

# Jakość życia związana ze stanem zdrowia osób w podeszłym wieku objętych opieką długoterminową

## Health-related quality of life in elderly people provided with long-term care

Wiesław Fidecki, Irena Wrońska

Chair of Development in Nursing, Medical University of Lublin

Kornelia Kędziora-Kornatowska

Chair and Clinic of Geriatrics, Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun

Mariusz Wysokiński, Dorota Kulina, Tadeusz Wadas, Kinga Augustowska-Kruszyńska

Chair of Development in Nursing, Medical University of Lublin

### Streszczenie

**Wstęp.** Pojęcie jakości życia uwarunkowanego stanem zdrowia wprowadził Schipper i zdefiniował je jako postrzegany przez pacjenta wpływ choroby oraz przebieg jej leczenia na funkcjonowanie i ogólne poczucie satysfakcji życiowej, odbieranej przez pacjenta. **Cel pracy.** Celem pracy była próba określenia subiektywnej oceny jakości życia osób w podeszłym wieku, które przebywały w zakładach opieki długoterminowej. **Materiał i metody.** Badaniem objęto 284 pacjentów w podeszłym wieku, którzy przebywali w zakładach opieki długoterminowej. Materiał badawczy zebrano za pomocą polskiej wersji skali WHOQOL-Bref. **Wyniki.** W badanej grupie osób ogólna jakość życia kształtowała się na poziomie średniej 2,90, a ocena zdrowia – 2,50. Rozkład średnich w poszczególnych dziedzinach był następujący: fizyczna (10,40), psychologiczna (10,60), relacji społecznych (11,30), środowiskowa (11,90). **Wnioski.** Badana grupa osób starszych dokonała oceny ogólnej jakości swojego życia na poziomie średnim. Najniżej oceniona została jakość życia w zakresie dziedziny fizycznej, a najwyżej w zakresie środowiska. Wykształcenie istotnie wpływało na ocenę jakości życia przez osoby starsze. (Gerontol Pol 2015, 1, 24-28)

**Słowa kluczowe:** jakość życia uwarunkowana stanem zdrowia, osoby starsze, opieka długoterminowa

### Abstract

**Introduction.** The concept of health-related quality of life (HRQOL) was introduced by Schipper, who defined it as influence of a disease, which a patient perceives subjectively, as well as an influence of a course of treatment on their functioning and a general feeling of satisfaction perceived by this patient. According to this author, health-related quality of life refers to four basic aspects: physical state, physical fitness, mental state, social situation and economic conditions as well as somatic symptoms. **Aim.** The work aimed at attempting to assess subjectively health-related quality of life in elderly people staying in long-term care institutions. **Material and methods.** The research pool was comprised of 284 people aged 65 and older who were staying in long-term care institutions. The following criteria were taken into account: age of 65 and higher, good contact with a patient, no psychological disorders, no diagnose of dementia-suggesting changes. The material was collected by means of the Polish version of the WHOQOL-Bref questionnaire. **Results.** General quality of life within the research pool averaged out at the level of 2.90, and health evaluation averaged out at the level of 2.50. The layout of mean values for respective scores was as follows: physical domain (10.40), psychological domain (10.60), social relation domain (11.30), environmental domain (11.90). **Conclusion.** Subjective evaluation of quality of life made by elderly people provided with long-term care was rather low. Physical domain was evaluated most lowly by our respondents. People with higher education evaluated their quality of life better. (Gerontol Pol 2015, 1, 24-28)

**Key words:** health-related quality of life, long-term care, elderly people

## Introduction

The concept of health-related quality of life (HRQOL) was introduced by Schipper [1], who defined it as influence of a disease, which a patient perceives subjectively, as well as a course of treatment on a functioning and a general feeling of satisfaction perceived by this patient. According to this author, health-related quality of life refers to four basic aspects: physical state, physical fitness, mental state, social situation and economic conditions as well as somatic symptoms (symptoms of a disease, pain) [2,3]. Literature of the subject confirms there is a correlation between health state and a level of general well-being perceived by a human being [4,5].

