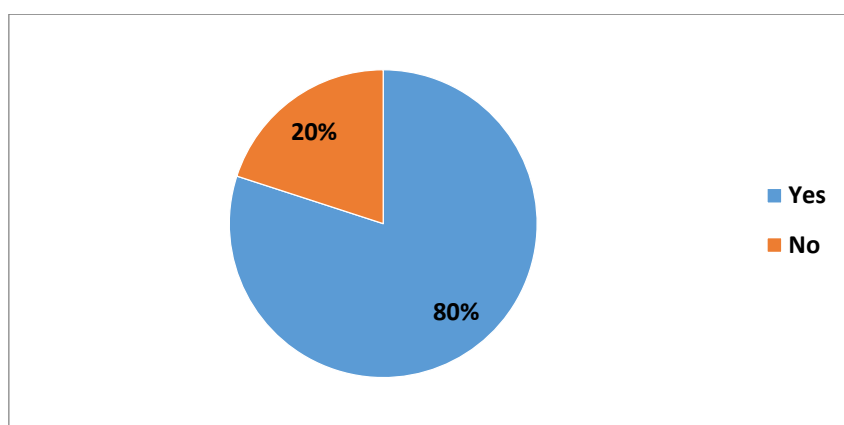


Figure 9. Global coefficient of the quality of nursing care in the infectious diseases ward according to the BOHIPSZO questionnaire %.

The highest level of care concerned professional performance of therapeutic-nursing procedures (99%), followed by hotel services with satisfaction of existential needs, and respecting objectification and dignity of a patient in the ward (97% each). The lowest level of nursing care was observed in the area of informing patients to the degree in accordance with their wishes (71%), followed by efficient organization and documentation of care (80%). The global nursing care coefficient in the infectious diseases ward within eight standards contained in the BOHIPSZO questionnaire was on the level of 90.75% of the desired status. The deficit of care was 9.25%, which was statistically insignificant; p>0.05.

Discussion

The study presents the assessment of the level of quality of nursing care in the infectious diseases ward, where adult patients were hospitalized with an infectious disease meeting the clinical criteria and confirmed by laboratory tests. The main criteria of assessment of the level of nursing care were standards in accordance with the BOHIPSZO questionnaire: provision of patient safety, protection against infection, provision of hotel conditions and satisfaction of existential needs of patients, informing patients according with their wishes, respecting objectification and dignity of patients, preparation of patients to self-care in home conditions, professional performance of therapeutic-nursing procedures, as well as organization and documentation of care provided by nurses in the infectious diseases ward.

In the opinion of Cronenwett in the course of patient care it is possible on many occasions to prevent (42%) undesirable events threatening patient's life [7]. Studies conducted in Poland showed that the availability of effective safety ring within the patient's reach, appropriately arranged and lighted rooms and halls, properly cleaned floors, as well as installation of handles and handrails, are the most important elements which ensure patient safety in the ward [8 9]. Gawel together with a team of researchers confirmed that $\frac{1}{3}$ of patients in a cardiology ward considered that the floor surface in the hall was too slippery, and consequently poorly safe, whereas 12.5% of this group of patients mentioned that the rooms were inappropriately lighted [10]. Own study showed that the coefficient of the provision of safety for patients in the infectious diseases ward was 94%. The deficit of care was on the level of 6%, and concerned mainly the lack of proper night lighting over the patient's bed, and no safety ring within the patient's reach (in the bathroom, toilet). The deficit of care was insignificant; $p>0.05$.

According to Wasilewski et al., in the neurosurgery ward the care coefficient was high - 96% [11]. In opinions of Kwiatkowski and Kwiatkowska the patients who were victims due to hospital-acquired infection use changes in the law which facilitate pursuing their claims [12]. Sierpińska emphasized that in protection of a patient against infection it is very important to observe specified standards and procedures, as well as current legal regulations. The protection of a patient against infection is also an expression of a high level of the quality of nursing care. Apart from this, it reduces the costs of treatment, shortens the time of hospitalization, and decreases the number of claims by patients and their families due to hospital-acquired infections [13, 14]. Own study demonstrated the coefficient of prevention of hospital-acquired infections was on a high level (96%). The deficit of prevention of infections in the ward (4%) was insignificant ($p>0.05$), and mainly concerned the handling of dirty bed linen and hospital clothing, disinfection of beds, mattresses, and bedside cabinets.

The study conducted by Gawel et al. among patients in the cardiology ward confirmed that the provision of hotel services together with satisfaction of existential needs was on the level of 75%. To the deficit of care contributed hospital accommodation conditions, including multiple occupancy rooms, rhythm of work in the ward, and a high intensity of nursing interventions [10]. Own study showed that in the infectious diseases ward the hotel services with satisfaction of existential needs were on a high level (97%). The deficit of care (3%) concerned mainly the waking of a patient to measure body temperature, provision of peace and quiet, and was insignificant; $p>0.05$.

