ATTITUDES OF STUDENTS FROM THE HIGH MEDICAL COLLEGE OF PROFESSIONAL STUDIES AND NURSES TOWARDS PEOPLE SUFFERING FROM DEMENTIA

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STAVOVI STUDENATA VISOKE ZDRAVSTVENE ŠKOLE I MEDICINSKIH SESTARA PREMA LJUDIMA KOJI PATE OD DEMENCIJE

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ABSTRACT

Dementia is characterized by a progressive decrease in cognitive functions, and the term includes different etiologies. Cognitive decline includes loss of memory and deterioration in executive functions, such as planning and organizing skills, sufficient to influence social activities. The aim of this study was to examine and compare the attitudes (knowledge, emotions and behaviour) of students at the High Medical College of Professional Studies and nurses towards people suffering from dementia. The study was designed as a qualitative study with the use of a questionnaire. The Dementia Attitudes Scale (DAS) was used in our study. A total of 283 respondents answered the survey: 56.25% were students, and 43.75% were nurses. The internal consistency of the DAS was found to be good with a Cronbach's α of 0.792. In the overall score for attitudes, a significant difference was found between students (100.47±10.91) and nurses (95.51±16.10). The students had a better score regarding questions describing their behaviour towards these individuals (p<0.001) and emotions for these patients (p<0.001). For knowledge, there was no difference between the two groups of subjects (p=0.901). Regarding the overall score, attitudes of students and nurses towards people with dementia were positive. This research suggested that the training of senior team members who then had dementia expertise was a key component in developing attitudes and improving care practices and outcomes for these patients. Continuous education of all medical staff who have contact with people who suffer from dementia is important.

Keywords: *attitude, dementia, DAS scale, nurses, students of High medical college of the professional studies*

SAŽETAK

Demencija je termin koji se odnosi na različite etiologije koje karakteriše progresivno smanjenje kognitivnih funkcija. Kognitivni pad uključuje gubitak pamćenja i pogoršanje izvršnih funkcija, kao što su planiranje i organizovanje veština koje su neophodne u društvenim aktivnostima. Cilj ovog istraživanja bio je ispitati i uporediti stavove studenata Visoke zdravstvene škole strukovnih studija i medicinskih sestara (znanje, emocije i ponašanje). Studija je osmišljena kao kvalitativna studija uz upotrebu pitanja. U našoj studiji korišćena je skala stavova o demenciji (DAS). Ukupno 283 ispitanika odgovorilo je na anketu: 56,25% su bili studenti, a 43,75% su bile medicinske sestre. Utvrđena unutrašnja koezistentnost za DAS skalu je dobra, sa Cronbach's α od 0,792. U ukupnom skoru stavova utvrđena je značajna razlika između studenata 100.47 ± 10.91 i medicinskih sestara 95.51 ± 16.10. Studenti su imali bolji rezulatat u vezi pitanja koja opisuju svoje ponašanje prema ovim osobama (p<0,001) i emocijama za ove paciente (p<0,001). Što se tiče znanja, nije bilo razlike između ove dve grupe ispitanika (p=0,901). Stavovi studenata i medicinskih sestara prema osobama sa demencijom su pozitivni u ukupnom rezulatatu. Ovo istraživanje sugeriše da su stariji članovi tima sa stručnim područjem za demenciju ključna komponenta za razvoj stavova i poboljšanje prakse i ishoda sa tim pacijentima, kao i kontinuirano obrazovanje svih medicinskih sestara koje imaju kontakt sa ljudima koji pate od demencije.

