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## **The carer's burden of an elderly person according functional capacity of an elderly person**

### **Obciążenie opieką opiekuna osoby starszej w zależności od wydolności funkcjonalnej podopiecznego**

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## **Abstract**

### **Introduction**

The Polish society is aging, which means that the number of people over 60 is increasing. Due to the consequences of old age, these people often require care, which to a varying degree is the cause of the carer's burden.

### **Aim**

Assessment of the carer's burden of an elderly person according to functional capacity of an elderly person.

### **Material and methods**

A group of 120 carers of the aged from 20 to 87 years old, living in south-eastern Poland in the villages (40%) and in the city (60%) were examined. The Cope questionnaire assessing the carer's burden and the ADL and I-ADL scale was used to collect the data to assess the functional capacity of the pupils. The author's questionnaire was also used.

### **Results**

Most carers of the elderly are women (82.5%) who are usually members of the senior family. A significant number of caregivers (94%) observed a negative impact of care on the life situation.

### **Conclusions**

Providing care to an elderly person is a source of stress for the caregiver. The degree of relationship affects the perception of the positive value of care by caregivers. The higher I-ADL score obtained by the mentor has a negative impact on the carer's functioning. Carers gain little satisfaction from taking care, but they feel supported in their role.

**Keywords:** carer of an elderly person, care burden, functional capacity

## **Admission**

The aging of society is an observed demographic phenomenon in most highly developed countries, including Poland [1]. It generates a series of multidimensional problems that have consequences not only health but also social, economic, legal and political [2]. Elderly people often have many diseases, disabilities. They are often lonely. Providing appropriate care for seniors is now becoming a priority [3,4].

In the care system for the elderly the key role is played by their carers, both these professional - qualified medical personnel such as doctors and nurses with a geriatric specialty, and unprofessional - family members, neighbors, acquaintances, usually unprepared for long-term work with seniors and at the same time very often left to themselves with problems of their charges [1,3,5,6,7].

Satisfying the needs of the elderly is not easy. It is associated with the need to tolerate another person, the ability to respect his dignity, or to show him forgiveness. He puts before the guardians challenges that positively or definitely more often negatively affect the quality of their lives [1,4,8,9,10,11].

Taking long-term care over a person of the geriatric age often has consequences in the form of a phenomenon that is a burden. They are defined as physical, psychological, emotional, financial and social problems referring to a specific person or family taking care of a senior [5,6,9,12].

Threats to physical health of carers of the elderly, associated with their care are mainly injuries and spine diseases. They are most often caused by excessive sitting during the self-changing position of the body of a lying person who is immobilized in bed [9]. In the psychological and emotional context, the burden of the elderly person's guardian comes down to, among other things, the belief in the senselessness of actions taken by them. Everyone,

while doing their job, strives to obtain satisfactory results. However, in the case of seniors, especially those in the terminal state of the disease, experiencing suffering, usually no positive results of care are seen. Instead of gratitude from the elderly, caregivers often become the object of unloading their frustration and dissatisfaction for them

from my own fate. Such situations may lead to some kind of mechanical caring, lack of establishing a deeper relationship with your mentors, and often depression in both sides [5,9,12].

Due to these and other negative consequences of the impact of care, caregivers should receive broadly understood support primarily from other members of the local community as well as the government, so that they feel needed, appreciated and their hard work was appreciated.

### **Purpose of research**

The aim of this study was to assess the carer's burden of an elderly person according to functional capacity of an elderly person.

### **Material and methods**

The research was carried out using the diagnostic survey method. The surveys were composed by four tools: a Cope' questionnaire, ADL Scale, IADL Scale and the authors' self-designed questionnaire.

The authors' self-designed questionnaire included 11 questions concerning demographic characteristics of the respondents and six of these questions concerned carers of the elderly.

The Cope' questionnaire, which is a standardized study tool, was used to do an assessment of the burden on the care of an elderly person. It consists of 16 questions arranged in three subscales, specifying the following aspects: the negative impact of care, the positive impact of care and the quality of support. The respondents can choose one of the four available answers: always (4 points.), often (3 points.), sometimes (2 points.), never (1 point.). Following, the points are summed within each of the subscales. Obtaining by caregivers more than 15 points in the scale of negative impact of care or less than 10 points in the scale of positive impact of care or less than 6 points in the scale of quality of support may indicate the need for in-depth study and careful observation of the situation of care [11].

