Most common health problems of elderly in the opinion of health sciences students in Poland, Belarus and Greece

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ABSTRACT

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Introduction: Health is one of the most important and cherished values in the elderly. It has been estimated that among people over 65 years old 80% of people suffer from at least one physical illness.
Purpose: To identify the opinions of the respondents on the most common health problems of elderly over 60.
Materials and methods: The study was conducted between January 2013 and November 2014 in three study groups: Polish, Belarusian and Greek students. A total of 600 (200 for each group) respondents were tested with the questionnaire created by authors.
Results: Respondents indicated that the most characteristic physical features of elderly people are wrinkles (68.7%, n = 412), gray hair (54.3%, n = 326) while cardiovascular diseases are the most common health problem (76.3%, n = 458). The most significant factor in delaying the aging process was active lifestyle (85.3%, n = 512).
Conclusions: There is a need for increased education in geriatrics and care of the elderly among students of health sciences, who in the future will be entered in the geriatric therapeutic teams. The perception of health problems of the elderly were different depending on the country of origin of the respondents. This may indicate that the students don't know the basic diseases and ailments in this age group (for example geriatric giants).
Key words: aging, elderly, health problems, perception, students

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INTRODUCTION

Health is defined as a "full physical, mental and social development, and not merely the absence of disease or infirmity" and is one of the most important and most cherished values among the elderly [1]. According to the concept of the former Canadian Minister of Health, Mark Lalonde [2] the most important significant factor in determining an individual's health is a lifestyle, that is the set of attitudes and specific behaviors of individuals and entire communities, depending on environmental, social and cultural factors, as well as personal beliefs or axiological system.

According to the World Health Organization (WHO), aging begins after the age of 60. WHO distinguishes three stages of old age:
- early old age, which lasts from 60 to 74 years old;
- late old age, covering the age range from 75 to 89 years old;
- longevity, beginning at the completion of 90 years old [3].

Wieczorowska-Tobis states that primarily polipatology, impaired mental functioning and disability are the main health problems of the elderly [4]. In an article by Wang et al. 76.7% people over 60 years old had three or more chronic diseases and the average number of chronic diseases that were present in each individual was 4.1 [5]. The most common health problems in elderly in a group of neurological diseases includes neurodegenerative diseases, mainly dementia [6]. In the PolSenior study the authors at $^1/_3$ study group diagnosed cognitive disorders of varying severity. A similar percentage of people have a depressive disorder. Almost $^3/_4$ of respondents suffered due to hypertension. The most common respiratory diseases in the elderly are chronic obstructive pulmonary disease (COPD), bronchial asthma and sleep apnea. The PolSenior study was shown a decreasing trend of physical activity in an increasingly older age groups [7].

Old age is seen by young people in different ways. Medical students see old age in terms of the negative ("a work that did not make it to God", "the most difficult stage of life", "lack of independence", "loneliness and lack of understanding", "health problems", "necessary sad reality", "end of life"), as well as in a neutral way ("natural, inevitable stage of our lives", "physiology", "consequence lived years", "autumn of life", "achievement over 65 years", "the sum of the experience gained by the years") [8].

In summary, the appearance of the image of the elderly in our society, including students, is very diverse, and the impact on these perceptions may have for example the specific phenomenon associated with biological aging body [8].

The main aim of this study was to identify the opinions of the respondents on the most common (in their opinion) health problems among people over 60 years old.

MATERIALS AND METHODS

The study was conducted between January 2013 and November 2014, after obtaining prior permission from the Bioethics Committee of the Medical University in Bialystok (statute no. R-I-002/651/2012).

The study was carried out in three study groups: first - group of students of the Faculty of Health Sciences, Medical University of Bialystok (Poland) (200), second - Yanka Kupala State students of University of Grodno (Belarus) (200), and third - students of Faculty of Nursing, National and Kapodistrian University of Athens (Greece) (200). The selection of the group was a random character. Before conducting this study, written research permission was obtained from the Deans of Faculties of these universities, and participants provided their oral consent. Questionnaires were filled at the beginning of lectures in Poland and Greece and electronically in Belarus. As a representative sample for each country adopted 200 people, although during the study were distributed more surveys. Many of them have not been returned to the authors or have been returned incompletely filled.

