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## Poziom sprawności funkcjonalnej i psychospołecznej a poczucie satysfakcji z życia wśród mieszkańców Domu Pomocy Społecznej

### Streszczenie

**Wstęp.** Aktywność człowieka określona w różnorodnych aspektach życia, łącząca fizyczność, stan emocjonalny, duchowy, intelektualny oraz relacje społeczne znajduje ścisły związek z poczuciem satysfakcji z życia. Proces aktywizacji funkcjonalnej i psychospołecznej ludzi starych jest szczególnie istotny w stosunku do osób, pozostających pod opieką domów pomocy społecznej (DPS).

**Cel.** Określenie zakresu sprawności funkcjonalnej i psychospołecznej oraz ocena związku z poziomem satysfakcji z życia wśród osób w wieku starszym przebywających w domach pomocy społecznej.

**Material i metody.** Badaniem objęto 100 podopiecznych wybranych lubelskich DPS, przy użyciu skali Easy Care i SWLS wg. Juczyńskiego.

**Wyniki.** Przeprowadzone badania wskazały, iż sprawność funkcjonalna badanych seniorów była na dobrym poziomie, a sprawność psychospołeczna w większości badanych zmiennych osiąga średni poziom. Wśród badanych występował niski poziom satysfakcji z życia.

**Wnioski.** Sprawność zmysłów, ocena stanu zdrowia, poczucie samotności, ocena warunków mieszkaniowych oraz sprawność funkcjonalna to zmienne wpływające istotnie statystycznie na poczucie satysfakcji z życia badanych.

## Level of functional and psychosocial efficiency and feeling of life satisfaction among residents of nursing homes

### Abstract

**Introduction.** Human activity defined in various aspects of life, combining physical, emotional, spiritual, intellectual status, and social relations, remains closely connected with the feeling of life satisfaction. The process of promoting functional and psychosocial active living among the elderly is especially important with respect to the residents of nursing homes.

**Aim.** The objective of the study was to determine the scope of functional and psychosocial efficiency among the elderly residents of nursing homes, and the relationship between this efficiency and life satisfaction.

**Material and methods.** The study covered 100 residents of selected nursing homes in Lublin, and was conducted with the application of the Easy Care Scale and the Satisfaction with Life Scale (SWLS) by Juczyński.

**Results.** The study showed that functional efficiency of the elderly examined was on a good level, and in the majority of them psychosocial efficiency reached a mediocre level, whereas the level of life satisfaction was low.

**Conclusions.** The efficiency of the senses, evaluation of health status, feeling of loneliness, evaluation of housing conditions and functional efficiency are the variables which exert a statistically significant effect on the respondents' feeling of life satisfaction.

**Słowa kluczowe:** sprawność funkcjonalna, psychospołeczna, pensjonariusze DPS, satysfakcja z życia.

**Key words:** functional and psychosocial efficiency, nursing homes residents, life satisfaction.

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## INTRODUCTION

Human efficiency in different spheres of functionality is the basis of life activity. The motor and functional efficiency are among fundamental types of efficiencies. People's ability to translocate clearly impinges upon overall activity, their independence and autonomy, and fundamentally determines well-being [1]. Functional efficiency expressed in human's ability to execute daily life activities is defined in the literature as 'activity efficiency' and it is qualified into basic and complex activities of daily life [1-3]. The basic activities of daily life which are formulated in Katz scale include the independence assessment in the following fields: maintaining personal hygiene, dressing, independent eating, satisfying physiological needs, controlling the excretion of urine and stool, movement [2,3]. The complex daily life activities according to Lawton scale include independence in: using telephone, shopping and doing other things, preparing meals, cleaning and other household chores, taking medicines, managing the money [2,3]. The functional efficiency of the elderly always prolongs the independence and overall life activity period.

Psychosocial efficiency constitutes essential addition to person's functional efficiency and it is the measure of cognitive and emotional abilities of organism. It also facilitates undertaking new social roles or continuing the previous ones [4].

