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## **FUNCTIONAL EFFICIENCY OF THE ELDERLY HOSPITALIZED IN THE GERIATRIC WARD**

### **Sprawność funkcjonalna osób w podeszłym wieku hospitalizowanych na oddziale geriatrycznym**

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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

#### **Abstract (in Polish):**

##### **Cel pracy**

Starzenie się społeczeństwa sprawia, że problemom osób w podeszłym wieku poświęca się coraz więcej uwagi. Wiek podeszły, to czas, w którym gromadzi się wiele niekorzystnych dla człowieka czynników. Zapobieganie im lub wczesne ich likwidowanie może przyczynić się do wydłużenia sprawności funkcjonalnej seniorów, a więc do ich niezależności i samodzielności w zakresie codziennego funkcjonowania.

Cel pracy: Celem pracy była ocena sprawności funkcjonalnej osób starszych hospitalizowanych na oddziale geriatrycznym.

##### **Materiał i metody**

Badanie zostało przeprowadzone w Szpitalu Specjalistycznym imienia Henryka Klimontowicza w Gorlicach na Oddziale Geriatrycznym w okresie od XII 2018 roku do II 2019 roku. Badanie zostało

przeprowadzone w chwili przyjmowania pacjentów na oddział. W badaniu wzięło udział 105 pacjentów obu płci. Do badań użyto ankietę własnej konstrukcji, jako narzędzia badawcze zastosowano skale Barthel, ADL, IADL.

### **Wyniki**

W skali Barthel największy był udział osób, które uzyskały od 0 do 5 punktów, a więc charakteryzowały się bardzo niskim poziomem sprawności. Według skali IADL największy był udział osób uzyskujących od 9 do 11 punktów, co świadczy o bardzo niskim poziomie samodzielności. Odnotowano cztery różnice istotne statystycznie – między jedzeniem a ubieraniem się ( $p = 0,042$ ), korzystaniem z toalety ( $p = 0,020$ ), kontrolowania wydalania moczu i stolca ( $p = 0,003$ ) oraz kąpania się i mycia ( $p = 0,003$ ).

### **Wnioski**

Badania wykazują niski poziom sprawności funkcjonalnej osób starszych. Aby ta sprawność była jak najdłuższa ważne jest podejmowanie aktywności fizycznej. Istotne jest prowadzenie systematycznej oceny stanu funkcjonalnego seniorów

### **Abstract (in English):**

#### **Aim**

The aging of the population means that more and more attention is paid to the problems of elderly people. Advanced age is a time when many factors that are unfavorable to human beings accumulate. Prevention or early elimination of them may contribute to the extension of the functional capacity of seniors.

The aim of the work: The aim of the work was to evaluate the functional condition of elderly people hospitalized in the geriatric ward.

#### **Material and methods**

The study was conducted at the Specialist Hospital of Henryk Klimontowicz in Gorlice in the Geriatric ward in the period from December 2018 to February 2019. The study was conducted when patients were admitted to the ward. In total, 105 patients of both genders participated in the study. The study was based on a self-made questionnaire, Barthel, ADL and IADL scales were used as research tools.

#### **Results**

On the Barthel scale, the largest group constituted patients who obtained from 0 to 5 points, so they were characterized by a very low level of functional fitness. According to the IADL scale, the largest group of patients scored from 9 to 11 points, which proves a very low level of independence. There were four statistically significant differences - between eating and getting dressed ( $p=0.042$ ), using the toilet ( $p=0.020$ ), controlling urine and stool excretion ( $p=0.003$ ), and bathing and washing ( $p=0.003$ ).

#### **Conclusions**

The studies show a low level of functional efficiency of older people. In order to prolong their fitness, it is important to undertake physical activity. It is important to conduct a systematic assessment of the functional status of seniors.

**Keywords (in Polish):** wiek podeszły, hospitalizacja, sprawność funkcjonalna.

**Keywords (in English):** hospitalization, old age, functional efficiency.

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### **Short title**

Sprawność funkcjonalna osób w podeszłym wieku

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## **Introduction**

The increasing aging of the population is an undeniable fact. The continuous rise in life expectancy and the growing proportion of people over 80 in the population is a challenge for many medical fields, especially for geriatrics [1]. According to the Central Statistical Office (CSO) data, in 2050 the percentage of people aged 65 will exceed by 30% [2], and the percentage of people over 80 will increase to 7.2% by 2035 [3].

