

SELF-ASSESSED QUALITY OF LIFE (QOL) OF RESIDENTS RECEIVING LEVEL 2 AND LEVEL 3 SOCIAL SERVICES IN COUNTY-OWNED NURSING HOMES IN THE CITY OF ZAGREB

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The aim was to analyze whether there is significant difference in self-assessment of the examined domains of the quality of life in residents receiving level 2 and level 3 social services in county-owned nursing homes in the City of Zagreb. This analytical cross-sectional survey was conducted successively (2018-2019) in 3 county-owned nursing homes in Zagreb including residents from nursing homes with levels 2 and 3 social services. The Quality of Life Scales for Nursing Home Residents 2001 test was used to examine the self-assessed quality of life in 92 residents aged ≥ 65 , while Barthel Index modified by Shah, Vanclay and Cooper (MBI) was used to assess their functional independence. General sociodemographic variables were used including the level of social services provided. Study results showed that the self-assessed domains of functional competence ($Z=5.050$), privacy ($Z=4.687$), meaningful activity ($Z=4.632$), interpersonal relationships ($Z=3.394$), autonomy ($Z=3.352$) and individuality ($Z=3.755$) ($p<0.001$ all) were significantly higher among residents receiving level 2 versus level 3 social services. Self-assessed quality of life ($N=92$) showed the lowest level in the domain of food enjoyment ($Me=11.40$; $IQR=9.02-11.40$). In conclusion, difference in the examined domains of self-assessed quality of life between level 2 and level 3 users of social services in nursing homes guides the gerontologic multidisciplinary team in selecting interventions that can contribute to improving the quality of life of the elderly, especially the functionally dependent ones who need help of others in all areas of functioning (level 3 social services). The self-assessed quality of life of residents receiving level 2 and level 3 social services showed the lowest level in the domain of food enjoyment, which indicates the need for interventions in the implementation gerontologic nutritional standards and menus in nursing homes.

Key words: functional independence, nursing homes, quality of life self-assessment, the elderly

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INTRODUCTION

There are numerous specific qualities in the elderly population, which undoubtedly affect the self-assessment of their quality of life (QOL) (1). Resources provided by society for the elderly who are functionally disabled or who are unable to live independently (2), namely home care and residential care, are particularly important. Loss of functional independence is a factor associated with greater dependency of the elderly on help from others and on health care (3), and is one of the main reasons for leaving their homes (4,5). The in-

ability of the elderly to perform basic activities of daily living (ADL) in their home is a significant predictor of their dependence on someone else's care, placement in the nursing home, and death (6,7).

Changes resulting from moving into a nursing home are noticed in social interactions and adaptation to domains that include privacy, dignity and independence (8). Satisfaction with the examined domains of elderly people's quality of life is connected with age, gender, number of health problems, and level of functional independence (9-11). Personal perception of the QOL

of the elderly is also influenced by cultural context, personal goals, social network, interpersonal relationships (12-14), and many other factors.

The phenomenon of aging is undoubtedly connected to the QOL of the elderly individual, and research indicates the importance of age structure factors or gender differentiation as, for example, in nursing homes, men and younger old people often report better health and quality of life (15). Likewise, the results of some studies showed positive correlation between QOL and increasing age, and older age was associated with better self-assessment of QOL in elderly day care centre (16). Research indicates that lower levels of functional independence for elderly are associated with poorer self-assessment of their QOL (10,11). On the other hand, it has been noticed that elderly people with lower levels of functional independence who lived in their homes rated their QOL better than elderly nursing home residents with higher levels of functional independence (17).

Likewise, research on the QOL of elderly people in nursing homes around the world indicates that women have lower QOL than men (15,18,19). This may be due to sociodemographic factors, lifestyle and level of education, which may explain a significant part of differences in self-assessment of certain QOL domains between women and men (20). However, in most Croatian research conducted in nursing homes, there was no gender related difference in satisfaction with life or in self-assessment of the QOL of the elderly (21,22), as opposed to other countries (15,18-20,23).

According to a study by Havelka *et al.* (24), the need for care services differs with respect to certain examined gerontologic-public health indicators (e.g., age and gender), so that, as expected, people in the older age groups compared to the younger ones have a greater need for all care services. This implies that the elderly with reduced functional independence who are classified as receivers of level 3 social services (with the highest intensity and scope of providing necessary social services) will have their needs better taken care of within 24 hours in institutional care than in their own home, which can have a positive effect on their self-assessment of QOL.

