Bartoszek Adrian, Korniszuk Maria Jolanta, Dec Izabela. The level of knowledge and behaviours-related health lifestyle as risk factors for cardiovascular disease in the adult population. Journal of Education, Health and Sport. 2017;7(9):77-86. eISSN 2391-8306. DOI http://dx.doi.org/10.5281/zenodo.885602
http://ojs.ukw.edu.pl/index.php/johs/article/view/4768

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26.01.2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 20.08.2017. Revised: 02.09.2017. Accepted: 06.09.2017.

The level of knowledge and behaviours-related health lifestyle as risk factors for cardiovascular disease in the adult population

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Summary

Introduction and purpose:
Cardiovascular diseases (CVDs) are the biggest threat to the health of the population in Poland and are the most important cause of mortality. Most of the cardiovascular risk factors is located in the area of health behaviours related to lifestyle. The aim of the study was to assess the level of knowledge and analysis of selected health behaviours as risk factors for cardiovascular disease in the adult population

Material and methods:
The study involved 170 people age adults living in the Lublin province Podkarpackie and in the period from November 2013 to March 2014. The research method was a diagnostic survey and research tool questionnaire.

Results:
Cardiovascular disease occurred in 58% of subjects. The level of knowledge of respondents on the risk factors of cardiovascular disease is high. Declared health behaviour in terms of cigarettes not in the majority: smokes cigarettes daily 12%, up to 84% of consumed alcohol, a subjective evaluation on the excess amount of salt refers to 42%. BMI depends on gender, age, education and place of residence. Excessive salt intake is related to the unsatisfactory financial situation. On active smoking significantly affected by gender and education on alcohol abuse and the most accepted variables.

Conclusions:

1. The level of knowledge of the subjects on the risk factors of cardiovascular disease is high.
2. The main CVD risk factors in the study group is the consumption of alcohol in excessive amounts
3. Cardiovascular risk factors significantly influenced by age, gender, place of residence, education, financial situation and family.

Keywords: Knowledge, health behaviours, cardiovascular disease, risk factors

Poziom wiedzy i zachowania zdrowotne związane ze stylem życia jako czynniki ryzyka chorób układu krążenia w populacji osób dorosłych

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Streszczenie

Wstęp i cel pracy: Choroby układu krążenia (ChUK) są największym zagrożeniem zdrowia ludności w Polsce i stanowią najważniejszą przyczynę umieralności. Większość czynników ryzyka CHUK mieści się w obszarze zachowań zdrowotnych związanych ze stylem życia. Celem pracy była ocena poziomu wiedzy i analiza wybranych zachowań zdrowotnych jako czynników ryzyka chorób układu krążenia w populacji osób dorosłych

Materiał i metody

Badaniem objęto 170 osób wieku dorosłym mieszkających na terenie województwa lubelskiego i podkarpackiego w okresie od listopada 2013 do marca 2014. Metodą badawczą był sondaż diagnostyczny a narzędziem badawczym kwestionariusz ankiety.

Wyniki

Choroby układu krążenia występowały u 58% badanych osób. Poziom wiedzy badanych na temat czynników ryzyka chorób układu krążenia jest wysoki. Deklarowane zachowania zdrowotne w zakresie palenia papierosów nie stanowią większości: codziennie pali papierosy 12% badanych, aż 84% badanych spożywa alkohol, subiektywna ocena dotycząca nadmiernej ilości spożywanej soli dotyczy 42% respondentów. Wartość wskaźnika BMI zależy od płci, wieku, wykształcenia i miejsca zamieszkania Nadmierne spożycie soli związane jest z niezadowalającą sytuacją materialną. Na czynne palenie tytoniu istotnie wpływa płeć i wykształcenie a na nadużywanie alkoholu większość przyjętych zmiennych.

