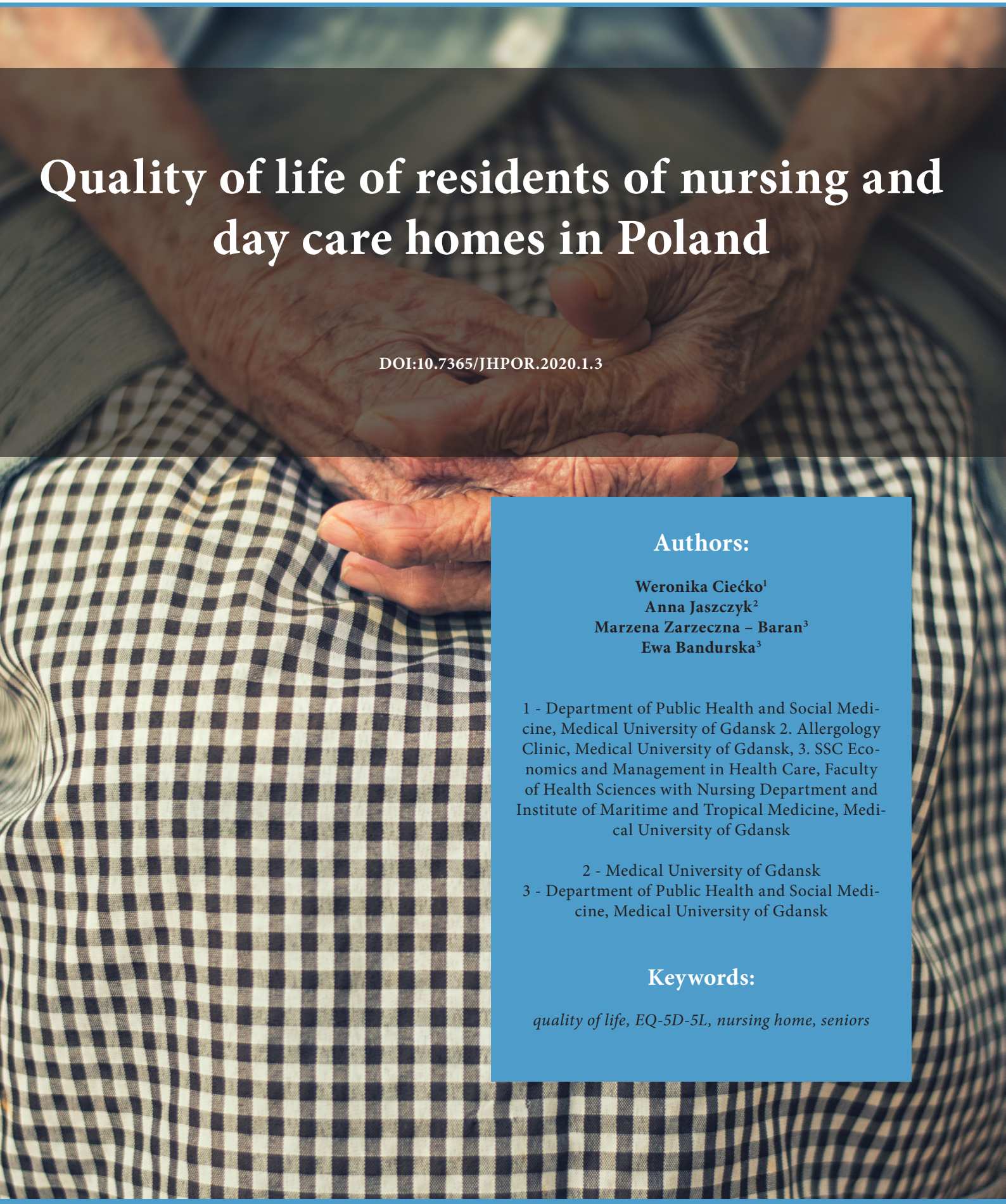
#01/2020
ISSN 2299-1247

JHPOR | Journal of Health Policy & Outcomes Research



Quality of life of residents of nursing and day care homes in Poland

DOI:10.7365/JHPOR.2020.1.3

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Keywords:

quality of life, EQ-5D-5L, nursing home, seniors

How to cite this article?
Ciecko W, Jaszczyk A, Zarzeczna-Baran M, Bandurska E. Quality of life of residents of nursing and day care homes in Poland J Health Policy Outcomes Res [Internet]. 2020 [cited YYYY Mon DD];1. Available from: https://www.jhpor.com/article/2237-quality-of-life-of-residents-of-nursing-and-day-care-homes-in-poland DOI: 10.7365/JHPOR.2020.1.3

contributed: 2020-01-15 final review: 2020-05-05 published: 2020-06-15

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Abstract

Aim

The aim of this study was to assess the quality of life of the residents of Nursing and Day Care Homes.