Evaluating quality of life consists in a comparison of patient's expectations and their actual state. It is made according to subjective criteria because each patient determines their own scale. A basis for the evaluation is constituted by examining patient's state within the fields of physical, mental and social well-being as well as their satisfaction with life in various domains [6].

Modern care of elderly people ought to provide for their quality of life. The higher the level of meeting the needs important for a human being, the better the quality of their life [7].

This work aimed at attempting to assess subjectively quality of life in elderly people staying in long-term care institutions of eastern Poland.

## Material and methods

The research pool was comprised of 284 people aged 65 and older who were staying in long-term care institutions. The following criteria were taken into account: age of 65 and higher, good contact with a patient, no psychological disorders, no diagnose of dementia-suggesting changes. The tests were conducted after approval of the Bioethics Committee of the Medical University of Lublin.

Patients filled out their questionnaires independently and any help was merely provided in order to clarify possible doubts concerning questions comprising the questionnaire.

The material was collected by means of the Polish version of the WHOQOL-Bref questionnaire. This tool was designed for assessing quality of life in both healthy and sick people, for both research and clinical purposes. The questionnaire consists of 26 questions and facilitates obtaining a quality of life profile within the scope of four domains: physical, psychological, social and environmental. Two questions are analysed separately: question

1 referring to individual, general perception of one's quality of life and question 2 referring to individual perception of one's health. The score system is positive – i.e. the more points, the higher the quality of life. Answers are given according to Likert's 5-grade scale. Having been calculated according to the key, arithmetical means of scores obtained in the questionnaire range from 4 to 20 for each of the four domains and from 1 – 5 for the two questions: the former referring to general quality of life and the latter referring to health satisfaction [8-10].

Findings were analysed statistically and parameter values were presented by means of average values, median and standard deviation for measurable values, while largeness and proportion were used for non-measurable values. Distribution normality was assessed with the Shapiro-Wilk test for measurable features. U Mann-Whitney test was employed to compare two independent groups and Kruskal-Wallis test was used for more than two groups. Significance level of  $p < 0.05$  was adopted to indicate occurrence of statistically significant differences or correlations. STATISTICA 8.0 (StatSoft Polska) computer software was used to manage the database and statistics.

## Results

The investigation involved 110 females (38.73%) and 174 males (61.27%), the total being 284 people. Socio-demographic characteristics of the research pool was presented in table I.

General quality of life within the research pool averaged out at the level of  $2.86 \pm 1.05$ , and health evaluation averaged out at the level of  $2.45 \pm 1.12$ . The layout of mean values for respective scores was as follows: physical domain ( $10.37 \pm 1.76$ ), psychological domain ( $10.63 \pm 2.25$ ), social relation domain ( $11.29 \pm 3.11$ ), environmental domain ( $11.95 \pm 2.52$ ). In comparison with males, females evaluated their quality of life more highly in all domains, however, a statistically significant difference occurred merely in the social domain.

Physical and environmental domains as well as general quality of life were evaluated most highly by youngest respondents (aged from 65 to 74). On the other hand, oldest patients (over 90) scored most highly in psychological and social domains as well as in their satisfaction with health.

Respondents with higher education background evaluated their quality of life better than those with primary and secondary education. The difference was statistically significant within psychological, social and environmental domains.

Table I. Socio-demographic characteristics of the research pool

Tabela I. Charakterystyka socjodemograficzna badanej grupy

		%	No.
Gender	Female	38.73	110
	Male	61.27	174
Age	65 – 74 years	40.85	116
	75 – 89 years	52.11	148
	Over 90 years	7.04	20
Education	Elementary	86.27	245
	Secondary	9.86	28
	Higher	3.87	11
Marital Status	Single	20.07	57
	Married	11.27	32
	Divorced	8.45	24
	Widow/ Widower	60.21	171

Table II. Quality of life evaluation depending on socio-demographic variables (mean  $\pm$ S.D.)