Studies have shown that residents of nursing homes in Croatia assessed their overall QOL as mediocre, and that there was correlation between the aspects of QOL and satisfaction with nursing home services, since residents who were more satisfied with these services assessed their QOL as better (25). To date, no gerontologic research has been carried out linking the self-assessment of the QOL of home residents with the level of social services variable specified in the Ordinance

on minimum conditions for the provision of social services by the Ministry of Demographics, Family, Youth and Social Policy (26).

Therefore, the main aim was to investigate whether there is a significant difference in the self-reported domains of the QOL of beneficiaries receiving level 2 *versus* level 3 social services in county-owned nursing homes in the City of Zagreb.

Our research covered self-assessment of the QOL of nursing home residents who are partially dependent on the help of another person to take care of their basic needs (level 2) *versus* those who are functionally dependent on another person to take care of all their needs (level 3). This would improve and balance the quality of care in nursing homes for the elderly with different needs.

PARTICIPANTS AND METHODS

Analytical cross-sectional survey study was carried out successively in 3 county-owned nursing homes in Zagreb (Dubrava, Ksaver and Sv. Josip Nursing Homes) in the period from 2018 to 2019. This survey included 32 respondents receiving level 2 social services and 60 respondents receiving level 3 social services. The residents who wanted and could provide informed consent for the survey were included in the study, covering 27.1% of the residents at level 2 social services and 30.5% at level 3 social services in three nursing homes in Zagreb (Dubrava, Ksaver and Sv. Josip). It should be emphasized that this sample did not overlap with previous research on the QOL of nursing home residents, which predominantly included functionally independent elderly persons (27).

The approval for this study was obtained from the Ethics Committee of the Andrija Štampar Teaching Institute of Public Health.

Participant inclusion/exclusion criteria

Inclusion criteria were as follows: the participants were residents of 3 selected county-owned nursing homes in Zagreb (Dubrava, Ksaver and Sv. Josip Nursing Homes) aged 65 and older who agreed to participate in the study and received level 2 or level 3 social services.

Exclusion criteria were serious health problems that might affect the ability to complete the questionnaire and give informed consent, such as severe psychiatric disorders and severe cognitive impairment (dementia), Alzheimer's disease (moderate/moderately severe phase of the disease), acute illnesses accompanied by high fever, or consciousness disorder.

Instrument

The Quality of Life Scales for Nursing Home Residents 2001 (28) and Barthel Index modified by Shah, Vanclay and Cooper (MBI) (29) structured tests were used to examine residents aged ≥ 65 in 3 county-owned homes in Zagreb. The level of social services was determined by the Ordinance on the minimum conditions for the provision of social services by the Ministry of Demographics, Family, Youth and Social Policy (26). For the Quality of Life Scales for Nursing Home Residents 2001 test, translation from English to Croatian and back translation (for text comparison) from Croatian to English were made. In this study, nursing home residents self-assessed their QOL using a questionnaire which tested the following domains: comfort; functional competence; privacy; dignity; meaningful activity; interpersonal relationships; autonomy; food enjoyment; spiritual well-being; security; and individuality.

The interviews were conducted by persons educated for work with the elderly (physician, social gerontologist, nurse), who are not employees of any of the participating nursing homes. The questionnaire on the sociodemographic status of nursing home residents collected the following general variables on residents from social workers employed at particular nursing home: level of social services they received, age, gender, marital status, educational level, and length of stay in the nursing home.

Statistical analysis

The results were expressed using descriptive statistics methods where the normality of distribution was first tested by the Kolmogorov-Smirnov test. Normally distributed values were expressed by arithmetic mean and standard deviation as an indicator of dispersion, while in the case of deviation from normal distribution, median as the mean and interquartile range were used as dispersion indicator.

To test for group differences, parametric tests were used for normally distributed groups (gaussian curve) of quantitative data (T-test, ANOVA), while non-parametric tests were used to test group differences if the values did not follow normal distribution (Mann-Whitney U, Kruskal-Wallis test).

The level of statistical significance was set at $\alpha=0.05$ and statistical analysis was performed using SPSS 25 software package (IBM, USA).