Wnioski

1. Poziom wiedzy badanych osób na temat czynników ryzyka chorób układu krążenia jest wysoki.
2. Głównym czynnikiem ryzyka CHUK w badanej grupie jest spożycie alkoholu w nadmiernych ilościach
3. Na czynniki ryzyka CHUK istotny wpływ mają: wiek, płeć, miejsce zamieszkania, wykształcenie , sytuacja materialna i rodzinna.

Słowa kluczowe: poziom wiedzy, zachowania zdrowotne ,choroby układu krążenia, czynniki ryzyka

Introduction

Cardiovascular diseases (CVDs) are the biggest threat to public health in Poland and are the most important cause of mortality. According to the Central Statistical Office in 2013. Died of cardiac causes more than 177 thousand. people (45.8% of all deaths). Most deaths from cardiac causes was in Świętokrzyskie (59%), Podkarpackie (57%) and Lublin (57%) [1].

Most of the cardiovascular risk factors is located in the area of health behaviours related to lifestyle: inadequate diet, too low physical activity, excessive alcohol consumption, smoking and salt and omnipresent stress. Absence of, or modifications of these actions often at an early age leads to a number dysfunction in the human body, for example dyslipidaemia, excess weight, diabetes or high blood pressure [2]. Despite the growing public awareness of the risk factors of cardiovascular, ever newer diagnostic technologies and better therapeutic processes, CVDs can still occupy first place among the causes of death of people most countries until 2020 [3].

Aim

Assessment of the level of knowledge and analysis of selected health behaviours related to lifestyle as risk factors for cardiovascular disease in the adult population.

Material and methods

The study involved 170 people age adults living in the Lublin province Podkarpackie and in the period from November 2013 to March 2014. The research method was a diagnostic survey of the survey technique and applied research tool - original questionnaire. The average age of the study population was 31 years (SD = 11.98), of which women were 65% (n = 111) and 35% male (n = 59). 60% (n = 102) were from the city of respondents, 40% (n = 68) with a rural environment. The largest group of people with higher education- 54% (n = 92), followed by secondary - 44% (n = 74). Those with primary or work was 2% (n = 4). 85% (n = 145) of respondents are satisfied with their financial situation, and only 15% (n = 25) are dissatisfied with this title. Cardiovascular disease in the family were present in 58% (n = 99) tested. Most was hypertension - 42% (n = 72), atherosclerosis -19% (n = 33), myocardial infarction -17% (n = 29) and the stroke - 11% (n = 19). This report is an excerpt from the larger study on risk factors for cardiovascular disease. Presented below are the results of research concerning the level of knowledge as a factor of cardiovascular risk factors and the four selected CVD risk associated with lifestyle: overweight and obesity, excessive alcohol consumption, smoking and salt.

Results

The knowledge of the subjects on the selected risk factors for cardiovascular disease is high as 62% (n = 105) of respondents granted the correct answers to questions 80% [Table 1].

Table 1. The level of knowledge about the examined cardiovascular risk factors

		N	%
Level of knowledge	Sufficient	105	62
	Insufficient	65	38
	Altogether	170	100

A majority is aware of the influence of individual factors on the condition of the cardiovascular system. Risk factors most often indicated by the subjects were overweight or obese (99%), hypertension (98%) and low physical activity (97%) [Table 2].

Table 2. The level of knowledge of respondents about the impact of individual risk factors for the development of CVDs

		N	%
Genetic predisposition	Yes	154	91
	No	16	9
Age	Yes	157	92
	No	13	8
Overweight and obesity	Yes	168	99
	No	2	1
Hypertension	Yes	168	98
	No	4	2
Diabetes	Yes	150	88
	No	20	12
Hyperlipidemia	Yes	131	77
	No	39	23
Smoking tobacco	Yes	155	91
	No	15	9
A diet rich in fats and carbohydrates	Yes	162	95
	No	8	5
Low physical activity	Yes	165	97
	No	5	3
Stress and lack of social support	Yes	155	91
	No	15	9

The average weight of the subjects was 69,82kg (SD = 15.55). The average increase surveyed has a value 170,92cm (SD = 7.59). Average BMI in the study was 23.27 (SD = 4.15).
Table 3 shows the behaviours of declared by respondents in the field of health cigarettes. Of the respondents 21% (n = 36) is actively smokers, of which 12% (n = 20) reaches for a cigarette every day, 6% (n = 11) several times a month, and 3% (n = 5) several times week. Not much, because 8% (n = 13) tested burns more than half a pack of cigarettes a day.