Tabela II. Ocena jakości życia w zależności od zmiennych socjodemograficznych

	QoL (1-5)	Health (1-5)	Physical domain (4-20)	Psychological domain (4-20)	Social domain (4-20)	Environmental domain (4-20)
Gender						
Females	2.87 $\pm$ 0.99	2.46 $\pm$ 1.11	10.25 $\pm$ 1.54	10.63 $\pm$ 2.09	11.84 $\pm$ 3.12	12.04 $\pm$ 2.35
Males	2.84 $\pm$ 1.15	2.44 $\pm$ 1.14	10.16 $\pm$ 2.06	10.63 $\pm$ 2.48	10.44 $\pm$ 2.91	11.81 $\pm$ 2.78
Z	0.06	0.27	-1.68	0.02	3.82	0.60
p	0.94	0.78	0.09	0.98	0.0001***	0.54
Age						
65-74	2.96 $\pm$ 1.14	2.47 $\pm$ 1.16	10.51 $\pm$ 2.02	10.66 $\pm$ 2.37	10.86 $\pm$ 3.19	12.14 $\pm$ 2.63
75-89	2.81 $\pm$ 1.01	2.39 $\pm$ 1.08	10.35 $\pm$ 1.57	10.55 $\pm$ 2.25	11.50 $\pm$ 3.09	11.88 $\pm$ 2.44
>90	2.65 $\pm$ 0.81	2.80 $\pm$ 1.5	9.65 $\pm$ 1.32	11.03 $\pm$ 1.51	12.27 $\pm$ 2.51	11.40 $\pm$ 2.53
H	2.31	2.55	5.75	1.72	5.48	2.18
p	0.31	0.27	0.05	0.42	0.06	0.33
Education						
Elementary	2.82 $\pm$ 1.05	2.41 $\pm$ 1.09	10.25 $\pm$ 1.65	10.58 $\pm$ 2.14	10.93 $\pm$ 2.91	11.96 $\pm$ 2.42
Secondary	2.89 $\pm$ 0.87	2.67 $\pm$ 1.09	10.98 $\pm$ 2.18	10.59 $\pm$ 2.75	14.00 $\pm$ 2.62	11.50 $\pm$ 3.22
Higher	3.44 $\pm$ 1.51	3.22 $\pm$ 1.71	11.81 $\pm$ 2.53	11.33 $\pm$ 3.00	12.15 $\pm$ 5.26	13.56 $\pm$ 2.80
H	4.95	3.78	4.95	6.00	26.53	7.12
p	0.17	0.28	0.17	0.01*	0.00***	0.04*
Marital status						
Single	3.15 $\pm$ 1.16	2.65 $\pm$ 1.20	10.74 $\pm$ 1.89	11.17 $\pm$ 2.59	10.57 $\pm$ 3.01	12.30 $\pm$ 3.06
Married	2.62 $\pm$ 1.09	2.19 $\pm$ 1.09	10.32 $\pm$ 2.05	10.29 $\pm$ 2.41	12.33 $\pm$ 3.12	11.87 $\pm$ 2.10
Divorced	2.66 $\pm$ 0.86	2.37 $\pm$ 0.96	10.78 $\pm$ 1.48	9.61 $\pm$ 1.88	10.72 $\pm$ 3.20	9.45 $\pm$ 2.65
Widower	2.83 $\pm$ 1.02	2.45 $\pm$ 1.11	10.19 $\pm$ 1.68	10.66 $\pm$ 2.10	11.42 $\pm$ 3.09	12.20 $\pm$ 2.19
H	6.60	3.33	4.72	8.66	7.41	24.59
p	0.08	0.34	0.19	0.07	0.06	0.00***

Z-Mann-Whitney U test

H-Kruskal-Wallis test

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ 

Single people made highest assessments of their general quality of life, satisfaction with health as well as psychological and environmental domains. Evaluation of the social domain was highest in the group of married people whereas divorced respondents evaluated their

physical domain most highly. Having analysed elements comprising the WHOQOL-Bref questionnaire, it was found that a statistically significant difference between marital status and quality of life occurred merely in the environmental domain.

