



## The self-assessment of satisfaction of nursing home residents in selected European countries – preliminary study

### Samooocena satysfakcji z życia rezydentów domów opieki w wybranych krajach europejskich – doniesienie wstępne

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#### STRESZCZENIE

**BACKGROUND:** The objective of the paper was the self-assessment of satisfaction performed by the residents of social care homes in various European countries and analysis of the correlation of the level of satisfaction with the quality of life and chosen independent variables.

**MATERIAL AND METHODS:** The study was carried out among 126 residents of nursing homes in Norway, England, Belgium, Holland, the Czech Republic and Poland, aged on average 79.3 years. The authors of the study used a survey questionnaire of their own authorship consisting of 35 questions including 6 demographic ones and 29 questions related to factors including satisfaction and quality of life. The conducted research was a pilot study.

**RESULTS:** The majority of the residents was satisfied with their stay at the nursing home. The level of their satisfaction proved to be different depending on the location of the nursing home. The average level of self-assessment of the quality of life was 4.9 (on a scale of 1–6). It was demonstrated that the level of satisfaction correlated with the quality of life, age, the duration of the stay and residing with a spouse.

**CONCLUSIONS:** The level of satisfaction of the residents of nursing homes in selected European countries is varied and demonstrates positive variation with the quality of life. The level of satisfaction of the residents of social care homes in certain European countries demonstrates a positive correlation with age, the duration of the stay and residing with a spouse. The comparative analysis of satisfaction and the quality of life of nursing home residents in various European countries requires taking into consideration cultural distinctiveness.

#### KEY WORDS

life satisfaction, quality of life, nursing home, elderly, European countries

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## ABSTRACT

**WSTĘP:** Celem pracy była samoocena satysfakcji osób mieszkających w domach opieki w różnych krajach europejskich oraz analiza korelacji poziomu satysfakcji z jakością życia i wybranymi zmiennymi niezależnymi.

**MATERIAŁ I METODY:** Badanie pilotażowe przeprowadzono z udziałem 126 osób zamieszkałych w domach opieki w Norwegii, Anglii, Belgii, Holandii, Czechach i Polsce. Średnia wieku badanych wynosiła 79,3 roku. Autorzy zastosowali kwestionariusz ankiety własnego autorstwa obejmujący 35 pytań, w tym 6 pytań demograficznych i 29 związanych z czynnikami dotyczącymi satysfakcji i jakości życia.

**WYNIKI:** Większość mieszkańców była zadowolona z pobytu w domu opieki. Poziom ich satysfakcji okazał się różny, w zależności od kraju prowadzenia badań. Średni poziom samooceny jakości życia wyniósł 4,9 (w skali 1–6). Wykazano, że poziom satysfakcji korelował z jakością życia, wiekiem, czasem trwania pobytu w domu opieki i mieszkaniem z małżonkiem.

**WNIOSKI:** Poziom zadowolenia mieszkańców domów opieki w wybranych krajach europejskich jest zróżnicowany i wykazuje pozytywną zmienność z jakością życia. Poziom zadowolenia mieszkańców domów opieki w niektórych krajach europejskich wykazuje pozytywną korelację z wiekiem, czasem trwania pobytu i zamieszkiwaniem z małżonkiem. Analiza porównawcza satysfakcji i jakości życia mieszkańców domów opieki społecznej w różnych krajach europejskich wymaga uwzględnienia odrębności kulturowej.

## SŁOWA KLUCZOWE

satysfakcja z życia, jakość życia, dom opieki, osoby starsze, kraje europejskie

## INTRODUCTION

The civilization changes which took place during the last two centuries began the process of the demographic aging of highly developed countries. The consequences of this process have individual and global dimensions. People who are “elderly” are seen, on one hand, as a socially “superfluous” ballast, and on the other – as a multitude of “desirable” voters and consumers.

The decomposition of the demographic dimension of the family has reduced the probability of having a family caregiver, thus increasing the demand for medical and social care, and an increase in the value of economic burden coefficients have significantly limited the possibilities of caregiving. EU experts emphasize that the coefficient of total demographic dependency will increase from 49% (2005) to 66% in 2030 [1]. The demographic forecasts indicate that after 2020 there will be a significant reduction in the participation of the youngest generations in the structure of the population, which means an increase of the percentage of elderly people. Forecasts indicate that in 2025 the number of people aged over 60 will reach 987 million [2].