Maintenance of functional and psychosocial efficiency is an important element of prophylaxis in geriatrics which principally aims in preserving the best possible physical and mental condition among elderly, and hence, it seeks to sustain the state of overall efficiency as long as possible [5]. Activity of a person in geriatric age can be stimulated by the person herself/himself and the environment in which he/she is staying e.g. family, social (senior) clubs or institution (nursing home or University of the Third Age) [6].

Active life full of satisfaction among the elderly 'lies in their participation in the family life (moderately), in active participation in the cultural and social life, and most importantly in continuation of learning and gaining knowledge from different fields of medicine, culture, art, history, etc.' [7]. The basis of good functionality of the people in geriatric age is fulfilling their need of self-realisation which becomes the source of profound life satisfaction and it is an expression of constructive experiencing of the last stage of existence [8]. Life satisfaction is therefore related to finding the pleasure and happiness which are the result of reflection in a long time perspective, and not in a short time interval [9].

Seniors in nursing homes can acquire and develop all dimensions of efficiency and sense of satisfaction by occupational therapy, volunteer work or other activity forms. Such activities bring much happiness and pride into their lives so that they can do something practical for themselves and others [10].

## AIM

The objective of the study is to determine the scope of functional and psychosocial efficiency and its relationship with the level of life satisfaction among the elderly residents in the nursing homes.

## MATERIAL AND METHODS

### Research tools

The study was conducted with application of the Polish version of validated international questionnaire EASY-Care [11] which was officially agreed to use. EASY-Care (Polish version 1999-2002) is a system created to prompt assessment of physical, mental and social welfare of an elderly person. The questionnaire was developed within the international Supporting Clinical Outcomes in Primary Care of the Elderly (SCOPE) project coordinated by the University of Sheffield in the UK, under the auspices of WHO (the European Regional Office). Throughout the work on the EASY-Care questionnaire, Poland was represented by the Department of Clinical and Social Gerontology of Medical Academy in Białystok [13].

The EASY-Care questionnaire is the instrument of complex functional assessment and sociomedical needs of an older person in their life environment. It consists of the following thematic modules: (1) respondent's personal data, (2) questions assessing eyesight, hearing and food mastication, self-assessment of health, emotional state (depression), (3) assessment of efficiency with respect to instrumental (I-ADL) and personal (P-ADL) activities of daily life designated in the research instrument as Functions-ADL. Instrumental activities (I-ADL) include: household chores, shopping, moving around and outside the house and going up/down the stairs, meals preparation, money management, telephone use, taking medicines, moving in the house. The personal type activities (P-ADL) include: use of bath or shower, moving from a bed to an armchair, use of toilet, maintaining personal hygiene, dressing and undressing and taking care of external appearance, eating the meals, holding in urine and bowel. The instrument involves also assessment of the range of needed compensation regarding the existing deficit of functional efficiency by the depiction of the person assisting in exercising particular instrumental and/or personal activities.

A respondent may score from 0 to 100 points, where 0 is a value describing the lowest level of disability, and 100 is a value describing the highest level of disability. In each question assessing the function, the respondent may decide whether he/she is able to execute particular activity personally or any help of others is needed.

Satisfaction with Life Scale (SWLS) serves to assess the feeling of life satisfaction and contentment [12]. It is used to examine both healthy and sick adults. The scale includes five statements. The respondent assesses how far each of them concerns his/her life. He/she can score 5 to 35 points, where 5 represents the value of the lowest level of life satisfaction while 35 is the maximal value which signifies the highest level of life satisfaction. The result of the measurement is the overall indicator of life contentment.

## Data collection

The research was done between April and June 2008 in the selected five nursing homes in Lublin and it covered 100 residents. The choice of patients for the research was conducted according to the following criteria: living in nursing home; expressing a written consent to participate in the study; over 60 years of age; good level of senses efficiency (maximally 10 points in the EASY-Care subscale); cognitive-emotional processes enabling participating in the research.

