Diagnosis of cognitive disorders in primary health care in Poland

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Summary

Aim. The aim of this study was to assess the knowledge, attitudes and the rules of proceeding concerning primary health care (PHC) doctors in the field of screening diagnostics for cognitive disorders in elderly people in Poland.

Material and methods. The study included 175 PHC doctors. A validated anonymous questionnaire was used. The survey was conducted using the PAPI (Paper and Pencil Interviews) and CAWI (Computer Assisted Web Interviews) methods.

Results. The vast majority of the respondents ($n = 159$; 91.4%) saw the advisability of screening for cognitive disorders in the age group >65 years of age, but only 53 subjects (30.29%) believed that these tests should be conducted by general practitioners (GPs). According to the surveyed doctors, the main obstacle in the diagnostics of cognitive functions is the lack of time – this was the opinion of 142 (81.14%) respondents. When dementia was suspected, the respondents usually ordered laboratory tests and referred patients to a neurologist ($n = 111$; 63.4%). The Mini Mental Status Examination (MMSE) and the Clock Drawing Test (CDT) were the most popular scales assessing cognitive functions, known by 120 doctors (68.57%), and 122 respondents (69.71%), respectively.

Conclusions. Polish GPs are aware of the necessity of screening for cognitive disorders in seniors. Currently, there are no mechanisms within the primary health care system that would enable proper early screening for dementia in people at high risk (i.e. >65 years of age). The development of standards for the early detection of cognitive disorders within the primary health care system in Poland seems to be an urgent need.

Key words: dementia, primary health care, social health

Introduction

Due to the intensive development of medicine and the improvement of economic conditions, as well as the rapidly growing health awareness, the average life expectancy is increasing. The aging of population contributes to the increase in the number of people suffering from dementia. WHO predicts that the total number of people with dementia will reach 75.6 million in 2030 and will increase to 135.5 million in 2050. It is estimated that there are approximately 0.5 million people with dementia in Poland (no national epidemiological studies are available) [1-6]. According to the report by Alzheimer's Disease International, the costs associated with the treatment of these patients, their nursing care, and loss of professional and social productivity continue to rise. These costs reached 817 billion US dollars in 2015 [4].

According to the report of the Supreme Audit Office in Poland in 2016, no tools for effectively solving the problems of people with Alzheimer's disease (AD) and their families have been created in Poland as part of the universal health care system. The weakest point of the currently functioning solutions is the lack of a developed model of treatment and care for people with AD. Not only are there no screening tests for people in senior age, there are also no systemic solutions that enable a quick diagnosis of dementia and its type in order to start appropriate treatment at an early stage of the disease. According to the authors of the report, this situation may be improved by drawing the attention of primary health care personnel to the importance of identifying the first symptoms of neurodegenerative diseases and facilitating at this level the referral of people with cognitive disorders to specialized centers [7]. Current knowledge about how primary health care physicians work in the field of screening of elderly people is insufficient and unsystematic, and there is no analysis of the causes of the current situation.

Therefore, the aim of this study was to assess the knowledge, attitudes and the rules of proceeding concerning primary health care (PHC) doctors in the field of screening diagnostics for cognitive disorders in elderly people in Poland, and to identify problems related to conducting this diagnosis in primary health care.

Material and method

The study included 175 primary care physicians in Poland. Doctors admitting patients in primary health care were recruited for the study. Recruitment took place through websites dedicated to primary care physicians and during personal visits to offices. A proprietary questionnaire was used, consisting of 4 open and 1 closed questions regarding the characteristics of the examined doctors (age, work experience, number of patients >65 years of age, place of practice) and 12 closed, single or multiple choice questions assessing the knowledge, attitudes and rules of conduct in the field of screening diagnostics for cognitive disorders in people over 65 years of age. In open questions, the respondents entered the appropriate answer; in closed questions they chose one or more answers from among a few given options. The study was carried out using the PAPI (Paper and Pencil Interviews) and CAWI (Computer

Assisted Web Interviews) methods – in the case of the latter, the respondents filled in a specially prepared form in Microsoft Forms placed on the website. Both versions of the questionnaire contained the same set of questions and the manner of answering was identical. The survey was anonymous.