Human aging is a natural and common process. The changes it brings are gradual and irreversible [4]. They occur in three spheres: biological, psychological and social [5]. According to WHO, old age begins at the age of 60 and is divided into 3 stages: old age (60-75), senility (75-90), and decrepitude (90 and over) [6].

One of the components of propitious aging and is maintaining functional fitness. Full functional fitness gives the elderly the opportunity to function independently in everyday life, the ability to self-service along with securing their own needs while maintaining intellectual and physical fitness [3]. Functional performance is influenced by both health and socio-demographic factors. The possible emotional problems and overlapping diseases often limit or even make it impossible to perform everyday life activities. In such a situation, these people then require constant care from their relatives in meeting the basic needs of everyday life [5].

Many problems faced by the elderly are the reason for frequent hospitalizations in various departments, but especially in the geriatrics department. It is then very important to evaluate the functional performance. There are many tools for it described in the literature. Scales of functional status are used to objectively assess the ability to cope with everyday activities.

The most frequently used scale to assess the ability to perform basic life needs is the Katz scale (ADL) and Bartel. The Lawton Scale (IADL) is used to assess complex activities of daily living. It is important to systematically attempt to assess the functional fitness of the elderly. This assessment is necessary to recognize the existing weaknesses [7]. It also helps in the diagnosis and treatment of many diseases [8].

The assessment of the functional performance of the elderly is nowadays the most important issue raised in geriatrics.

### **Objective of the work**

The aim of the study was to assess the functional efficiency of elderly people hospitalized in the geriatric ward.

### **Material and methods**

The study used a self-constructed questionnaire. The research tools that were used were the standardized Barthel Scale, Katz Scale (ADL), Lawton Scale (IADL) questionnaires. The research technique used in the study was a self-developed questionnaire. The survey questionnaire contained 9 questions concerning, inter alia, sociodemographic data such as age, gender, education.

The Barthel scale is used to assess the functional fitness of patients. It helps to determine which activities and to what extent the sick person can do independently and which they need help to do. The Bartel scale consists of 10 everyday activities. For each activity, respondents choose the answer that best describes the patient's condition. Each activity is assigned points from 0 to 15. Finally, they should be added up. The more points the patient receives, the greater their independence.

The Katz Scale (ADL) is a scale for assessing basic life activities. It was developed in 1970 by an American gerontologist Sidney Katz. It allows for assessing the patient's ability to function independently. The fewer points are amassed, the more a person requires help of others in carrying out basic activities of daily life. On point is awarded for each activity that the patient is able to perform independently. Obtaining 5 - 6 points means that the person is fit and independent, gaining 3 - 4 points indicates that the person is moderately disabled, while attaining 2 or fewer points means a significant disability, inability to function independently, necessary help from other people [8].

The Lawton Scale (IADL) is used to assess complex activities of daily living. It examines the ability of the elderly to cope with the contemporary environment. A maximum of 24 points can be obtained. One answer must be chosen. A patient who performs a given activity on his own receives 3 points. Two points are given if he or she requires a little help, and 1 point if they are unable to perform the activity on their own. The total number of points is only relevant for the specific patient. A drop in the number of points with time indicates a deterioration of health [8].

### **Organization and course of research**

The study was conducted in the period from December 2018 to February 2019 at the Geriatric Department of the Specialist Hospital Henryk Klimontowicz in Gorlice. The research was approved by the director of the facility. 105 patients participated in the study, they were both women and men over 60 years of age. The study was conducted in patients admitted consecutively to the ward at the time of admission. These persons were informed about the voluntary and anonymous nature of the research and they gave their consent to take part in it.

The criterion that excluded the patient from the study, apart from the lack of consent, was the lack of contact with the patient and the inability to establish a logical interaction with him. The questions included in the questionnaire were read to the respondents.