Women dominated in study groups (86.5% of the study population). Three quarters (75.0%) of the study population consisted of people between the ages of 21 and 25 years. The analysis of the education level of respondents showed that almost 60% of respondents studied nursing, 30% – physiotherapy and 10% – other fields of studies, such as public health, speech therapy with phonoaudiology and electroradiology. This group consisted predominantly of first-year students (61.0%), 18% were second-year students and the remaining 21.0% were students attending their third year. All participants were full time day students.

For the study purposes the questionnaire on the opinions about aging and old age as well as health problems associated with old age, comprising of two parts and 54 questions was used. Regarding the questions on healthy aspects of elderly, the question of what the students know about the elderly was taken into consideration. Open-ended questions were used as well as multiple choice questions so that those completing the surveys could best express their thoughts. The questions were mostly focused on the idea of the elderly and the imminent thoughts of students toward the elderly rather than direct examples of experiences with the elderly. All data obtained during the study was compiled using Microsoft Excel 2010. Statistical analysis was completed by applying the Chi-squared test. Statistical hypotheses were verified at the $p = 0.05$

significance level. Calculations were completed using IBM® SPSS® Statistics program, version 20.0.

RESULTS

The answers of students indicating the beginning of elderly in all groups were evenly distributed. More details regarding territorial differentiation of students are presented in Table 1.

Most characteristic physical features in the elderly according to the respondents were wrinkles (68.7%, n=412) and gray hair (54.3%, n=326). In the group of Polish students, more than half of the respondents (55.0%, n=110) considered gray hair as the most characteristic feature of old age. A similar response rate was observed in the group of students from Belarus (62.5%, n=125). In case of students from Greece, the similar answer was given by 98.5% (n=197) of respondents. Also noteworthy is the fact that 49.0% (n=98) of Greeks recognized that the typical physical feature of the elderly is poor eyesight. In case of students from other countries, the response rate was on average lower by half (29.5% (n=59) in Belarus vs. 24.0% (n=48) in Poland). Also, in the analyzed case, responses showed no statistically significant differences between the three groups (p=0.146). In other cases, the level of significance was p <0.001.

Table 1. The beginning of elderly in the opinion of students.

			Students			Total	p
			Belarus	Greece	Poland		
What age refers to the old age?	55-60 years	n	18	3	4	25	< 0.001
		%	9.0%	1.5%	2.0%	4.2%	
	61-65 years	n	44	25	21	90	
		%	22.0%	12.5%	10.5%	15.0%	
	66-70 years	n	69	79	48	196	
		%	34.5%	39.5%	24.0%	32.7%	
	71-75 years	n	47	81	72	200	
		%	23.5%	40.5%	36.0%	33.3%	
	≥ 76 years	n	22	12	55	89	
		%	11.0%	6.0%	27.5%	14.8%	
Total		n	200	200	200	600	
		%	100.0%	100.0%	100.0%	100.0%	

The vast majority of respondents (76.3%, n =458), recognized cardiovascular disease as the most common health problems among the elderly: in the Polish group 61.0% (n=122), in Belarusian 77.5% (n =155). Polish students also diseases of the osteoarticular system as a significant health concern (57.0%, n=114). In comparison to the countries of Central and Eastern Europe, Greek students significantly standout - 77.0% (n=154) found the lack of teeth as the most important health problem of older people. The analysis of data on osteoporosis, memory disorders, sleep disorders, imbalances and dysfunction sphincter did not reveal significant differences between the three groups. In other cases, statistically significant differences were found. Detailed results are presented in Figure 1.

