

DOROTA PYTKA¹, ANNA DOBOSZYŃSKA¹, ANETA SYRYŁO²

Ocena stanu psychofizycznego pacjentów Zakładu Opiekuńczo-Leczniczego „Caritas” Archidiecezji Warszawskiej

Streszczenie

Wstęp. W społeczeństwie najszybciej rośnie udział osób powyżej 65 roku życia. Zapewnienie właściwej opieki nad człowiekiem starym może spowodować jeszcze większe zapotrzebowanie na świadczenia zdrowotne i opiekuńczo-pielęgnacyjne.

Cel. Celem pracy była ocena stanu psychofizycznego pacjentów Zakładu Opiekuńczo-Leczniczego „Caritas” Archidiecezji Warszawskiej w Warszawie.

Materiał i metody. Badania ankietowe przeprowadzono w 2009 r. wśród 58 osób, które wyraziły na to zgodę. Grupę badaną ograniczono do osób, których stan psychofizyczny pozwalał na udział w badaniu. Narzędziami badawczymi były: skala oceny podstawowych czynności w życiu codziennym (ADL) oraz Krótka Skala Oceny Stanu Psychicznego (MMSE). W opracowaniu danych zastosowano statystykę opisową.

Wyniki. Przeprowadzone badania wykazały, że wśród ankietowanych (n=58) 56,90% stanowiły osoby znacznie niesprawne, 20,69% osoby umiarkowanie niesprawne, a tylko 22,41% badanych było sprawnych fizycznie. Zaburzenia funkcji poznawczych wskazujące na możliwość wystąpienia otępienia głębokiego wystąpiły u 32,76% ankietowanych, otępienia średniego u 29,31% ankietowanych, a otępienia małego u 12,07% ankietowanych. Dwanaście i siedem setnych procenta pacjentów znalazło się na progu otępienia, a u 13,79% pacjentów stwierdzono zaburzenia funkcji poznawczych. W badanej grupie brak było pacjentów u których nie wystąpiły zaburzenia stanu psychicznego.

Dyskusja. Tylko nieliczne badania przy użyciu takich samych lub zbliżonych funkcjonalnie narzędzi badawczych odnosiły się do opieki nad pacjentem sprawowanej w formie zakładu opiekuńczo-leczniczego, dlatego w dyskusji omówiono również wyniki badań dotyczące form opieki zbliżonych do omawianej tj. domów opieki społecznej, jak też narzędzia badawczego służącego podobnym celom, tj. skali Barthel.

Wnioski. Stwierdzono istnienie związku pomiędzy stanem fizycznym a zaburzeniami funkcji poznawczych wskazującymi na możliwość wystąpienia otępienia u pacjentów przebywających w zakładzie opiekuńczo-leczniczym.

Słowa kluczowe: czynności życia codziennego, skala oceny stanu psychicznego krótka, osoby starsze, sprawność funkcjonalna.

Evaluation of psychophysical condition of patients attending the “Caritas” Health Care Centre of the Roman Catholic Archdiocese of Warsaw

Abstract

Introduction. According to demographic analyses, people aged over 65, who will constitute 22.27% of the Polish society in 2030, are characterized by the most rapid growth of participation in the social structure. Given the shortage of geriatric care, ensuring proper care for the elderly person may increase the demand for health and nursing services at the place of residence as well as in the short- and long-term care facilities.

Aim. The purpose of this research was to evaluate the psychophysical state among the patients of the Health Care Centre run by Caritas of the Warsaw Archdiocese in Warsaw.

Material and methods. The survey was conducted in 2009 among 58 people who had given their consent for participation. The study group was limited to individuals whose mental and physical condition allowed them to participate in the research. The Activities of Daily Living (ADL) Scale and the Mini Mental State Examination (MMSE) were used as research tools. Descriptive statistics were applied to the data analysis.

Results. Severely disabled people accounted for 56.90% of those who responded, 20.69% had a moderate disability, and only 22.41% were physically fit. The survey found 32.76% of the respondents with cognitive impairment suggesting the possibility of severe dementia, 29.31% of moderate dementia and 12.07% of mild dementia. Twelve and seven hundredths per cent of the patients were on the verge of dementia and 13.79% were diagnosed with cognitive impairment. There were no patients within this group who did not suffer from mental disorders.