### Statistical analysis

In order to answer the research questions, statistical analyses were carried out using the IBM SPSS Statistics 23 package. The basic descriptive statistics were analyzed with the Kolmogorov-Smirnow tests, Mann-Whitney U tests, Friedman tests and Kruskal-Wallis tests, as well as frequency analysis. The significance level was  $p < 0.05$ . P scores ranging from 0.05 to 0.1 were considered to be close to statistical significance (statistical trend level).

### Results

The study group included 105 patients of the geriatric ward. The characteristics of the study group are presented in Table 1.

**Table 1. Characteristics of the studied group.**

Demographic features		N	%
Sex	Female	56	53,3
	Male	49	46,7
Age	60-74	20	19
	75-90	66	62,9
	over 90	19	18,1
Education	Primary	12	11,4
	Vocational	54	51,4
	Secondary	35	33,3
	Higher	4	3,8
Marital status	Single	11	10,5
	Married	36	34,3
	Divorced	3	2,9
	Widow/Widower	55	52,4
Family status	Alone	17	16,20
	With a family	68	64,8
	With a spouse	10	9,5
	Staying in nursing home	10	9,5

Table 2 computes the basic descriptive statistics for the test results used in the study. The Kolmogorov-Smirnov test was calculated in order to check whether the obtained distributions of the results of the examined variables are close to the normal distribution. All distributions were significantly different from the Gaussian distribution. For this reason, it was decided to perform analyzes using non-parametric tests.

**Table 2. Basic descriptive statistics of quantitative variables**

	M	Me	SD	Sk.	Kurt.	Min.	Maks.	K-S	p
Barthel	41,05	35	36,77	0,18	-1,64	0	90	0,17	<0,001
IADL	13,47	11	5,39	1,11	0,04	9	27	0,20	<0,001
ADL	2,58	2	2,53	0,35	-1,63	0	6	0,22	<0,001

M- mean, Me - median, SD - standard deviation, Sk - skewness, Kurt.- curiosity, Mini./Max. - the lowest and the highest value of the distribution, K-S - the result of the Kolmogorov-Smirnov test, p - statistical significance

### The level of functional impairment of elderly people hospitalized in a geriatric ward

On the Barthel scale, the largest group constituted patients who obtained from 0 to 5 points, so they were characterized by a very low level of functional fitness. On the other hand, the second most frequently recorded group were people with results in the range of 90-95 points, i.e. with only minimal functional fitness deficits. The Barthel scale showed that the condition of people in the geriatric ward is very diverse.

According to the IADL scale, the largest group of patients scored from 9 to 11 points, which proves a very low level of independence. Contrary to the Barthel scale, people who indicate that most or all tasks are performed independently, without help, are in a clear minority. The distribution of the results on the ADL scale was inverse to the Gaussian distribution. There were clearly the lowest number of people who obtained the average number of points on the scale from 0 to 6 points. People scoring 0 points predominated, i.e. people who were completely disabled, but there was also a large number of people scoring the maximum number of points.

### The level of coping with various aspects of everyday life

Another analysis of studies looked at which activities of daily living the respondents were doing best and in which they needed help. In the items listed in the ADL questionnaire, a frequency analysis was performed, the results of which are presented in Table 3. As expected, the subjects coped best with eating meals. It was checked whether the differences in the level of coping with certain activities are statistically significant. The performed Friedman's test turned out to be statistically significant,  $\chi^2(5) = 96.67$ ;  $p < 0.001$ . Thus, a series of post-hoc analyses were performed using the Dunn-Sidak tests.

There were four statistically significant differences - between eating and getting dressed ( $p = 0.042$ ), using the toilet ( $p = 0.020$ ), controlling urine and stool excretion ( $p = 0.003$ ), and bathing and washing ( $p = 0.003$ ). The obtained results indicate that while eating was significantly the least disturbed, there is no single, clearly visible activity with the highest degree of disturbance.

