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Mental health self-assessment among elderly females

Ocena stanu umysłowego kobiet w podeszłym wieku

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Abstract

Introduction. *Cognitive impairment is not an equivalent of dementia. However, cognitive impairment constitutes one of the components of dementia. Apart from dementia, cognitive impairment can accompany other diseases, including Parkinson's disease, multiple sclerosis, depression, in many somatic diseases, such as diabetes and thyroid gland disorders.* **Aim.** *The research aimed to determine the mental performance of elderly women.* **Material and methods.** *The research has been conducted among a group of 108 women from the Lubelskie Voivodeship.* **Result.** *In the studied group of women, the mean score on the AMTS scale amounted to 9.86±1.49 points. A normal mental state characterized as many as 86.00% of respondents. Mild memory impairment was found in 14.00% of the examined women—none of the examined women presented with severe cognitive impairment.* **Conclusions.** *The examined group of elderly women presented a high degree of mental efficiency. Education and self-assessment of health status significantly differentiated the mental performance of the respondents. (Gerontol Pol 2021; 29; 117-120), doi: 10.53139/GP.20212916*

Keywords: *mental health, elderly women, the AMTS scale*

Streszczenie

Wprowadzenie. *Zaburzenia funkcji poznawczych nie są jednoznaczne z otępieniem. Są jednym z elementów otępienia. Poza otępieniem mogą występować również w innych chorobach, między innymi w chorobie Parkinsona, stwardnieniu rozsianym, depresji, w wielu schorzeniach somatycznych, jak na przykład cukrzycy, zaburzeniach funkcji tarczycy.* **Cel.** *Celem badań było określenie sprawności umysłowej kobiet w podeszłym wieku.* **Materiał i metoda.** *Badania przeprowadzono w grupie 108 kobiet województwa lubelskiego. Wiek badanych zawierał się w przedziale 63-95 lat (średnia 74,6 lat). Do oceny funkcji poznawczych skorzytano ze Skróconego Testu Sprawności Umysłowej (Abbreviated Mental Test Score - AMTS) wg Hodgkinsona.* **Wyniki.** *W badanej grupie kobiet średnia punktacja oceny skalą AMTS była na poziomie średniej 9.86±1.49 pkt. Aż u 86.00% badanych stwierdzono prawidłowy stan umysłowy. Łagodne upośledzenie pamięci było u 14.00% badanych kobiet. Żadna z badanych kobiet nie wykazywała ciężkiego upośledzenia funkcji poznawczych.* **Wnioski.** *Badana grupa kobiet w podeszłym wieku wykazywała wysoki stopień sprawności umysłowej. Wykształcenie oraz samoocena stanu zdrowia istotnie różnicowały sprawność umysłową badanych. (Gerontol Pol 2021; 29; 117-120), doi: 10.53139/GP.20212916*

Słowa kluczowe: *stan umysłowy, kobiety w podeszłym wieku, skala AMTS*

Introduction

Cognitive impairment is not an equivalent of dementia. However, cognitive impairment constitutes one of the components of dementia. Apart from dementia, cognitive impairment can accompany other diseases, including Parkinson's disease, multiple sclerosis, depression, in many somatic diseases, such as diabetes and thyroid gland disorders. Cognitive dysfunctions may also result from drugs or alcohol use or craniocerebral injuries [1].

The mental burden of an elderly person is also caused by stereotypes with which they begin to identify in time. Older people are often excluded from social life. This period of life is associated with reduced physical and

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mental fitness, cultural and social changes, lower financial resources, and a limited ability to fulfil social roles. All enumerated factors reduce the quality of life in the elderly. Understanding the health status and bio-psycho-social capabilities of an elderly person is significant due to the demographic changes undergoing in our country. The average age of death for women in post-war London was around 45 years, and now the survival rate has doubled. Today, a statistical European woman reaches the age of 80 [2].

Aim

The research aimed to determine the mental performance of elderly women.

Material and methods

The research has been conducted among a group of 108 women from the Lubelskie Voivodeship. The age of the respondents ranged from 63-95 years (mean 74.6 years). The Hodgkinson Abbreviated Mental Test Score (AMTS) was administered to assess the cognitive functions of the respondents.

Table I. Characteristics of the studied group

Variable		%
Age	63-69	33.30
	70-79	40.00
	80-95	26.70
Marital status	Married	40.00
	Widow	47.00
	Single	13.00
Education	Primary	26.00
	Occupational	25.00
	Middle	40.70
	Higher	8.30
Place of residence	Urban areas	55.00
	Rural areas	45.00
Self-assessment of health	Good	31.00
	Average	43.00
	Bad	26.00

The Hodgkinson Abbreviated Mental Test Score (AMTS) was administered to assess the cognitive functions of the respondents. A 10-point test aimed at screening the cognitive mental status of elderly patients in terms of short-term (immediate memory) and long-term memory, concentration, and counting ability. The answers were assessed in the 0-1 system: correct answer - 1-point, incorrect answer - 0 points. A score > 6 points is considered a correct result; 4-6 points indicate moderate impairment, and 0-3 points indicate severe cognitive impairment [3,4].

The collected material was statistically analyzed. The values of the analyzed measurable parameters were presented as means and standard deviation, and for non-measurable ones - by the number and percentage. A significance level of $p<0.05$ was adopted, indicating the existence of statistically significant differences or relationships.