Discussion. Only a few studies carried out with the use of the same or functionally similar research tools related to the patients treated at a health care centre. Therefore, the discussion encompasses also the findings concerning health care forms similar to the discussed one, i.e. residential care homes, as well as the research tool that serves similar purposes, i.e. the Barthel scale.

Conclusions. It was concluded that there was a link between the physical state and cognitive impairment suggesting the possibility of dementia occurring in patients living at a health care centre.

Keywords: activities of daily living, mini mental state examination (scale), the elderly persons, functional efficiency.

¹ Department of Clinical Nursing of Faculty of Health Sciences at Warsaw Medical University

² Non-public Health Care Facility of “Caritas” Health Care Centre of the Roman Catholic Archdiocese of Warsaw

INTRODUCTION

According to the definition of the World Health Organization (WHO), a person over 65 years enters the period of life known as old age [1]. Demographic analyses show that persons over 65 are the fastest growing group of people in American and European societies. Within the next 20 years, their participation in the social structure is going to go beyond 20% of the whole population [2].

Polish demographic data also seem to confirm the global tendency. According to the data from the Central Statistical Office, the share of people aged 65 and more in the structure of the Polish society was 10.10% in 1990, whereas in 2008 it increased to 13.49%. It is estimated that in 2030 the percentage of people aged 65 and more in the Polish society will amount to 22.27% [3]. It is also estimated that the increase of the percentage of elderly people in the demographic structure of societies pertains to all countries. However, its dynamics in Poland will be much more significant [4].

Human aging is related to a number of problems, such as: physiological dysfunctions, changes in the mental sphere, emotional disturbances and impaired interpersonal contacts. There is also a problem of reduced mobility, decreased appetite, impaired hearing, which in turn leads to dysfunctions in sense of direction and limitations in communication with the environment. Poorer sensory perception along with the deteriorating general state of health lead to the intensifying of communication difficulties [1].

Providing the appropriate level of care to an elderly person often requires the provision of patient care on a continuous basis. The growing inadequacy of family care, combined with the shortage of geriatric care, may result in even greater demand for health and nursing services in the environment as well as in the short- and long-term care facilities [5].

One of the forms of permanent patient care is provided by health care facilities. A health care facility provides all day health services, including nursing and physical therapy, to patients not requiring hospitalization, as well as medicinal products and medical devices, room and food adequate to the health, as well as leading health education for patients and members their families [6].

Persons residing at health care facilities and nursing and care facilities bear the costs of food and accommodation. A monthly fee shall be equal to 250% of the lowest pension, except that any such fee cannot exceed the amount corresponding to 70% of monthly income, according to the law on social welfare, of a person staying at a health care and nursing and care facility [7].

AIM

The purpose of the study was the evaluation of psychophysical condition of patients attending the "Caritas" Health Care Centre of the Roman Catholic Archdiocese of Warsaw.

In conducting the study, the following research problems were developed:

1. To what extent are the patients of the health care facility independent in the performance of activities of daily living?
2. What is the mental condition of patients at the health care facility?

3. Is there any relationship between the physical and the mental condition of patients staying at the health care facility?
4. Does the psychophysical condition of patients justify their staying at a health care facility?

MATERIAL AND METHODS

The survey was conducted in November and December 2009, after obtaining consent from the Head of the Non-public Health Care Facility of "Caritas" Health Care Centre of the Roman Catholic Archdiocese of Warsaw in Warsaw. The study was conducted at the I Women's Department, II Women's Department and Men's Department.

Fifty eight persons, who gave their consent for participation, took part in the study. The study group was limited to individuals whose psychophysical condition allowed them to participate in the survey. Among the respondents, there were 48 women and 10 men. The average age of respondents was 77.5.

The diagnostic survey method was applied in the study. The survey was used as a technique for the purposes of this research method. The research tools consisted of: the Activities of Daily Living (ADL) Scale and the Mini Mental State Examination (MMSE).