**Table 3. The number of people getting 0 and 1 point in the scope of individual items of the ADL questionnaire**

	0 pkt.		1 pkt.	
	N	%	N	%
Bathing and washing	70	66,7%	35	33,3%
Getting dressed	63	60,0%	42	40,0%
Using the toilet	65	61,9%	40	38,1%

Moving	55	52,4%	50	47,6%
Controlling urine and stool excretion	70	66,7%	35	33,3%
Eating	36	34,3%	69	65,7%

N – number of individuals

A similar analysis was performed for individual items of the IADL questionnaire (Table 4 presents the mean and standard deviation for each item). The Friedman test result was again statistically significant  $\chi^2(8) = 333,80; p < 0.001$ .

There were several statistically significant differences between individual activities:

- between the ability to do DIY (do it yourself) and carry out minor repairs at home and taking medication independently ( $p < 0.001$ ), manage money independently ( $p < 0.001$ ) and using the telephone ( $p < 0.001$ );
- between going home to get groceries and taking medication on your own ( $p < 0.001$ ), managing your own money ( $p < 0.001$ ) and using the telephone ( $p < 0.001$ );
- reaching a place beyond walking distance and taking medication alone ( $p = 0.001$ ), self-managing money ( $p < 0.001$ ) and using the telephone ( $p < 0.001$ );
- doing household chores and taking medication independently ( $p = 0.008$ ), self-managing money ( $p < 0.001$ ) and using the telephone ( $p < 0.001$ );
- independent laundry and self-administration ( $p = 0.043$ ), self-management of money ( $p < 0.001$ ) and using the telephone ( $p < 0.001$ );
- independent preparation of meals and independent money management ( $p = 0.001$ ) and using the telephone ( $p < 0.001$ ).

The analysis showed that respondents are best at using the phone independently, managing money and taking medications, while other aspects are much less effective. Although the lowest result was recorded in the field of DIY and minor repairs at home, statistical analyses did not show that this level was statistically significantly worse than other behaviors except for the three mentioned above.

**Table 4. The results obtained by the respondents in terms of the items in the IADL questionnaire**

	M	SD
Can you use the phone?	1,97	0,83
Are you able to reach places beyond walking distance?	1,32	0,61
Do you leave home for groceries?	1,30	0,61
Do you prepare meals yourself?	1,42	0,66
Can you do the housework yourself, e.g. cleaning?	1,37	0,64
Can you do DIY on your own or make small repairs at home?	1,14	0,43
Can you wash your clothes yourself?	1,41	0,65
Are you taking or could you take medication on your own?	1,70	0,80
Can you manage your money yourself?	1,82	0,84

M- mean, SD - standard deviation

The same analysis was performed for the Barthel Index. Before the analysis, it was necessary to unify the scale of individual items since some items had a two-item scale (0 or 5 points), some a three-item scale (0, 5 or 10 points), and others four-item scale (0, 5, 10 and 15 points). In all cases the patients' independence increased with the increase in the number of points. Comparing the results of such

scales would be wrong, so it was necessary to recode the results to the same scale. Thus, for all items, it was established that the maximum score was 15 points, the minimum score was 0 points, and the intermediate scores were scaled appropriately. The Friedman test result was again statistically significant  $\chi^2(9) = 134.37$ ;  $p < 0.001$ . Post-hoc analysis showed seven statistically significant differences. The results show that the subjects exhibited the lowest level of independence with regard to washing the whole body and physical activities. The highest level of independence was observed in eating and controlling defecation (Table 5).

**Table 5. The results obtained by the respondents for the items in the Barthel Index**

	M	SD
Eating meals	8,29	6,32
Movement (from bed to chair and back / sitting)	6,86	6,13
Maintaining personal hygiene	8,00	7,52
Using the toilet (wc)	6,64	6,77
Bathing, washing	4,86	7,05
Moving (on flat surfaces)	6,10	6,72
Going up and down stairs	5,21	6,75
Getting dressed and undressed	7,14	6,53
Controlling the stool / anal sphincter	8,36	7,00
Controlling urine / sphincters	6,71	6,41

M- mean, SD - standard deviation

#### **The level of fitness depending on the age and sex of the respondents**

In the last stage of the study, it was checked whether the level of functional fitness of the respondents with the result on the Barthel, IADL and ADL scales differs depending on the age and sex of the respondents. As an analysis using non-parametric tests was necessary, separate analyses for gender (Mann-Whitney U tests) and Kruskal-Wallis tests (for age groups) were performed.