Demographic changes result in an increase in the demand for institutional care because extending life expectancy linked with medical progress is not always associated with maintaining an appropriate health condition and self-reliance. The holistic approach to care provided to people in a geriatric age should also take

into consideration care provided in nursing homes. Such care should be professional and individualized. It is aimed at optimizing the health status, functional capacity and, above all, at improving the quality of life. Some of studies, besides evaluating the quality of life of elderly people, have concentrated rather on determining the quality of the provided care [3]. Quality of life is quite a wide notion; it strictly correlates with the sense of life satisfaction and it is related to physical and psychical health as well as to the social and environmental conditions. Although the optimal place of residence of elderly people is home surroundings, it often happens that even the closest family cannot manage to provide them appropriate care and therefore place their relatives in long-term care centers. Research shows that the level of the quality of life of elderly people is lower among people staying in nursing homes than among those residing in home surroundings [4]. It is estimated that in the USA every fourth person dies in a nursing home, and in Norway this refers even to the half of the society [5]. However, staying in such an institution detaches one from the natural environment, which may be related to numerous negative feelings. Recently, the number of various institutions taking care of elderly people has increased. Nonetheless, both the decision to move to such an institution and the process of adaptation to living in conditions which are different than those present in the home environment are difficult and depend on many factors [6]. Assessing the level of satisfaction of nursing home residents is commonly identified with the quality of the provided services [7]. The literature includes few reports of studies concerning elderly



people benefiting from the nursing home system in various European countries. These studies mainly refer to assessment of the quality of provided care. Therefore, little is known about the way elderly people perceive this place of residence in which they are, in several cases, forced to remain. Identifying the positive and negative components of satisfaction and quality of life requires the determining the feelings of the residents of nursing homes, induced by the elements of their everyday functioning.

The aim of the paper was the self-assessment of satisfaction performed by the residents of nursing homes in various European countries and analysis of the correlation of the level of satisfaction with the quality of life and chosen independent variables.

## MATERIAL AND METHODS

The study was carried out among elderly residents of nursing homes aged 60–98 (mean  $\pm$  SD = 79.3  $\pm$  10.2) in several European countries. The method applied in the study was a diagnostic poll, carried out using an authorial survey questionnaire. The questionnaire consisted of a total of 35 questions, including 6 questions referring to the selected socio-demographic characteristics: age, sex, length of stay in the nursing home, comorbidities, scope of physical activity, and 29 questions specifying the level of satisfaction and quality of life during the stay in the nursing home. The survey questionnaire included questions referring to, among others the quality of the meals, the possibility to participate in recreation activities, the cleanliness of the rooms, and the attitude of the personnel towards the residents.

The reliability of the survey was evaluated by determining Cronbach's alpha, which was 0.8. The questionnaires were prepared in several linguistic versions, namely: English, Dutch, Czech, Polish and Norwegian. The obtained results were presented jointly for each group on a point scale, the scope of which ranged from 71 to 206 points. The affirmative answers provided by the residents to questions included in the survey were expressed as percentages in each of the studied groups. Subjective assessment of the quality of life was performed on a scale of 1–6, where 1 indicated a very bad quality of life and 6 – very good quality of life.

The inclusion criteria for the study comprised obtaining at least 20 points in the Mini Mental State Examination scale [8], age above 60 and providing consent for participating in the survey. The research was carried out in 2016 among 126 residents of nursing homes in Norway (20 people), England (20), Belgium (21), Holland (24), The Czech Republic (21) and Poland (20), who had been selected – after taking into

consideration the inclusion criteria – out of 355 randomly chosen people, including 50 in Norway, 52 in England, 53 in Belgium, 60 in Holland, 60 in The Czech Republic and 80 in Poland.

Analysis of the opinions of the people taking care of nursing home residents in particular countries leads to the conclusion that the structure and functioning of these institutions are comparable.

The survey questionnaire was completed by the respondents independently or, if they were not able to complete it on their own, the respondents' answers provided orally were entered in the survey questionnaire by the authors of the study. The research included the length of stay in the nursing home, staying in the nursing home together with a spouse, lack of self-reliance, forced laying or sitting body position throughout most of the day, the co-occurrence of chronic diseases.