The obtained results were statistically evaluated using the SYSTAT 13 program. Measurable data were expressed as mean ± standard deviation (M ± SD) and as a percentage value. The compliance of the distribution of variables with the normal distribution was checked using the Shapiro-Wilk test. Due to the inconsistency of the distribution of variables with the normal distribution, the Mann-Whitney U test was used to compare the two groups, and the Kruskal-Wallis test to compare the three groups. The chi-square test was used to test the differences in the percentage distribution of qualitative variables in both groups.

Results

Table 1. **Characteristics of the examined group of primary care doctors**

	All the examined PHC doctors	Family medicine specialists (I)	Internal medicine specialists (II)	Doctors without specialization (III)	P^1	p^3 I vs. II	p^3 II vs. III	p^3 I vs. III	Doctors aged ≤50 years (A)	Doctors aged >50 years (B)	P^2 (A vs. B)
Age (years)	46 ± 14	48 ± 13	51 ± 12	33 ± 13	0.010				37 ± 8	61 ± 8	<0.0001
Years of work in primary health care	16 ± 13	16 ± 12	19 ± 12	4 ± 5	0.008				9 ± 7	28 ± 11	<0.0001
Number of patients >65 years under the care of one doctor	802 ± 637	810 ± 542	868 ± 505	382 ± 528	0.078				704 ± 637	950 ± 609	0.031
Number of patients >65 years admitted during one week by one doctor	75 ± 100	68 ± 38	81 ± 71	81 ± 185	0.611				59 ± 39	97 ± 145	0.023
Place of practice N (%) — City with >500,000 inhabitants	38 (22.0%)	19 (19.8%)	5 (8.1%)	12 (30.6%)		0.019	0.002	0.038	30 (30.6%)	6 (7.1%)	0.01
City with 200,000-500,000 inhabitants	35 (20.2%)	17 (17.7%)	19 (30.7%)	4 (12.9%)		0.052	0.038	0.310	12 (12.2%)	21 (25.0%)	0.046
City with 50,000-200,000 inhabitants	37 (21.4%)	19 (19.8%)	12 (19.4%)	8 (25.8%)		0.674	0.521	0.526	25 (25.5%)	12 (14.3%)	0.097
City with <50,000 inhabitants	43 (24.86%)	25 (26.0%)	16 (25.8%)	5 (16.1%)		0.726	0.333	0.321	23 (23.5%)	20 (23.8%)	0.794
Village	20 (11.6%)	16 (16.7%)	4 (6.5%)	3 (9.7%)		0.056	0.232	0.122	8 (8.2%)	12 (14.3%)	0.218

Results are presented as mean ± standard deviation or percentage value. Kruskal-Wallis[1], Mann-Whitney U test[2] and the chi-square test[3] were used.

