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The Selected Health Determinants of Adults

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Abstract

Article presents partial results based on adult lifestyle with a focus on selected health determinants, which are one of the key factors of life quality of adult population. Survey respondents (women: $n = 118$, age 43.3 ± 2.3 years, height $= 168.9 \pm 3.2$ cm, weight $= 67.3 \pm 6.8$ kg and men: $n = 121$, age 44.2 ± 1.6 years, height $= 180.6 \pm 6.3$ cm, weight $= 89 \pm 7.9$ kg) were middle-aged people from L. Mikuláš. Standardised questionnaire was used for detection of primary indicators of life quality and lifestyle of this group. Findings significantly ($p < 0.01$) showed that ascending tendency in observed group have vertebrogenic disorders, whose symptom is pain ($p < 0.01$). At the same time they are also the cause of inoperability and use of different medicaments. Health issues in observed group occurred in several combinations.

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Keywords: health, state of health, adults, vertebrogenic disorders, pain.

Introduction

One of the priority tasks, which every human has to face during life, is health care. Unlike the past, currently, there is an increasing emphasis on personal responsibility of an individual for his own health. While in the past, health was mainly determined by the influence of biological relations, currently it is determined by social factors more distinctly. Health cannot be obtained as genetically given unchangeable condition. Genetic basis is just a biological potential, which may develop in a positive or negative direction (Dobay, 2011; Bendíková, 2014).

Health is a category whose protection is enacted legislatively. In Slovak republic it is Act No. 355/2007 Coll. on Protection, Support and Development of Public Health. The current way of life has hypokinetic character, which is manifested in motional human regime, where insufficient recommended amount of physical activity creates favourable inputs and impulses to creation of "civilization diseases", which have far-reaching consequences on human health (Bailey, Martin, 1994; Blair, Brodney, 1999; Adamčák, 2000; Kayserová, 2004; Masoli et al., 2004; Žukowska, Szark, 2010; Łubkowska, Troszczyński, 2011; Łubkowska et al., 2014; Kanášová, 2014; Kanášová et al., 2015; Žukowska et al., 2014; Novotná, 2015; Šmída, Pavlović, 2015).

According to statistics of health insurance companies about 86% of all deaths and about 77% of diseases in Europe are caused by cardiovascular diseases, cancer, mental illnesses, diabetes mellitus and chronic pulmonary diseases. Ischemic heart diseases in 2010 were in the whole Europe-27 cause of 76,5% of deaths per 100 000 residents. The highest rates of mortality from ischemic heart disease belong to Baltic Member States of European Union as well as to Slovakia and Hungary, where in all countries in 2010 were recorded more than 200 deaths per 100 000 residents. On the other side of evaluation were the lowest rates of deaths by ischemic heart disease which belong to France (data from 2009), Portugal, Netherlands, Spain and Luxembourg- in 2010 less than 50 deaths per 100 000 residents (www. ec.europa.eu). In the years 2006- 2008 according to reports of health status of population of Slovakia development of mortality and morbidity was. The mortality of the population after 1993 has been maintaining below 10 deaths per 1000 residents. In 2008 died 53 164 people in which the cause of death were:

1. diseases of circulatory system, men 46,9%, women 61%,
2. tumors, men 24,6%, women 20,3%,
3. external causes, men 9,2%, women 2,4 %,
4. diseases of respiratory system, men 6,1%, women 5,1%,
5. diseases of digestive system, men 6,7%, women 4,6 %.

Mortality in 2010 at the age of 25 to 64 annually occurred in 14 294 people at the age of 65 and older died 38 356 people, where in 30,1% as a consequence of cardiovascular diseases. Physical quality in relationship to quality of life, lifestyle and health show tight connections (Nowak,1997). To the above are in favor Pate, O'Neil (2008), Ihasz, Rikk (2010), who argue that lack of physical activity significantly affects not only physical fitness and physical performance but his/ hers work performance and health status as well (Hemmingsson, Ekelund, 2007; Antala, 2009).

Aim

The aim of the pilot study was monitoring and extension of knowledge from the area of selected determinants of current lifestyle of adults in term of their health.

Materials and methods

In accordance with aim and size of processed material, test group consisted of 239 people of younger and middle-aged adults from Liptovský Mikuláš, 118 of them were men and 121 were women (table 1) who were employed, married and lived with unprovided children. (None of the respondents have been on disability annuity).