The study was carried out with the consent of the Bioethics Committee of the Beskid Chamber of Physicians in Bielsko-Biala (2016/02/11/2).

## Statistical analysis

The statistical analysis of the obtained results was elaborated using Statistica software. Assessment of the statistical significance of the differences in the level of satisfaction and the quality of life among the studied groups in different countries was carried out using the ANOVA test. The accepted limit value for significance was 0.05. Tests of the level of significance of differences were performed for quantitative data (the level of satisfaction, the age and the length of stay in the nursing home) using the ANOVA method, and for the qualitative variables – using the Cochran's Q Test method. Tests of the significance of differences of particular groups for quantitative data (the level of satisfaction, age and length of stay in the nursing home) were performed using Tukey's Test (HSD). Multiple regression analysis was used for investigating the correlations between the level of satisfaction of the residents and independent variables such as sex, age, the time of stay in the nursing home, comorbidities, self-reliance, the presence of a spouse and subjective evaluation of the quality of life.

## RESULTS

The majority of the respondents were women (64.7% of all the studied people). The highest value of the average age (85.6 years) was represented by the residents of the nursing home in England, the youngest residents (73.4 years) were the Belgians. The average time of stay in the nursing home was 4.3  $\pm$  3.8 years and it ranged from 1.9 years (Norway) to 7.1 years



(Poland). 12% of the studied people stayed in the nursing home with a spouse. 74% of the respondents suffered from chronic diseases, mainly related to the circulatory system and to the respondents' ability to move. 45% of the studied people moved with the help of a wheelchair. 62% of the residents required help in care and hygiene activities and in the activities of daily life. Detailed characteristics of the studied population is presented in Table I.

The survey carried out among the residents of social care homes in 6 European countries demonstrated that the obtained results differed depending on the place of performing the study, presented in Table II. By average, over 85% of the studied residents declared that they had been informed of their rights and duties; this included 100% of the surveyed subjects in England and in the Czech Republic and the lowest values for Belgium (76.2%) and Norway (60%) (Tab. II).

One of the analyzed indicators of satisfaction was the qualitative and the quantitative evaluation of the served meals, referring to the taste, the variety and the esthetics of the served meals, as well as to the size of the portions. 64.3% of the respondents evaluated the served meals as tasty, 15.1% – as unsavory, 35.7% mentioned the variety of meals, one in ten people thought that the meals were too small, and 15.1% – that the meals were too big. One in three surveyed people evaluated that the meals were served in an esthetic way. 85.7% of the respondents said that the meals were warm enough. Over a half of the studied respondents (54.0%) indicated that they had the possibility to receive an additional meal and 43.7% had the possibility to prepare it by themselves.

85.7% of the surveyed residents indicated that the conditions for sleep and relaxation were satisfactory. 98.4% of the studied people confirmed the possibility to possess their own objects. According to 38.9% of the studied people, there was a possibility to change the room in the case of a conflict with the roommate. However, nearly half of those surveyed did not know whether this was possible. The respondents from a nursing home in England did not provide an answer to the question because each of them stayed in a single room. One in four people indicated that in the case of a conflict situation, the nursing home staff reacted in compliance with the residents' expectations.

Analyzing the staff's attitude towards the residents, the authors of the study tried to find out how the employees of nursing homes in different countries were evaluated by their charges. According to 61.9% of residents, the staff was characterized by a benevolent attitude towards the respondents, only a small percentage of residents experienced a lack of benevo-

lence (2.4%). Nearly 70% of the respondents stated that the caregivers were courteous to the residents. The provided answers also included indications of a lack of courtesy (1.6%), indifference (4.0%), malice (2.4%), cases when the staff "looked down their nose" at the residents (11.1%), being treated with reluctance (1.6%) and impatience (7%). The obtained information indicates that in the case of a situation requiring receiving aid, it was provided: usually willingly (50%), willingly (42.1%), unwillingly (2.4%). The research demonstrates that the residents of the nursing home in Poland waited the longest time until they were provided aid (by average 15.8 minutes), and the shortest waiting time was found in the Czech Republic (ca. 1 minute).