Table 2. The results of the survey

	All the examined PHC doctors	Family medicine specialists (I)	Internal medicine specialists (II)	Doctors without specialization (III)	p (I vs. II)	p (II vs. III)	p (I vs. III)	Doctors aged ≤50 years (A)	Doctors aged >50 years (B)	P (A vs. B)
How many of your patients (or patient caregivers) spontaneously report memory problems per week?										
<1	26 (14.9%)	15 (15.6%)	7 (11.3%)	6 (19.4%)	0.451	0.329	0.498	13 (13.3%)	13 (15.5%)	0.664
From 1 to 2	90 (51.7%)	50 (52.1%)	30 (48.4%)	14 (42.2%)	0.730	0.555	0.621	47 (48.0%)	41 (48.8%)	0.559
From 3 to 5	35 (20.1%)	20 (20.8%)	10 (16.1%)	6 (19.4%)	0.480	0.493	0.842	25 (25.5%)	8 (9.5%)	0.014
>5	23 (13.2%)	11 (11.5%)	9 (14.5%)	5 (16.1%)	0.586	0.584	0.518	12 (12.2%)	11 (13.1%)	0.806
How many of your patients do not report memory problems per week, but in your opinion they may have such problems?										
<1	26 (14.9%0)	15 (15.6%)	10 (16.1%)	3 (9.7%)	0.745	0.428	0.439	11 (11.2%)	15 (17.9%)	0.240
From 1 to 2	75 (43.1%)	40 (41.7%)	27 (43.5%)	12 (38.7%)	0.844	0.717	0.693	42 (42.9%)	33 (39.3%)	0.617
From 3 to 5	46 (26.4%)	26 (27.1%)	12 (19.4%)	9 (29.0%)	0.282	0.269	0.738	27 (27.6%)	16 (19.0%)	0.188
>5	27 (15.5%)	15 (15.6%)	7 (11.3%)	7 (22.6%)	0.406	0.190	0.310	17 (17.3%)	9 (10.7%)	0.230
Do you think that cognitive screening tests should be performed regularly after the age of 65?										
No	15 (8.6%)	11 (11.5%)	4 (6.5%)	0 (0.0%)	0.262	0.084	0.058	7 (7.1%)	8 (9.5%)	0.570
Yes, every 2 years	22 (12.6%)	10 (10.4%)	8 (12.9%)	5 (16.1%)	0.549	0.573	0.414	15 (15.3%)	7 (8.3%)	0.182
Yes, every year	83 (47.4%)	44 (45.8%)	25 (40.3%)	17 (54.8%)	0.399	0.313	0.522	47 (48.0%)	35 (41.7%)	0.441

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Yes, every six months	54 (30.9%)	30 (31.3%)	18 (29.0%)	10 (32.3%)	0.789	0.769	0.876	29 (29.6%)	23 (27.4%)	0.538
Do you think that cognitive impairment may be related to depression?										
Yes	150 (87.5%)	87 (90.6%)	47 (75.8%)	28 (90.3%)	0.322	0.375	0.556	88 (89.8%)	58 (69.0%)	0.088
No	24 (13.7%)	9 (9.4%)	9 (14.5%)	4 (12.9%)	0.246	0.834	0.248	10 (10.2%)	14 (16.7%)	0.234
Which of the following screening tools would you be able to use?										
MMSE	120 (68.6%)	68 (70.8%)	33 (53.2%)	27 (87.1%)	0.138	0.055	0.203	81 (82.7%)	35 (41.7%)	0.001
CDT	122 (69.7%)	70 (72.9%)	41 (66.1%)	19 (61.3%)	0.613	0.512	0.499	65 (66.3%)	54 64.3%	0.472
MoCA	26 (14.9%)	13 (13.5%)	7 (11.3%)	6 (19.4%)	0.423	0.329	0.465	18 (18.4%)	8 (9.5%)	0.120
STMS	19 (10.9%)	6 (6.3%)	7 (11.3%)	4 (12.9%)	0.169	0.718	0.158	11 (11.2%)	8 (9.5%)	0.699
Other	2 (1.1%)	0 (0.0%)	0 (0.0%)	1 (3.2%)	0.179	0.170	0.132	2 (2.0%)	0 (0.0%)	0.324
In your opinion, are there any obstacles to perform the above tests in the practice?										
Yes, they are time-consuming	142 (81.1%)	81 (84.4%)	49 (79.0%)	24 (77.4%)	0.691	0.768	0.674	80 (81.6%)	58 (69.0%)	0.218
Yes, patient reluctance	34 (19.4%)	16 (16.7%)	13 (21.0%)	7 (22.6%)	0.501	0.628	0.464	18 (18.4%)	15 (17.9%)	0.686
Yes, uncertainty about the evaluation of some tests	11 (6.3%)	10 (10.4%)	3 (4.8%)	0 (0.0%)	0.094	0.142	0.033	5 (5.1%)	5 (6.0%)	0.629
Other	1 (0.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.342	0.466	0.394	0 (0.0%)	0 (0.0%)	0.308
No	22 (12.6%)	13 (13.5%)	3 (4.8%)	6 (19.4%)	0.082	0.043	0.272	14 (14.3%)	8 (9.5%)	0.357
Who do you think should perform cognitive screening?										
PHC nurse	95 (54.3%)	61 (63.5%)	30 (48.4%)	10 (32.3%)	0.167	0.075	0.038	55 (56.1%)	38 (45.2%)	0.249
PHC doctor	53 (30.3%)	27 (28.1%)	5 (8.1%)	15 (48.4%)	0.001	<0.0001	0.061	30 (30.6%)	21 (25.0%)	0.378
Psychologist	58 (33.1%)	27 (28.1%)	19 (30.6%)	11 (35.5%)	0.358	0.682	0.377	33 (33.7%)	25 (29.8%)	0.585
Neurologist	48 (27.4%)	26 (27.1%)	23 (37.1%)	3 (9.7%)	0.146	0.017	0.059	18 (18.4%)	29 (34.5%)	0.034
Psychiatrist	38 (21.7%)	22 (22.9%)	18 (29.0%)	1 (3.2%)	0.207	0.011	0.026	14 (14.3%)	23 (27.4%)	0.053