Table 3. Declared health behaviors examined in the range of cigarette smoking

		n	%
Cigarettes	Smoking	36	21
	Non-smoking	134	79
	Altogether	170	100
Frequency of smoking	Daily	20	12
	A few times a week	5	3
	Occasionally	11	6
	Non-smoking	134	79
	Altogether	170	100
Number of cigarettes smoked	1-5	19	11
	6-10	4	2

(21 persons smoking)	≥11	13	8
	Altogether	170	100

84% (n = 143), all the tested drink alcohol. Of these, only 1% (n = 1) reaches for alcohol every day, and 9% (n = 15) several times a week. 34% (n = 57) patients consumed amount of 2-3 times the recommended standard. 14% (n = 24) than the norm of at least 4-fold. The data on health behaviours related to alcohol consumption are presented in Table 4.

Table 4. Declared health behaviours examined on alcohol

		n	%
Alcohol	Drinker	143	84
	Abstinent	27	16
	Altogether	170	100
Frequency of alcohol consumption	Daily	1	1
	A few times a week	15	9
	Occasionally	127	75
	Abstinent	27	16
	Altogether	170	100
The amount of alcohol consumed	1 bottle of beer / glass of wine / glass of vodka	62	36
	2-3 bottles of beer / glass of wine / glasses of vodka	57	34
	4 or more bottles of beer / glasses of wine / vodka glasses	24	14
	Abstinent	27	16
	Altogether	170	100
Type of alcohol consumed	Beer	80	47
	Wine	39	23
	Vodka	24	14
	Abstinent	27	16
	Altogether	170	100

A total of 42% (n = 71) patients than the standard recommended daily dietary salt. The remaining 58% (n = 99) said eating a small amount of salt [Table 5].

Table 5. The subjective evaluation of the amount of salt by the subjects

		n	%
Salt intake during the day	Little	99	58
	Average	64	38
	Big	7	4
	Altogether	170	100

The increased risk of cardiovascular disease states if measurement is made BMI indicates overweight or obese. 16% (n = 18) patients and 56% of women (n = 33) male subjects achieved a score of BMI in the range of 25-29.9. 5% (n = 6) and 12% (n = 7) respectively men and women suffering from obesity. Overweight and obesity concerns significantly more men than women (p <0.000001). Also demonstrated a statistically significant correlation between sex surveyed, and smoking, the active tobacco frequently men than women (p

<0.0008), as well as excessive alcohol intake (p <0.004), analysis of the data showed a relationship between the age of respondents, and BMI . 46% (n = 27, n = 19) aged 25-40 years and have the correct weight. Obesity of the tested increases with age [Table 6].

Table 6. CVDs risk factors and the sex and age of the patients

		Sex			Age			
		K	**M**	**Chi²**	**<25**	**25-40**	**> 40**	**Chi²**
BMI	**<18.5**	14	0	**p <0.000001**	9	4	1	**p <0.000001**
		13%	0%		12%	8%	2%	
	18.5-24.9	73	19		58	20	14	
		66%	32%		75%	38%	34%	
	25-29.9	18	33		8	24	19	
		16%	56%		10%	46%	46%	
	> 30	6	7		2	4	7	
		5%	12%		3%	7%	17%	
Excessive salt intake		50	21	p =, 23423	thirty	22	19	p =, 73776
		45%	36%		39%	42%	46%	
Active smoking		15	21	**p <0.0008**	17	13	6	p =, 46203
		14%	36%		22%	25%	15%	
Excessive alcohol consumption		41	40	**p <0.004**	42	26	13	p =, 10823
		47%	71%		63%	59%	41%	

Statistical analysis allowed to determine statistical relationship between body weight and place of residence. Overweight and obesity more often concerned residents than rural residents (p <0.00004). High tested primary / training is significantly associated with overweight and obesity (p <0.01), an active smoking and excessive alcohol use (p <0.03) [Table 7].