The ADL' scale (Activity of Daily Living Scale Katz) and IADL' scale (Instrumental Activities of Daily Living Scale Lawton) were used to do the assessment of functional capacity of seniors. The first of these scales concerns six everyday activities such as: personal hygiene, getting dressed, using the toilet, sphincters control, eating meals, moving around. The inability to independently meet these needs by older people indicates a significant degree of disability and the need for constant care from another person.

The I-ADL scale allows to assess whether a senior can do eight instrumental activities such as: using the telephone, shopping, preparing meals, daily cleaning, washing, using means of transport, taking medicines and disposing of own money. The greater the independence of older people in their implementation, the better is their functioning [13,14].

The study was carried out from February to April 2017 and covered 120 carers of older people living in south-eastern Poland; 60.0% (N = 72) from urban areas and 40.0% (N = 48) from villages. Among the respondents the vast majority were women (82.5%, N = 99). The mean age of caregivers was 53 years - the youngest respondents were 20 and the oldest 87 years. The members of family were the most common carers of old people (79.1%, N = 95). The most of caregivers had work (56.7%, N=68), almost 29% (N = 34) were retired while 12.5% (N = 15) of them did not work. Most carers (45.8%, N = 55) lived in the same apartment or in the same building (10.0%, N = 12) as their elderly patients. In the remaining part, taking care

required a short walk (14.2%, N = 17) or travel to the elderly people (44.2%, N = 36). Most of caregivers were people who took care of an elderly person for the first time (58.3%, N = 70). The average length of care provided was 7.74 years. The most caregivers identified their health as good (52.5%, N = 63), and only 5.8% (N = 7) as bad.

Among the elderly people who took part in the study, the majority were women (68,3%, N = 82). The average age of all elderly was 80.56 years - - the youngest were 60 and the oldest 100 years. Over 50% (51,6%, N = 62) of them were urban residents. These were usually people with basic education (45.0%, N = 54), the least because only 1.7% (N = 2) had higher education. Old people were burdened with many disease entities, the most of which belonged to cardiovascular diseases (68,3%, N = 82), and the least frequently reported disease entity was Parkinson's disease (7.5%, N = 9).

STATISTICA 13.1 PL was used for statistical analysis. The results are presented as percentages and cardinality. Interrelation between the groups is determined by the compatibility test Pearson Chi square, accepted at  $p < 0.05$ .

**Table 1. Characteristic of elderly and their caregivers**

Feature	Caregiver		Feature	Elderly	
Age (N = 120)	number of people	% people	Age(N = 120)	number of people	% people
<or = 30 years	4	3.3	60 - 69 years	16	13.3
31 - 40 years	5	4.2	70 - 79 years	36	30.0
41 - 50 years	16	13.3	80 - 89 years	49	40.8
51 - 60 years	46	38.3	90-100 years	19	15.8
61 - 70 years	31	25.8			
71 - 80 years	7	5.8			
> 81 years	11	9.2			
Professional activity	number of people	%	Education	number of people	% people
Full-time job	48	40.0	Basic	54	45.0
Half-time job	20	16.7	Average	33	27.5
Retirement / pension			Professional	31	25.8
Unemployed	34	28.3	Higher	2	1.7
Student	15	12.5			
	3	2.5			
The length of caring for dependents	number of people	% of people	Diseaseoccurring in charges	number of people	% of people
<or = to 5 years	73	60.8	Alzheimer's disease	18	15.0
6 - 10 years	28	23.3	Parkinson's disease	9	7.5
11 - 20 years	12	10.0	Cardiovascular disease	82	68.3
21 - 30 years	2	1.7		61	50.8
31 - 40 years	2	1.7	Locomotor system diseases	31	25.8
41 - 50 years	2	1.7		10	8.3
51 - 60 years	0	0.0	Diabetes	33	22.2
> 60 years	1	0.8	Cancer		
			Other		

own source

## Results

The functional capacity of the pupils assessed using the ADL scale was different. The majority of seniors received 6 (25.8%, N = 31) and 0 points (21.7%, N = 26), which means that the care required both a fully functional person and those incapable of satisfying the basic activities of everyday life (Table 2). Of the six aspects, which include the Katza scale, independent maintenance of the body was unfeasible for more than half of the elderly (58.3%, N = 70).