Table 1: Characteristics of the group (n = 239)

Factors	Women (n = 118)		Men (n = 121)	
	Body height	Body weight	Body height	Body weight
	168.9 ± 3.2 cm	67.3 ± 6.8 kg	180.6 ± 6.3 cm	89 ± 7.9 kg
Age	43.3 ± 2.3 years old		44.2 ± 1.6 years old	
BMI	23,9 ± 1.9		24,9 ± 2.1	

Deliberate survey was conducted within two months (January – February) in 2014, we achieved 100 % returnability on the basis of voluntary participation of adults in compliance with the law of privacy. To obtain pilot survey data we used interrogative method – anonymous standardized

questionnaire CINDI, which was based on six primary monitored determinants of the quality of life and lifestyle of monitored group. Our qualitative and quantitative data was processed by frequency analysis and chi-squared test ($p < 0.01$ and $p < 0.05$ level of significance), with which we monitored examination of significance of response differences on questionnaire questions. Simultaneously, we processed data in a graphic form, we used methods of logical analysis, synthesis and mental actions for interpretations of results.

Research results and discussion

We evaluated health state with a scale of 5 levels from good to reasonably good, average, rather worse and weak. Evaluation of health state is between men and women relatively balanced with exception of good health level, which reported 43,9% of men ($\text{Chi} = 11,325$; $p < 0.01$) and 31,3 % of women ($\text{Chi} = 8.439$; $p < 0.01$) with a difference of 12,6 % (fig. 1).

Evaluation of quality of health depending upon age has brought expected results, the quality of life when getting older decreases and vice-versa. A surprising result is that even in younger age groups there is relatively high percentage of people with poorer and bad health state (5,9% and 7,6%) and noticeably higher in young men as well as young women (6,9% and 8,5%).

In term of the evaluation of physical condition by qualitative levels from one to five, in the sense from excellent to insufficient physical condition, we found following in monitored group. Excellent physical condition significantly dominated in 45,6% of men ($\text{Chi} = 12,936$; $p < 0.01$) compared to women with 21,1 % difference to the detriment of women. 24,9% of men rated their physical condition with grade 2, while with grade 3 only 18,8% of them.

Insufficient physical condition rated with grade 4 reported 5,9% of men and 4,8% of men reported grade 5.

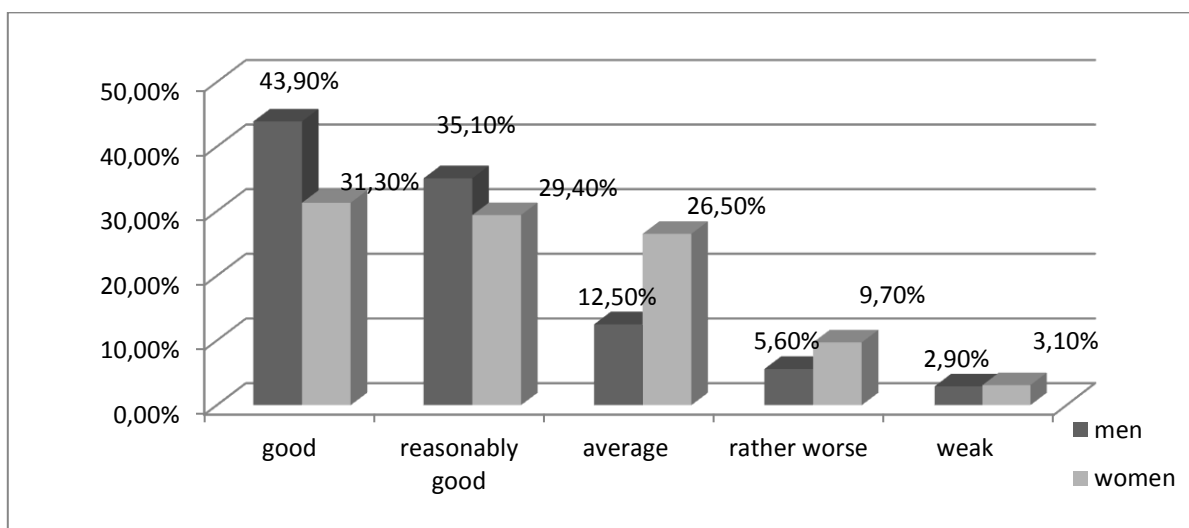


Figure 1. The level of health of adults (n = 239)

From that it results that men see their physical condition in a positive numbers and evaluations compared to women. Women compared to men were more careful talking about their physical condition. Only 24,5% of women evaluated themselves with grade 1, while with grade 3 - good condition 29,1% ($\text{Chi} = 7,632$; $p < 0.01$), with grade 2 about 1,2% fewer women (27,9%). Only 4,9% of women evaluated themselves with grade insufficient and 4,8% mean.