The studied residents had the possibility to participate in cultural activities (59.5%), educational activities (41.3%), rehabilitation activities (53.1%), therapeutic activities (23.0%) and other activities, such as family celebrations (31.0%). 64.3% of respondents stated that the offered activities met their expectations, above this, the residents' suggestions regarding the form of spending free time were respected in one fifth of cases. The respondents had the possibility to evaluate the cleanliness of the rooms by awarding points on a scale of 0 to 10, where 0 indicated a lack of cleanliness and 10 indicated a very high level of cleanliness. The average score which the residents evaluated the cleanliness of their rooms was 9.1; the lowest score was awarded by the English (8.7) and the highest score – by the Czechs (9.6).

The residents were asked how they felt in common areas, such as the winter garden or the library. 70.5% answered that they felt comfortable, 58.2% answered that they felt safe. However, every tenth person answered that he or she felt discomfort while staying in public areas. The vast majority of the respondents (92.9%) stated that they had the possibility to spend their time with their relatives, what is more, the staff enabled them to make contact using the phone, by email or through direct contact. 92.9% of the residents had the possibility to satisfy their spiritual needs through participating in worship services or through contacting a priest. Moreover, 73.4% of the respondents had the possibility to use the library, 42.1% of the studied population satisfied their cultural needs by going to the theater and the cinema, 57.9% – by the possibility to read the daily press. One third of the residents had the possibility to go shopping, which gave them a sense of independence. All the respondents had the possibility to contact a doctor, to arrange an appointment at the hairdresser, which was especially important for women.

Table I. Characteristics of study groups  
Tabela I. Charakterystyka badanej grupy

Study subjects								
Place of residence (country)	Number (n)	Women/ Men	Age (years) medium $\pm$ SD	Duration of stay in social care home (years) mean $\pm$ SD	People staying at social care home with spouse [n(%)]	People with chronic diseases [n(%)]	People spending most of day in bed or in armchair [n(%)]	People requiring help [n(%)]
England	20	18/2	85.6 $\pm$ 6.1	4.3 $\pm$ 4.7	0(0)	17(85)	13(65)	19(95)
Belgium	21	10/11	73.4 $\pm$ 8.2	4.4 $\pm$ 3.3	6(28.6)	18(85.7)	4(19)	6(28.6)
The Czech Republic	21	16/5	80.5 $\pm$ 9.1	5.7 $\pm$ 4.2	2(9.5)	13(61.9)	2(9.5)	5(23.8)
Norway	20	13/7	84.5 $\pm$ 5.7	1.9 $\pm$ 1.3	2(10)	11(55)	13(65)	14(70)
Holland	24	16/8	77.3 $\pm$ 11.9	3.1 $\pm$ 1.9	3(12.5)	19(79.2)	14(58.3)	22(91.7)
Poland	20	9/11	75.2 $\pm$ 12.8	7.1 $\pm$ 4.5	2(10)	15(75)	11(55)	12(60)
ANOVA(p)		0.008	< 0.001	< 0.001	0.44	0.22	< 0.001	< 0.001

Table II. Self-assessment of satisfaction of residents of nursing homes in selected European countries on basis of survey  
Tabela II. Samoocena poziomu satysfakcji rezydentów domów pomocy w wybranych krajach europejskich na podstawie badania ankietowego

