

The Degree of Independence of the Charges and the Level of Physical and Mental Burden of Nurses Caring for Neurological Patients in Geriatric Age

Stopień samodzielności podopiecznych a poziom obciążenia fizycznego i psychicznego pielęgniarek sprawujących opiekę nad pacjentami neurologicznymi w wieku geriatrycznym

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Abstract

Introduction. Caring for neurological patients in the elderly has in its scope many problems and difficulties which a modern nurse has to “pay attention to”. Patients require round-the-clock and comprehensive care, which can lead to both the physical and mental exhaustion of the nurse, lack of time for family and friends, or free time to regenerate one’s strength. It can also lead to exhaustion or depression. Then a phenomenon called loading occurs.

Aim. The aim of the study was to assess the influence of the degree of independence of charges on the level of physical and mental burden of nurses caring for neurological patients in geriatric age.

Material and Methods. The study included 120 people — male and female nurses from treatment and conservative departments. The Katz Scale — Basic Life Activities (ADL) and the Lawton Scale (IADL) — Complex Activities were used. A self-survey questionnaire was used as a research tool. The obtained results were analysed statistically.

Results. After analysing the data, the biggest problem for the respondent is: bathing, using the toilet and getting out of bed. According to the respondents, their charges have the least problems: using the telephone, managing money and administering medications. The biggest ones, however: doing housework and washing. The study also showed that more than half of the people (73) are dependent, which is 60.8%. Attention was also paid to the most common diseases that occur among the studied group of charges. According to the respondents, a large percentage of the charges were people after stroke — 63.50% and, for example, Alzheimer’s disease — 29.17%. According to the respondents, the greatest psychological burden, such as: depression of mood 64.5% occurs when caring for dependent patients, although a large percentage of depression can also be observed among caregivers of people with moderate dependency. Statistical analysis showed significant correlation between the respondents’ opinion of how high their psychological burden is in the care of neurological patients in geriatric age and the degree of independence of the patient ($p=0.008$). Most of the respondents noticed the frequent possibility of physical stress, taking care of people 82.8%.

Conclusions. The degree of independence of charges has a significant impact on the phenomenon of physical and mental strain in nurses. Along with the charge’s worse efficiency and the decrease in their independence, the degree of negative influence of the care on the nurse increases. Neurological diseases (Alzheimer’s disease, Parkinson’s disease, dementia and strokes) are also important. This is largely due to the additional time burden, as this care must be provided continuously and uninterrupted. (JNNN 2022;11(1):22–26)

Key Words: geriatrics, load, neurology, nurse

Streszczenie

Wstęp. Opieka nad pacjentami neurologicznymi w podeszłym wieku ma w swoim zakresie wiele problemów i trudności, nad którymi musi się „pochylić” współczesna pielęgniarka. Pacjenci wymagają całodobowej i kompleksowej opieki, co może doprowadzić do wyczerpania zarówno fizycznego jak i psychicznego pielęgniarki, braku czasu dla rodziny, znajomych, czy też wolnego czasu na regenerację własnych sił. Może to również doprowadzić do wyczerpania czy depresji. Dochodzi wtedy do występowania zjawiska zwanego obciążeniem.

Cel. Celem pracy była ocena wpływu stopnia samodzielności podopiecznych na poziom obciążenia fizycznego i psychicznego pielęgniarek sprawujących opiekę nad pacjentami neurologicznymi w wieku geriatrycznym.

Materiał i metody. Badaniem objęto 120 osób — pielęgniarek i pielęgniarzy z oddziałów zabiegowych i zachowawczych. Wykorzystano Skalę Katza — Podstawowych Czynności Życiowych (ADL), Skalę Lawtona (IADL) — Złożonych Czynności. Jako narzędzie badawcze zastosowano kwestionariusz ankiety własnej. Otrzymane wyniki poddano analizie statystycznej.