What actions do you take when you suspect a patient of cognitive dysfunction?										
Blood count examination	105 (68.6%)	54 (56.3%)	32 (51.6%)	22 (71.0%)	0.329	0.246	0.358	64 (65.3%)	37 (44.0%)	0.045
Serum electrolyte testing	103 (69.7%)	53 (55.2%)	28 (45.2%)	23 (74.2%)	0.139	0.073	0.228	65 (66.3%)	34 (40.5%)	0.016
Fasting glucose control	113 (64.6%)	58 (60.4%)	35 (56.5%)	23 (74.2%)	0.346	0.299	0.402	67 (68.4%)	42 (50.0%)	0.084
Lipid concentration control	95 (54.3%)	55 (55.2%)	34 (54.8%)	10 (32.3%)	0.686	0.096	0.087	48 (49.0%)	44 (52.4%)	0.452
Cognitive screening test	104 (59.4%)	58 (60.4%)	31 (50.0%)	17 (54.8%)	0.331	0.308	0.723	62 (63.3%)	40 (47.6%)	0.137
Referral to a neurologist	111 (63.4%)	65 (67.7%)	40 (64.5%)	17 (54.8%)	0.591	0.542	0.424	60 (61.2%)	47 (56.0%)	0.367
Referral to a psychiatrist	67 (38.3%)	36 (37.5%)	19 (30.6%)	12 (38.7%)	0.327	0.331	0.896	33 (33.7%)	32 (38.1%)	0.460
Referral to a psychologist	48 (27.4%)	22 (22.9%)	16 (25.8%)	9 (29.0%)	0.380	0.766	0.389	27 (27.6%)	19 (22.6%)	0.400
How much time can you allocate for screening diagnostics of a patient with suspected cognitive dysfunction?										
<3 min	36 (20.6%)	23 (24.0%)	10 (16.1%)	6 (19.4%)	0.288	0.432	0.455	17 (17.3%)	19 (22.6%)	0.414
3-5 min	65 (37.1%)	36 (37.5%)	18 (29.0%)	12 (38.7%)	0.294	0.290	0.877	34 (34.7%)	27 (32.1%)	0.395
5-10 min	43 (24.6%)	26 (27.1%)	15 (24.2%)	5 (16.1%)	0.617	0.342	0.284	21 (21.4%)	22 (26.2%)	0.487
10-15 min	23 (13.1%)	8 (8.3%)	11 (17.7%)	6 (19.4%)	0.101	0.167	0.107	19 (19.4%)	4 (4.8%)	0.007
>15 min	7 (4.0%)	3 (3.1%)	2 (3.2%)	2 (6.5%)	0.599	0.455	0.420	6 (6.1%)	1 (1.2%)	0.097
Which form of the cognitive screening test would you prefer?										
Paper test	128 (73.1%)	74 (77.1%)	35 (56.5%)	23 (74.2%)	0.109	0.124	0.648	65 (66.3%)	60 (71.4%)	0.418
Test on the tablet	30 (17.1%)	16 (16.7%)	15 (24.2%)	4 (12.9%)	0.178	0.145	0.561	21 (21.4%)	8 (9.5%)	0.048
Test on the mobile phone	3 (1.7%)	1 (1.0%)	0 (0.0%)	2 (6.5%)	0.251	0.024	0.038	2 (2.0%)	1 (1.2%)	0.658
Test uploaded to the doctor's phone	11 (6.3%)	4 (4.2%)	5 (8.1%)	2 (6.5%)	0.318	0.576	0.407	8 (8.2%)	3 (3.6%)	0.215
What form of short training in cognitive screening would you prefer?										
Brochure sent	36 (20.6%)	27 (28.1%)	7 (11.3%)	4 (12.9%)	0.022	0.062	0.060	13 (13.3%)	21 (25.0%)	0.067

