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THE NEED FOR NURSING CARE IN CARE FACILITIES
– PRELIMINARY REPORTS

Zapotrzebowanie na opiekę pielęgniarską w placówkach opiekuńczo-leczniczych
– doniesienia wstępne

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A - Koncepcja i projekt badania, B - Gromadzenie i/lub zestawianie danych, C - Analiza i interpretacja danych, D - Napisanie artykułu, E - Krytyczne zrecenzowanie artykułu, F - Zatwierdzenie ostatecznej wersji artykułu

Abstract (in Polish):

Cel pracy

Próba określenia jakie jest zapotrzebowanie na opiekę pielęgniarską w różnych placówkach, sprawujących opiekę nad osobami starszymi.

Materiał i metody

Grupę badawczą stanowiło 50 osób powyżej 65 roku życia. Do wykonania badań użyto kwestionariusza ankiety własnego autorstwa z danymi socjodemograficznymi oraz standaryzowanej skali CDS. Na przeprowadzenie badań uzyskano zgodę Komisji Bioetycznej przy Collegium Medicum im L. Rydygiera w Bydgoszczy. Do oceny istotności współczynnika korelacji przyjęto poziom istotności $p \leq 0,05$ za statystycznie istotny.

Wyniki

Najwięcej osób było w wieku 75 – 90 lat. Większość badanych stanowiły kobiety. Najwięcej respondentów miało wykształcenie podstawowe. Badanie stanu cywilnego wykazało, że najliczniejszą grupę stanowiły osoby owdowiałe. Ponad połowa badanych mieszkała w mieście. Wysoki poziom zależności od opieki wg skali CDS występował najczęściej w grupie osób żyjących w związku małżeńskim. Wysoki poziom zależności od opieki pielęgniarstwa występował najczęściej w grupie osób z czasem pobytu w ośrodku do 6 miesięcy. Zapotrzebowanie na opiekę pielęgniarstwa występowało częściej wśród osób z ranami przewlekłymi.

Wnioski

1. Wykazano zależność istotną statystycznie pomiędzy stanem cywilnym a zapotrzebowaniem na opiekę pielęgniarstwa w skali CDS.
2. Czas pobytu badanych nie miał wpływu na zapotrzebowanie na opiekę pielęgniarstwa wg skali CDS.
3. Wykazano zależność istotną statystyczną pomiędzy występowaniem zaburzeń w układzie powłokowym (chorzy z ranami przewlekłymi) a zapotrzebowaniem na opiekę pielęgniarstwa w skali CDS.

Abstract (in English):

Aim

An attempt to determine what is the need for nursing care in various institutions that care for seniors.

Material and methods

The research group consisted of 50 people over 65 years of age. The research was conducted with the use of a self-authored questionnaire with sociodemographic data and a standardized CDS scale. The research was approved by the Bioethical Committee at Collegium Medicum named after L. Rydygier in Bydgoszcz. To assess the significance of the correlation coefficient, the significance level $p \leq 0.05$ was assumed to be statistically significant.

Results

Most people were aged 75 - 90. Most of the respondents were women. The marital status survey showed that widowed people were the most numerous group. More than half of the respondents lived in the city. A high level of dependence on care according to the CDS scale was most common in the group of married people. The high level of dependence on nursing care was most common in the group of people staying in the center up to 6 months. The high level of demand for nursing care was more common among people with chronic wounds.

Conclusions

1. A statistically significant relationship was demonstrated between marital status and the need for nursing care in the CDS scale.
2. The duration of the respondents' stay had no impact on the demand for nursing care according to the CDS scale.
3. A statistically significant correlation was demonstrated between the occurrence of disorders in the integumentary system and the demand for nursing care in the CDS scale.

Keywords (in Polish): skala CDS, opieka długoterminowa, pielęgniarstwo.

Keywords (in English): CDS scale, long-term care, nursing.

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Short title

Zapotrzebowanie na opiekę pielęgniarzką

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Authors (short)

M. Humańska et al.

Introduction

Population ageing is an inevitable phenomenon influenced by a number of factors such as: social policy of the state, the promoted family model, the level of social care, the level of health care, education and professional activity [1,2]. Currently, lack of sufficient physical activity can be considered as the main factor determining the progress of the ageing process. The physical revolution embraces a wide range of regressive changes. They lead to the reduction of immunity by lowering the efficiency of the body, loss of energy efficiency and ultimately to an increase in the incidence of disease [3].

The comfort of life of elderly people at the turn of the last century. The years have improved considerably. In Poland, the so-called geographical dependency ratio (ratio of people of working age to people of non-working age) is above the average in the European Union. There are as many as four people between the ages of 15 and 65 per person over 65. There is increasing pressure for healthy lifestyles and preventive health checks [1,4].

The whole process of the still ageing population is undoubtedly caused by the systematic extension of life and its quality of life thanks to scientific progress and improved living conditions [2]. Nevertheless,

in the near future, based on the data of the Central Statistical Office, the population of our country will decrease almost by 2030 by 1.5 million people. It is noteworthy that the number of people under 42 years of age will fall significantly, while the number of people of retirement age (over 65 years of age) will rise. This difference will have a significant impact on the financing of health care and increased demand for care. The vision of low pensions and a decline in life activity often sees seniors as the end of their lives and as having no prospects for a better life [1,2,3].