Material and methods

The study was conducted in March 2019 among the residents of the Nursing and Day Care Home Senior + in Naklo upon Noteć. The sixy-six patients participated in the study, including 45 women and 21 men. A standardized tool was used in the study – validated Polish version of the EQ-5D-5L questionnaire.

Results

The analysis of quality of life parameters showed a reduced level of quality of life of the respondents. In 31.8% of the respondents it was found that they were not able to move independently, while the majority of the respondents (28.8%) stated that they had no problems with self-care. Taking into account the performance of usual activities, 25.8% of the respondents stated that this is not a problem for them, while 24.2% felt moderate difficulties in this respect. Self-esteem in terms of pain/discomfort was worse; in 30.3% of respondents, pain remained at the level of 4 - strong. Anxiety and depression did not affect 34.8% of the patients. Averaging the results, the EQ-5D-5L questionnaire showed that the most unfavourable factor affecting the quality of life was anxiety/depression (3.8 points).

Conclusions

The residents of the Nursing and Day Care Home are characterized by the reduced horizontal quality of life. The analysis of the results showed that the lowest quality of life dimension among the respondents was anxiety/depression feeling.

Introduction

According to the definition of dependency, it is a situation in which a person is dependent on the help of another person. Taking into account the scale of this phenomenon among the still aging society as well as the constantly growing costs and inefficiency of support for the social system, it is necessary to determine the indispensable scope of assistance. While identifying long-term care with a large group of people who require assistance during basic activities, it should be taken into account that these people usually undergo various diseases due to their age, and therefore require specialist and professional care.[1,2] Nursing homes and day care homes offer the oldest form of assistance to people who are unable to live independently in their place of residence and whose quality of life is significantly reduced.[3,4]

The quality of life is an integral part of everyone's existence, regardless of all socio-economic factors. However, in the case of the elderly and often dependent people, the quality of life is generally at a significantly lower level. This affects the general functioning of both the wider society and the smaller social unit, the family.[5]

A number of dedicated questionnaires are used to assess quality of life. This group includes the EQ-5D-5L questionnaire, characterized by a fairly simple and short formula that does not cause many difficulties.[5,6] It was used in the described study to analyse and evaluate the quality of life of the residents of the Nursing and Day Care Homes.

Material and methods

Respondent group

The survey was conducted in March 2019 among the residents of the Nursing and the Day Care Home Senior+ in Naklo upon Notec. The sixty-six patients participated in the study, including 45 women and 21 men aged 61-96. The average age of participants was 75 (SD = ±9). The detailed data are presented in Table 1.

The study included people who met the following inclusion criteria:

- a resident of Nursing or Day Care Home,
- a person able to answer questions,
- a person giving his or her informed consent to take part in the study after being informed of all aspects of the study.

Exclusion criteria were:

- unconscious patient,
- no consent of the patient to participate,
- not being a resident of Nursing or Day Care Home.

Table 1. Demographic data

Variables analysed	Group (N=66; 100%)
Age	
Average	75
Standard deviation	9
Median	77
Minimum/maximum	61/96
Sex (N;%)	
Women	45 (68.2%)
Men	21 (31.8%)
Education (N;%)	
Primary	25 (37.9%)
Vocational	15 (22.7%)
Secondary	15 (22.7%)
Higher	11 (16.7%)
Place of residence (N;%)	
City	50 (75.8%)
Village	16 (24.2%)
Nature of the performed work (N; %)	
Blue-collar worker	46 (69.7%)
White-collar worker	20 (30.3%)
Time of residency in DPS/DPD (N; %)	
Less than 5 years	49 (74.2%)
6 – 10 years	7 (10.6%)
10 – 15 years	10 (15.2%)
Main diseases (N; %)	
Respiratory diseases	2 (3.0%)
Cancer	5 (7.6%)
Diseases of the metabolic system	9 (13.6%)
Diseases of the locomotor system	11 (16.7%)
Nervous system diseases	13 (19.7%)
Cardiovascular diseases	26 (39.4%)
Co-existing diseases (N; %)	
Yes	46 (69.7%)
No	20 (30.3%)
Number of coexisting diseases (N;%)*	
One	16 (34.8%)
Two	20 (43.5%)
Three and more	10 (21.7%)

* The data do not add up because the respondents could choose more than one answer.