The Activities of Daily Living (ADL) Scale is applied to evaluate the patient's autonomy in carrying out everyday living activities. In the Activities of Daily Living (ADL) Scale study, the respondents were questioned about their self-reliance in the performing of such daily living activities as: having a bath, dressing and undressing, using the toilet, getting up from bed and moving onto the armchair, self-feeding and control over urine and stool excretion. The responses were evaluated by the zero-one method: in the case of self-performance of a given activity – 1 point was given; in the case of lack of such self-performance – 0 points were given. Respondents could score from 0 to 6 points. Persons who received 2 points and fewer were included in the group of severely disabled, persons who received 3-4 points – in the group of moderately disabled, and persons who scored 5-6 points were included in the group of physically fit.

The Mini Mental State Examination (MMSE) is applied to evaluate cognitive dysfunctions. This examination is not a diagnostic tool, but only a screening one and it is used to define persons at risk for dementia, who necessitate the implementation of further test procedures. Questions and tasks to be solved related to time and place orientation, memory, attention and counting, remembering, naming, repeating, comprehension, reading, writing and drawing. Each correct answer was awarded 1 point, lack of correct answer – 0 points.

The survey results were evaluated according to the following scale of points: 28-30 – standard, 24-27 – impaired cognitive functions, 23 – threshold of dementia, 20-22 – mild dementia, 19-10 – moderate dementia and 9-0 – severe dementia.

Descriptive statistics were used in data processing. Due to the fact that not all the distributions of quantitative variables assume the shape of a standard distribution, it was decided to summarize the central tendency of these variables using the median – at least half the respondents showed results lower than the given median. The median is the logical equivalent

of the arithmetic mean for variables whose distribution deviates from the standard one. For the same reason, instead of the standard deviation, the interquartile range was applied, which determines the size of the range for 50 % of results placed around the median and constitutes a logical equivalent of the standard deviation.

The relationship between the physical and the mental condition was assessed on the basis of the Kruskal-Wallis non-parametric test method.

For the purpose of calculations, the following statistical programme was used: Statistica Data Miner+SAL 8 by EduSoft.

RESULTS

At the beginning, the respondents (n=58) were tested with the use of the Activities of Daily Living (ADL) Scale. Among the respondents: 75.86% were able to eat their meals independently, 39.65% controlled the excretion of urine and stool, 34.48% were able to dress and undress themselves and the same percentage of respondents were able to get up from bed and move onto the armchair, 29.31% were able to use the toilet independently, and only 24.14% were able to take a bath by themselves (Figure 1).

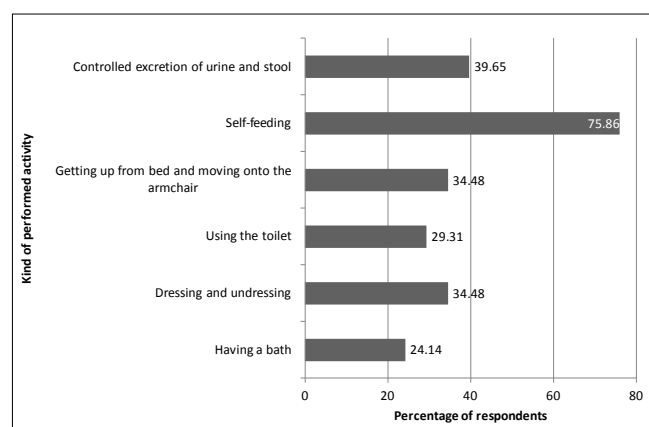


FIGURE 1. Carrying out basic activities of daily living (ADL).

The survey results showed that among the respondents, there were 56.90% of persons with severe disability, 20.69% of persons with moderate disability, and only 22.41% were physically fit (Table 1). On average, the respondents received 2.3793 points, the median was 2.00 points and the interquartile range was 3.00 points.

TABLE 1. Degree of efficiency in carrying out basic activities of daily living (ADL).