Table 7. CVDs risk factors and the place occupied and educated respondents

		Place of residence			Education			
		Village	**City**	**Chi²**	**P / Z**	**Ś**	**IN**	**Chi²**
BMI	**<18.5**	6	8	**p <0.00004**	0	5	9	**p <0.01**
		9%	8%		0%	7%	10%	
	18.5-24.9	51	41		1	52	39	
		75%	40%		25%	70%	42%	
	25-29.9	8	43		2	14	35	
		12%	42%		50%	19%	38%	
	> 30	3	10		1	3	9	
		4%	10%		25%	4%	10%	
Excessive salt intake		29	42	p =, 84894	2	34	35	p =, 55787
		43%	41%		50%	46%	38%	
Active smoking		11	25	p =, 19263	3	16	17	**p <0.03**
		16%	25%		75%	22%	18%	
Excessive alcohol consumption		29	52	p =, 18543	3	27	51	**p <0.03**
		50%	61%		100%	45%	64%	

There was a significant correlation between the unsatisfactory situation of material and excessive salt intake of patients (p <0.05), and the family, and the excessive use of alcohol (p

<0.0005). Excessive alcohol consumption often involved people living alone than together with the family (p <0.0005) and the unsatisfactory situation of the material [Table 8].

Table 8. CVDs risk factors and family and financial situation of respondents

		Financial situation			Family situation		
		FROM	**N**	**Chi²**	**S**	**ZR**	**Chi²**
BMI	**<18.5**	13	1	p =, 33720	1	13	p =, 13540
		9%	4%		2%	10%	
	18.5-24.9	79	13		24	68	
		54%	52%		53%	54%	
	25-29.9	44	7		18	33	
		30%	28%		40%	26%	
	> 30	9	4		2	11	
		6%	16%		4%	9%	
Excessive salt intake		56	15	**p <0.05**	20	51	p =, 67078
		39%	60%		44%	41%	
Active smoking		30	6	p =, 70829	13	23	p =, 13974
		21%	24%		29%	18%	
Excessive alcohol consumption		65	16	**p <0.01**	30	51	**p <0.0005**
		52%	84%		81%	48%	

Did demonstrate a statistically significant correlation between the incidence of cardiovascular disease in the family and excessive alcohol consumption in the group, it concerned more people in the family without evidence of disease of the cardiovascular system (p <0.005) [Table 9].

Table 9. CVDs risk factors and cardiovascular disease in the family studied

		Cardiovascular disease in the family		
		Yes	**No**	**Chi²**
BMI	**<18.5**	4	10	p =, 13708
		6%	10%	
	18.5-24.9	42	50	
		59%	51%	
	25-29.9	23	28	
		32%	28%	
	> 30	2	11	
		3%	11%	
Excessive salt intake		41	30	p =, 91285
		41%	42%	
Active smoking		15	21	p =, 98928
		21%	21%	
Excessive alcohol consumption		40	41	**p <0.005**
		47%	71%	

DISCUSSION

Proceedings conducted research showed that knowledge of the respondents is high. It assumed that giving correct answers to the questions contained 80% in the questionnaire it is tantamount to a sufficient level of knowledge. Such a result received 62% of respondents. Risk factors most often indicated by respondents are invalid weight 99% - high blood pressure - 98% and insufficient physical activity - 97% .It seems that this result may be associated with a relatively young age of the subjects, where a mean age of 31 years. Also important seems to be the fact that access to information is extremely easy. Modern people are downright "bombarded" with messages every area of life, including those related to the prevention of cardiovascular disease. A significant impact on the level of public awareness has a state-led broad-based health policy: emerging social campaigns, educational programs and screening.

