



Evaluation of Self-Sufficiency in seniors

Hudáková A* and Majerníková L

University of Prešov in Presov, Faculty of Health Care Presov, Slovakia

*Corresponding author: Anna Hudáková, Faculty of Health Care. Department of Nursing, Partizánska, University of Presov in Presov, 1; 080 01 Prešov, Tel: +421517562460; Email: Anna.Hudakova@unipo.sk

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Abstract

Background: Performance falls in old age and the onset of chronic diseases is developing a series of malfunctions and consequently there is impaired self-sufficiency and dependence.

Methods and Sample: The aim of this work was to determine how perceived self-sufficiency and quality of life among seniors in the institutional facilities. We selected in this work a sample of 212 seniors with standardized questionnaire surveyed the relationship of self-sufficiency and quality of life of the seniors population. Based on statistical comparisons, using Mann - Whitney test.

Results: We found poorer self-sufficiency in geriatric patients (ADL score, M=11,65) compared with residents in facilities for the elderly (ADL score, M=8,92). In our study confirmed a clear dependence on the level of self-sufficiency and quality of life of seniors ($p < 0.001$). ADL test has been identified in the region of Presov from the group of 1028 seniors 65 years and older 149 probants who completed the test insufficiently.

Conclusions: Recommendations contained in the ADL tests, balance tests and others are part of a comprehensive geriatric assessment. The quality of life of seniors is an important indicator of their care.

Keyword: Self-sufficiency; Quality of life; Physical performance; Disability

Introduction

Prolongation of human life is associated with higher morbidity and functional disability [1]. For disability is an important measure of residual sovereignty [2]. Self-sufficiency of the individual is conditioned by two factors: functional state of the environment and demands. Many individuals with severe disabilities are fully self-sufficient in quality high-end housing (lift, central heating, kitchen equipment, communication and availability below). Or barrier-free environment but dependent in harsh environments [1,3].

East Slovakia region is one of the economically underdeveloped areas across the European Union. His status is reflected in the health and social fields. Social services are inadequate in terms of quality and scope, institutional care is limited, senior financial options are restricted [4]. These aspects mainly influence the the quality of life and the senior population. Increasing age and the presence of chronic diseases influence the whole series of functional defects what makes self-sufficiency worse and develops the dependence of handicapped individuals [5]. Self-sufficiency can be easily detected by I-ADL test (Instrumental Activity of Daily Living) that is insufficient already in early state of functional defect,

in the following period the absence of basic daily activities comes along what we find out by ADL test (Activity of Daily Living) [6].

Aim of Study

The aim of this research was to evaluate the proportion of relation of life quality from the self-sufficiency in basic daily activities of patients hospitalized at geriatric departments and residents in facilities for elderly. We supposed that the level of self sufficiency of geriatric patients and residents in facilities for elderly statistically differs and is important factor of their subjective evaluation of own life quality.

Methods and Sample

Altogether 126 patients of Geriatric department of Faculty Hospital J. A. Reiman Presov and 86 residents of Facility for elderly in Presov (Slovakia) took part in survey. The whole sample contained 212 respondents. In our survey we used causal-comparable research. For selecting individual components, we used in research the method of

gaining the information with the help of two batteries of standardized tests - test of self-serving daily activities ADL (ADL test or Barthel test it is a standardized self-judging scale that finds out the level of managing the self-serving activities performed daily; the value of Crombach alpha of used method moved between the interval of 0,82-0,91 for individual items).

For statistical comparison of surveyed groups we used the test for two independent selections, Mann – Whitney test. This unparametrical method enabled us to find out statistically the major differences between the groups in researched parameters.

Results

Senior population assessed their quality of life, especially in terms of the perception of their health status. Therefore we were interested in the representation of the largest health problem in the study groups (Table 1).

	Geriatric patients	Facility for seniors
	n	n
Diseases of the ardiovascular system	65	36
Diseases of the locomotor system	61	50

Table 1: Comparison of the biggest health problem.

The graphic view is clear that the severity of priority health problems are heart disease (65 geriatrics patients and 36 seniors). This is connected with the fact that cardiovascular disease can keep the primacy in the prevalence of disease in Slovakia. The high representation of musculo-

skeletal system in this age group (61 geriatric's patients and 50 seniors) confirms our assumption that mobility is a major domains of quality life of geriatric patients and seniors. We also investigated the perceptions of quality of life in both groups.

Parameter	Geriatric patients		Institutions for seniors		Z
	M	SD	M	SD	
Toilette ADL	2,00	1,36	1,48	0,97	- 4,264***
Food income ADL	1,66	1,05	1,16	0,41	- 5,283***
Dressing ADL	1,83	1,12	1,25	0,52	- 5,557***
Appearance ADL	2,02	1,10	1,61	0,81	- 3,658***
Mobility ADL	2,64	1,45	2,33	1,48	- 2,541**
Bathing ADL	2,08	1,08	1,63	1,02	- 2,541***
ADL rough score	11,65	5,82	8,92	3,53	- 4,885***

Table 2: Statistical results of search of differences between both groups found out by Mann – Whitney test.

Legend: M – Median. SD - Standard Deviation. Z – Z Score

We can conclude from the above results ($p < 0.001$) that in population group for senior citizens is manifested gross

score significantly higher overall quality of life associated with a health group than in geriatric patients. We see cause

that unlike residents in facilities for seniors dominated in geriatric patients actual health complications and unresolved possibilities of life perspective (who will take care of them after their release, the rate of self-sufficiency, etc.). We list the results of surveyed groups in self-sufficiency according to test ADL. The values are evidently different in all tested items – toilette, food income, dressing, appearance, mobility, and bathing (Table 2).