RESULTS

A total of 92 residents living in three county-owned nursing homes in Zagreb participated in the study. All participants were aged ≥ 65 , divided into three groups (30) by their age: young-old (65-74 years), medium-old (75-84 years) and oldest-old (≥ 85 years).

Most of the participants (92.3%) were oldest-old and medium-old, and the group of the young-old was the smallest, only 7.7%. Of the 92 people included in the study, three-quarters were female (76%) and one quarter were male (24%). As for their marital status, the majority of participants, almost two-thirds, were widows (65.2%) and there were least of those divorced (6.5%). Considering their level of education, the highest number of participants had elementary school education (45.7%) and the least number had undergraduate degree (4.3%). Concerning the level of social services, the highest number of respondents received level 3 (65.2%), followed by level 2 (34.8%) social services. In relation to MBI (29) functional ability, the majority of subjects were totally dependent (36.9%), followed by moderately dependent (32.6%), slightly dependent (18.5%), completely independent (8.7%), and the least number of severely dependent (3.3%) subjects. Considering the length of stay of the participants in nursing homes, the share of those having spent 2-5 years in nursing home was highest (27%), followed by 1-2 years (20%), 5-10 years (16.5%), equal percentage (15.3%) in the categories of 0-6 months and 6 months to 1 year, while 5.9% of the residents had been living in nursing home for 10 or more years.

1. Resident (N=92) self-assessed QOL by tested domains (Table 1) showed the highest level in the domain of individuality (Me=22.80; IQR=12.00-22.80), while the lowest level was determined in the domain of food enjoyment (Me=11.40; IQR=9.02-11.40).

Table 1.

Analysis of self-assessed quality of life of residents (N=92) in 3 county-owned nursing homes (Zagreb, 2018-2019) by tested domains (28)

Quality of life domain	Median	IQR
Comfort (physical)	18.20	15.90-21.00
Functional competence	16.70	7.50-19.00
Privacy	19.00	15.20-19.00
Dignity	19.00	18.20-19.00
Meaningful activity	16.20	11.50-20.15
Interpersonal relationships	13.90	10.10-16.20
Autonomy	15.20	12.82-15.20
Food enjoyment	11.40	9.02-11.40
Spiritual well-being	12.90	10.60-15.20
Security	16.70	14.40-17.00
Individuality	22.80	12.00-22.80

IQR = interquartile range

2. The domains of self-assessed functional competence ($Z=5.050$), privacy ($Z=4.687$), meaningful activities ($Z=4.632$), interpersonal relationships ($Z=3.394$), autonomy ($Z=3.352$) and individuality ($Z=3.755$)

($p<0.001$ all) were significantly higher among residents receiving level 2 than in those receiving level 3 social services (Table 2).

Table 2.

Comparison of domains of resident ($N=92$) self-assessed quality of life (28) in 3 county-owned nursing homes (Zagreb, 2018-2019) in relation to the level of social services

	Category 2		Category 3		MW - U*	Z	p
	Me	IQR	Me	IQR			
Comfort (physical)	19.50	(16.78-22.65)	17.50	(15.60-20.90)	727.50	1.141	0.257
Functional competence	19.00	(19.00-19.00)	10.50	(7.50-19.00)	304.50	5.050	<0.001
Privacy	19.00	(19.00-19.00)	16.70	(12.75-19.00)	370.50	4.687	<0.001
Dignity	19.00	(19.00-19.00)	19.00	(18.00-19.00)	751.00	1.848	0.065
Meaningful activity	20.15	(16.75-21.63)	14.45	(9.95-17.59)	314.00	4.632	<0.001
Interpersonal relationships	15.50	(13.30-16.20)	11.60	(10.00-14.00)	540.50	3.394	0.001
Autonomy	15.20	(15.20-15.20)	14.70	(11.45-15.20)	558.00	3.352	0.001
Food enjoyment	11.40	(9.03-11.40)	10.60	(9.03-11.40)	804.00	1.377	0.170
Spiritual well-being	13.10	(12.30-15.20)	12.30	(9.68-15.05)	701.00	1.725	0.085
Security	16.70	(15.83-16.78)	16.70	(14.00-17.45)	780.00	0.810	0.421
Individuality	22.80	(22.80-22.80)	20.50	(12.00-22.80)	519.00	3.755	<0.001

*Mann-Whitney U test

Z = approximate Z value for the corresponding MW U value; IQR = interquartile range

3. Comparison of functional independence (MBI) (29) with the domains of self-assessed QOL revealed a statistically significant difference in the domains of functional competence ($H=63.56$; $p<0.001$), pri-

vacy ($H=17.31$; $p=0.002$) and meaningful activities ($H=33.97$; $p<0.001$), where the lowest value was determined in totally dependent residents (Table 3).