Degree of efficiency	Frequency (individuals)	Percentage	Percentage of valid results	Cumulative percentage
Severely disabled	33	56.90	56.90	56.90
Moderately disabled	12	20.69	20.69	77.59
Physically fit	13	22.41	22.41	100.00
Total	58	100.0	100.0	

Afterwards, the patients were tested with the use of the MMSE tool – Mini Mental State Examination. The following results deserve special attention: there were 32.76% of the respondents with cognitive impairment suggesting the possibility of severe dementia, 29.31% with the possibility of moderate dementia and 12.07% with the possibility of mild dementia. Twelve and seven hundredths per cent of the patients were found on the threshold of dementia and 13.79% were diagnosed with cognitive impairment. There were no patients within the study group who did not suffer from any mental disorders (Table 2). On average, the respondents received 15.8793 points, the median was 17.5 points, and the interquartile range was 15.00 points.

TABLE 2. Degree of impairment of mental state on the basis of the Mini Mental State Examination (MMSE).

Degree of mental state impairment suggesting the possibility of dementia	Frequency (individuals)	Percentage	Percentage of valid results	Cumulative percentage
Severe dementia	19	32.76	32.76	32.76
Moderate dementia	17	29.31	29.31	62.07
Mild dementia	7	12.07	12.07	74.14
Dementia threshold	7	12.07	12.07	86.21
Cognitive impairment	8	13.79	13.79	100.0
Total	58	100.0	100.0	

In order to analyze the relationship between the physical and the mental condition, the obtained results were analysed with the use of the Kruskal-Wallis non-parametric test method, consequently the following ranges were obtained with the dependent variable of the ADL scale and the grouping variable of the MMSE: $H(4)=18.93$; $p=0.001$, severe dementia – mean rank =17.42, moderate dementia – mean rank =30, mild dementia – mean rank =38, threshold of dementia – mean rank =17.42 and cognitive impairment – mean rank =43.69, as a result, it was found that persons with cognitive impairment suggesting the possibility of severe dementia performed the fewest activities of daily living (ADL).

With the dependent variable of the MMSE and the grouping variable of the ADL, the following ranges were obtained: $H(2)=14.518$; $p=0.001$, severe disability – mean rank =17.05, moderate disability – mean rank =30.29, physically fit – mean rank =37.86, and it was found that the persons who had received a low number of points in the Activities of Daily Living (ADL) Scale had received a lower average of points in the MMSE in comparison with the others.

DISCUSSION

The purpose of this study was to present the psychophysical condition of patients living at a health care facility on the basis of "Caritas" Health Care Centre of the Roman Catholic Archdiocese of Warsaw in Warsaw. Only a few studies carried out with the use of the same or functionally similar research tools related to this form of patient care, that is why, in the discussion, I will make references to the findings concerning health care forms similar to the discussed one, including residential care homes, as well as the research tool that serves similar purposes, such as the Barthel scale. The Barthel scale is used for the assessment of the condition of patients at admission to health care facilities and residential care homes in accordance with the procedure prescribed by Narodowy Fundusz Zdrowia [National Health Fund], therefore, functionally, it serves similar purposes as the Activities of Daily Living Scale (ADL).

The results of my own surveys conducted with the use of the Activities of Daily Living Scale (ADL) among the patients of "Caritas" Health Care Centre of the Roman Catholic Archdiocese of Warsaw in Warsaw ($n=58$) indicate that 77.59% of patients were physically disabled (0-4 points) and only 22.41% of patients were able to perform their daily living activities independently (5-6 points).

Similar results were obtained in the study by Fidecki et al. ($n=63$), conducted among elderly persons staying at long-term care facilities in Lubelskie Province. According to the Barthel scale, as many as 47.60% of the patients qualified for group II (21-85 points) with severe limitations of self-care and 46% into group III (0-20 points) with a very low degree of functional efficiency, incapable of self-care, and only 6.40 % qualified for group I (100-86 points) with a high degree of efficiency [8].

Similarly, the studies conducted in 2006 by Bońkowski et al. among a group of patients ($n=92$) over 65 staying at a health care facility in Rzeszów show a low level of independence in performing basic activities of daily living. On admission to the health care facility, the patients received according to a modified Barthel scale (in the scale from 0 to 100 points) the following results: 58.7% scored 0 points, 31.5% of the patients scored between 5 and 20 points, and only 9.8 % of the patients scored more than 20 to 40 points [9].