From the results in Table 1 it is obvious that there is a major dependence of level of self-sufficiency from the life quality of seniors ($p < .001$). On the basis of stated facts, we can say that the correlative relationships of both groups among evaluated parameters have comparable power and direction.

Discussion

The stated results prove our supposition that increasing deficit of self-sufficiency causes the decline of life quality of geriatric patients and of residents in facilities for elderly. That means that their correlative relationship is negative.

At the item bathing the rough score with ADL test is 0,897, with BREF test is -0,513, at the item mobility is rough score with ADL test 0,824, with BREF test is -0,432, at the item adjustment of appearance is rough score with ADL test 0,891, with BREF test -0,498 and similar results are with the rest of the tested items. In our research we found out the diminished self-sufficiency (rough score with ADL test = 11,65) with geriatric patients in comparison to residents of facilities for elderly (rough score with ADL test = 8,92). Our results proved that less self-sufficient are especially hospitalized geriatric patients in comparison to clients of institutions for seniors. Rough score of ADL questionnaire

in relation to scale of BFEF is -0,544 with geriatric patients and -0,428 with residents in facilities for elderly. That is why within care giving and rehab care we should stimulate the patients into active participation on recovery regime instead of position of passively accepting help [7].

ADL test should be the main functional test for disclosing self-sufficiency (or lack of it) with geriatric patients and support of their self-sufficiency should be the domain of geriatric care givers. Positive task can play various compensation aid gadgets for increasing self-sufficiency of patients in all its areas [8]. For maintaining the adequate physical capabilities, it is necessary to provide for senior's various mobility activities by the form of every day exercises and common mobility programs. Equally important is the psychical support of seniors that are from the point of their age and functional conditions always a risk group for medicine and care giving [1,8].

Other authors has identified ADL test (ADL – Activity of Daily Living according to Barthel's) in the region of Presov from the group of 1028 seniors 65 years and older 149 seniors who completed the test insufficiently [4,9]. After the approval of these 149 seniors there were home conditions evaluated according to the questionnaire prepared by Tideiksaar (with medium modification). Up to 42 (22%) subjects had a bad home conditions and inadequate. It is well known that the quality of home conditions at patients with un-sufficient abilities to carry out the routine daily activities decides about the need of home or institutionalized care. The 1028 seniors was assessed with the consent of the ability to perform normal daily activities according to ADL test. Table 3 shows the summary results of the test on ADL test seniors examined.

Barthelov test (women and men)								
Age	65-69 a.	70-74 a.	75-79 a.	80-84 a.	85-89 a.	Over 90 a.	Together	Together
							%	n
n	347	306	178	132	44	21		1028
n %	34%	30%	17%	13%	4%	2%		
over 80 p.	330	280	151	88	23	7	85,5%	879
80-61 p.	12	12	17	19	11	4	7,3%	75
60-41 p.	2	5	4	17	2	2	3,1%	32
40-0 p.	3	9	6	8	8	8	4,1%	42

Table 3: Summary ADL test result.

The vertical columns are the age zone (after five years), horizontal columns are the results, which reached probands (in absolute terms and percentage terms). The last two vertical columns show summary results of test. Full score

achieved by the test of Bartel test is 100 points, according to the literature for easy fault was deemed value of 61 points or more, a moderate disturbance obtaining 41 to 60 points and 40 points suffer from severe and less [10,11].

Recommendations contained in the ADL tests, balance tests, and others are part of a comprehensive geriatric assessment [10,12]. Decreases with age and physical ability and consequently appear attributes dependence together with an increasing risk of disability, frailty and injuries. The patient has the right to a functional signaling resolve their biological, psychological and social needs. Alternative versions hospital signaling could be personal property for the elderly at home and in the social facilities. Service emergency care is provided on a contractual basis and the precondition of fixed telephony in the home client that is secure signaling (placed on the wrist or neck) and it pushes the button, as appropriate [13,14]. In the literature we did not encounter the assessment of housing conditions in the elderly with functional deficits. Németh et al. found (in his research) that 22% of the functionally disabled elderly had poor housing conditions [12]. In Linz (Austria) in the 61-70 group, 70% reported annual (at interview) very good housing conditions, and 23% satisfactory, and only 7% of poor housing conditions, and while it was a self-sufficient seniors [15]. The efforts of family members to take care of his old functionally disabled member (as it was in our group) lives a burden. Already thirty years ago Gressner, nestor Slovak gerontology asked for these families increased care and pointed out the necessity of "overprotection" for these selfless caregivers [14].

Conclusion

Proháska et al. made important observations in the elderly and he assessed the reasons for their action of negative factors on physical activity and the consequences of her deterioration. Long-term nursing care for a person, who is not self-sufficient, is in many cases burdensome. Care giver feels burden in physical, psychical, leisure time, and financial area and feels it like obligation to their own family.

He found that the lowest levels of physical activity often presents lower socioeconomic status individuals [16]. Physical dependence can be tested by seniors ADL and IADL tests. In several foreign sources. In other studies nursing is recommended functional status questionnaire (FAQ) [17,18]. Seniors at home show a higher degree of self-sufficiency as seniors living in social facilities. This is confirmed by research Čagánková et al implemented in Zlín in the sample of 200 seniors aged over 80 years [19]. According to research Németh in order to determine disability in Presov was statistically greater female population is represented as an independent (in the group of moderate, depending on the level of $p < 0.01$). Expected life of the elderly population of our century require maintaining an active life and help prevent disability [4,20,21]. Nursing interventions can prevent disability for older people.

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