The possibility of performing all the instrumental activities distinguished in the IADL scale showed little, only 6 seniors (5.0%). In turn, as many as 41 charges (34.2%) were unable to make at least one of them (Table 2). Elderly people were the best at using the telephone (57.5%, N = 69), the worst using the means of transport (84.2%, N = 101), everyday cleaning (82.5%, N = 99 ) and shopping (81.7%, N = 98).

**Table 2. Functional performance of the subject according to the ADL scale and scale I - ADL**

No.	Total points on the ADL scale (N=120)	Number of people	% of people	No.	Total points in the I-AD scale (N = 120)	Number of people	% persons
1.	6 points	31	25,8	1.	8 points	6	5,0
2.	5points	16	13,3	2.	7points	7	5,7
3.	4 points	9	7,5	3.	6 points	6	5,0
4.	3points	12	10,0	4.	5points	9	7,5
5.	2 points	14	11,6	5.	4 points	9	7,5
6.	1 point	12	10,0	6.	3 points	10	8,3
7.	0 points	26	21,7	7.	2points	9	7,5
				8.	1 point	23	19,2
				9.	0 points	41	34,2

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Analysis of the obtained results showed that caring for a person in the elderly, it has a negative effect on caregivers, which has been observed until in 94.2% (N = 113) subjects. Only 16.7% of respondents perceive the positive value of care (N = 20). In turn, the vast majority of caregivers feel that their support is sufficient (95.0%, N = 114) (Table 3).

**Table 3. The negative impact of care, the positive value of care and quality support felt by carers**

No.	The number of points on the negative impact of care	Number of people	% of people
1.	< 15 points	7	5.8
2.	> 15 points	113	94.2
No.	The number of points on the positive values of care	Number of people	% of people
1.	> 10 points	20	16.7
2.	< 10 points	100	83.3
No.	The number of points on the quality of support	Number of people	% of people
1.	> 6 points	114	95.0
2.	< 6 points	6	5.0

Owsource

Respondents perception of the negative impact of care, the positive value of care and the quality of support is determined by the age of the pupils and the length of care time (Table 4). The higher the seniors age, the more caregivers they feel and the lower the quality of their support. Greater demand for support was also observed among respondents who have

been looking after aged people for a long time. However, the age of the subjects themselves did not significantly affect the care burden.

**Table 4. The patient's age and the time of care for the ward and the load caregiver's care**

No.	Correlations between age ward aspects of the questionnaire Cope - Index	„ p "
1.	The patient's age and the negative impact of care	0,356
2.	Age of the mentee and positive value of care	0,029
3.	Age of the ward and the quality of support	0,035
No.	Correlations between the time of care over the charges and aspects of the Cope questionnaire – Index	„ p "
1.	Care time and the negative impact of care	0,811
2.	Care time and positive care value	0,066
3.	Care time and the quality of support	0,019

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The factor that determines the caregivers' perception of the positive value of care is undoubtedly the degree of kinship. Studies have shown that the daughters or sons of older people were most satisfied with their role ( $p = 0.022$ ). In turn, relatedness to the mentees no longer significantly affected the quality of support provided to respondents and the negative consequences of care.

Taking care of an elderly caregiver is not dependent on the senior functional capacity assessed on the ADL scale, while the higher result obtained by the Lawton protégé determines the negative impact of care on the examined persons (Table 5).

**Table 5. Functional capacity of the subject on the ADL scale and I-ADL scale and carer's care**

No.	Correlations between the sum of points obtained by the protégé in the ADL scale and aspects of the Cope questionnaire - Index	„p”
1.	Total points in the ADL and the negative impact of care	0,268
2.	Total points in ADL and a positive care value	0,643
3.	Total points in ADL and the quality of support	0,234
No.	Correlations between the sum of points obtained by the protégé in the scale I - ADL and aspects of the Cope questionnaire - Index	„p”
1.	Total points in I-ADL and the negative impact of care	0,020
2.	Total points in I-ADL and positive value of care	0,855
3.	Total points in I-ADL and the quality of support	0,352

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## Discussion

According to data from the Central Statistical Office in 2014 Polish society is characterized by a low birth rate and an increase in average life time. This means an increase in the percentage of people over 65 years of age with a fall in the number of newborns. This phenomenon is called the aging of the population [15].