It is in the interest of the state to provide such people with appropriate care and to take appropriate steps so that they do not have to worry about their retirement future. There are many forms of institutional support where elderly, infirm people can apply for help. These include [2,5,6,7]:

Nursing and care facilities (ZPOs) - provide health services on a 24-hour basis, which include care, care and rehabilitation services for patients who do not require hospitalisation and provide follow-up pharmacotherapy, accommodation and meals tailored to the patient's state of health, as well as providing education for patients and their families. Unlike a nursing home, a stay in an institution is periodic and the patient stays there as long as it is necessary to improve it, prepare for self-care and help him and his family to adapt to the situation changed by the disease. ZPOs are a form of indirect inpatient care between hospital care and the patient's stay in a home environment or a nursing home .

Nursing and therapeutic establishments - health services provided by a nursing and therapeutic establishment should be intended for patients without the ability to take care of themselves, requiring increased care and continuation of treatment under constant supervision of a doctor, whose state of health precludes home care or in a nursing and therapeutic establishment, e.g. patients with respiratory insufficiency ventilated mechanically or patients with apathy. The concept and methods of work organisation are the same as in the nursing and care establishment. The difference is the condition of patients, which most often makes it impossible to carry out occupational therapy, active rehabilitation and self-service training.

Social care homes - this form of assistance is addressed to people who will remain in the care centre in the existing environment prevents the ability to live independently. This is the final form of assistance if the range of possibilities to provide support and care services in the place of residence is exhausted. A resident's stay is in the form of a paid monthly average cost of living determined by representatives of local authorities, but its statutory cost limits reach 70% of the resident's income. If the cost of living exceeds the financial capacity of the resident and his/her relatives, the difference is covered by the municipality where the resident is registered.

All these facilities provide care, including nursing care, where it is provided in various ways, and everything depends on the patient's condition and his or her bio-psychosocial capabilities.

The aim of this work is to try to determine what is the need for nursing care in various facilities that provide care for seniors.

Material and methods

The research group consisted of 50 people over 65 years old. The research was conducted in the Kujawsko-Pomorskie Voivodeship in care and treatment institutions. The research was carried out using a self-research questionnaire with sociodemographic data and a standardized CDS scale. The CDS (Care Dependency Scale) is based on Virginia Henderson's Care Dependency Scale and assesses the level of care dependency of the respondent. The questionnaire is based on 15 biospsychosocial criteria felt and implemented both in health and illness. Each of the 15 criteria requires an assessment of 1 to 5, depending on their ability to be met, with 1 being total dependency and 5 being the most independent

and little help or assistance. The number of points scored ranges from 15 to 75 and is divided into 3 ranges for the degree of dependency on care [8]. The Bioethics Committee at the L. Rydygier Medical College in Bydgoszcz has been approved to conduct the study. The dependence between two variables was calculated with the Spearman's R correlation coefficient. The non-parametric Mann-Whitney U test was also used. To assess the significance of the correlation coefficient, the significance level $p \leq 0.05$ was assumed to be statistically significant.

Results: The study group consisted of 50 respondents. The largest number of people were aged 75 - 90 years (60.00%). Most of the respondents were women (70.00%). The largest number of respondents had primary education (34.00%). The marital status survey showed that the most numerous group were widowed people (60.00%), and the least numerous group of respondents were divorced people (4.00%). More than half of the respondents lived in the city (66.00%). A high level of dependence on care according to the CDS scale was the most frequent in the group of married people (50.00%). The average level of dependence on care was in the group of respondents living alone, maids and bachelors (40.00%). A low level of dependence on care was found among divorced persons (100.00%). There is a statistically significant relationship between the demand for nursing care according to the CDS scale and the marital status of respondents ($p = 0.057$), Table 1.

Tabela 1. Zależność między zapotrzebowaniem na opiekę pielęgniarstwa wg skali CDS a stanem cywilnym badanych
Table 1. Relationship between the demand for nursing care according to the CDS scale and the marital status of the respondents

CDS scale	Marital status							
	single		married		divorced		widow	
	N	%	N	%	N	%	N	%
high level of care dependency	1	10,00	4	50,00	0	0,00	14	46,67
average level of care dependency	4	40,00	1	12,50	0	0,00	11	36,67
low level of care dependency	5	50,00	3	37,50	2	100,00	5	16,67
$p = 0,057$								

High level of dependence on nursing care was the most frequent in the group of people with up to 6 months stay (50.00%). A low level of dependence on care was observed among people staying from 6 months to 1 year (44.44% of the studied group). The analysis of statistical research based on the developed material did not show statistically significant differences ($p = 0.367$), Table 2.