The results of women and men were compared. In Table 6, there are no statistically significant or even close to statistical significance differences between the sexes. It should therefore be assumed that women did not differ significantly from men in terms of the level of independence.

**Table 6. The level of independence measured by Barthel, IADL and ADL scales depending on the sex of the respondents**

	Female (n = 56)		Male (n = 49)		U	Z	p	r
	M	SD	M	SD				
Barthel	38,30	36,83	44,18	36,83	1238,5	-0,87	0,383	0,09
IADL	12,82	4,66	14,20	6,08	1208,5	-1,08	0,282	0,10
ADL	2,45	2,49	2,73	2,60	1310,5	-0,41	0,683	0,04

M- mean, SD - standard deviation, U - result of the Mann-Whitney U test Z - standardized value p - statistical significance r - effect strength

Subsequently, the differences between the three compared age groups were examined. As shown in Table 7, there was one statistically significant Kruskal-Wallis result in terms of the level of the IADL scale. Thus, post-hoc analyzes were performed using the Dunn-Sidak tests. One difference was statistically



significant. The result on the IADL scale was statistically significantly lower in the group of people over 90 than in the group of people aged 60-75 ( $p = 0.033$ ). There was also a difference at the level of the statistical tendency between people aged over 90 and people aged 75-90 ( $p = 0.053$ ). Except the difference between the groups aged 60-75 and 75-90, there were no differences even at the level of the statistical tendency. In terms of the other two groups, it is clearly visible that the mean values decrease with age, however, it is worth paying attention to a vast range of the standard deviation, which indicates a very large variation of results within the age groups.

**Table 7. The level of independence measured by Barthel, IADL and ADL scales depending on the age of the respondents**

	Age	N	M	SD	
Barthel	60-75	20	56,00	41,88	H(2) = 4,29 p = 0,117
	75-90	66	38,71	35,29	
	over 90	19	33,42	33,67	
IADL	60-75	20	17,65	7,15	H(2) = 7,54 p = 0,023
	75-90	66	12,70	4,45	
	over 90	19	11,74	4,15	
ADL	60-75	20	3,65	2,87	H(2) = 3,64 p = 0,162
	75-90	66	2,41	2,42	
	over 90	19	2,05	2,34	

N – number of individuals, M- mean, SD - standard deviation

### Discussion

The aging process involves many unfavorable changes that affect almost all systems and organs. With age, the number of chronic diseases, often associated with pain and disability, also increases, which further deteriorates the functional efficiency of an aging person [9].

Functional fitness is the sum of various deficits, regardless of diseases and other influencing factors [10]. The negative effects of independence in terms of daily activities increase the feeling of disability and powerlessness. They increase the frequency of hospitalization and institutionalization [11]. This is confirmed by the data of the National Institute of Occupational Hygiene, which say that elderly people are hospitalized 2-3 times more often than the general population [12].

An important element of properly exercised care is the ability to assess the functional state, which enables proper targeting of diagnostic and therapeutic activities [9]. The assessment of the functional efficiency of a geriatric patient is also aimed at determining his independence in performing basic everyday activities and the ability to function independently [13].

A higher level of functional fitness may affect better well-being of the senior, the quality of his life and may have an impact on the extension of life. The deterioration of the efficiency may cause complications of existing diseases and, as a result, accelerate death [14]. The problems and difficulties faced by the elderly are becoming more and more common. They often need support and help. The geriatric ward, thanks to a comprehensive approach to the patient, ensures rational choice of diagnosis and treatment, rehabilitation and education of elderly people.

The results of the current research conducted among 105 patients of the geriatric ward showed that women were hospitalized more often (53.3%), with men constituting 46.7%. These results are in line with

the generally available results of studies by other authors, in which women were also the dominant group of hospitalized patients [9, 15]. This is due to the increase in life expectancy of women.

The most frequent patients in the ward were in the 75-90 age group (62.9%). After the age of 75, the health condition deteriorates in the elderly.