Training in the form of a video available on the Internet	49 (28.0%)	23 (24.0%)	14 (24.0%)	6 (19.4%)	0.271	0.224	0.239	23 (23.5%)	26 (31.0%)	0.322
Online training to connect with a trainer	12 (6.9%)	5 (5.2%)	7 (11.3%)	2 (6.5%)	0.142	0.182	0.533	9 (9.2%)	3 (3.6%)	0.148
The trainer's visit to the office	25 (14.3%)	12 (12.5%)	5 (8.1%)	10 (32.3%)	0.169	0.003	0.007	17 (17.3%)	8 (9.5%)	0.160
Training in the form of a workshop	50 (28.6%)	27 (28.1%)	23 (37.1%)	9 (29.0%)	0.208	0.209	0.924	35 (35.7%)	13 (15.5%)	0.009
Would you like to participate in the program of supporting cognitive function testing in your patients?									
Yes	72 (41.1%)	30 (31.3%)	39 (62.9%)	18 (58.1%)	0.002	0.002	0.035	60 (61.2%)	12 (14.3%)	0.000
No	103 (58.9%)	66 (68.8%)	17 (27.4%)	13 (41.9%)	0.001	0.001	0.078	37 (37.8%)	62 (73.8%)	0.001

The results are presented as N (%). Chi-square test was used.

MMSE – Mini Mental State Examination; CDT – Clock Drawing Test; MoCA – the Montreal Cognitive Assessment; STMS – Short Test of Mental Status

The study involved 129 women and 46 men, aged 46.44 ± 14.1 years. Most of the surveyed doctors had specializations in family medicine ($n = 96$; 54.86%), 56 people (32%) were specialists in internal medicine, 20 respondents (18.29%) had a different specialization (8 pediatricians, 4 occupational medicine specialists, 4 diabetologists, 2 otolaryngologists, 1 gynecologist, 1 endocrinologist, 1 cardiologist, 1 anesthesiologist), while 32 people (18.29%) did not have the title of specialist. The characteristics of the studied group of doctors and the number of admitted patients over 65 years of age are presented in Table 1.

The vast majority of the respondents ($n = 159$; 91.4%) saw the advisability of screening for cognitive disorders in the age group over 65 years, but only 53 people (30.29%) believed that these tests should be conducted by general practitioners (GPs). As an obstacle to this type of diagnostics, the respondents most often mentioned that it is time-consuming ($n = 142$; 81.1%); the majority declared that they could devote less than 10 minutes to this task. The Mini Mental Status Examination (MMSE) and the Clock Drawing Test (CDT) were the most popular scales assessing cognitive functions, known by 120 doctors (68.57%) and 122 respondents (69.71%), respectively.