Tabela 2. Zależność między zapotrzebowaniem na opiekę pielęgniarstwa a czasem pobytu respondentów wg skali CDS
Table 2. Relationship between the need for nursing care and the duration of the respondents' stay according to the CDS scale

CDS scale	Duration of stay					
	up to 6 months		from 6 months to 1 year		over 1 year	
	N	%	N	%	N	%
high level of care dependency	5	50,00	4	44,44	10	32,26
average level of care dependency	4	40,00	1	11,11	11	35,48
low level of care dependency	1	10,00	4	44,44	10	32,26
$p = 0,367$						

It was found that a high level of dependence on care was more frequent among people with chronic wounds (75.00%). There is a correlation between the assumed level of significance of the demand for nursing care according to the CDS scale and the occurrence of disorders in the coating system ($p = 0.004$), Table 3.

Tabela 3. Zależność między zapotrzebowaniem na opiekę pielęgniarską a występowaniem zaburzeń w układzie powłokowym wg skali CDS badanych
Table 3. The relationship between the need for nursing care and the occurrence of disorders in the integumentary system according to the CDS scale of the respondents

CDS scale	Dysfuction in the coating system			
	no disturbance		chronic injuries	
	N	%	N	%
high level of care dependency	10	26,32	9	75,00
average level of care dependency	16	42,11	0	0,00
low level of care dependency	12	31,58	3	25,00
$p = 0,004$				

Discussion

Own research does not confirm the influence of sociodemographic data

the need for nursing care. The analysis of age-related studies did not reveal statistically significant differences. However, studies carried out by Rodriguez in 2014 show the impact of age on the need for care. The author has shown an increase in the demand for care for the elderly in the case of formal care, i.e. institutional assistance provided in social welfare homes [9]. Age is a factor predisposing to the occurrence of chronic diseases and a decrease in physical fitness. This is due to the processes of senile involution. This is confirmed by the research of Bogusz et al. analysing the results of the research, she proved that together with the increasing age of the elderly, their independence in the performance of hygiene activities is decreasing, and thus the need for assistance is increasing. Half of the respondents reported a desire for help as a result of their deteriorating condition and difficulties in carrying out daily activities. Respondents declared their willingness to receive assistance in the field of nursing and care services [10]. The studies by Doroszkiewicz H. and co-workers also confirm the influence of age on the demand for nursing care [11]. The research conducted in care and nursing and care facilities in the eastern part of Poland by Fidecki et al. also confirm the dependence of functional efficiency on age. Neither the own research nor Fidecki studies showed a statistically significant relationship between the place of residence and the demand for care [12]. The results of both studies may be due to the fact that too few people in too low-diversified research groups have been studied to objectively determine the impact of sociodemographic data on the demand for nursing care.

In our study, the only sociodemographic data showing statistically significant differences is marital status. A high level of dependence on care was observed in married people. This correlation may result from the need to have a close relationship with the family. Studies carried out by Janse et al. show a beneficial influence of the participation of closest people, including life partners, on the care both in the home environment and in care facilities [13]. These results are correlated with Bogusz's research, where it was shown, that married people are more capable, while widowed people have a greater need for care [10]. The proportion of close relatives in the life of seniors may be due to cultural circumstances and family orientation of the country. The research conducted by Gudmundsdottir E. and co-workers shows that marital status affects the need for medical care. Among the respondents, widowed women were the

most frequent users of medical care, while married men were another group of service recipients [14]. This situation may result from cultural differences, preferred family model and social roles. This research correlates with own research. The own research did not show a correlation between the length of stay of older people in treatment and care facilities and the demand for care. Less than half of the respondents (38%) stayed in the institution for less than a year. This can be motivated by such factors as: the period of adaptation necessary for the seniors to respond to the new environment, as well as the occurrence of disease units and the pace of their management contributing to the need for increased care. No data on the impact of length of stay.

The need for nursing care suggests that research in this area is necessary. It is not known how the own study correlates with other studies, as there is no data on this topic in the literature. Our own research shows that there is a statistically significant relationship between the occurrence of disorders in the coating system and the need for nursing care. The studies show that a high level of dependence on care was found in people with chronic wounds. The link is probably due to the fact that a large number of patients surveyed had a significantly reduced degree of autonomy when changing positions, which favours the appearance of chronic wounds such as bedsores. Studies carried out by Zielińska et al. confirm this thesis, showing in their studies the impact of the functional condition on the risk of pressure sores. The author has proved that the assessment of the condition of patients staying in social welfare homes allows to determine deficits in independence and thus facilitates the determination of the need for nursing care [15]. The assessment of a patient's condition makes it possible to separate individual persons from risk groups and provide them with prophylaxis adequate to their health condition.

Conclusions

1. The relationship between the statistically significant demographic data, i.e. age, gender, education and place of residence, and the demand for nursing care in the CDS scale has not been demonstrated.
2. A statistically significant relationship has been shown between marital status and demand for nursing care in the CDS scale and the need for nursing care on a CDS scale.
3. The duration of the study did not affect the demand for nursing care in the CDS scale. There was no statistically significant correlation.
4. A statistically significant correlation was demonstrated between the occurrence of disorders in the coating system (patients with chronic wounds) and the need for nursing care in the CDS scale.

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