Question	Country					
	England (20 people) n (%)	Belgium (21 people) n (%)	The Czech Republic (21 people) n (%)	Norway (20 people) n (%)	Holland (24 people) n (%)	Poland (20 people) n (%)
1	2	3	4	5	6	7
People informed about their rights	20 (100)	16 (76.2)	21 (100)	12 (60)	20 (83.3)	19 (95)
Evaluation of meals:						
Tasty	14 (70)	16 (76.2)	18(85.7)	11 (55)	5 (20.8)	17 (85)
Unsavoury	3 (15)	5 (23.8)	0 (0)	2 (10)	6 (25)	3 (15)
Varied	6 (30)	6 (28.6)	4 (19.1)	9 (45)	15 (62.5)	5 (25)
Of little variety	1 (5)	7 (33.3)	3 (14.3)	0 (0)	4 (16.7)	8 (40)
Too small	3 (15)	4 (19.1)	0 (0)	0 (0)	2 (8.3)	3 (15)
Too big	5 (25)	3 (14.3)	5 (23.8)	1 (5)	0 (0)	5 (25)
Served aesthetically	5 (25)	10 (47.6)	8 (38.1)	1 (5)	18 (75)	2 (10)
Not served aesthetically	0 (0)	1 (4.7)	0 (0)	1 (0)	0 (0)	0 (0)
Warm	19 (95)	14 (66.7)	17 (81.0)	19 (95)	22 (91.7)	17 (85)
Cold	1 (5)	3 (14.3)	3 (14.3)	1 (5)	2 (8.3)	3 (15)
Possibility to receive an additional meal:						
Yes	5 (25)	15 (71.4)	5 (23.8)	13 (65)	14 (58.3)	16 (80)
No	5 (25)	1 (4.7)	8 (38.1)	0 (0)	0 (0)	0 (0)
Not always	3 (15)	1 (4.7)	1 (4.8)	0 (0)	7 (29.2)	1 (5)
I don't know	7 (35)	4 (19.1)	5 (23.8)	7 (35)	3 (12.5)	3 (15)
Possibility to prepare a meal on one's own	20 (100)	14 (66.7)	5 (23.8)	11 (55)	17 (70.8)	8 (40)
Good conditions for sleep and relaxation	17 (85)	15 (71.4)	16 (76.2)	18 (90)	23 (95.8)	19 (95)
Possibility to possess one's own things	20 (100)	21 (100)	20 (95.2)	19 (95)	23 (95.8)	20 (100)
Possibility to change rooms in case of conflict with roommate	–	14 (66.7)	3 (14.3)	0 (0)	3 (12.5)	9 (45)
Conflict situations with co-residents	5 (25)	3 (14.3)	2 (9.5)	1 (5)	4 (16.7)	5 (25)
Personnel's reaction compliant with residents' expectations	17 (85)	7 (33.3)	8 (38.1)	20 (100)	5 (20.8)	5 (25)
Personnel's attitude:						
Benevolent	11 (55)	17 (81.0)	7 (33.3)	9 (45)	22 (91.7)	12 (60)
Not benevolent	0 (0)	1 (4.7)	2 (9.5)	0 (0)	0 (0)	0 (0)
Courteous	17 (85)	14 (66.7)	13 (61.9)	11 (55)	15 (62.5)	16 (80)
Not courteous	0 (0)	1 (4.7)	0 (0)	0 (0)	1 (4.2)	0 (0)
Indifferent	0 (0)	0 (0)	2 (9.5)	0 (0)	0 (0)	2 (10)
Malicious	1 (5)	1 (4.7)	0 (0)	0 (0)	1 (4.2)	1 (5)
Looking down their nose at residents	0 (0)	1 (4.7)	0 (0)	0 (0)	13 (54.2)	0 (0)
Treating residents with reluctance	0 (0)	1 (4.7)	0 (0)	0 (0)	0 (0)	1 (5)
Treating residents with impatience	1 (5)	3 (14.3)	0 (0)	0 (0)	2 (8.3)	3 (15)