Wyniki. Po przeanalizowaniu danych największy problem ankietowanym podopiecznym sprawia: kąpanie się, korzystanie z toalety oraz wstawanie z łóżka. Według respondentów ich podopiecznym najmniejsze problemy sprawiają: obsługa telefonu, gospodarność pieniędzmi oraz rozporządzanie lekami. Największe natomiast: wykonywanie prac domowych oraz wykonywanie prania. W prowadzonym badaniu wykazano także, iż ponad połowa osób, bo aż 73 to osoby niesamodzielne, co stanowi 60.8%. Zwrócono też uwagę na najczęstsze choroby jakie występują wśród badanej grupy podopiecznych. Według ankietowanych duży procent podopiecznych stanowiły osoby po udarze mózgu 62,50% a np. choroba Alzheimera 29,17%. Według ankietowanych do największego obciążenia psychicznego, takiego jak: obniżenie nastroju 64,5% dochodzi przy opiece nad chorymi niesamodzielnymi, choć też duży procent depresji możemy zaobserwować wśród opiekunów ludzi z umiarkowaną niesamodzielnnością. Analiza statystyczna wykazała istotną zależność pomiędzy opinią ankietowanych jak duże jest ich obciążenie psychiczne w opiece nad pacjentami neurologicznymi w wieku geriatrycznym, a stopniem samodzielności pacjenta ($p=0.008$). Najwięcej ankietowanych zauważyło częstą możliwość wystąpienia obciążenia fizycznego sprawując opiekę nad osobami 82,8%.

Wnioski. Stopień samodzielności podopiecznych ma znaczący wpływ na zjawisko obciążenia fizycznego i psychicznego u pielęgniarek. Wraz z gorszą sprawnością podopiecznego i zmniejszeniu jego samodzielności, wzrasta stopień negatywnego wpływu opieki na pielęgniarkę. Również choroby neurologiczne (choroba Alzheimera, choroba Parkinsona, otępienia czy udary mózgu) mają istotne znaczenie. Wynika to w dużej mierze z dodatkowego obciążenia czasowego, gdyż opieka ta sprawowana musi być w sposób ciągły i nieustanny. (PNN 2022;11(1):22–26)

Słowa kluczowe: geriatrycja, obciążenie, neurologia, pielęgniarka

Introduction

The aging process is part of our life and takes place in the body in an irreversible and physiological way [1]. It is often associated with multiple diseases, and hence with the impairment of many functions of our body, disability, the formation of deficits in self-care, as well as remaining alone. Therefore, there is a need to provide care, nursing or being with people in geriatric age [2]. Social change brought about by modern life have led to the fact that care for elderly people is more and more often taken over by nurses instead of family members [3]. Due to the chronicity of diseases in the geriatric age, this care becomes long-term, and thus carries all the consequences in the form of physical and mental fatigue of the nurse [4].

The neurological diseases that often occur in geriatric age include: Alzheimer's disease, Parkinson's disease and stroke. These are disease entities that often lead to deficits in social functioning, disability, and dependence on other people or institutions [5]. This brings with it a huge challenge for the nurse, who must cover with her/his actions not only problems resulting from the physical sphere, but the entire holistic sphere [6]. Over time, the care of a nurse becomes an increasingly indispensable

element of each patient's day. Despite her enormous knowledge and empathy, she herself may feel tired and stressed by the situation, which in turn leads to both physical and mental exhaustion. This usually happens when we look after patients with destructive and incurable diseases [7]. It is necessary to take into account the different degree of efficiency of the patient, which has an impact on the existing nursing problems, and thus on the level of care. 24–53% of patients who survived about six months after stroke still require help with basic physiological functions.

According to research [4], workload results from overall commitment to the undertaken activities. It can therefore be seen that the greater the commitment, the greater the burden. Patients require comprehensive, round-the-clock care, and thus no time for family, friends, or free time to regenerate their own physical and mental strength as a nurse. The prospect of long-term care causes the nurse to become exhausted and depressed. There is a phenomenon called loading [8].