Different results were obtained in the study by Płaszewska-Żywko et al. ($n=102$), conducted with the use of the ADL Scale among patients of residential care homes, who were over 64 and not burdened with severe chronic diseases. The results indicated that most of the respondents (89 %) were efficient in terms of activities of daily living, and only 11 % were moderately disabled persons. More than half of them (60%) also scored the maximum number of points in the Katz scale [10].

Similar results were obtained in the study by Kozak-Szkopek et al. ($n=22$), conducted among 22 patients of Health Care Employees' Home in Warsaw aged 72-88 (average age – 79.2), in which the respondents scored between 5 and 6 points in the ADL Scale (on average, 5.81) [11].

Also, the study by Zysnarska and Biskupska ($n=61$), conducted with the use of the Barthel scale among the patients

of the residential care home of the city of Poznań, show that the respondents scored on average (in the scale of up to 100 points) 56 points, and 32.29 % retained physical efficiency at the level of 80-100 points [12].

The study by Muszalik et al. ($n=122$), conducted among over 60 patients hospitalized at the Chair and Clinic of Geriatrics of Collegium Medicum in Bydgoszcz, indicates that in the study group there were 70.5% of persons with the ADL above 4 points. The level of functional efficiency, tested with the use of the ADL and IADL questionnaires, correlates with the FACIT-F indicator [13].

The need for assistance in carrying out daily living activities is also indicated in the study by Kurowska ($n=54$), conducted in May 2001 among the patients of "Autumn of Life" Residential Care Home in Bydgoszcz, which shows that most of the majority of the residents (81.4%) required assistance during bathing and personal hygiene activities, 38.9% of the patients experienced difficulties in controlling body functions, the same number of persons needed help in dressing, 33.3% moved with the help of a wheelchair, and 29.6% required care from another person [14].

The differences of results obtained in my own study and the studies conducted by Fidecki et al. and Bońkowski et al. and the other studies may be explained by the different study groups, including patients of health care facilities on the one hand and residents of care homes or patients hospitalized at the Chair and Clinic of Geriatrics of Collegium Medicum in Bydgoszcz on the other hand, and additionally, in the case of study by Kozak-Szkopek et al., by the selection of the study group limited to persons eligible for physical therapy including 30 minute group exercises 3 times a week for the period of 2 months.

My own study ($n=58$), conducted with the use of the MMSE – Mini Mental State Examination, indicated that among the patients of "Caritas" Health Care Centre, the cognitive impairment suggesting the possibility of severe dementia was diagnosed in 32.76% of the respondents, moderate dementia in 29.31% of the respondents, and mild dementia in 12.07% of the respondents. Twelve and seven hundredths per cent of the patients were on the threshold of dementia and 13.79% were diagnosed with cognitive impairment. There were no patients within the study group who did not suffer from any mental disorders.

Similar results were obtained in the study by Tomaszewski et al. ($n=91$), conducted with the use of the MMSE test among residents of 2 care homes in the Małopolskie Province, aged over 65, which indicated the possibility of dementia in 81.3% of the patients, i.e.: 31.9% of them showed mild cognitive impairment (23-18 points) and 51.6% suffered from moderate or severe cognitive impairment (<18 points). 16.5% of the respondents were diagnosed with lack of cognitive impairment (30-24 points) [15].

Different results were obtained in the study by Kozak-Szkopek ($n=22$), conducted among the patients of Health Care Employees' Home in Warsaw, in which the respondents received between 20 and 30 points in the MMSE (on average, 27.14) [11].

CONCLUSIONS

1. Among the respondents, only 22.41% were physically fit. The others were diagnosed with moderate (20.69%) or severe (56.90%) disability.
2. All the respondents were diagnosed with impaired mental state suggesting the possibility of dementia of varying severity.
3. It was found that there was a relationship between the physical and the mental condition of patients staying at the health care facility:
 - a) persons diagnosed with cognitive impairment suggesting the possibility of severe dementia perform the fewest activities of daily living (ADL),
 - b) persons who scored a low number of points in the Activities of Daily Living (ADL) Scale also scored a lower average of points in the MMSE in comparison with the others.
4. It was found that the psychophysical condition of the patients justified their staying at a health care facility, because elderly patients in long-term care needed professional care and nursing and the implementation of procedures aiming to improve their functional status.