Similar results were obtained by asking respondents about the health problems causing the most difficulty for the elderly. In all study groups the cardiovascular disease were chosen most frequently (51.5%, n=103). In particular they were most often mentioned by students from Greece (65.0%, n= 130). On the second place were diseases of osteoarticular system (42.3% of all responses, n=254). These diseases were also the most common response among Polish (46.0%, n=92) and Belarusian students (66.0%, n=112). Details are presented in Figure 2.
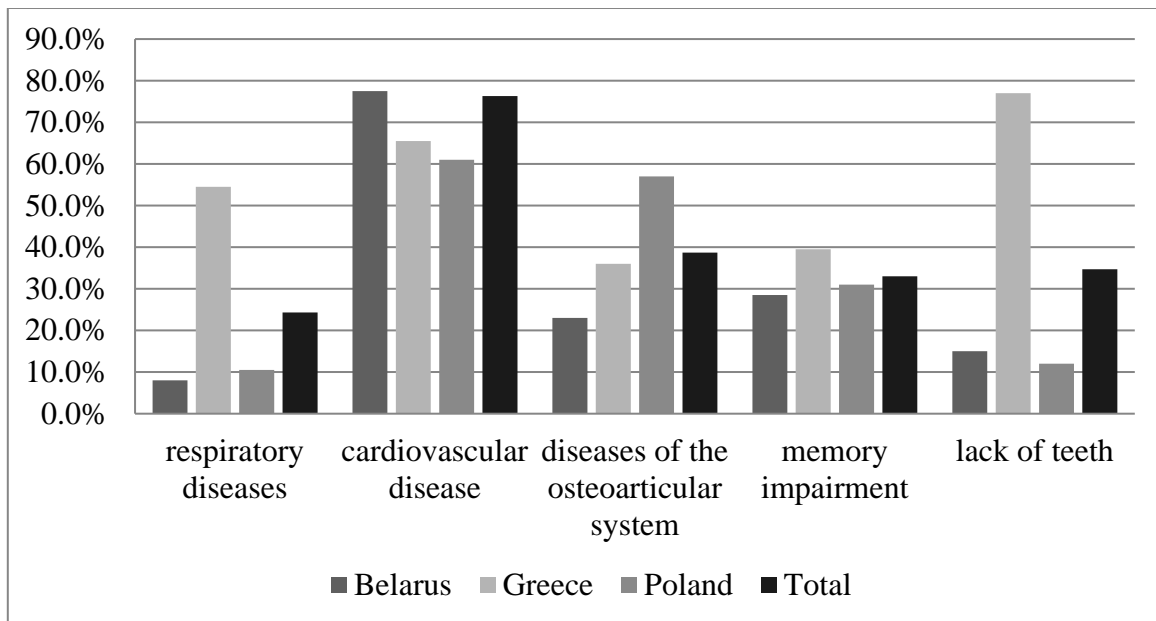
Figure 1. The most common health problems affecting the elderly in the opinion of the respondents
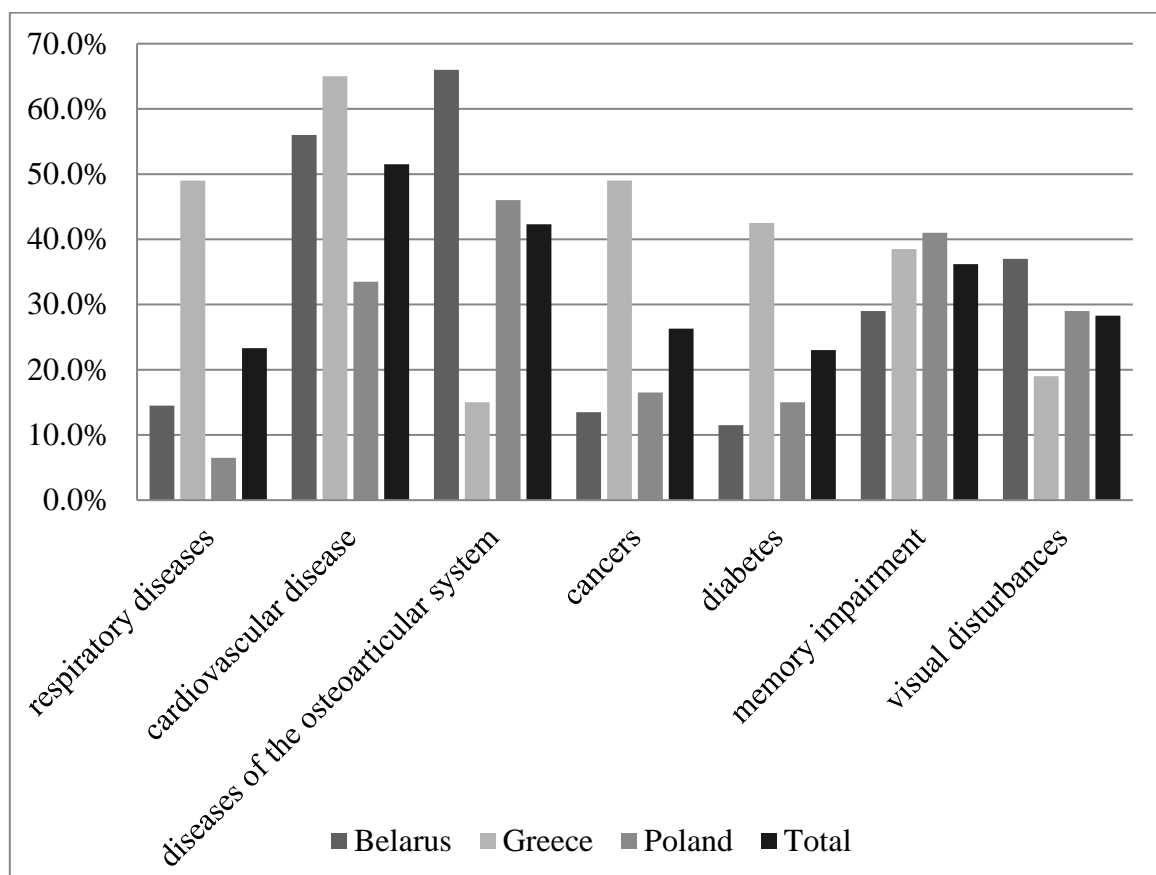