	1	2	3	4	5	6	7
Way personnel reacts to reported problem:							
Willingly provides help		6 (30)	9 (42.8)	15 (71.4)	1 (5)	3 (12.5)	19 (95)
Usually willingly provides help		12 (60)	11 (52.4)	1 (4.8)	19 (95)	19 (79.2)	1 (5)
Delays in providing help		2 (10)	1 (4.7)	1 (4.8)	0 (0)	2 (8.3)	0 (0)
Possibility to participate in activities:							
Cultural		20 (100)	9 (42.8)	19 (90.5)	0 (0)	21 (91.3)	20 (30)
Educational		5 (25)	4 (19.1)	19 (90.5)	0 (0)	18 (78.3)	20 (30)
Rehabilitation		17 (85)	5 (23.8)	3 (14.3)	5 (25)	21 (91.3)	16 (80)
Therapeutic		8 (40)	3 (14.3)	1 (4.8)	6 (30)	3 (13.0)	8 (40)
Other		6 (30)	18 (85.7)	5 (23.8)	10 (50)	0 (0)	0 (0)
Offered activities meet expectations		19 (95)	10 (47.6)	11 (52.4)	16 (80)	18 (75)	7 (35)
Suggestions related to free time:							
Respected		4 (20)	7 (33.3)	10 (47.6)	1 (5)	1 (4.2)	–
I don't report any remarks		16 (80)	1 (4.7)	8 (38.1)	19 (95)	22 (91.7)	20 (100)
The way respondents feel in common areas:							
Comfortable		16 (80)	14 (66.7)	10 (58.8)	14 (70)	16 (66.7)	16 (80)
Uncomfortable		0 (0)	7 (33.3)	0 (0)	0 (0)	6 (25)	0 (0)
Safe		11 (55)	18 (85.7)	9 (52.9)	5 (25)	17 (70.8)	11 (55)
Insecure		1 (5)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)
Possibility to spend time with loved ones		19 (95)	21 (100)	21 (100)	15 (75)	21 (87.5)	20 (100)
Respecting spiritual needs		16 (80)	21 (100)	18 (85.7)	20 (100)	22 (91.7)	20 (100)
Family keeps in touch		19 (95)	15 (71.4)	21 (100)	19 (95)	22 (91.7)	16 (80)
Personnel facilitates getting in touch		19 (95)	21 (100)	19 (90.5)	20 (100)	21 (87.5)	16 (80)
Possibility to contact a doctor		20 (100)	21 (100)	21 (100)	20 (100)	22 (91.7)	20 (100)
Possibility to go to hairdresser		20 (100)	21 (100)	21 (100)	20 (100)	24 (100)	20 (100)
Possibility to:							
Use the library		2 (10)	1 (4.7)	16 (76.2)	0 (0)	16 (66.7)	15 (75)
Go to church		9 (45)	4 (19.1)	14 (66.7)	1 (5)	10 (41.7)	14 (70)
Go shopping		5 (25)	0 (0)	16 (76.2)	2 (10)	9 (37.5)	7 (35)
Go to the theater		14 (70)	1 (4.7)	7 (33.3)	0 (0)	0 (0)	8 (40)
Go to the cinema		0 (0)	3 (14.3)	14 (66.7)	0 (0)	0 (0)	8 (40)
Go to the swimming pool		0 (0)	9 (42.9)	8 (40)	0 (0)	0 (0)	0 (0)
Read daily press		11 (55)	7 (33.3)	15 (71.4)	17 (85)	18 (75)	11 (55)
Cleanliness of the room (on a scale of 0–10)		8.7	9	9.6	9.3	8.9	9.0
Evaluation of the sense of (on a scale of 1–10):							
Safety		8.7	8.7	8.9	9.4	8.3	9.5
Intimacy		8.5	8.7	8.9	8.4	6.7	8.6
Privacy		8.7	8.7	9	8.9	8.0	8.9
Cleanliness		9.1	9	9.1	9.1	7.9	9.1
Subjective evaluation of quality of life (mean ± SD) (on a scale of 1–6)		4.55 ± 0.7	4.76 ± 0.8	5.24 ± 0.9	4.8 ± 0.4	5.17 ± 0.7	5.05 ± 0.6

The level of the subjective evaluation of the quality of life was determined using a scale ranging from 1 to 6, where 1 indicated very bad, and 6 – very good. According to all of the studied residents, this level was on average  $4.9 \pm 0.7$ ; the lowest indicator was found among the residents in England ( $4.55 \pm 0.7$ ) and the highest one – in the Czech Republic ( $5.24 \pm 0.9$ ); the difference proved to be significant ( $p < 0.05$ ). The vast majority of the residents were satisfied with their stay at the nursing home, both in terms of psychological and physical safety, the possibilities for activation, and in

terms of the staff's attitude. The analysis of variance demonstrated that the average level of satisfaction varied among the groups from the studied countries, which is shown in Table III. Application of the Fisher's exact test demonstrated that the residents of the nursing home in Norway declared the lowest level of life satisfaction, which differed significantly when compared to that of the residents in the other analyzed countries, except for the Czech Republic ( $p < 0.01$ – $0.001$ ; Tab. IV). The level of satisfaction of the residents of the nursing home in Poland was the highest.