One of the consequences of the above mentioned demographic changes is the increase in the need for care for seniors. The role of the carer in meeting the needs of the elderly person and the degree of satisfaction with the duties he performs is a very important issue, affecting, to a large extent the quality of life of both the caregiver and his charge. Considering the above fact, the subject of caring for the elderly persons should be the subject of a number of further research, because this issue is still relatively rarely moved.

In the present study analyzed the impact of, among others, the degree of independence of the elderly care burden on caregivers. Based on the scale ADL and I - ADL found that disabled persons represented 39% of all charges ( $N = 47$ ), moderate efficiency presented 17.5% of the elderly ( $N = 21$ ), and the observed total failure of 43.5% senior ( $n = 52$ ). The

number of points obtained by an elderly person on a scale Katz had no significant effect on the health of caregivers. For comparison studies Grochowska respondents looked after wards whose condition was determined at 20.31% as light, at an average of 53.13% as heavy, and the remaining 26.56% as severe. The author has shown that caregivers who feel the burden always or often engaged in seniors with a much lower level of efficiency, charges respondents than never feeling a load [1]. The same survey shows that whole-body bath made most difficulties to the elderly (79.69%). Also in the present study, total aid in this field, it required more than half of the elderly (58%, N = 70).

The ability to independently perform activities of daily living advanced awarded on a scale Lawton conditioned the degree of care load carers of older people. Respondents holding the charge of the wards who achieved a higher score on a scale I - ADL relatively often feel the negative consequences arising from their role. You can presume that it is mainly about burden both mental and physical attitude caused ward. Elderly person, which apparently is a good level of efficiency often overestimate their abilities and forgets that certain activities should no longer perform. Seniors often unaware of the consequences undertake tasks that largely increase the risk of falls or injury, which in turn is associated with addiction to help others. In addition, the mentality of the elderly - the so-called. „enough wisdom "and belief about infallibility own courts often becomes the cause of their conflicts with younger carers. Senior care, which is a claim, pretentious guardian makes a lot of difficulties, it absorbs a lot of energy and strength, leading to the collapse of his health.

Factor that undoubtedly depends on the efficiency of the elderly is age. Like other authors have shown that with age increases, the degree of dependence among the geriatric population [1,16]. Pilate notes that nearly half (48.6%) of people aged 80 - 84 years, 62.5% aged 85 - 89 years and up to 80.4% of seniors over 90 years should help in meeting the activities of daily living [16] . On the other hand Bien et al., indicates that the charge for the performance of care significantly increases with the deterioration of health and fitness ward [3].

People who frequently exercise the care of the elderly are women (83%, N = 99), most of which claim to be a family member of an elderly person. A similar situation can be found in studies Bień, in which more than half of the respondents indicating that belongs to the family ward (79.2%) [3]. In most of the analyzed work of the authors emphasize the dominance of women caregivers of the elderly. Przykładowou Karczewska women - sitters were 87.1% of respondents, 62.5% of Pilate, and in Wojszel 79.7% [11,16,17]. It can therefore be concluded that daughters are people who in the first place to take care of their parents and that is what they generally recognize the positive values resulting from their duties.

This study showed that care for the elderly has a negative impact on carers. Other studies show that almost half of respondents (48.4%) were at least sometimes burdened with care, one-third (29.70%) often, while only one in five carers (20.30%) stated that they played a role role has never been a burden for them [1]. The impact of care on the health of suppliers is therefore worrying.

Remember that if we want to improve the quality of care for seniors, we must first know and understand their caregivers.

## **Conclusions**

1. Care for an elderly person is a source of stress for the caregiver.
2. The degree of dependence is important in the perception of the elderly caregivers of people with positive care values.
3. The higher the score obtained in the ward I-ADL scale adversely affects the functioning of the guardian.

4. Carers achieve little satisfaction from his care, but they feel supported in their role.

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