Health problems found in monitored group occurred in several combinations in this period of age, what we consider to be negative. Most men – 39% and 46% of women were treated with one diagnosis, with two diagnoses 18% of men and 31% of women, with three diagnoses 5,9% of men and 8,3% of women.

From diseases treated over the last year, significantly dominate diseases of vertebrae in 52% of men ($\text{Chi} = 13,421$; $p < 0.01$) and 56% of women ($\text{Chi} = 14,393$; $p < 0.01$). Other diseases stated in monitored group depicts fig. 3. Hypertension was reported by 20% of men and 18% of women (fig. 2).

While rheumatoid arthritis was reported by 12,7% of women and 5,6% of men. Increased level of cholesterol reported 12,9% of women and 8,9 % of men. Gastritis and ulcers reported 3,2% of men and 4,1 % of women. Angina pectoris reported 1,2% of men and 4,3% of women. Heart diseases reported both genders at intervals about 2%. Diabetes reported 1,2 % of men and 4,3 % of women. Chronic bronchitis and asthma occurred approximately at the same percentage representation in both genders.

The most common symptoms, which are many times accompaniment of functional and structural disorders and health weakening, presents table 2, where we found the following.

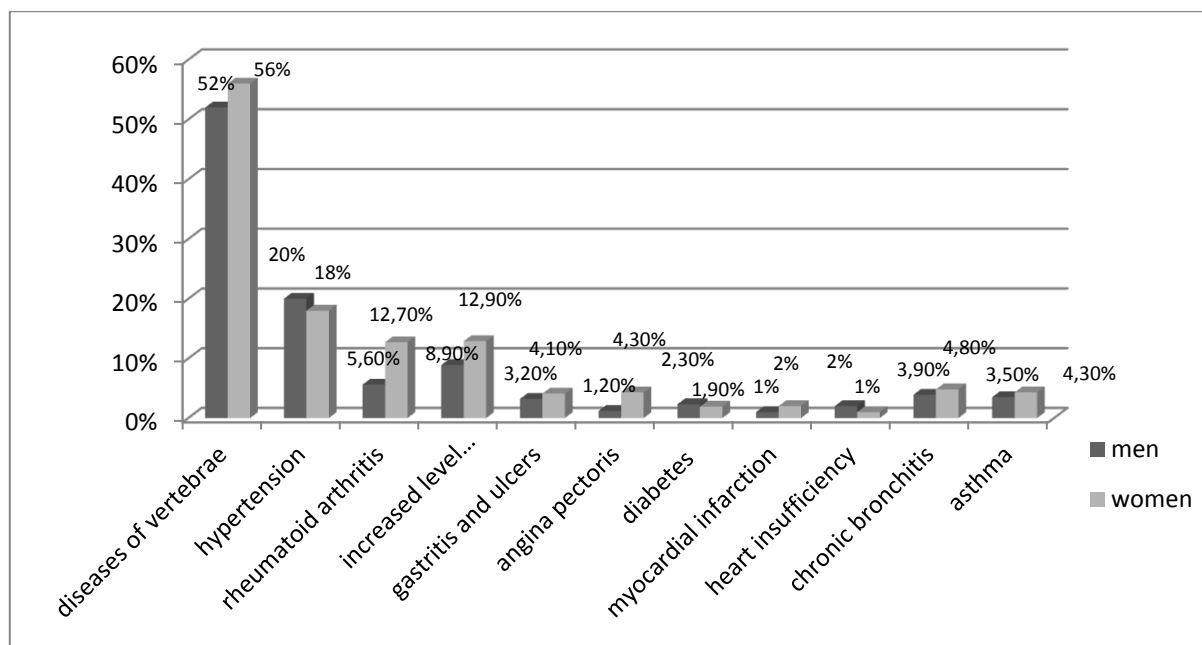


Figure 2. The most common diseases of adults (n = 239)

Pains are significantly ($\chi^2 = 24,613$; $p < 0.01$) dominated in musculoskeletal system in the area of back, joints, chest, head, neck and shoulders. With higher percentage representation of women (85%) as with men (79%), where stated difference is only 6%.

Table 2: Health symptoms of adults (n = 239)

Symptoms	Men	Women
pain in the chest		
joint pain		
back pain	79 %	85 %
neck pain and shoulder Pain		
headache		
swelling of the feet	5%	18%
varicose veins (varixices)	3%	15%
eczema	9%	19%
constipation	19%	31%
insomnia	31%	36%
depression	4%	10%
toothache	8%	15%

Other health problems of the monitored group of women are: insomnia (36%), constipation (31%), eczemata (19%). Similarly in men, but with lower percentage representation: insomnia (21%), constipation (19%) and eczemata (9%). In both genders we recorded also depressions (men – 4%, women doubly higher – 10%), or varicose veins, which are five times higher in women (15%) as with men (3%).