Ključne reči: *stav, demencija, DAS skala, medicinske sestre, studenti Visoke zdravstvene škole strukovnih studija*

ABBREVIATIONS

WHO - World Health Organization
PWD - people with dementia
DAS - Dementia Attitudes Scale
ADRD - Alzheimer's disease and related dementia

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INRODUCTION

Dementia is a progressive decrease in cognitive functions and the term refers to different etiologies. Cognitive decline includes loss of memory and deterioration in executive functions, such as planning and organizing skills, sufficient to influence social activities. Alzheimer's disease is the most common type of dementia, accounting for 50–75% of all dementia cases (1-3). According to WHO recent documents, dementia affects more than 4% of people over 65 years, and the total number of people with dementia (PWD) is currently estimated at 35.6 million worldwide (4). Globally, every ninth person older than 65 years has been diagnosed with Alzheimer's disease, and this number increases with years of life such that every fourth person over 65 years suffers from some form of dementia (3, 5-7). Of the total number of PWD, 58% live in countries with medium and low gross national incomes, including the Republic of Serbia. According to the 2011 census, there are 7.2 million people in Serbia, of whom 17.4% are older than 65 (8). There is no registry of patients with dementia in Serbia. According to the estimates of the Alzheimer's Association, approximately 13% of people older than 65 are suffering from Alzheimer's disease (9). It is estimated that only 4% of the diagnosed patients receive adequate therapy (9). The National Guide for Alzheimer's Disease from 2013 emphasizes the importance of early recognition, diagnosis, treatment and prevention of this disease, precisely because of the increase in the number of people aged 65 years and older according to the previous census, with age as the most significant known risk factor for the development of dementia (5).

The high global prevalence, economic impact of dementia on families, caregivers and the community, as well as the related stigma and social exclusion, represent a significant public health challenge (3, 4, 6, 7).

The attitude towards the elderly varies depending on their health; therefore, some old people can be seen in a negative context (10). Many authors consider that additional education of the population, especially future health workers, is needed to address this specific problem (1, 11, 12). Early recognition and improved access to PWD has far-reaching consequences on their acceptance and the organization of adequate health care (1, 10).

Attitudes represent positive or negative evaluations of people, ideas or objects. There are three components of attitudes: there is an emotional component (emotional reactions), a cognitive component (knowledge and belief) and the component of behaviour (it consists of procedures, visible behaviour with intent and motivation with action). Attitudes towards dementia contain three basic components: knowledge, behaviour and an emotional component (1).

In the Republic of Serbia, to date, attitudes towards patients with dementia have not been examined. According to previous international research, it is particularly important to examine the attitudes of young people who are preparing for a future profession as a health worker, as well as the attitudes of already educated healthcare workers towards people suffering from dementia. From the obtained results, a new strategy could be developed with the aim of better treatment of the sick and empowering families who are nurturing PWD.

The main aim of this study was to examine and compare the attitudes (knowledge, emotional and behaviour) of students from the High Medical School of Professional Studies and nurses towards people suffering from dementia.

MATERIALS AND METHODS

This study was designed as a qualitative study with the use of a questionnaire. The study sample included 283 subjects from two research groups. The first group consisted of students from the High Medical College of Professional Studies in the 2016/17 academic year, and the other group consisted of employed nurses who worked in different departments at the same hospital.

The study was conducted enrolling the first- and third-year students at the High Medical College of Professional Studies in Belgrade and enrolling nurses who worked at the Departments of Surgery, Neurology, Haematology and Geriatrics during March 2017. Participation in the study was voluntary and anonymity was assured.

Instrument

The questionnaire on socio-demographic status provided data on sex, age, education and length of employment. Attitudes towards dementia were examined with the Dementia Attitudes Scale (DAS) (11). This scale, which assessed attitudes towards patients with Alzheimer's disease and related dementia, contains 20 questions. Of the 20 items from the whole questionnaire, fourteen items in the scale had a positive polarity, and six items (2, 6, 8, 9, 16 and 17) had negative polarities, and they were transferred to the positive polarities prior to analysis. The Likert scale ranged from 1 (completely disagree) to 7 (completely agree). When administering the DAS, the lowest score was 20, the neutral score was 80, and the highest score was 140. The items concerned: knowledge of dementia-10 items, emotions against dementia-6 items and behaviour towards the dementia patients - 4 items.