Method

In the study, validated Polish version of the EQ-5D-5L questionnaire was used, supplemented with a label containing demographic data and information on the diseases occurring. The EQ-5D-5L questionnaire takes into account 5 categories of quality of life, i.e.: mobility, self-care, ability to perform usual activities, feeling pain/discomfort and feeling anxiety/depression. It uses the 5-step Likert scale, where:

Level 1 - No problems,
Level 2 - Slight problems / slight severity,
Level 3 - Moderate problems/moderate severity,
Level 4 - Severe problems/severe intensity,
Level 5 - Inability to perform the activity/ very high intensity.

The second part of the assessment was the Visual Analogue Scale (EQ-VAS, EuroQol Visual Analogue Scale), with which the subjects described their health condition in the range of 0-100, where 0 means the worst imaginable health condition and 100 the best imaginable health condition.

Due to the age of the majority of the respondents, the questionnaire was filled in by an interviewer who marked the answer indicated by the respondent in all cases.

The authors of the study obtained the consent of the EuroQol foundation to use the questionnaire and the acceptance of Bioethics Committee numer: NKBBN83/2019.

Statistical analysis

The chi-quadrate-test and Pearson correlation coefficient at the significance level of $\alpha \leq 0.05$ were used to calculate the relationship between the variables. The collected research material was prepared in the form of Microsoft Excel 2007 spreadsheet and subjected to statistical analysis.

RESULTS

Quality of life parameters EQ-5D-5L

The mobility parameter showed that 31.8% of the surveyed residents are unable to walk and 15.2% have serious mobile problems. Only 19.7% had no problems in this respect. In terms of self-care - dressing and washing on their own - 28.8% of the respondents do not have any problems, while nearly 30% indicate serious problems or are not able to carry out activities at all. In the normal dimension, it was found that most of the surveyed seniors can perform the activities on their own - 25.8% have no problems with them, 19.7% have slight problems, and 24.2% had moderate problems. In the domain of pain or anxiety it has been shown that 30% of the surveyed seniors feel severe pain. And 16.7% of participants do not feel any pain or discomfort. In terms of anxiety/distress, 34.8% of the surveyed seniors declared that they are not accompanied by any of the above mentioned feelings. The detailed information is presented in Table 2.

Table 2. Quality of life parameters EQ-5D-5L		
Quality of life dimension	Number of responses	Percentage of responses (%)
Mobility		
Level 1	13	19.7
Level 2	5	7.6
Level 3	17	25.8
Level 4	10	15.2
Level 5	21	31.8
Self-care		
Level 1	19	28.8
Level 2	15	22.7
Level 3	13	19.7
Level 4	7	10.6
Level 5	12	18.2
Usual activities		
Level 1	17	25.8
Level 2	13	19.7
Level 3	16	24.2
Level 4	10	15.2
Level 5	10	15.2
Pain/discomfort		
Level 1	11	16.7
Level 2	16	24.2
Level 3	18	27.3
Level 4	20	30.3
Level 5	1	1.5
Anxiety/depression		
Level 1	23	34.8
Level 2	13	19.7
Level 3	22	33.3
Level 4	7	10.6
Level 5	1	1.5

Average values of individual quality of life dimensions

The study showed that after averaging the values of each parameter, the highest result was obtained by the anxiety/depression parameter (AV= 3.8 points). This means that within this dimension the residents felt the greatest problems. The detailed data are presented in Table 3.

Table 3. Average values of individual quality of life dimensions		
Dimension	Study results	
	AV	SD ±
Mobility	2.7	1.5
Self-care	3.3	1.5
Ususal activities	3.3	1.4
Pain/comfort	3.2	1.1
Anxiety/depression	3.8	1.1

Mobility dimension and gender of respondents

The study showed statistically significant differences between the mobility dimension and gender ($p = 0.024$). Women had significantly less mobility problems. This may be due to the difference in the average number of years of life expectancy between men and women and the naturally progressive processes of human aging.

Mobility dimension and education level

The level of education has been shown to have a statistically significant impact on mobility ($p = 0.046$). The higher the education, the worse the level of mobility performance was. As a rule, people with higher and secondary education work mentally, while with vocational and primary education - physically. The observed differences could, therefore, be caused by the fact that people working mentally were less physically active, worked in one body position for many years, which leads to various types of degeneration and discopathy, affecting this parameter also in the old age.

Pain/discomfort dimension and incidence of the main disease

The occurrence of pain or discomfort was statistically significantly dependent on the diagnosis of the main disease ($p < 0.001$). The highest level of pain or discomfort occurred in patients with cardiovascular diseases. They are characterized by various types of pain, swelling, palpitations, dyspnoea, fatigue or anxiety and this is where the observed differences may be found.