Table 3.

Comparison of domains of resident ($N=92$) self-assessed quality of life (28) in 3 county-owned nursing homes (Zagreb, 2018-2019) in relation to their functional independence (MBI)*

	Total dependence	Severe dependence	Moderate dependence	Slight dependence	Complete independence	Kruskal-Wallis H**	Df	p
	Me (IQR)	Me (IQR)	Me (IQR)	Me (IQR)	Me (IQR)			
Comfort (physical)	17.40 (15.40-19.70)	21.80 (20.50-23.10)	19.20 (16.40-20.80)	17.70 (15.60-21.65)	22.80 (14.60-22.80)	5.61	4	0.230
Functional competence	7.50 (7.50-7.50)	16.70 (11.00-22.40)	19.00 (14.93-19.00)	19.00 (19.00-19.00)	19.00 (19.00-19.00)	63.56	4	<0.001
Privacy	16.70 (9.75-19.00)	18.20 (15.80-20.60)	19.00 (16.70-19.00)	19.00 (15.85-19.00)	19.00 (19.00-19.00)	17.31	4	0.002
Dignity	19.00 (17.50-19.00)	19.00 (19.00-19.00)	19.00 (17.80-19.00)	19.00 (18.60-19.00)	19.00 (19.00-19.85)	9.16	4	0.057
Meaningful activity	10.00 (9.13-15.15)	22.45 (14.25-30.65)	18.00 (15.00-20.65)	19.40 (15.30-20.90)	20.15 (17.44-22.06)	33.97	4	<0.001
Interpersonal relationships	12.75 (9.00-13.90)	16.00 (14.00-18.00)	13.90 (10.50-16.20)	15.40 (11.80-16.20)	13.90 (9.65-16.20)	6.52	4	0.164
Autonomy	13.40 (11.10-15.20)	15.00 (13.40-16.60)	15.20 (12.90-15.20)	15.20 (15.20-15.20)	15.20 (14.30-15.35)	8.72	4	0.068
Food enjoyment	10.80 (9.00-11.40)	11.40 (10.00-12.80)	11.20 (9.00-11.40)	11.40 (9.00-11.40)	11.40 (9.68-11.40)	3.19	4	0.526
Spiritual well-being	11.35 (8.33-15.00)	12.00 (7.00-17.00)	12.90 (10.60-15.10)	13.40 (11.10-15.20)	13.75 (12.23-15.20)	5.14	4	0.273
Security	16.70 (14.40-18.20)	16.70 (14.00-19.40)	16.50 (14.40-17.05)	16.70 (14.95-16.70)	16.70 (14.00-19.00)	0.69	4	0.952
Individuality	20.50 (12.00-22.80)	17.00 (9.50-24.50)	22.80 (12.00-22.80)	22.00 (13.20-22.80)	22.80 (14.70-22.80)	4.49	4	0.343

*MBI categories: 0-20=total dependence; 21-60=severe dependence; 61-90=moderate dependence; 91-99=slight dependence; 100=complete independence **Kruskal-Wallis test df = degree of freedom; number of categories of independent variable -1 IQR = interquartile range

4. We did not find any significant gender differences in QOL domains (Table 4).

Table 4.
Comparison of domains of resident (N=92) self-assessed quality of life (28) in 3 county-owned nursing homes (Zagreb, 2018-2019) according to gender