In this group of seniors, the demand for care and medical services is particularly increasing [16]. This is confirmed by the results of studies conducted by Doroszkiewicz et al. At the Department of Geriatrics in Białystok, where the vast majority (92%) were people of late old age, ie 75 years old and more [14]. Also, in the studies conducted by Markiewicz and Cebulak among patients at home long-term nursing care in non-public health care institutions in the Śląskie Voivodeship, more than half of the respondents (55, 26%) were patients aged 75-89 [17].

The results of the research conducted by the Central Statistical Office in 2017 showed that the elderly population living in cities accounts for over 26% of the population, while the rural population constitutes 21% [18]. The current research showed a significant prevalence (64.8%) of people admitted to the geriatric ward from rural areas. Similar results were obtained by Fidecki et al., They conducted research among men living in the Lubelskie Voivodeship, where 56.8% of the respondents also lived in rural areas [19]. Starczewska et al. had a different result as they found out that 56.6% of their respondents lived in a city [20]. Also, studies conducted by Doroszkiewicz et al. Showed a significant prevalence (71%) of a city's inhabitants [21].

Due to the distinct nature of the aging process, it is often difficult to assess the functional fitness of the elderly. The evaluation process should be multi-faceted and should be based on careful observation.

The current research showed that, despite the fact that the level of limitation of functional fitness of the respondents was varied, people with a large fitness deficit dominated. They obtained very low scores on all three scales. On the Barthel scale, the number of people with the lowest score of 0 - 5, i.e. those with complete disability, was the highest, but there were also a lot of people scoring 90-95 points, i.e. able to do function independently. Fidecki et al. obtained slightly different results in their research carried out using the Barthel scale. They studied a group of 113 patients staying in neurological departments of hospitals in the city of Lublin. They showed that as many as 52.2% of patients are moderately disabled [22], while the studies conducted by Lewko et al. showed 53% of the disabled [23]. As can be seen, the level of limitation of the functional fitness of the elderly based on the Barthel scale is very diverse.

Research conducted on the basis of the IADL scale, assessing efficiency in terms of complex everyday activities, showed that the largest group were patients scoring from 9 to 11 points, which proves a very low level of independence. Similar research results were obtained by Doroszkiewicz et al., where as many as 3/4 of the surveyed elderly people (76%) were seriously dependent on the help of other people [21]. Haor et al. Obtained different results. In their research, a vast majority of 47% of people were completely independent in terms of IADL [24].

Based on the assessment according to the ADL scale, it was found that people scoring 0 points (i.e. completely disabled) dominated. But there were also people scoring the maximum number of points. These results differ significantly from the results of the research carried out by Fidecki et al., where the majority of people are physically able (68.10%) [22].

The capacity for self-care should be equated with independence in coping with various aspects of everyday life. Self-service efficiency assessment using standardized scales showed a large scale of the needs of the elderly. The current research conducted on the basis of the ADL and Barthel scales showed that the elderly were best able to eat independently (65.7%). There was no single, clearly visible activity that was most disturbed. This means that the elderly require partial or total help from other people in virtually all activities of daily living, such as: bathing, getting dressed, using the toilet, and moving

around. Similar study was carried out using the ADL scale by Wysokiński et al. Their research shows that patients most often had difficulties with bathing, using the toilet, getting out of bed and moving to the chair, as well as controlling and excreting urine and stool. They were better able to dress and undress, and to eat independently [9].

Research conducted by Doroszkiewicz et al. using the Bartel scale showed that as many as 71% of respondents needed help with eating, 45% of people needed help when moving from bed to chair and back. Every second patient (49%) needed help in performing hygienic activities. 65% of seniors were unable to move independently on flat surfaces, and as many as 77% of people required assistance when climbing and descending stairs. The same number of people required help with getting dressed and undressed. Almost all respondents (94%) had a problem with urinary incontinence. Every third person (31%) had problems with anal sphincter control [21].

The current research based on the Barthel scale showed that the elderly coped best with controlling bowel movements and eating independently.