Subjective health assessment

The study showed that the highest percentage of respondents (33.3%) assessed their health condition at the level of 50. The arithmetic mean for the total number of respondents was 49.2 and the standard deviation ±24.9. The detailed data are presented in Table 4. Moreover, it was also shown that health condition on the VAS scale was significantly correlated with normal activities and pain/discomfort. The less independent the resident was and the more severe his illness was, the worse he assessed his health condition - Table 5.

Table 4. Subjective health assessment (VAS scale)		
Health assessment	Respondents	
	N = 66	%
0	4	6.1
10	3	4.5
20	4	6.1
30	6	9.1
40	6	9.1
50	22	33.3
60	5	7.6
70	3	4.5
80	9	13.6
90	1	1.5
100	3	4.5

Table 5. Relationship between the quality of life dimensions and the VAS scale

Dimensions	Person correlation index* health condition assessment	
	R	P
Mobility	0.242	n.s.
Self-care	0.244	n.s.
Ususal activities	0.258	0.040
Pain/comfort	0.280	0.025
Anxiety/depression	0.044	n.s.

Discussion

The research conducted on the quality of life is a manifestation of the holistic way of treating the patient. It is an extremely subjective value and depends on many factors, such as: personality traits, mental state, system of values or preferences. Contemporary medicine does not only aim to prolong the patient's life but also to improve and bring the quality of life closer to their condition before the onset of the disease, therefore the interest in this kind of research is still growing and is very popular among people affected by various diseases.

During various treatment processes, an important role is played by improving the well-being of the patients, which enables them to function socially and physically.[7]

The EQ-5D questionnaire is one of the most widely used questionnaires in Europe, it was drawn up by the EuroQoL group with the aim of ensuring a simple assessment of life quality. Its simplicity and comprehensiveness allows to apply it to a wide range of health criteria, during surgical or pharmacological treatments, to different groups and the general population. The data obtained by means of the questionnaire allow to compare the health status of people who suffer from a given disease with the subjective evaluation of quality of life.[8,9]

The newer version of the tool - EQ-5D-5L was used in this paper, which is more precise and hence allowing for higher scores, since the extension of the levels from 3 to 5 increases the sensitivity of the questionnaire, as shown by the results of the study by Scalone et al., who compared those tools in the Italian population. The authors found that the percentage of respondents who reported no problems in the 5L version was reduced. This tendency was associated with a lower percentage of respondents communicating a sense of complete health.[5,10]

The important parameters that influenced the assessment of health in the study were performing normal activities and feeling pain/discomfort. Nearly 30% of residents have serious problems with self-care. The majority of respondents, as much as 30.3% felt severe pain or discomfort, while 27.2% felt it at a moderate level. In the study by W. Ciećko et al. who investigated the quality of life of people in the advanced stage of chronic diseases, the pain accompanied most people: 11.1% felt pain in a very severe form and 32.1% in a severe form. Meanwhile, the factor that significantly affected the quality of life was a barrier associated with usual activities. In contrast to the present study, the majority of respondents had no problems (28.8%) or little problems (22.7%) with usual activities.[5]

On the other hand, a study by Wróblewska et al. concerning the quality of life of residents in the nursing home in Racibórz showed that the quality of life of seniors is at a high level and the respondents assessed their health at a good or sufficient level. In this study the functional condition of the respondents was at an average level and 65% of the respondents positively assessed the quality of life in proportion to their health. In both cases the results are similar. The results are very satisfactory considering the types of diseases and advanced age.[11]

In another study conducted by Fidecki et al., which concerned the quality of life of seniors receiving long-term care in a rural environment, the respondents assessed their quality of life at a medium level. Women and people with secondary education, assessed better the subjectively perceived quality of life. In this study, the level of education had a significant impact on the mobility category. The higher the level of a person's education, the worse the level of mobility performance was. Gender also had an impact on the ability of the respondents to move around. Women showed less problems.[12]

The assessment of quality of life allows to adjust the care to the needs of each patient individually. It is, therefore, appropriate to carry out this type of research in the population, taking into account the number of chronic diseases and an ageing population. Every effort should be made to ensure that the elderly in this type of facilities feel best and do not experience annoying symptoms associated with the disease as well as feel good in the mental, spiritual and social sphere.

CONCLUSIONS

1. After averaging the values of each of the analysed parameters of life quality, it was found that the highest value was *anxiety/depression* (3.8), which means that this parameter caused the greatest problems to the subjects.
2. The relationship between gender and education and the *mobility* dimension and between the main disease and the *pain/discomfort* dimension was significant.
3. It has been shown that health on the VAS scale was correlated, at a statistically significant level, with *usual activities* and feelings of *pain/discomfort*.

Authors declare none potential conflicts of interest.

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