Statistical analysis

Statistical data analysis was performed with IBM SPSS 20 software. Continuous variables are presented as the mean ± standard deviation, and the categorical variables are presented as the percentage of the frequency of each category. To test the differences in the mean values of continuous variables, the Student's t test or the Mann-Whitney U test and Kruskal-Wallis test were used, depending on whether there was a normal distribution or not, which was tested with the Kolmogorov-Smirnov test. To check the significance of the differences for the categorical variables, a chi-square test was used, and the Yates's continuity correction was used for a 2 x 2 contingency table. All analyses were evaluated to the level of significance $p<0.05$. The results were tabulated after processing. For the DAS scale, Kronbach's alpha coefficient was calculated, which assessed the internal consistency.

RESULTS AND DISCUSSION

A total of 283 respondents answered the survey: 159 (56.25%) were students at the High Medical College of Professional Studies, and 124 (43.75%) were qualified nurses. The average age in the group of students was 21.28 ± 2.71, while the average age in the group of nurses was 40.13 ± 9.99. A significant difference was found between the first- and third-year students regarding age ($p<0.001$), while there was no significant difference between nurses versus age relative to the type of department where they worked ($p=0.059$) (Table 1). Most students were female (93.7%), and 92.7% of the nurses were female.

Table 1. Socio-demographic characteristics of respondents

		Age (M±SD)	p value	Gender; n (%)		p value
				Male	Female	
Students	1st year	20.11±2.25	p<0.001*	4	72	p=0.839**
	3rd year	22.39±2.65		6	76	
	Total	21.28±2.71		10 (6.3)	148 (93.7)	
Nurses	Geriatrics	43.09±9.41	p=0.059#	3	40	p=0.539**
	Haematology	39.92±9.55		2	12	
	Surgery	37.15±10.50		2	47	
	Neurology	40.78±8.79		2	16	
	Total	40.13±9.99		9 (7.3)	115 (92.7)	

*- Mann-Whitney U test; #- Kruskal-Wallis test;
**- Chi-squared test

The internal consistency for DAS results was found to be good with a Cronbach's α of 0.792.

Our study showed that in 14 of 20 DAS items, a significant difference was found in the distribution of responses between these two groups of respondents.

The mean range for students was 3.34-6.10, and in nurses, it was 3.24-5.58. A statistically significant difference between attitudes of students and nurses was found for the following questions: 1, 2, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 19, and 20 (Table 2).

Table 2. DAS descriptive statistics for nurses and students

Questions from 1-20		Nurses		Students		p value*
		Mean	Std. Deviation	Mean	Std. Deviation	
1.	It is rewarding to work with people who have ADRD*	3.77	1.79	4.33	1.54	.003
2.	I am afraid of people with ADRD	5.58	1.45	6.10	1.21	.000
3.	People with ADRD can be creative	4.83	1.60	5.20	1.31	.087
4.	I feel confident around people with ADRD	3.24	1.71	3.51	1.34	.041
5.	I am comfortable touching people with ADRD	4.80	2.01	5.21	2.08	.023
6.	I feel uncomfortable being around people with ADRD	5.25	1.68	5.91	1.39	.000
7.	Every person with ADRD has different needs	5.43	1.42	5.99	1.30	.000
8.	I am not very familiar with ADRD	4.85	1.73	3.94	1.63	.000
9.	I would avoid an agitated person with ADRD	4.51	1.90	5.01	1.28	.081
10.	People with ADRD like having familiar things nearby	5.55	1.43	5.21	1.39	.016
11.	It is important to know the past history of people with ADRD	5.16	1.57	5.26	1.33	.913
12.	It is possible to enjoy interacting with people with ADRD	4.44	1.60	5.25	1.25	.000

Questions from 1-20		Nurses		Students		p value*
		Mean	Std. Deviation	Mean	Std. Deviation	
13.	I feel relaxed around people with ADRD	3.90	1.70	4.35	1.10	.006
14.	People with ADRD can enjoy life	4.70	1.54	5.23	1.38	.002
15.	People with ADRD can feel when others are kind to them	5.42	1.42	5.84	1.19	.004
16.	I feel frustrated because I do not know how to help people with ADRD	4.40	1.72	4.33	1.41	.596
17.	I cannot imagine taking care of someone with ADRD	5.01	1.67	5.31	1.42	.173
18.	I admire the coping skills of people with ADRD	4.76	1.61	5.08	1.30	.169
19.	We can do a lot now to improve the lives of people with ADRD	5.55	1.35	6.06	0.99	.001
20.	Difficult behaviours may be a form of communication for people with ADRD	4.37	1.63	3.34	1.38	.000