	Male		Female		MW - U*	Z	p
	Me	IQR	Me	IQR			
Comfort (physical)	20.00	(17.60-21.90)	17.40	(15.40-20.63)	545.50	1.47	0.144
Functional competence	19.00	(9.50-19.00)	15.00	(7.50-19.00)	568.00	1.40	0.165
Privacy	19.00	(17.45-19.00)	18.20	(15.00-19.00)	584.50	1.24	0.217
Dignity	19.00	(17.08-19.00)	19.00	(18.60-19.00)	709.50	0.52	0.604
Meaningful activity	19.95	(13.38-22.08)	15.90	(11.05-19.40)	489.00	1.78	0.075
Interpersonal relationships	13.90	(9.75-16.20)	13.90	(10.30-16.20)	745.00	0.13	0.898
Autonomy	15.20	(12.00-15.20)	15.20	(12.90-15.20)	705.50	0.43	0.672
Food enjoyment	11.40	(8.83-11.40)	11.40	(9.00-11.40)	712.00	0.57	0.572
Spiritual well-being	12.65	(10.40-13.55)	12.90	(10.60-15.20)	648.50	0.85	0.398
Security	16.70	(12.58-16.70)	16.70	(14.40-17.95)	555.50	1.27	0.207
Individuality	20.50	(12.00-22.80)	22.80	(12.05-22.80)	739.00	0.20	0.847

*Mann-Whitney U test

Z = approximate Z value for the corresponding MW U value; IQR = interquartile range

5. Comparison of self-assessed QOL domains according to age groups revealed a statistically significant difference in the domain of dignity (H=9.696; p=0.008), where lower levels were found in residents of the 85+ age group followed by 75-84 and 65-74 age groups (Table 5).

Table 5.
Comparison of domains of resident (N=92) self-assessed quality of life (28) in 3 county-owned nursing homes (Zagreb, 2018-2019) according to age groups

	65-74		75-84		85+		Kruskal-Wallis H*	Df	p
	Me	IQR	Me	IQR	Me	IQR			
Comfort (physical)	20.00	(14.60-22.80)	18.20	(15.40-20.65)	17.95	(16.35-21.85)	1.134	2	0.567
Functional competence	14.95	(7.50-17.28)	19.00	(7.50-19.00)	16.70	(7.50-19.00)	0.685	2	0.710
Privacy	19.00	(17.83-19.00)	18.20	(14.40-19.00)	19.00	(15.90-19.00)	1.483	2	0.476
Dignity	19.00	(19.00-20.00)	19.00	(19.00-19.00)	19.00	(17.20-19.00)	9.696	2	0.008
Meaningful activity	21.05	(16.68-22.83)	17.30	(11.55-20.23)	15.30	(10.53-20.15)	5.696	2	0.058
Interpersonal relationships	15.60	(13.90-16.20)	13.90	(10.73-16.20)	13.90	(10.00-16.20)	2.566	2	0.277
Autonomy	15.00	(12.90-15.20)	15.20	(13.15-15.20)	15.20	(11.80-15.20)	0.501	2	0.778
Food enjoyment	11.40	(9.00-11.40)	11.40	(9.10-11.40)	11.40	(9.00-11.40)	0.922	2	0.631
Spiritual well-being	12.90	(8.40-13.40)	14.00	(10.60-15.20)	12.90	(9.80-14.70)	2.127	2	0.345
Security	16.70	(16.13-17.00)	16.70	(15.00-18.80)	16.70	(14.20-16.70)	2.899	2	0.235
Individuality	22.80	(12.00-22.80)	22.80	(14.35-22.80)	21.00	(12.00-22.80)	1.303	2	0.521

*Kruskal-Wallis test; IQR = interquartile range

DISCUSSION

The results obtained by analysis of the self-assessed QOL of residents receiving levels 2 and 3 social services in 3 county-owned nursing homes in relation to the variables examined, i.e. age structure, gender, levels of social services, and functional independence categories, showed that statistically significant differences in individual domains were regularly present except for gender (Tables 1-5).

The analysis of resident self-assessed QOL (Table 5) showed that significant age related differences were present in the smallest number of domains (1/11; dignity).

Many domains (6/11; functional competence, autonomy, privacy, individuality, meaningful activities and interpersonal relationships) in resident self-assessment of the QOL were related to the level of social services provided (Table 2). This indicates the crucial role of distributing and delivering the scope and intensity of social services in nursing homes with the aim of focusing gerontologic interventions in order to preserve and improve the quality of resident lives. Distribution by levels of social services in nursing homes was mainly based on the functional independence of the elderly. Consequently, analysis of resident self-assessed QOL in relation to the distribution by categories of functional independence MBI (29) also yielded a statistically significant difference in the number of domains examined (3/11), namely privacy, functional competence, and meaningful activities (Table 3).