The surveyed doctors most often admitted 1-2 people per week who personally reported memory problems or whose caregiver suspected cognitive impairment ($n = 90$; 51.7%). The respondents most often indicated the paper test ($n = 128$; 73.1%) as an objective screening method for the assessment of cognitive disorders. The test on a tablet provided to the center was statistically significantly more often chosen by doctors under 50 years of age. When dementia was suspected, the subjects usually ordered laboratory tests and referred patients to a neurologist ($n = 111$; 63.4%).

Significant differences were observed among respondents with different specializations. Doctors without specialization thought much less often that screening for cognitive disorders should take place in a neurological or psychiatric clinic. Family doctors less frequently declared their willingness to cooperate (31.3%) than internal medicine specialists (62.9%) and non-specialized doctors (58.1%). There is no statistically significant difference in laboratory tests, way how they further referred patients, or the time they could spend on assessing cognitive function between these groups of physicians. Internal medicine specialists were less likely to know the MMSE scale (53.2%) vs. 70.8% – family medicine specialists vs. 87.1% – doctors without specialization (difference on the border of statistical significance); no significant differences were found regarding the knowledge of other scales or identification of difficulties in their application. Older respondents (over 50 years of age) believed significantly more often that the evaluation of cognitive functions should take place in a neurological clinic, generally declared a shorter amount of time that they could spend on this assessment and were definitely less interested in further cooperation in comparison to younger respondents (14.3% vs. 61.2%).

The respondents' assessment of their own skills in the diagnosis of cognitive disorders on a scale from 1 to 10 in the examined group was 5.6 ± 2.2 points. There were no statistically significant differences in terms of age or specialization.

Despite a critical assessment of their abilities, only 72 people (41.4%) expressed their willingness to participate in the program of supporting cognitive testing in their

patients. Family doctors and/or doctors over 50 years of age were statistically significantly less interested in this type of program. The preferred training methods were workshops ($n = 50$; 28.6%) and videos available on the Internet ($n = 49$; 28%).

Detailed answers to individual survey questions and statistical analyses are presented in Table 2.

Discussion

As shown by the report of the Polish Supreme Audit Office (2016), GPs rarely assessed the cognitive status of elderly patients [7]. The findings of the Supreme Audit Office indicate that only 3% of Polish people over 60 years of age were examined for memory disorders by a primary care physician on his own initiative, and there were no records of cognitive dysfunctions in the medical history. Information on this subject was obtained only when it was reported by the patients themselves or their family members. In the controlled centers of primary health care, no patient was examined using the available standardized scales assessing cognitive functions. As an explanation, the doctors most often said that there were no appropriate regulations and standards for patients over 60 years of age, as well as they reported the lack of time due to the large number of patients. In its report, the Supreme Audit Office emphasized the need to collect reliable data in order to assess the scale of the phenomenon and to develop and implement standards for the early detection of AD and standards for its treatment and care [7].

According to the literature data, the patients with memory disorders go to PHC doctors first [8, 9]. Also in this study, the vast majority of respondents came into contact each week with patients reporting or suspected of cognitive impairment. Therefore, more and more attention is being paid to the key role of GPs in the care of elderly people [10, 11]. Most of our respondents saw the desirability of cognitive screening tests and believed that it would be possible to perform such diagnostics in primary health care. Most often, they indicated time-consumption as an obstacle in such procedure, and about ¾ of the respondents declared that they could spend no more than 10 minutes on diagnosing cognitive disorders.

As the subject literature shows, attention is often paid to the low effectiveness of GPs in the diagnosis of dementia [12], late diagnosis [12, 13], and the general reluctance to discuss the subject of cognitive disorders by both the primary care physician and the patient [14]. It is also argued that GPs often do not take into account the level of patient education, often misdiagnose cognitive disorders among patients with disabilities and the elderly, do not objectify their diagnosis with an interview with the patient's family or friends, and do not use standardized scales that assess cognitive functions [12].