*Mann-Whitney U test
*ADRD - Alzheimer's disease and related dementia

Table 3 presents the distribution of the total score for responses on attitudes of students (100.47±10.91) and nurses (95.51±16.10) towards patients with dementia.

The students had a better score regarding questions describing their behaviour towards these individuals ($p<0.001$) and emotions for these patients ($p<0.001$).

Table 3. Distribution of the total score for responses on attitudes towards patients with dementia

Score (Number of question)	Nurses	Students	p value*
Behaviour (1, 5, 9, 12)	17.52±4.45	19.81±3.72	p<0.001
Emotion (2, 4, 6, 13, 16, 18)	27.13±5.23	29.27±3.84	p<0.001
Knowledge (3, 7, 8, 10, 11, 14, 15, 17, 19, 20)	50.86±9.00	51.39±6.03	p=0.901
Total	95.51±16.10	100.47±10.91	p=0.004

*- Mann-Whitney U test

DISCUSSION

Many studies have been conducted to examine the attitudes towards dementia due to the great obstacle that dementia brings for people who work or live with such patients (12, 15-20). These studies have identified significant factors and divided them into: emotional factors, behavioural factors and factors related to knowledge of dementia (11-17). Our study is the first with this theme in our country.

Nurses in our study indicated that they have knowledge about dementia patients that may produce an optimal relationship with these patients. Conversely, students had a more positive attitude than nurses when working with dementia patients.

In our country, a higher level of knowledge for nurses was related to a positive attitude towards dementia, which is in keeping with the results of a study conducted in Korea in 2015 (17). In this Korean study, those who had more knowledge of dementia had positive attitudes (attitudes of students in the health-related department towards major dementia vs. a non-health-related department; 19.10±5.30 vs. 21.41±6.55, respectively). Additionally, the results obtained for students in our research were independent of the knowledge they possessed, while the research conducted at the University of Malta (16) found students who underwent training to work with dementia patients had a more positive attitude than those who did not (DAS score: 105.56±13.46; 101.32±13.10; p=0.009; Dementia training, Yes, No, respectively). Similar results were found by Garrie, who showed that attitudes of students changed significantly after receiving an education about dementia (18), because intervention and increased knowledge about dementia

significantly increased the average score on this statement (3.64±1.36 *vs*. 4.72±2.15; preintervention *vs*. postintervention, respectively). However, in our study, a less positive attitude was found in the group of nurses. This result was probably due to the extremely poor conditions of work. In a survey conducted in Colombia, examination of the mental health of medical staff involved in the care of people suffering from dementia showed that they have only a slightly higher level of depression compared to the control group but not a higher level of stress and health problems (21).

In students, attitudes can indicate a lack of experience in working with these patients; hence, the largest percentage of students in our research had a neutral attitude. Providing adequate nursing care for patients with dementia is difficult and requires special skills, attitudes and knowledge (15). Additional support for people who work with dementia patients can increase their mental strength, and may also reduce anxiety and stress (13).

Nurses in our study showed a lack of support for patients with dementia and had less positive attitudes than students. It is necessary to use some of the experimental learning models, as already shown in the USA and Europe, to help nurses during their work to have additional methods, experiences and opportunities to take care of these patients, which would produce more positive attitudes (18, 19, 22).