The primary objective of determining functional competence (independence) of an elderly person is to determine the degree of ability (independence) in completing certain tasks as part of performing daily activities (such as dressing, walking, eating, etc.) and the need for someone else's help or aids. Standardized measurements, appropriate validity and reliability (31) are applied to determine functional status, depending on the purpose of the assessment and the group we are testing. Consequently, functional competence of the elderly involves assessing the ability to perform all daily activities that ensure appropriate QOL, including biological, psychological and social functioning (30). This is a crucial gerontologic-public health indicator that guides professionals in the health care of the elderly in the application of health and social interventions such as the organizational, institutional or non-institutional care for an individual user (32). Thus, the level of functional independence (objectively determined by medical staff using standardized questionnaires) is particularly relevant for assessing the QOL of elderly persons and for developing integrated gerontologic projects that comprehensively embrace an intersectoral approach to the provision of

health and social care services for the elderly (29,32). For example, MBI (29) is frequently used and easy to administer for functional independence assessment for the elderly.

Quality of life assessment requires a multidimensional approach (8,9,12,33,34), which refers to objective descriptors and subjective, comprehensive assessment of well-being over a wide area of functioning of an elderly person (12,32,34). Research points to particularities in assessing the QOL of the elderly, such as the limited utility of using the SF36 questionnaire in nursing homes (28,35). Consequently, for example, the Quality of Life Scales for Nursing Home Residents (University of Minnesota School of Public Health) (28) is used, with domains that primarily cover psychological and social aspects of the QOL, such as physical comfort, privacy, autonomy, dignity, spiritual well-being, and others (28,36).

The QOL of the elderly is connected to the availability and sufficiency of institutional and non-institutional professional assistance needed in the local community (37). In old age, QOL is also affected by the sense of usefulness, degree of activity, a preserved social network and family relationships (14,38). It has been found that the needs for health care services, home care services, and services related to leisure time and activities of the elderly (24) differ with respect to the individual determinants of gerontologic-public health indicators (such as age and gender), and it is expected that people in elderly groups compared to younger groups will have a greater need for all care services.

Studies suggest that the most important aspects of the QOL of nursing home residents are their dignity, spiritual well-being, food enjoyment (39), leisure activities, and independence, but also the impact of family relationships, social life, independence, tranquility and satisfaction (39,40).

The predictors that indicate lower QOL for the elderly in nursing homes are the diagnosis of depression, decreased functionality in daily activities (10,41), neuropsychiatric symptoms of dementia (42), lower socioeconomic status and social support (4,43), cognitive impairment (10), female gender (20,23), multiple comorbidities (43) and an extended stay in the nursing home (4). In particular, it should be noted (44) that depression and difficulty in communicating with staff are two main variable risk factors for poorer QOL of elderly home residents. Consequently, it can be concluded that many studies in nursing homes indicate that resident self-assessment of the QOL across the examined domains differ with respect to gender, functional independence, mental health, represented health problems, and other factors (10,11,16,23,45).

In this study, self-assessment of the QOL in residents receiving level 2 and level 3 social services showed that the lowest level was in the domain of food enjoyment (Table 1), which indicating the need for necessary interventions in the implementation of gerontologic nutritional standards and menus in nursing homes.

The results of this study looking into differences in the examined domains of self-assessed QOL of the elderly, e.g., meaningful activities (Table 2), indicate the need for the application of targeted gerontologic interventions such as appropriate occupational therapy in accordance with personal preferences, health status, and level of functional independence for residents receiving level 3 social services. Such gerontologic interventions refer to the improvement of health and social services for residents, which would result in improving the aspect of satisfaction with nursing home services directly related to their QOL (25). Consequently, the established connection between the level of social services of nursing home residents and their self-assessed QOL suggests the need for further research paying special attention to mental health and verified diagnoses of the residents.