Consent of the nursing homes management was received for the study after explaining the goals and methods of the research. Data about the respondents was collected during the conversations with residents who were assured about anonymity. In order to complete information, individual documentation of each patient was used and the measurement of parameters was carried out.

## Overall characteristics of the population examined

A group of 100 residents of selected nursing homes in Lublin took part in the research; 74% were constituted women and only 26% were men. The average age in the examined group was 74.68 (SD=10.26). The largest group was formed by people of 66-75 years old and 20% were 60-65 year olds. Basic education was completed by 35% of the respondents, 31% – had vocational education, 23% – secondary education, and the smallest group, just 11%, consisted of people with higher education. The average level of BMI in the examined group was 26.37 (SD=4.39). BMI for women was 26.52 (SD=4.41), and for men it was 25.96 (SD=4.40). The data analysis indicates that in a group of respondents, 73% represent non-smokers, and 27% are the smokers.

Almost half of the respondents (47%) are staying in the nursing home as the result of bad health condition, while 24% of the respondents are there due to bad family situation and loneliness, 12% of the respondents are there voluntarily, 9% - because of bad living conditions and the smallest group (8%) are the people who come to the nursing home after the death of the partner.

When asked 'Who do you systematically maintain social contacts with?' over half of them (56%) indicated maintaining social contacts with family and the neighbour or roommate (55%). Keeping in touch with a friend is reported by 37%, while the smallest group (6%) systematically maintains contacts with other people.

The data analysis shows that the largest group of respondents (54%) includes people with cardiovascular diseases, 15% have metabolic and endocrine glands diseases, 14% have locomotion system problems and 12% are the seniors with neurological diseases. The detailed results of the remaining disease determinants of the examined group are presented in Table 1.

**TABLE 1. Medical diagnoses in the group of respondents.**

No.	Disease type	n	%
1	Cardiovascular diseases	54	54
7	Metabolic and endocrine glands diseases	15	15
4	Locomotors system diseases	14	14
6	Neurological diseases	12	12
3	Digestive system diseases	5	5
5	Skin diseases	3	3
2	Respiratory system diseases	2	2

## Statistical Analysis

The received research results were a subject to statistical analysis. The values of analysed measurable parameters were presented with help of average value and standard deviation, while the values of immeasurable parameters were represented by amount and percentage.

To compare two independent groups, the t-Student test was used and for more than two groups the variance analysis was executed. In order to examine the differences in the range of function – ADL between the groups, non-parametrical tests were applied since there was lack of fulfilled assumptions about normality. The test of Mann-Whitney was used to compare the two groups while for more than two groups the Kruskal-Wallis test was used. To examine the relationship between the variables, R Spearman's correlation was applied.

The adopted statistical significance was  $p < 0.05$ , indicating the existence of statistically crucial differences or dependences. Database and statistical studies were conducted on the basis of STATISTICA 8.0 (StatSoft, Polska) computer software.

## RESULTS

Level of senses efficiency and overall assessment of health in the examined group in accordance with EASY Care scale

The research results indicate that the average level of senses efficiency assessed in the 4 to 12 scale (4 – the best senses efficiency, 12 – lack of senses efficiency) in the examined group was 4.55 (SD=0.96). The largest group among respondents (67%) consisted of people efficient with respect to senses efficiency. These were people who had no problems with vision, hearing, and food masticating or speaking. The people with moderate limitations in vision, hearing and with small problems in food masticating and speaking accounted for 32%. The smallest group (1%) included disabled people who scored 9 out of 12 possible points.

Mostly, nursing homes residents assessed their health as mediocre. Such answer was given by 53% of respondents. Good health was reported by 28%, 17% said that their health was bad while only 2% of seniors said that it was very good. The average health assessment in the group examined was 3.85 (SD=0.72) in the scale 1 to 5 (1 – the best estimate, 5 – the worst estimate).

The largest group of respondents (62%) admitted that sometimes they felt loneliness, while a smaller group (24%)

felt lonely very often and only 14% never suffered from loneliness. The average loneliness grade in the examined group was 1.12 (SD=0.66) in the scale from 0 to 3 (0 – the best estimate, 3 – the worst estimate).