Figure 2. Health problems which are cause the biggest problems among the elderly in the opinion of the respondents.

The most important factor in delaying the aging process was, according to the respondents, active lifestyle (85.3% (n=512): 74.0% (n=148) - Belarus, 96.0% (n=192) - Greece, 86.0% (n=172) - Poland), another indication were rational nutrition (53.7%, n=322) and the hygienic and healthy

lifestyle (33.2%, n=199). 32.7% of all respondents (n=192) found that the factor delaying the aging process is an optimistic attitude to life - it was expressed by almost half Greeks (49.5%, n=99). It was found (besides answers "genetic determinants" (p=0.068)) that there is statistically significant difference between the groups. More details are presented in Figure 3. The vast majority of all respondents (63.0%, n=378) believed that aging process should be perceived in various aspects, i.e. biological, psychological or social. Analyzing specific answers students from Belarus frequently pointed to biological (34.0%, n=68), from Greece to psychological (14.0%, n=28), while from Poland to both biological and psychological aspects (both 10.5%, n=21). The differences between the groups were statistically significant (p<0.001). Details are shown in Table 2.
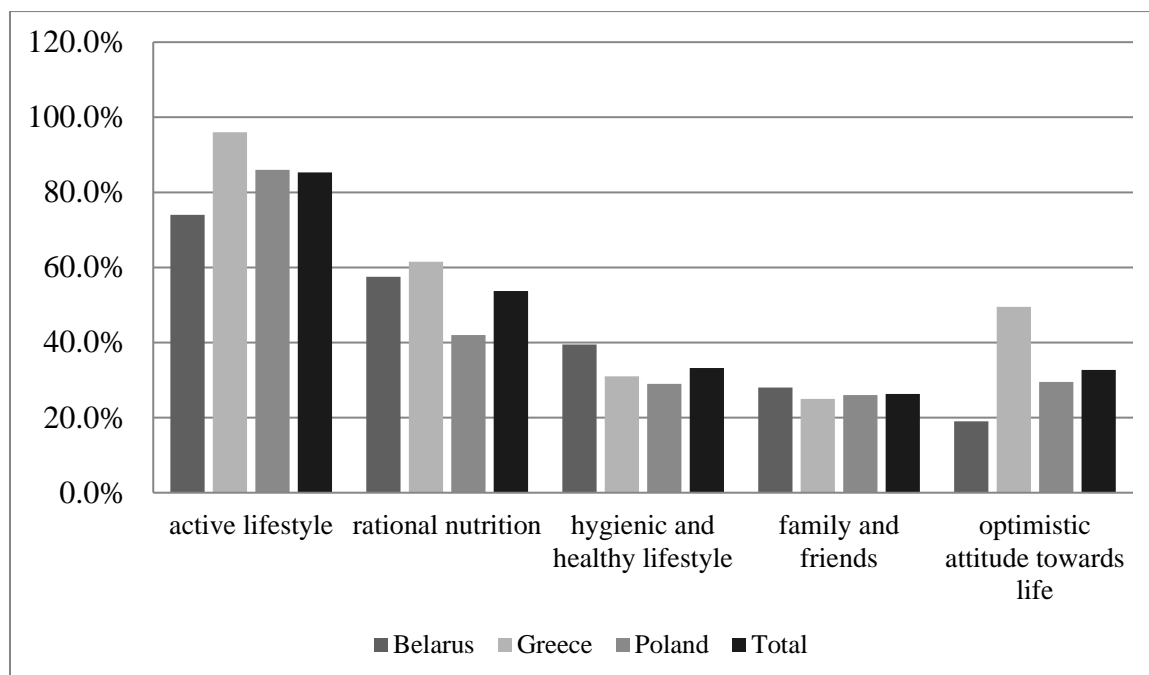

Figure 3. Factors delaying the aging process in the opinion of respondents.