In this study, widely known scales among PHC doctors were the Mini Mental Status Examination (MMSE) and the Clock Drawing Test (CDT). Although MMSE is most often used in the diagnosis of cognitive disorders, it has some limitations – it is relatively insensitive in the case of mild dementia and impractical from the point of view of the family doctor due to the long duration of the examination (more than 10 min) [15-17]. In our study it was also observed that the knowledge of MMSE was

not common among physicians over 50 years of age (41.5%) comparing to younger doctors (82.7%). The only widely known test in the older group of respondents was CDT (64.3%). CDT, despite its short duration, is not suitable for screening of cognitive functions as a single diagnostic tool [18]. It should be remembered that there are other short diagnostic tests (e.g., General Practitioner Assessment of Cognition – GPCOG, Mini-Cog, or Memory Impairment Screen – MIS) with similar sensitivity and specificity as MMSE, but they were unknown to the physicians participating in this research [14].

The vast majority of respondents (87.5%) noticed a relationship between cognitive disorders and depression. Although depression is considered a primarily affective disorder, more and more importance is attached to the cognitive impairments present in its course. This may lead to a misdiagnosis of dementia, but on the other hand, the occurrence of such symptoms may indicate a neuropathological process underlying depression. Treatment of these symptoms is important because it affects the quality of life of patients and may indirectly inform about the endophenotype of depression [19].

Although early diagnosis of dementia has not significantly influenced the course of the disease [20], it has given time to educate the patient and the caregiver, which has a positive effect on their quality of life [21]. Early diagnosis allows, inter alia, to implement cognitive stimulation, which may improve the quality of life of patients, especially in the early stages of the disease, and to include potentially preventive strategies to limit the dynamics of the disease [22]. The patient and the patient's family are often unaware of the possibility of such support and could be informed by their GP. In addition, negative verification of the dementia syndrome prompts the search for an alternative diagnosis.

A new challenge is the global spread of SARS-CoV-2 and its disproportionate impact on the elderly, which may result in a further increase in inequalities in access to health care and the social support system. This situation requires the application of solutions taking into account both specific problems and the possibility of adaptation to new conditions in this group of patients. In Poland, we have recommendations prepared under the auspices of the Polish Psychiatric Association, the purpose of which is to stop these unfavorable phenomena [23]. However, it is advisable to develop standards for the diagnosis of dementia, taking into account the role of primary care physicians and assessing the effectiveness and utility of available diagnostic tools in primary health care. Such research is already carried out in other countries [24].

Conclusion

Polish GPs are aware of the necessity of screening for cognitive disorders in seniors. Currently, there are no mechanisms within the primary health care system that would enable proper early screening for dementia in people at high risk (i.e., >65 years of age). The development of standards for the early detection of cognitive disorders within the primary health care system in Poland seems to be an urgent need.

References

1. GBD 2016 Collaborators. *Global, regional, and national burden of Alzheimer's disease and other dementias, 1990–2016: A systematic analysis for the Global Burden of Disease Study 2016.* Lancet Neurology 2019; 18(1): 88–106.

2. Alzheimer's Disease International. *World Alzheimer Report 2016.* https://www.alzint.org/resource/world-alzheimer-report-2016/ (accessed: 1.08.2021).

3. Bonin-Guilleme S, Zekry D, Giacobini E, Gold G, Michel J. *The economical impact of dementia.* Press. Med. 2005; 34(1): 35–41.

4. Alzheimer's Disease International. *World Alzheimer Report 2015.* https://www.alzint.org/resource/world-alzheimer-report-2015/ (accessed: 1.08.2021).

5. Bermejo-Pareja F, Benito-Leon J, Medrano J, Roman GC. *Incidence and subtypes of dementia in three populations of central Spain.* J. Neurol. Sci. 2008; 264(1–2): 63–72.

6. Di Carlo A, Baldereschi M, Amaducci L, Lepore V, Bracco L, Maggi S et al. *Incidence of dementia, Alzheimer's disease, and vascular dementia in Italy. The ILSA Study.* J. Am. Geriatr. Soc. 2002; 50(1): 41–48.