Respondents, men as well as women, stated, that over the last year they have been taking medications - analgesics or sedatives, which are sold over-the-counter in pharmacies, without consulting doctor (fig. 3).

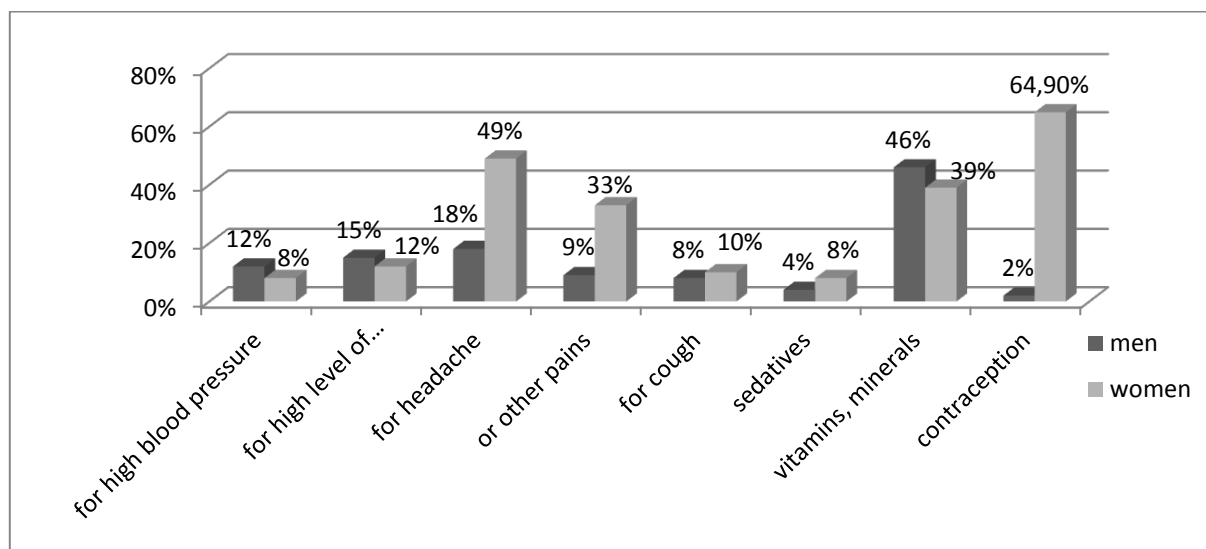


Figure 3. Adults taking medicine (n = 239)

Significantly, (Chi = 26,339; $p < 0.01$) most medications are taken by women. In relation to sexual intercourse, contraception is taken by 64,9% of women and 12,5% of it is taken in relation to gynaecological problems on the basis of doctor's recommendation. The second most common reason in women is headache (49%). Fancied and on a third place are various vitamins and minerals (39 %) and others are: 33 % for other pains. 8% of women is taking medications due to high blood pressure, and due to high cholesterol 12% of women. 8% of women is taking sedatives. For men, it is taking vitamins, minerals and additives up to 46% (Chi = 13,033; $p < 0.01$). When having headache 18% of men takes medicine. 12 % of men is taking medications due to high blood pressure, and due to high cholesterol 15% of men. In relation to viral and bacterial diseases, both men and women were taking antibiotics prescribed by a doctor. These findings correspond with inoperability, which presented at average 8,2 workdays in women and 7,2 workdays in men. Minimum significance of inoperability was 3 days in a year both for women and men, while maximum in men was at the level of three months and in women up to half a year. It was a vertebrogenic structural disease of musculoskeletal system.

Attendance of the doctor in past months in monitored group was as follows. While the men visited the doctor at least 2x, women 4x and men maximum 6x while women at average of up to 11x. The most common reasons to visit doctor were various pains (mostly on muscoskeletal system), influenza, tonsillitis (men 66%, women 73%), urologic (men 29%, women 36 %), neurological (men 24%, women 41%), or women's problems (62%), while men's only 15%. Currently danger, initiating mechanisms and the mechanism found by us is psychosocial stress, which also threatens the health status of women and men. Feeling of a slight tension and stress is significantly felt by 63,2% of women (Chi = 17,273; $p < 0.01$) and by 56,8% of men (Chi = 14,436; $p < 0.01$).