**Table III.** Level of satisfaction of residents of nursing homes in selected European countries  
**Tabela III.** Poziom satysfakcji rezydentów domów pomocy w niektórych krajach europejskich

	All countries (together)	Country						ANOVA
		England	Belgium	The Czech Republic	Norway	Holland	Poland	
Mean ± SD	159 ± 23.3	162.6 ± 15.3	162.1 ± 19.5	152.6 ± 34.9	143.2 ± 11	161.0 ± 22.6	172.3 ± 19.7	
Median	161	164	165	162	147	164	170	0.002
Range	71–206	121–184	112–193	71–206	117–154	86–186	145–206	

**Table IV.** Statistical significances of differences (p) between obtained results of level of satisfaction of nursing home residents in various European countries  
**Tabela IV.** Znamienności statystyczne różnic (p) między uzyskanymi wynikami poziomu satysfakcji rezydentów domów opieki w różnych krajach europejskich

	Country					
	England	Belgium	The Czech Republic	Norway	Holland	Poland
England	–	0.941	0.148	0.006	0.805	0.167
Belgium	0.941	–	0.165	0.007	0.863	0.141
The Czech Republic	0.148	0.165	–	0.170	0.206	0.005
Norway	0.006	0.007	0.170	–	0.008	< 0.001
Holland	0.805	0.863	0.206	0.008	–	0.092
Poland	0.167	0.141	0.005	< 0.001	0.092	–

The level of satisfaction demonstrated a positive correlation with the duration of the stay in the nursing home and with the subjective evaluation of the quality of life (regression coefficient  $R^2 = 0.173$ ). No significant interchangeability between the declared satisfaction and the mentioned independent variables was found among the residents of nursing homes in England and Holland. The level of satisfaction of nursing home residents showed a positive correlation: with the level of the quality of life and with the age of the studied people in Belgium ( $R^2 = 0.711$ ); with the level of the quality of life and with staying in the nursing home in the company of the spouse in the Czech Republic ( $R^2 = 0.545$ ); with the duration of the stay in the nursing home and with staying in the nursing home with the spouse in Norway ( $R^2 = 0.346$ ) and with the age of the residents in Poland ( $R^2 = 0.489$ ).

## DISCUSSION

The natural living environment of human beings is their family homes. Nursing homes are places of residence for elderly people, who due to various reasons, lost the ability and possibility to safely reside in their family home. In highly developed countries nursing homes are evolving towards becoming institutions ensuring professional, complex care and living comfort. It should be stated that the quality of the care provided in these institutions depends on many factors lying in the area of politics, legal regulations, infra-

structure, management of the institution etc., and the aspect that is the most important is the human factor, namely the personnel responsible for the quality of the direct nursing care [9]. Cooney et al. [3] noticed that the quality of life of elderly people living in nursing homes is an area which has been relatively poorly understood. The authors underlined that the concept of the quality of life of these people is a multidimensional concept including numerous subjective and objective factors. The quality of life of the inhabitants of nursing homes is affected, among others by the ethos of care, the sense of one's self and identity, the quality of social bonds, as well as therapies and interventions. Achieving the optimal degree of quality of life in nursing homes is extremely difficult and it requires interdisciplinary team activities referred to as "maximization of the potential" [3].

The research results obtained by us indicate that the randomly selected residents of nursing homes in 6 European countries proved to be differentiated in terms of the level of satisfaction and subjective assessment of the quality of life. It should be noted that the identified differences between the studied groups also referred to the age of the residents, the duration of the stay in the nursing home, senility requiring staying in bed as well as the lack of self-reliance and the need to rely on the help of others even in terms of some everyday activities. The elder generation of Europeans are reluctant to imagine the necessity to spend their old age in a nursing home; this was confirmed by studies indicating that only less than 8% of respondents express the will to spend their old



age in such an institution [10]. Among the countries of the European Union, Holland belongs to the countries in which the number of elderly people residing in nursing homes is the highest despite the fact that even one fourth of the residents of such institutions would be able to grow old in their family homes [11]. The growing number of people in an elderly age generates the necessity to pay attention to the quality of life and the satisfaction of residents of nursing homes in various European countries. The “culture change” movement which began in the United States and is spreading to other countries underlines the necessity to pay special attention to the person of the resident [12]. The resident satisfaction indicator is an indispensable element to assess the quality of the provided care.