7. Raport NIK z 2016 r. *Opieka nad osobami chorymi na chorobę Alzheimera oraz wsparcie dla ich rodzin.* https://www.nik.gov.pl/plik/id,13694,vp,16130.pdf (accessed: 1.08.2021).

8. Werner P. *Knowledge about symptoms of Alzheimer's disease: Correlates and relationship to help-seeking behaviour.* Int. J. Geriatr. Psychiatry 2003, 18(11): 1029–1036.

9. Werner P. *Beliefs about memory problems and help seeking in elderly persons.* Clin. Gerontol. 2004; 27(4): 19–30.

10. Linden M, Horgas AL, Gilberg R, Steinhagen-Thiessen E. *Predicting health care utilization in the very old. The role of physical health, mental health, attitudinal and social factors.* J. Aging. Health 1997; 9(1): 3–27.

11. Schers HJ, Hoogen van den H, Bor H, Grol R, Bosch van den R. *Familiarity with a GP and patients' evaluations of care. A cross-sectional study.* Fam. Pract. 2005; 22(1): 15–19.

12. Pentzek M, Wollny A, Wiese B, Jessen F, Haller F, Maier W et al.; AgeCoDe Study Group. *Apart from nihilism and stigma: What influences general practitioners' accuracy in identifying incident dementia?* Am. J. Geriatr. Psychiatry 2009; 17(11): 965–975.

13. Khanassov V, Vedel I. *Family physician-case manager collaboration and needs of patients with dementia and their caregivers: A systematic mixed studies review.* Ann. Fam. Med. 2016; 14(2): 166–177.

14. Kaduszkiewicz H, Bachmann C, Bussche van den H. *Telling "the truth" in dementia – do attitude and approach of general practitioners and specialists differ?* Patient Educ. Couns. 2008; 70(2): 220–226.

15. Brodaty H, Low LF, Gibson L, Burns K. *What is the best dementia screening instrument for general practitioners to use?* Am. J. Geriatr. Psychiatry 2006; 14(5): 391–400.

16. Flocke SA, Frank SH, Wenger DA. *Addressing multiple problems in the family practice office visit.* J. Fam. Pract. 2001; 50(3): 211–216.

17. Deveugele M, Derese A, Brink-Muinen van den A, De Maeseneer J, Bensing J. *Consultation length in general practice: Cross sectional study in six European countries.* BMJ 2002; 325(7362): 472–447.

18. Mast B, Gerstenecker A. *Screening instruments and brief batteries for dementia.* In: Lichtenberg P, editor. *Handbook of assessment in clinical gerontology*, 2nd edition. Academic Press; 2010. p. 503–530.

19. Czerwińska A, Pawłowski T. *Cognitive dysfunctions in depression – Significance, description and treatment prospects.* Psychiatr. Pol. 2020; 54(3): 453–466.

20. Larson EB, Shadlen MF, Wang L, McCormick WC, Bowen JD, Teri L et al. *Survival after initial diagnosis of Alzheimer disease.* Ann. Intern. Med. 2004; 140(7): 501–509.

21. Covinsky KE, Yaffe K. *Dementia, prognosis, and the needs of patients and caregivers.* Ann. Intern. Med. 2004; 140(7): 573–574.

22. Coen R, Flynn B, Rigney E, O'Connor E, Fitzgerald L, Murray C et al. *Efficacy of a cognitive stimulation therapy programme for people with dementia.* Ir. J. Psychol. Med. 2011; 28(3): 145–147.

23. Łuc M, Szcześniak D, Trypka E, Mazurek J, Rymaszewska J. *SARS-CoV-2 pandemic and the population with dementia. Recommendations under the auspices of the Polish Psychiatric Association.* Psychiatr. Pol. 2020; 54(3): 421–436.

24. Creavin ST, Cullum SJ, Haworth J, Wye L, Bayer A, Fish M et al. *Towards improving diagnosis of memory loss in general practice: TIMeLi diagnostic test accuracy study protocol.* BMC Fam. Pract. 2016; 17: 79.

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