While 16,6% of men and 11,4% of women, with difference 5,2%, do not feel the tension and stress. 15,9% of men and 15,3% of women stated that they feel the tension and stress more than usual for people in general. About 10% of men and women stated that they are under great psychical pressure, which we consider in term of psychical and physical health negative and relatively high in term of the percentage representation. This group consisted of company managers. The most common somatic manifestation of stress, which men and women stated, were cardiovascular symptoms as palpitations, tingling in the heart, chest pain – pain of sternum. 28% of women and 11% of men stated gastrointestinal problems, which were dominated by dysorexia, vomiting, feeling of tight stomach. It is important to note that more than 60% of the surveyed women and 33% of men reported a headache.

The only way to detect this disease is to have your blood pressure measured. 76,7% of women (Chi = 22,261; $p < 0.01$) and 61 % of men (Chi = 19,331; $p < 0.01$) had their blood pressure measured during the year by doctor.

During the last year cholesterol was measured in 40,4 % of men (Chi = 9,333; $p < 0.01$) and in 45,6% of women (Chi = 12,936; $p < 0.01$) where the findings were significant on 1 % level of significance.

Dental hygiene should be an integral part of our daily lives. In term of daily care of oral cavity significantly 58 % of men (Chi = 15,113; $p < 0.01$) and 52% of women (Chi = 12,228; $p < 0.01$) wash their teeth once a day, while more than once up to 42% of women and 27,8% of men. Almost never and less than once a day at average about 5% of respondents take care of their denture. In term of preventive inspection 78% of men and 81% of women visited dentist, while during the year from various reasons it was 22% of men and 38% of women.

Health and health state are one of the most important aspects of quality of life and to some extent also affect other aspects. In term of our findings Kadaňka (2002) points to the fact that the annual prevalence of vertebrogenic diseases in Slovakia represents 35 %, while the lifetime is two times higher and represents 70 %–80 %. Degenerative changes on spine occur in 90% of men older than 50 years old and in women at the same percentage representation older than 60 years old. Kulichová (2007) presents prevalence of pain syndromes in the adult population with regard to gender, whose occurrence is in women 20 % higher than in men. Poliaková (2005) states that there is a relationship between stress, pain and human health state which is not random, which also supports inappropriate diet and lack of sleep. Cholesterol along with smoking and high blood pressure belong to three deadly diseases in term of the most serious risk factors of heart and blood vessels diseases (Yusuf et al., 2000, Cohen et al., 2010).

Conclusion

Analysis of the results shows increased number of health disorders and diseases, among which prevail health problems of musculoskeletal system with functional and structural character ($p < 0.01$) in monitored group of adults. This condition is probably linked with a worrying trend in the present day, which is marked by a significant drop of volume and share of goalseeking, meaningful activities and activities of physical education and sports character in organised or spontaneous forms in their motional regime. Significantly, we found less health problems in monitored group of adults with intention on musculoskeletal system, whose symptoms usually are pain, which is also one of the reasons of visiting doctor and inoperability.

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УДК 37

Избранные детерминанты здоровья взрослого населения

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Аннотация. Статья презентует парциальные результаты, которые характеризуют образ жизни взрослого населения с ориентацией на его избранные детерминанты здоровья, относящиеся к ключевым общественным факторам качества жизни взрослого населения. Респондентами опроса являлось взрослое население (женщины: $n = 118$, возраст 43.3 ± 2.3 года, физический рост = 168.9 ± 3.2 см, физический вес = 67.3 ± 6.8 кг и мужчины: $n = 121$, возраст = 44.2 ± 1.6 лет, физический рост = 180.6 ± 6.3 см, физический вес = 89 ± 7.9 кг) среднего возраста города Липтовский Микулаш. Для определения примарных указателей качества и образа жизни этой группы была использована стандартизированная анкета. Данные сигнификативно ($p < 0.01$) указали на то, что прогрессирующую тенденцию, в этой группе опрошенных, имеют вертеброгенные расстройства, признаком которых являются боли ($p < 0.01$). Одновременно они являются и причиной больничного листа по болезни и принятия разных лекарств. Медицинские проблемы в этой группе опрошенных встречаются во многих комбинациях.

Приведенные первичные выявляя являются составной частью проекта-гранта ВЕГА: 1/0376/14 *Принужденные двигательные деятельности как профилактика здоровья для населения Словакии. Эта статья была написана при поддержке научного превосходства.*

Ключевые слова: здоровье, состояние здоровья, взрослое население, вертеброгенные расстройства, боль.