The aim of the study was to assess the influence of the degree of independence of charges on the level of physical and mental burden of nurses caring for neurological patients in geriatric age.

Material and Methods

The study included 120 people — male and female nurses and caretakers from treatment and conservative departments. The Katz Scale — Basic Life Activities (ADL) and the Lawton Scale (IADL) — Complex Activities were used. A self-survey questionnaire was used as a research tool. The obtained results were analysed statistically.

Results

Two fitness scales were used to assess the degree of independence of the charges: the ADL scale with 6 basic questions and the IADL scale with 8 questions. After analysing the data, the biggest problem for the respondents is: bathing (0.21 ± 0.41), using the toilet (0.31 ± 0.46) and getting out of bed (0.37 ± 0.48) (Table 1).

According to the respondents, their charges have the least problems: using the telephone, managing money and administering medications. The largest, however: doing household chores (1.22 ± 0.49) and washing (1.21 ± 0.48326) (Table 2).

The study also showed that more than half of the people (73) are dependent, which is 60.8%. On the other hand, the remaining people are moderately independent or independent (Table 3).

Attention was also paid to the most common diseases that occur among the studied group of charges (Table 4).

Table 1. The degree of independence according to the ADL scale

Independence degree	Mean	N	SD	Variance
Bathing	0.2083	120	0.40782	0.166
Getting up from bed	0.3667	120	0.48391	0.234
Getting dressed and undressed	0.4167	120	0.49507	0.245
Using the toilet	0.3083	120	0.46374	0.215
Food consumption	0.5583	120	0.49867	0.249
Sphincter control	0.375	120	0.48615	0.236

Table 2. The degree of independence according to the IADL scale

Lawton scale (IADL)	Mean	N	SD	Variance
Can he use the phone	1.9167	120	0.72857	0.531
Can he reach remote places (further than daily walk)	1.3167	120	0.53426	0.285
Can he purchase food	1.325	120	0.5675	0.322
Can he prepare meal by himself	1.3	120	0.5282	0.279
Can he do house work on his own	1.225	120	0.49302	0.243
Can he smoothly do the laundry or tinker	1.2083	120	0.48326	0.234
Can he administer his own medication on his own	1.4583	120	0.63373	0.402
Can he manage his money	1.5833	120	0.71694	0.514

Table 3. The degree of independence in individual activities

Degree of independence	Frequency	%
Not independent	73	60.8
Independent	24	20
Moderately independent	23	19.2
Total	120	100

Table 4. The most common diseases of the respondents' charges

The most common diseases of your neurological charges at geriatric age	N	%
Alzheimer's disease	35	29.17
Parkinson's disease	13	10.83
Post-stroke condition	75	62.50
State after myocardial infarction	31	25.83
Other heart diseases Hypertension	63	52.50
Diabetes	59	49.17
Neoplastic diseases	43	35.83
Diseases of the musculoskeletal system	51	42.50

According to the respondents, a large percentage were people after stroke (62.50%). A significant result was also achieved by: diseases of the musculoskeletal system leading to immobilization or lowering the degree of self-care (42.50%) or Alzheimer's disease significantly reducing the degree of independence N=35 (29.17%).

According to the respondents, the greatest psychological burden, such as: depressed mood (64.5%) occurs when caring for dependent patients, although a large percentage of depression can also be observed among caregivers of people with moderate dependency.

The statistical analysis showed a significant correlation between the opinion of the respondents about their psychological burden in the care of neurological patients in geriatric age and the degree of the patient's independence ($p=0.008$).