The research results indicate that most of the residents described their living conditions in nursing homes as good. Such answer was given by 45% of respondents. The conditions were very good for 30% of them, 2% described them as superb, 18% – average and 5% claimed that the conditions were bad. The average assessment of housing conditions in the examined group was 2.94 (SD=0.87) in the scale from 1 to 5 (1 – the best estimate, 5 – the worst estimate).

### Results of functional efficiency assessment (activities I-ADL and P-ADL) in accordance with EASY Care scale

The research results indicate that the overall functional efficiency of the nursing homes residents was at a very good level. The most common estimate was 12 points out of 100, and the average was 18.61. In the whole group, people indicating the lack of available help and support from immediate friends/family and personnel were the largest representation. Yet, in the group of people awaiting such support according to the subscale P-ADL, the majority received it from the public health workers and the range of the assistance given varied between 3% and 44%. In the area mentioned above, friends and neighbours assisted less frequently and the value of their part in giving help was between 1% and 10%. The family members helped the residents the least and their contribution was in the range 1% and 4% only. The results are illustrated in Table 2.

Based on the statistical analysis executed, there were no crucial differences in the level of functional efficiency between women and men found ( $p=0.33$ ).

### Results of Satisfaction with Life Scale (SWLS) assessment in the group examined

The average level of life satisfaction (SWLS) in the selected group was 16.05 (SD= 4.87). Hence, it falls in the range of 15-17 points which refers to fourth sten corresponding to low life satisfaction of the nursing homes residents.

Based on the statistical analysis executed, there were no crucial differences in the level of life satisfaction between women and men found ( $p=0.09$ ).

### Functional and psychosocial efficiency in accordance with EASY-Care Scale and level of life satisfaction (SWLS)

As a result of correlation analysis executed, the crucial negative correlation was found between the level of senses efficiency (in the range of vision, hearing, speech and mastication) and the life satisfaction (SWLS), ( $R=-0.24$ ;  $p=0.02$ ). Results of the analysis clearly confirm that together with the deterioration of visual and hearing orientation level or difficulties with speaking and mastication, the level of life satisfaction drastically decreases.

The conducted statistical analysis proved significant negative correlation between evaluation of health condition and

**TABLE 2. The functional efficiency level with respect to I-ADL and P-ADL with the indication of carer support.**

Who helps? [% of the dependent ones with respect to Function-ADL]									
Functions – ADL	Average	Min-max	Partner	Family member	Friend and neighbour	Paid help	Public help	No help available	Overall
Instrumental – I-ADL									
House- hold chores	0.82	0-3	-	3	10	-	44	43	100.0
Walking outside the house	1.99	0-6	-	4	7	-	29	60	100.0
Shopping	1.42	0-4	-	3	9	-	37	52	100.0
Meals preparation	1.59	0-5	-	3	8	3	43	43	100.0
Going up/ down the stairs	0.98	0-5	-	1	7	-	22	70	100.0
Money manage- ment	0.57	0-4	-	2	3	1	20	74	100.0
Taking medicines	0.75	0-4	-	1	4	-	28	67	100.0
Use of telephone	0.53	0-3	1	4	3	1	30	61	100.0
Moving around the house	1.15	0-9	-	2	6	-	12	80	100.0
Personal P-ADL									
Using bath/ shower	2.40	0-6	-	2	3	-	35	60	100.0
Urinary inconti- nence	2.48	0-8	-	-	1	-	37	62	100.0
Dressing	0.90	0-6	-	1	4	-	23	72	100.0
Move- ment	0.65	0-7	-	2	4	-	9	85	100.0
Taking care of external appear- ance	1.05	0-5	-	2	7	-	12	79	100.0
Using the toilet	0.59	0-8	-	2	1	-	8	89	100.0
Bowel inconti- nence	0.54	0-9	-	-	-	-	8	92	100.0
Eating	0.20	0-5	-	2	-	-	3	95	100.0
	18.61	-	-	1-4	1-10	-	3-44	-	100.0

life satisfaction (SWLS). It was stated that together with deterioration of the evaluation of health condition, the life contentment of the respondents decreases, ( $R=-0.48$ ;  $p<0.001$ ).