Based on the results of a study carried out by Przychodzka et al. the standard of informing patients by nurses was observed on the level of 79%. Most often the patients reported the deficit of care concerning not knowing the surname of the attending physician, charge nurse, and the nurse responsible for nursing. In the hospital the habit of presentation of the staff to patients and providing their function in the neurosurgery ward was rare [15]. Based on own study it was found that the standard of informing patients by nurses in the infectious diseases ward was observed on the level of 71%. The deficit of care (29%) was insignificant; $p>0.05$. A significant relationship was confirmed between the respondents' opinions about informing patients in accordance with their wishes, and their level of education ($p=0.049$). The higher the level of education of patients, the more frequently they reported not being sufficiently informed by nurses.

In the opinion of Lorencowicz et al. the care coefficient in the neurology ward in the area of the provision of objectification of a patient was 75% [16]. The result of own study demonstrated that the care coefficient in the infectious diseases ward regarding objectification of a patient was high (97%). The deficit of care was 3%, concerned the organization of patient's free time, and was insignificant; $p>0.05$.

According to Polish researchers (Krukowski, Kretowicz, Gaworska-Krzemińska) the standard regarding the preparation of patients for self-care in an inpatient hospice was observed by the nurses on the level of 81% [17]. Gawel together with a team of researchers confirmed that 70% of patients treated in cardiology ward admitted that they were informed about the risk factors and their elimination, and $\frac{2}{3}$ of the respondents obtained information concerning a proper diet [10]. Own study showed that in the infectious diseases ward the standard of the preparation of patients for self-care was on the level of 92%, and the deficit of care (8%) concerned mainly information about health promoting life style. This deficit was insignificant; $p>0.05$.

A study carried out by Krukowski et al. showed that the coefficient of observance of the standard in the area of performance of therapeutic-nursing procedures in patients who stayed in the inpatient hospice was on the level of 99% [17]. According to Gawel et al. the care coefficient regarding this standard was on the level of 86.1% [10]. The results of own study confirmed that the standard of performance of therapeutic-nursing procedures was on a high level 99%, the deficit of care (1%) pertained mainly to the performance of anti-inflammation procedures, and was insignificant; $p>0.05$.

The relevant literature shows that the standard of organization and documentation of nursing care in the neurology ward according to the BOHIPSZO questionnaire was perceived to be on the level of 81% [16]. Accreditation standards for Polish hospitals include also the surveillance over the quality of keeping medical records [18]. Own study showed that the standard of organization and documentation of nursing care in the infectious diseases ward was observed on the level of 80%. The deficit of care was on the level of 20%, and concerned the plan of care which was not always agreed with and available for the patient. Apart from this, during participant observation shortages were noted pertaining to passing the nursing roster to the next shift. It was observed that the higher the level of education of patients, the significantly more often they reported the lack of observance of the above-mentioned standard ; $p<0.05$.

In the opinions of Polish researchers (Przychodzka, Turowski), in the neurosurgery ward, the global coefficient regarding the observance of all standards according to the BOHIPSZO questionnaire was on the level of 88.2% [15]. Own study demonstrated that the global coefficient of the quality of nursing care in the infectious diseases ward was on the level of 90.75% of the desired status. The deficit of care was 9.25%, and was insignificant; $p > 0.05$.

Conclusions

1. Therapeutic-nursing procedures performed by nurses in the infectious diseases ward were on a very high level – the care coefficient was 99%.
2. Hotel services together with satisfaction of existential needs and objectification of patients by nurses were provided on a very high level (nursing care coefficient was 97% each).
3. Patients hospitalized in the infectious diseases ward were provided protection against infections on a very high level – the nursing care coefficient was 96%.
4. Patient safety in the infectious diseases ward was provided on a very high level – the nursing care coefficient was on the level of 94%.
5. Preparation of patients in the infectious diseases ward for self-care before discharge home was on a very high level - the nursing care coefficient was 92%.
6. A high level of nursing in the infectious diseases ward concerned the standard of organization and documentation of nursing care - the nursing care coefficient was on the level of 80%.
7. Patients hospitalized in the infectious diseases ward were informed on a good level – the nursing care coefficient was 71%, the deficit of care was statistically significant.
8. The global coefficient of the quality of nursing care in the infectious diseases ward was on the level of 90.75%, the deficit of nursing care was on the level of 9.25%, and was insignificant; $p > 0.05$.

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