Result

In the studied group of women, the mean score on the AMTS scale amounted to 9.86 ± 1.49 points. A normal mental state characterized as many as 86.00% of respondents. Mild memory impairment was found in 14.00% of the examined women—none of the examined women presented with severe cognitive impairment.

Table II presents the percentage distribution of correct and incorrect answers to individual questions of the AMTS test. Again, most of the surveyed patients provided correct answers.

Table II. Answers to individual questions to the AMTS test

Question	Correct answers (%)	Incorrect answers (%)
What is your age?	96.30	3.70
What time is it?	95.40	4.60
Give the patient an address, and ask him or her to repeat it at the end of the test e.g., 42 West Street	97.20	2.80
What year is it?	94.40	5.60
What is your address?	98.10	1.90
What is your date of birth?	98.10	1.90
What year did the First World War start?	97.20	2.80
Name the current president.	87.00	13.00
Count backward from 20 to 1.	93.50	6.50
Recall the address correctly	82.40	17.60

Analyzing the mental performance of the respondents depending on their age, it was found that women from the younger age group functioned better in this area (10.13 points). At the same time, mental performance decreased with age and in women aged 80-95, it was on the average level of 9.62 points. However, the performed statistical analysis did not show a statistically significant difference between the age groups.

When assessing the mental status of respondents depending on their marital status, performed analysis revealed that married women were characterized by the best mental performance (10.06 points). On the other hand, worse mental performance was found in widowed wo-

men (9.74 points) and single respondents (9.71 points). However, there was no statistically significant difference between the studied groups.

The next stage of the research was to determine the mental state of women depending on their education. Respondents with higher education (10.22 points) showed the most increased mental performance, whereas those with primary education (9.28 points) exhibited the lowest mental performance. The performed statistical analysis showed a significant difference between the studied groups in the educational area.

The research also analyzed the mental performance of the seniors depending on their self-assessment of their health. A statistically significant difference was found between the level of mental performance and self-assessment of health. People with good health (10.52 points) showed the best fitness. The greatest deficits in mental performance were found in the group of women who characterized their health as poor (9.19 points).

The research results showed that the place of residence did not affect the mental performance of the surveyed women. However, the respondents from the rural area (9.93 points) showed better efficiency than those from the urban area (9.79 points).

Table III presents the assessment of the surveyed women using the AMTS test depending on the selected sociodemographic features.

Discussion

Cognitive impairment is not an equivalent of dementia. However, cognitive impairment constitutes one of the components of dementia. Apart from dementia, they can also occur in other diseases, including Parkinson's disease, multiple sclerosis, depression, in many somatic diseases, such as diabetes, and thyroid gland disorders. Cognitive impairment may also be the result of drugs and / or alcohol use or the result of craniocerebral injuries [1].

Conducted research indicated that the study respondents were characterized by a high level of cognitive performance. Doroszkiewicz et al. [5], in their research, obtained worse results. In their study, 21% of the respondents presented with severe cognitive impairment; 25% of the patients with moderate cognitive impairment. Skalska and Gałaś [6] also obtained worse evaluation results in their research, with the mental state of women assessed at a lower level (7.24 points). Elderly respondents covered by long-term care from the study by Cebulak et al. [7] also performed much worse. 37.37% of patients interviewed by Cebulak et al. exhibited severe mental impairment.

Conducted research presented that the mental performance deteriorates with the age of the respondents. People from the younger age group obtained better assessment results compared to people from the older age group. Similar results were obtained by Pniewska et al. [8], where mental performance decreased with age.

The authors' research results also allowed us to determine that married respondents exhibited a higher degree of mental functioning efficiency than women who were single or widowed. Authors' original research also revealed that the higher the education of the respondents, the better their scores on the AMTS test. Similarly, Cebulak et al. [7] indicated in their research that people with primary education more often experienced moderate or

Table III. Sociodemographic variables and the assessment with the AMTS test

Zmienna		Mean	SD	Statistical analyses
Age	63-69	10.13	1.24	H=1.797 p=0.407
	70-79	9.79	1.45	
	80-95	9.62	1.80	
Marital status	Married	10.06	1.20	Z=-0.818 p=0.412
	Widow	9.74	1.63	
	Single	9.71	1.65	
Education	Primary	9.28	1.90	H=5.215 p=0.043
	Occupational	9.74	1.70	
	Middle	9.90	0.94	
	Higher	10.22	0.97	
Self-assessment of health	Good	10.52	0.85	H=15.367 p=0.0005
	Average	9.81	1.33	
	Bad	9.19	1.93	
Place of residence	Urban areas	9.79	1.54	Z=-0.847 p=0.396
	Rural areas	9.93	1.44	

severe mental disorders (80.00%) compared to patients with vocational education (47.72%), secondary education (64.11%), or higher education (47.05%). Statistical analysis in Cebulak et al. research confirmed that the lower the education of the respondents, the greater the impairment of mental functions.

The results of our research indicated the improved mental performance of women living in a rural environment. Correspondingly, Głowacka et al. [9] obtained similar results.

Conclusions

The examined group of elderly women presented a high degree of mental efficiency. Education and self-assessment of health status significantly differentiated the mental performance of the respondents.

Conflict of interest
None

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