The statistics analysis demonstrated significant negative correlation between the evaluation of the feeling of loneliness and life satisfaction (SWLS). It was stated that together with the deterioration of the loneliness feeling assessment,



the life contentment drastically decreases, ( $R=-0.42$ ;  $p<0.001$ ).

The statistical analysis showed strong negative correlation between the evaluation of housing conditions in the nursing homes and life satisfaction (SWLS). It was found that together with the deterioration of housing conditions, life satisfaction decreases, ( $R=-0.53$ ;  $p<0.001$ ).

The statistical analysis indicated an essential negative correlation between the level of functional efficiency and life satisfaction (SWLS), ( $R=-0.24$ ;  $p=0.02$ ). Together with the deterioration of functional efficiency, life satisfaction decreases significantly.

## DISCUSSION

Epidemiological assessment of the functional inefficiency spread which occurs in older age was conducted in Poland by Bień and others [13] on the representative sample. It shows that only every fifth examined person was efficient with respect to daily life activities. Therefore, it indicates significant existence of functional inefficiency problem in the group of people in senile age. The research concerning evaluation of the need for nursing care based on functional efficiency assessment conducted by Doroszkiewicz and others [14], gives a detailed characteristics of essential problems of nursing care related to this efficiency among people in geriatric age.

Undoubtedly, together with age, activity regarding functional and psychosocial efficiency has a significant impact on feeling of life satisfaction. Research done by Nakanishi [15] showed that the higher lever of independence of elderly, the more positive influence on functional efficiency as a result of daily activities undertaken. It also leads to a significant mood improvement and hence, there is an increase in life satisfaction. Both in theory and empirical studies, the role and significance of efforts which aim at deliberate sustaining functional efficiency among people in geriatric age are more often noticed and emphasized in rehabilitation programmes. In the studies conducted by Żak [16] in Krakow, it was shown that the weekly rehabilitation programme lasting 150 minutes enables improvement of daily life activities execution and gait speed among people after 80 years of age. Furthermore, the sensomotoric exercises performed among the elderly with disorders of daily life activities enable improvement in executing of these activities. This, in turn, becomes one of the important ways to strengthen sense of life satisfaction.

The subject of our research was the assessment of functional and psychosocial efficiency regarding the sense of life satisfaction in a group of nursing homes residents. The results confirmed the significance of functional efficiency indicator and of components of assessment with respect to psychosocial efficiency in the context of changing life satisfaction. The sense of satisfaction of the examined residents being the measure of wellbeing was increasing together with the increase of all examined categories of functional and psychosocial efficiency. The results of Zboina [5] confirm the above relationship in the context of life quality evaluation, indicating that the patients, who are independent in executing the basic daily activities, demonstrated higher life

quality in their assessments. The studies conducted by Tobiasz-Adamczyk also admit that the risk of significant decline of functional efficiency, both among women and men, increases together with age and negative assessment of subjective state of health [17].

In the studies by Muszalik and others [18], people chronically ill who live in nursing homes, give lower average values of functional assessment in the FACIT-F questionnaire than people living with families. The authors stress that functioning of patients living with family is on higher level when comparing to residents of nursing homes, which also generates the requirement of wider range of necessary support from medical services. It is also confirmed by the results of own studies in terms of the largest share of aid originating from medical services.

## CONCLUSION

1. The studies conducted in the group of nursing homes residents confirm the significance of relationship between the level of life satisfaction and the range of functional efficiency.
2. High feeling of loneliness, low assessment of living conditions and low level of functional efficiency, are lowering the level of life satisfaction.
3. Good self-assessment of the overall state of health and good level of senses efficiency with respect to vision, hearing, speech and masticatory apparatus are the essential indicators determining the level of life satisfaction.

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