Contemporary nursing homes have come a long way since the inception of the first one, founded by St. Helena of Constantinople. Currently we talk about the three models of their functioning: the medical model, the social model and the nursing care model. Regardless of the preferred model, there are many challenges facing policy makers. This is due to the aging of societies, the lack of professionals in the field of geriatric medicine, overloading of the system and the enormous financial resources which are required [13]. Moreover, everyday routine, sometimes even the monotony of life in a nursing home increases the feeling of a lack of meaning, the loss of privacy, of independence and there is a risk factor for the occurrence of dejection and loss of the will to live [14, 15,16].

Many authors have made attempts to understand the determinants affecting the satisfaction and quality of life of residents of nursing homes. Some of them analyzed the influence of taking care of animals, nurturing plants, listening to radio auditions the subjects of which were close to those from the times of the residents’ youth, eating family meals together and being able to decide about the interior design of the nursing home. National standards related to the quality of life in many developing countries emphasize the importance of safety, the highest care standards and customer satisfaction in relation to long-term care provided in nursing homes [17]. Following the need to conduct research which would focus on the feelings of the residents of nursing homes, Rantz et al. [18,19] analyzed the quality of care from the perspective of the recipients of services. They proposed a conceptual care model which included elements referring to the characteristics of the employees, the type of care, involvement of the family, communication, home and environment. Bowers et al. [20] interviewed 26 residents who drew attention to three elements: good care, mutual relationships with the people who provide care and physical safety. Kane et al. [21,22] indicated 11 domains important from the point of view of life in a nursing home. They included: comfort, functional

competence, autonomy, dignity, privacy, individuality, activeness, relationships, joy, safety and care for the spiritual realm. In our study we tried to reconcile the various dimensions to assess satisfaction with the main emphasis on the residents’ subjective feelings. The residents had the possibility to express their opinion regarding the feeling of safety, freedom and respecting the need for intimacy.

West et al. [23] demonstrated that many residents felt powerless against the conditions and rules governing institutions providing care to the elderly. Our own research shows that providing residents the possibility to possess their own objects, to prepare their meals on their own, to eat meals together, to read the daily press or to watch TV were of high importance in the self-assessment of the satisfaction of the studied residents. Similar conclusions were drawn by van Hoof et al. [24], who interviewed the residents of a nursing home and noticed that the sense of “being at home” is affected by several factors, such as self-assessment of the resident as well as the environment and interpersonal relations. Evans et al. [25] pointed to the fact that residents adapted to the rules applied in a nursing home better and more quickly if the served meals met their requirements. The nutrition status is one of the factors determining the quality of life of seniors. Attention was drawn to the inadequate nutritional status of the elderly people remaining under institutional care and it was suggested that this may be the reason for their poor mood, decreased functional capacity and other problems lowering the quality of life [26]. It is also worth considering the fact that aging is often accompanied by a decrease in appetite and by unexplained weight loss [27]. Saletti et al. [28] reported symptoms of malnutrition in over one third of residents of Swedish nursing homes. Borowiak and Barylska [29] demonstrated a correlation between an unsatisfactory nutritional status and decreased activeness and efficiency in performing everyday tasks, as well as a more frequent occurrence of pain.

The conducted study is pilot research and it shall be continued. The authors are aware of the fact that the study population was not very large. This fact, together with the cultural distinctiveness of the analyzed communities, are the main limitation of our study causing difficulty in generalizing the conclusions.

## CONCLUSIONS

1. The level of satisfaction of the residents of nursing homes in selected European countries is diversified; the highest satisfaction is declared by the residents in Poland and the lowest – in Norway. The level of satisfaction of the residents of nursing homes in some of the countries of Europe shows



a positive correlation with the quality of life, age, the duration of the stay in the nursing home and residing together with a spouse.

2. Comparative analysis of the satisfaction and the quality of life of residents of nursing homes in se-

lected European countries requires taking into consideration cultural distinctiveness.

### Conflict of interest

The authors report no conflicts of interest in this work.

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### Author's contribution

Study design – A. Michalik  
Data collection – A. Michalik, A. Turbiarz, I. Puzoń, M. Kadłubowska, E. Jaksz-Recmanik  
Data interpretation – A. Michalik, Cz. Marcisz, E. Bąk  
Statistical analysis – E. Bąk, A. Michalik  
Manuscript preparation – A. Michalik, Cz. Marcisz, H. Kulik  
Literature research – B. Krawczyk, J. Kolonko

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