Table 2. Aspects of the aging process in the opinion of the respondents

			Students			Total	p
			Belarus	**Greece**	**Poland**		
In what aspects the aging process should be considered?	**biological**	**n**	68	15	21	104	< 0.001
		%	34.0%	7.5%	10.5%	17.3%	
	psychological	**n**	33	28	21	82	
		%	16.5%	14.0%	10.5%	13.7%	
	social	**n**	16	13	7	36	
		%	8.0%	6.5%	3.5%	6.0%	
	in all aspects simultaneously	**n**	83	144	151	378	
		%	41.5%	72.0%	75.5%	63.0%	
Total		**n**	200	200	200	600	
		%	100.0%	100.0%	100.0%	100.0%	

In Greece (82.0%, n=164) and Poland (74.5%, n=149), the vast majority of students had discussed issues related to the problems of elderly at the university. Alarming data were obtained from Belarusian students - only 42.0% of respondents (n = 84) in this group has studied issues related to aging at the university, while 38.0% (n = 76) - never passed such courses. Detailed answers to the question are presented in Table 3.

Table 3. The problems of functioning in the elderly discussed during classes at the university

			Students			Total	p
			Belarus	**Greece**	**Poland**		
Were the problems of functioning in the elderly discussed during the classes at the university?	**yes**	**n**	84	164	149	397	< 0.001
		%	42.0%	82.0%	74.5%	66.2%	
	no	**n**	76	0	26	102	
		%	38.0%	0.0%	13.0%	17.0%	
	hard to say	**n**	40	36	25	101	
		%	20.0%	18.0%	12.5%	16.8%	
Total		**n**	200	200	200	600	
		%	100.0%	100.0%	100.0%	100.0%	

DISCUSSION

The old age in biological terms, according to Zawada study [9], was associated mainly with all kinds of disease entities, characteristic of old age, physical disability, and sometimes also with the intellectual, changes in the appearance of a human (especially with wrinkles, gray hair, bent silhouette of the body), an inevitable stage of life, as well as with the intake of medicines and frequent use of health services provided by medical entities. In the own study, age in the biological terms is associated primarily with wrinkles and grey hair.

The most common diseases include cardiovascular disease (hypertension, ischemic heart disease, other heart disease, arteriosclerosis) and diseases of the osteoarticular system (rheumatoid arthritis and other chronic diseases of the joints, bone disease, including the spine) [7].

Trafialek [10] concludes that the so-called geriatric giants are specific for the old age. They include chronic diseases leading to functional disability in the elderly (sphincter dysfunction, impaired locomotion and balance, falls, impaired vision and hearing, dementia and depression disorders). In our study, diseases most frequently attributed to the elderly were cardiovascular diseases and diseases of the osteoarticular system.

There are many scientific reports [11-16] on the impact of physical activity on the aging of population. Grzanka-Tykwińska and Kędziora-Kornatowska [11] have shown that a lack of physical activity leads to accelerate the aging process and consequently to physical disability. Lampinen et al. [12] demonstrated in their study that physical activity is also determining mental capacity of seniors. Gębska-Kuczerowska [13] found that people over 65 years practicing physical activity have better physical and mental condition, lower risk of developing cardiovascular disease, as well as rarely use the health services. Also Kaczmarczyk and Trafiałek [14] have shown that the more active

are the elderly, the lower the sense of loneliness and isolation, as well as a longer sense of independence. In Poland, although recommended by the National Health Programme to increase physical activity in the elderly, only 10% take any form of recreation [15]. Studies conducted by Biernat et al. [16] point to some positive changes in this regard, however, it is mainly among highly educated, living in large urban centers. According to these data [16], 67% of 60-69-year-olds in Warsaw has a moderate or high level of physical activity, and thus meets the health requirements of American and European scientific societies. Regarding to the impact of physical activity on the aging process it is worth to note that the vast majority of respondents in our study reported that physical activity is the most important factor delaying the biological process of aging.

CONCLUSION

1. There is a need for increased education in geriatrics and care of the elderly among students of health sciences, who in the future will be entered in the geriatric therapeutic teams.
2. The perception of health problems of the elderly were different depending on the country of origin of the respondents. This may indicate that the students don't know the basic diseases and ailments in this age group (for example geriatric giants).

Conflict of interest
The authors have no conflicts of interest to disclose.

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