In terms of complex activities of everyday life, the respondents were best able to use the telephone independently, manage money and take medications. The worst performed activity was DIY and minor repairs at home, but they also had trouble with other activities, such as leaving the house to buy groceries, reaching places beyond walking distance, preparing meals, cleaning or washing their things. This is confirmed by research which shows that every third 60-year-old, over 60% of 70-year-olds and almost 80% of people aged 80 and more report difficulties in doing household chores resulting from their health [4].

Research conducted by Rybka et al. indicate single cases of dependency in money management (2% of all respondents) and using the telephone (1% of all respondents). Self-preparation and taking of medications was declared by 68% of people, and doing DIY or washing their own clothes by themselves was reported by 51%. 48% of the respondents required help with going shopping. 40% of people needed help with preparing meals. In household chores, 46% of respondents needed help and 34% were completely dependent. Also, 37% of the respondents were completely dependent while getting to a place beyond walking distance [25].

According to Bujnowska-Fedak et al. the activities that appeared most difficult for elderly people were the use of money, shopping on their own and using public transport [11].

In the aging process, the risk of functional disability increases. The factors that influence the deterioration of functional abilities include, inter alia, female sex and age [25]. Research conducted by Humańska et al. among the elderly hospitalized in the Department of Endocrinology and Diabetology in Bydgoszcz, as well as by Fidecki et al. confirm that women were less active than men [15, 26]. Different results were obtained by Bogusz et al., who showed that men more often had significant disability [16].

The current research, however, did not reveal statistically significant differences between the sexes. Women did not differ significantly from men in terms of the level of independence.

The studies conducted by Fidecki et al. confirmed the deterioration of functional fitness with age. In these studies, people aged 80-93 were the least efficient [10]. The current research showed a very large differentiation of results within age groups. This indicates that the functional fitness of the respondents may be influenced by other factors, more important than the age itself. The geriatric patient presents problems of an older age, which are associated with a number of changes in the functioning of the body, mainly problems related to the decline in physical fitness, loss of independent functioning, loss of importance, and being a burden to the family. The complexity of these inconveniences faced by the elderly makes them frequent patients of the geriatric ward, causing many medical problems.

A group of elderly patients hospitalized in a geriatric ward for various reasons was selected for the study. The conclusions formed on the basis of the selection of research material, have both strong and weak points. The degree of independence of older people may undergo systematic, dynamic changes, resulting in a constantly growing number of hospitalizations or rehospitalizations and an increased demand for health and nursing care.

One of important elements in monitoring functional fitness in the elderly is the simultaneous use of scales for assessing the functional status of seniors in professional nursing practice. A comprehensive assessment of functional capacity is of particular importance among patients hospitalized in a geriatric ward, taking into account the role of a primary care nurse, who should continue to identify functional deficits of elderly people with whom she has constant contact in their living environment. This creates an opportunity to systematically assess the functional capacity of their charges, which unfortunately differs from the actual care. This is probably due to the lack of adequate training of the staff, limited availability or reduced staffing. It is worth signaling at this point the need to increase re-education in this area, the more so, as the multidimensionality of the aging process requires continuing health checks at the level of primary health care, and intensifying nursing care in cooperation with the general practitioner.

The limited conclusions obtained from the conducted research result mainly from the size of the research group and the scope of the research covered by the subjects. The presented results may constitute the basis for further research in the future, where it would be worth conducting research on a larger group of respondents, hospitalized in various types of health care facilities. By analyzing the collected material, it would be possible to broaden the assessment of independence of older people by additionally using other standardized tools, for example the NOSGER scale, taking them into account in the nursing process to facilitate understanding of the patient's situation, assessment of his or her individual needs, and the need for various forms of help and care.

## Conclusions

Based on the research, the following conclusions were drawn:

1. The group of respondents was dominated by people with a low level of functional fitness.
2. Geriatric ward patients coped best with eating.
3. The activities related to DIY and minor repairs at home were the most difficult for the respondents.
4. The patients were least independent in activities requiring exercise, physical activity, such as bathing, moving around, walking up and down stairs, preparing meals or doing grocery shopping. In such activities, they require the greatest help from the nurse and other people.
5. Age affects the functional ability of older people, but there are other factors that affect the functional fitness of older people, which may be more important than age itself.

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