The limitations of this study were that the study did not include groups of residents receiving level 4 social services in nursing homes, which includes residents with dementia, Alzheimer's disease (moderate/moderately severe phase of the disease) because of a significant problem in communication and their testing. Thus, subjects with severe cognitive impairments and other severe psychiatric disorders were not included, which could have an impact on the results across the QOL domains. Also, the impact of chronic illnesses of residents that could affect their self-assessment of QOL was not examined (45,46). Undoubtedly, many variables such as family relationships, length of stay in nursing home, or depression are relevant and can greatly affect the life satisfaction of the elderly, but go beyond the scope of this research and represent a limitation of this study.

The number of participants in this study was not representative of private nursing homes, which show great diversification in the possibilities of providing social services.

Also, residents who are accommodated in the so-called residential part of nursing homes and classified as level 1 social service users, meaning that they were fully functionally independent, were not included in the survey. Results of a previous study on self-assessment of QOL conducted on 150 residents, of which more than 50% were fully functionally independent according to the MBI, show the lowest estimated domain of physical comfort and sense of security (Mak-

simir, Peščenica and Sv. Josip Nursing Homes, Zagreb, HR) (2017-2018) (27).

CONCLUSION

Research on the association between selected gerontologic-public health indicators such as levels 2 and 3 social services provided, category of functional independence (MBI), age, gender and QOL of the elderly is important because of the opportunities for improving the individual gerontologic approach with a recommendation for greater adaptability towards residents who are completely dependent on another person's help.

The results of this study demonstrate a significant difference in the examined domains of self-assessed QOL between residents of nursing homes who are partially *versus* totally dependent on the assistance of others (levels 2 and 3 social services), and at the same time guide the gerontologic multidisciplinary team in selecting focused interventions that can contribute to improving the QOL of the elderly.

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S A Ž E T A K

SAMOPROCIJENJENA KVALITETA ŽIVOTA KORISNIKA KOJI PRIMAJU 2. I 3. STUPANJ SOCIJALNIH USLUGA U DECENTRALIZIRANIM DOMOVIMA ZA STARIJE U GRADU ZAGREBU

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Cilj je bio analizirati postoji li značajna razlika u samoprocjeni ispitivanih domena kvalitete života korisnika koji primaju drugi stupanj socijalnih usluga naspram korisnika koji primaju treći stupanj socijalnih usluga u decentraliziranim domovima u Gradu Zagrebu. Analitičko presječno istraživanje sukcesivno je provedeno 2018.-2019. godine u tri decentralizirana doma za starije u Gradu Zagrebu uključujući korisnike domova za starije koji primaju 2. i 3. stupanj socijalnih usluga. Pomoću testa *Quality of Life Scales for Nursing Home Residents 2001*. ispitana je samoprocjena kvalitete života kod 92 korisnika u dobi od ≥ 65 godina, dok je za procjenu njihove funkcionalne samostalnosti korišten Barthel indeks modificiran prema Shah, Vanclay i Cooper (MBI). Korištene su opće sociodemografske varijable uključujući i stupanj socijalnih usluga. Samoprocjena domena funkcionalne sposobnosti ($Z=5,050$), privatnosti ($Z=4,687$), smislene aktivnosti ($Z=4,632$), međuljudskih odnosa ($Z=3,394$), autonomije ($Z=3,352$) i individualnosti ($Z=3,755$) ($p<0,001$ sve) bila je značajno veća kod korisnika koji primaju 2. stupanj socijalnih usluga u odnosu na korisnike koji primaju 3. stupanj socijalnih usluga. Samoprocijenjena kvalitete života korisnika ($N=92$) pokazala je najnižu razinu u domeni uživanja u hrani ($Me=11,40$; $IQR=9,02-11,40$). Razlika u ispitivanim domenama samoprocijenjene kvalitete života između korisnika 2. i 3. stupnja socijalnih usluga u domovima za starije usmjerava intervencije gerontološkog multidisciplinskog tima koje mogu doprinijeti poboljšanju kvalitete života starijih osoba, i to poglavito za funkcionalno ovisne kojima je potrebna pomoć druge osobe u punom opsegu (3. stupanj socijalnih usluga). Samoprocijenjena kvaliteta života korisnika koji primaju 2. i 3. stupanj socijalnih usluga pokazala je najnižu razinu u domeni uživanja u hrani, što upućuje na potrebu nužnih intervencija u primjeni gerontološko prehrambenih normi i jelovnika domova za starije osobe.

Ključne riječi: funkcionalna samostalnost, domovi za starije, samoprocjena kvalitete života, starije osobe