When asked if it was rewarding to work with people with ADRD, nurses had an average score (3.77 SD±1.789) that was lower than the average score for students (4.33 SD ± 1.545) in our research. Nurses, although having more contact with dementia sufferers, do not experience this job as rewarding. We can suggest reasons, such as being overburdened with work, dissatisfaction, and insufficient support, while the neutral attitude of students can be the result of lack of knowledge or contact with people suffering from dementia. These reasons were not supported in previous studies and are different from the results of the research study in North Korea and Malta (16, 17). In a survey conducted in Croatia in which the attitudes of medical and non-medical staff were examined, it was found that those who had less knowledge had a less positive attitude and vice versa (12).

Because nurses are the primary caregivers of these patients, their attitudes and professional experience can affect the quality of care they provide (23). Problems encountered by nurses with long term nursing of patients with dementia could be overcome by improving their communication skills, which need to be constantly renewed and updated throughout their entire career. Work organization in hospital nursing should be individual patient-oriented, rather than according to work assignments, since every patient with Alzheimer's disease is unique(24).

The aim of the National Dementia Strategy is to improve the quality of care for people living with dementia in general hospitals through leadership that addresses quality improvements in dementia care, defined care pathways and the use of liaison mental health teams. Additionally, the importance of education and training is to reduce the stigma associated with dementia and to raise awareness in healthcare workers (25).

The overall score of the DAS scale between students of the High Medical College of Professional Studies and nurses showed a significant difference, from 100.47±10.91 to 95.51±16.10 (p=0.004). Similar results were found in research (11) in which the total score was 98,64±12,82. The students had a more positive attitude towards the behavioural and emotional components towards dementia patients compared to nurses. When subcategories were evaluated, students had a better score on questions describing their behaviour towards these individuals (p<0.001), as well as emotional questions, or questions on empathy for these patients (p<0.001). Regarding knowledge, there was no difference between these two groups (p=0.901). The attitude of nurses differed from the positive or neutral attitudes that were published from research on the attitudes of nurses from nursing homes in central Sweden (15). The Croatian study showed a clear difference between respondents with medical and non-medical knowledge in favour of medical staff who had significantly better knowledge, i.e., 4.25 versus 3.78 on DAS score (13). It also showed that the overall score improved in older students compared to the youngest students in the first year due to the acquired knowledge during the studies. In a study conducted with nursing students in Malta, their attitudes were compared with American psychology students, and it was concluded that clinical experience in working with people with dementia produced a more positive attitude (17). In another study in India, pre-med students had a lower total score (95.0±1.47) than students in our study (26). A study on non-medical staff in England showed that younger people have a more positive attitude towards dementia sufferers than those who had experience with dementia. Thus, our research supported younger people having a more positive attitude, but it disagreed with the fact that those with experience with the illness have less positive attitudes towards the patients (27).

It is necessary to build more positive attitudes with medical workers to provide adequate patient care with dementia (19, 23). By removing barriers that make it difficult for staff to provide care for PWD with organized support from experts in the respective specialties, attitudes of nurses can be improved. The students from the High Medical College of Professional studies are able to provide more experience and time with communication that focuses on people and not tasks, which provides better attitudes towards care and acceptance and emotion towards people with dementia.

CONCLUSIONS

The findings of this study indicated that efforts are required to maintain the positive attitudes of medical staff and future medical workers towards patients who have dementia. Nursing staff members need to maintain the dignity of the patient, to learn and recognize the needs of the patients and to act in the most professional way with a patient. Additionally, nurses need the support of society to achieve adequate care for patients and to preserve their dignity and the dignity of their profession.

This research suggested that such strategies as raising dementia awareness alone will not improve care or outcomes for patients with dementia. Instead, senior team members with dementia expertise are key components for developing attitudes and improving care practices and outcomes in these patients, as well as continuous education of all medical staff that have contact with people who suffer from dementia.

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CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

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There was no relevant financial interest in this article.

ETHICAL APPROVAL

The Dementia Attitudes Scale (DAS) used in our study was approved for use by Melissa O'Connor, a foreign author, using a double-translation method. The study was carried out after obtaining a decision from the Ethics Committee of the High Medical College of Professional studies (Decision number 140 of February 20, 2017) and the Clinical Hospital Centre (Decision number 1256/1 of February 27, 2017).

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