Table 5. The ratio of mental burden to the degree of independence of the charge

Variable	Degree of independence			Total	Pearson Chi-square	P		
	Dependent	Independent	Moderately dependent					
Your mental burdens resulting from the care of neurological patients in geriatric age	Depressed mood	N	69	20	18	13.7	0.008	
		%	64.5	18.7	16.8			100.0
	Depression	N	4	2	5			11
		%	36.4	18.2	45.5			100.0
	Other	N	0	2	0			2
		%	0.0	18.2	0.0			100.0
	Total	N	73	24	23			120
		%	60.8	20.0	19.2			100.0

Table 6. The ratio of the physical load to the degree of independence of the charge

Variable	Degree of independence			Total	Pearson Chi-square	P		
	Dependent	Independent	Moderately dependent					
Does the provision of care have a negative impact on physical health	Never	N	1	0	0	36.06	0.0001	
		%	100.0	0.0	0.0			100.0
	Sometimes	N	19	9	19			47
		%	40.4	19.1	40.4			100.0
	Often	N	48	8	2			58
		%	82.8	13.8	3.4			100.0
	Always	N	5	7	2			14
		%	35.7	50.0	14.3			100.0
	Total	N	73	24	23			120
		%	60.8	20.0	19.2			100.0

This proves that the psychological burden largely depends on the degree of the patient's independence (Table 5).

The possibility of physical stress was observed when caring for dependent people, in the OFTEN response 82.8% (Table 6). Also, when caring for independent persons, nurses in N=8 declared the possibility of physical stress. Statistical analysis showed a significant relationship between the physical load and the degree of independence of the charge ($p=0.0001$).

The study clearly shows that the degree of independence has a significant impact on both the mental and physical health of the nurse caring for neurological patients in geriatric age.

Discussion

When examining the phenomenon of the physical and mental burden of nurses, it was necessary to pay attention to the degree of independence among the examined group of charges. According to previous studies

[9,10], this has a significant impact on the burden on nurses, where, after the analysis of the ADL and IADL scales, total disability was noted in 43.5%, which corresponds with the research of this work, where the analysis showed that over 60% of the respondents looks after dependent people, 20% of the respondents look after independent people and 19.2% of the respondents look after moderately independent people. These results prove that along with the worsening performance of the charge and the decrease in his independence, the degree of negative impact of care on the caregiver increases.

Diseases predominating among those under care are also important to investigate the factors that increase the negative impact of caring for elderly neurological patients. The authors of the studies mention mainly dementia disorders and Alzheimer's disease [6,10,11]. This is largely due to the additional time burden, as this care must be provided continuously and incessantly. It is a huge physical as well as mental effort. In the authors' own research, among the most numerous diseases, the respondents indicated the condition after a stroke as

62.5%; arterial hypertension 52.5%; and diabetes 49.17% as the dominant diseases, while Alzheimer's disease was around 30%. This may result from the situation that many diseases are interconnected and lead to further complications, and untreated arterial hypertension or diabetes may lead to a stroke. However, this does not diminish the burden on the caregivers, as a stroke is often associated with the charge's inability to a complete lack of independence in self-care, but only shows the fact that many diseases lead to such a state and require a huge amount of physical and mental work.

Conclusions

1. The degree of independence of the charge has a significant impact on the level of physical and mental burden of the nurse. Along with the increase in dependence of the charge, the degree of burden on the nurse increases.
2. Caring for patients with neurological diseases, such as Alzheimer's disease, Parkinson's disease, dementia, and stroke, are of significant importance in the mental and physical burden of nurses, because patient care must be continuous and constant.

Implications for Nursing Practice

The conducted study analysing the degree of independence of charges and the level of physical and mental burden of nurses caring for neurological patients in geriatric age may constitute the basis for the implementation of activities aimed at reducing the burden phenomenon. It becomes important to help maintain the greatest possible degree of independence among patients. The longer the patient requires only partial help in meeting life's needs, the greater the chance of a lower burden on nurses. It is also important to support other nurses, involve the family or caregivers in the nursing process, and increase the level of knowledge about the use of auxiliary medical equipment.

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