A detailed analysis of quality of life in relation to socio-demographic variables has been presented in table II.

## Discussion

A structure of the quality of life concept is a complex one. Physical, material, social, emotional wellbeing and satisfaction with one's productivity should all be taken into consideration while analysing this issue. A number of factors were identified which affected quality of life. These included physical, emotional, intellectual and social functioning, life satisfaction, perception of health, economical status, sexual functioning, vitality, energy and the way of spending free time [11,12].

Evaluating quality of life consists in comparing patient's expectations with their actual state. It is made according to subjective criteria as each patient establishes their individual measurement. Examining patient's state within the scope of physical, mental and social wellbeing as well as satisfaction with life in various domains constitute a basis for evaluating patients' quality of life [6].

According to our findings, the research pool described their quality of life level as low. Physical and psychological domains were evaluated most lowly.

Similarly, a study carried out among elderly people in Taiwan proved quality of life in patients staying in long-term care institutions to stay at a low level [13]. Values within physical and psychological domains were lowest.

Findings of a study carried out by Zboina et al. [14] among elderly people provided with long-term care confirm results of our own investigation. Authors found elderly people staying in long-term care institutions to have evaluated their quality of life most lowly within psychological and physical domains. Patients' health state also proved to be a significant factor affecting their quality of life. Health state evaluation made by investigated elderly people stayed rather low, females evaluating their health state at a lower level than males. Research by Budzyńska-Kapczuk [15] concerning quality of life in patients staying in long-term care institutions suggest that the aforesaid evaluation is affected by physical, mental and social factors. Difficulty in mobility and balance disorders appeared to be greatest problems which decreased quality of life in elderly people by restricting their life space and causing elderly people to become dependent on others. She also found patients' stay in long-term care institutions to have considerably affected life style and to have caused an improvement in elderly people's quality of life within the scope of cultural life, taking care of one's health state, religious practice and social life.

Investigation findings that concerned quality of life conditions faced by elderly people proved positive evaluations to have been made by people staying in their family environments. A lower evaluation of the quality of life made by people staying in long-term care institutions was connected with a necessity to adapt to new living conditions and to a rather arbitrary company of other patients [16].

An analysis of sources showed quality of life to depend on such demographic criteria as: age, gender, education, marital status and types of health problems [17-19]. The investigation we administered presented quality of life evaluation in relation the marital status of patients provided with institutionalized long-term care. Best evaluations of quality of life in its various aspects were made by single patients (bachelors/ maidens). It is only within physical and social domains that their evaluation was lower in comparison with other groups. These conclusions were confirmed by other authors' findings [20] where the index of quality of life was also higher in case of single people. However, research by Luleci et al. [21] showed elderly married people to have made highest evaluations of quality of their lives in comparison with other groups.

Our study also specified quality of life depending on investigated patients' education. Patients with higher education obtained highest values in the three domains comprising quality of life and within the scope of general quality of life as well as health self-evaluation. It is only within the scope of social relations that people with secondary education scored higher than those with higher education. Studies by other authors also confirmed evaluation of quality of life made by people with higher education to be higher [21,22]. Education was found to be a significant factor affecting quality of life. Higher education was a condition for better quality of life. Our investigations confirmed this correlation.

## Conclusion

Subjective quality of life evaluation made by elderly people provided with long-term care was rather low. Physical domain was evaluated most lowly by our respondents. People with higher education evaluated their quality of life better.

## Conflict of interest

None.

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