They conducted an analysis of the state of knowledge Nowicki et al., Who studied the knowledge of cardiovascular risk factors selected by the working people, where the average age was 41 years. The level of knowledge respondents answered 3 categories: high, average and low. A high level of expertise reached 25% of the respondents. The authors indicated that the result achieved in the study group is unsatisfactory and there is a need to introduce a number of interventions in the field of health education, to improve the current situation [4]. Similar studies were conducted Ślusarska et al., In which 72% of the average level of knowledge has only 22% of students have a high level of knowledge [5].

In studies Platt et al. Over half an invalid weight. Most of them do not consume products recommended in the prevention of cardiovascular disease, despite the fact that he understands the principles of rational nutrition and know the characteristics of the Mediterranean diet. The researchers also pointed out that the biggest obstacle to change eating behaviours are deeply rooted habits of the respondents [6]. Most students with relation Wroclaw Poreba, et al., Does not keep the principles of rational nutrition. Researchers worried that at such a young group of people is incorrect weight and aversion to physical activity. In addition, a habit of smoking relates to almost 25% of respondents. Alcohol consume nearly 90% of the surveyed students, but the majority declare that they do not exceed the recommended daily norm [7].

Health behaviours undertaken by the respondents were much more common as actions detrimental to health. Variables that played an important role in this respect were: gender, education and material situation. It was shown that men with primary or vocational education and people with unsatisfactory financial situation were more likely to use stimulants than other respondents. Men use drugs more frequently, although some studies have highlighted the dangerous trend of smoking among women[10]. It may seem that people who graduated from primary school or vocational school have less knowledge about the harmful effects of drugs on health, too often addiction to alcohol consumption and smoking among people who are dissatisfied with their own financial situation. Lack of financial resources or lack of hope for improvement creates tension and frustration. The load of negative emotions is also caused by stimulants. Obtained by Prażmowska B. et al. The results also showed that 40% of women and men surveyed reported smoking problems. Definitely less frequently, these people consumed alcohol, which by the authors of the study was considered as a manifestation of health-promoting behaviours[11]. In the survey conducted by Gryko et al. 50% of smokers were young men. Among students in Łódź with higher education, the vast majority of them consumed alcohol in excessive amounts, usually males[10]. The results of the above mentioned authors are also confirmed by Ilow R. et al.[12]. In other studies, Ilowa R. et al. among the inhabitants of Wrocław, aged 40-50, males used drugs more often than females (21% of males and 19% of females). Persons with primary or vocational education are more likely to develop cardiovascular disorders[13].

Studies conducted so far, analysis of the data received and conclusions drawn confirm that gender, education and low socio-economic status, including the material situation, are closely related to a lifestyle that is not conducive to human health. As a result of the anti-health measures taken, there is an increased risk of cardiovascular diseases in each age group. They are most undesirable among young people, but at the same time they give an opportunity to try to modify them permanently.

Taking into account the results of own and other authors' research, there is a wide variation in health behaviours and the relationship between selected risk factors and particular variables. However, in each study, attention was drawn to the necessity of continuous education and health promotion both in primary and secondary prevention of cardiovascular diseases[14]. Studies in many countries have shown that reducing the impact of risk factors on cardiovascular diseases among the population is more effective than developing diagnostic techniques and treatment of diseases[15].

Conclusions:

1. The level of knowledge on subjects selected risk factors for cardiovascular disease is satisfactory.
2. The main CVDs risk factors in the study group is the consumption of alcohol in excessive amounts
3. Cardiovascular risk factors significantly influenced by age, gender, place of residence, education, financial situation and family.

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