REFERENCES

1. Modlińska A. Problemy wieku podeszłego w aspekcie oceny jakości opieki sprawowanej nad człowiekiem starym. *Psychoonkologia*. 2000;6:39-48.
2. Krzemieniecki K. Całościowa ocena geriatryczna i jej znaczenie kliniczne w onkologii – systematyczny przegląd piśmiennictwa. *Gerontol Pol*. 2009;17(1):1-6.
3. Główny Urząd Statystyczny. Rocznik demograficzny. Warszawa: Zakład Wydawnictw Statystycznych; 2009.
4. Derejczyk J, Bień B, Kokoszka-Paszkot J, Szczygieł J. Gerontologia i geriatryka w Polsce na tle Europy – czy należy inwestować w ich rozwój w naszym kraju? *Gerontol Pol*. 2008;16(3):149-59.
5. Kropińska S, Wieczorowska-Tobis K. Opieka geriatryczna w wybranych krajach Europy. *Geriatrya*. 2009;3:12-6.
6. Law of 15 April 2011 on therapeutic activity.
7. Law of 27 August 2004 on health care services financed from public funds
8. Fidecki W, Wysokiński M, Kachaniuk H, et al. Samodzielność osób w podeszłym wieku przebywających w zakładach opieki długoterminowej. *Zdr Publ*. 2007;117(3):361-3.
9. Bońkowski K, Klich-Rączka A. Ciężka niesprawność czynnościowa osób starszych wyzwaniem dla opieki długoterminowej. *Gerontol Pol*. 2007;15(3):97-103.
10. Płaszewska-Żywko L, Brzuzan P, Malinowska-Lipień I, Gabrys T. Sprawność funkcjonalna u osób w wieku podeszłym w domach pomocy społecznej. *Probl Hig Epidemiol*. 2008;89(1):62-6.
11. Kozak-Szkopek E, Galus K. Wpływ rehabilitacji ruchowej na sprawność psychofizyczną osób w podeszłym wieku. *Gerontol Pol*. 2009;17(2):79-84.
12. Zysnarska M, Biskupska M. Ocena sprawności mieszkańców Domu Pomocy Społecznej w aspekcie skali Bartel. *Zdr Publ*. 2006;116(2):337-9.
13. Muszałik M, Ćwikła A, Kędziora-Kornatowska K, Kornatowski T. Ocena wpływu czynników socjodemograficznych i medycznych na poziom sprawności funkcjonalnej pacjentów geriatrycznych. *Pielęgniarstwo XXI wieku*. 2010;1-2:30-1.
14. Kurowska K. Jakość życia seniora w domu pomocy społecznej. *Zdr Publ*. 2002;112(4):501-4.
15. Tomaszewski K, Matusik P, Chmielowska K, et al. Ośpienie a sprawność fizyczna pacjentów w podeszłym wieku mieszkających w wybranych domach opieki. *Gerontol Pol*. 2010;18(2):71-5.

Informacja o Autorach

Mgr DOROTA PYTKA – wykładowca; prof. n. z. dr hab. n. med. ANNA DOBOSZYŃSKA – kierownik, Zakład Pielęgniarstwa Klinicznego, Wydział Nauki o Zdrowiu, Warszawski Uniwersytet Medyczny; mgr ANETA SYRYŁO – Zespół Niepublicznych Zakładów Opieki Zdrowotnej Zakładu Opiekuńczo-Leczniczego „Caritas” Archidiecezji Warszawskiej.

Adres do korespondencji

Dorota Pytko
Zakład Pielęgniarstwa Klinicznego
Warszawski Uniwersytet Medyczny
ul. Erazma Ciołka 27, 01-445 Warszawa
tel. 22 8360972
E-mail: dpytko@interia.pl