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Health Education and Lifestyles in the Czech Republic

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Abstract

This chapter starts with the description of behavior, body care, health status, and demographic development in Europe, especially in the Czech Republic. It deals with the importance of physical activities for the whole population and with their benefits for self-concept, psychological and physical health, especially in the common time of sedentary life and increasing overweight and obesity. The author also introduces the new educational branch “Health Education” in the Czech Republic with the topics health support and prevention. The school subject health education integrates elements of the fields of sociology, psychology, medicine, and ethics. The aim is to educate the lifelong responsibility for own health, to build the positive inter-human relations, to create practical vitality and to support healthy social and mental life. Some habits as part of lifestyle in the Czech population and children’s behavior are introduced in European comparison. Some research results illustrate lifestyles of common people and their typical characteristics of behavior, health care, their body image, and body care. The conclusions serve as recommendations for education in all ages in view of the weaknesses identified.

Keywords: psychological health, physical health, sedentary life, overweight, self-satisfaction, body care

1. Introduction

The lack of natural physical activity leads to growing masses of obese and ill individuals. On the other, we have seen a rise in eating disorders and other unfortunate practices that seriously damage the human body. There is no doubt that sufficient and appropriate physical activity should be included in lifestyles of people of all ages as it represents one of the most important factors of active and healthy aging [1–3].

Several sources report that children and youth spend the majority of their discretionary time engaging in sedentary activities (particularly watching television or playing video games) [4–7]. Engaging in regular physical activity is widely accepted as an effective preventative measure for a variety of health risk factors across all age, gender, ethnic, and socioeconomic subgroups [8–10].

Accumulating evidence shows that, independent of physical activity levels, sedentary behaviors are associated with increased risk of cardio-metabolic disease, all-cause mortality, and a variety of physiological and psychological problems [11–14]. Some studies deal with the relationship between sedentary behavior and health [15]. Most of them describe the relationship between screen time and body composition and do not include other indicators of health [16–18]. Regular physical activity reduced risks of cardiovascular disease, some types of cancer (e.g., breast and colon)

and diabetes. It also helps to maintain the optimum body weight, improves the blood lipid profile, the digestive tract function, and mental health (reduces stress, increases self-esteem, and self-control and ability to concentrate) and boosts the body's immune system [19, 20]. Physical activity helps to control already existing health problems (e.g., diabetes, high blood pressure or high cholesterol levels), and it is important for maintaining physical, mental, and cognitive health in older age too. There is a link between physical activity and life expectancy, physically active people tend to live longer than inactive ones. On the other hand, insufficient physical activity, along with poor eating habits, leads to an increase in obesity in the population.

According to the report about the health of Czech citizens [21, 23], the most common causes of death in the Czech Republic in the long-term perspective is cardiovascular disease, kills 50% of the population. During the past 10 years, the mortality rate has been reduced by 20%, mainly due to the more effective diagnostic and therapeutic procedures. Compared to developed EU countries, the mortality rate due to the cardiovascular disease is twice as high in the Czech Republic. The mortality rate due to cancer is the second leading cause of death for both males and females in the Czech Republic. The incidence of new cases of the disease is steadily increasing, but the mortality rate remains at the same. In recent years, it has even been slightly declining. Severe disease with high-growth dynamics of morbidity includes diabetes mellitus. Allergic diseases represent a significant burden for public health and the economy. Asthma has become one of the most common chronic non-infectious diseases over the past few decades. Some habits of Czech population influence also health status. The use of tobacco products is among the most significant risk factors resulting in severe diseases and premature deaths, which can be effectively avoided by prevention. The number of smokers among adult citizens of the Czech Republic has been relatively stable in recent years, ranging between 28 and 32%. The Czech Republic has ranked first among all countries in the European region in the consumption of pure alcohol. High tolerance to alcohol consumption and using non-alcohol drugs, including cannabis, prevails in Czech society, especially among young people. Overweight and obesity present a major problem for a significant part of the Czech population. More than a half of the adult population in the Czech Republic (57%) has a higher than the standard weight and this proportion has not changed. Such a high proportion of the population in the overweight and obesity category is more characteristic of older men.

The total average number of healthy life years at birth in the Czech Republic was estimated at 62 years in 2010 [2]. This number is close to the EU average. Since 1962, however, this value has not changed. However, there are numerous countries where the situation is much more favorable. In Sweden, the time living in good health has increased by 9 years - up to 71 - over the same period, which is 9 years more than in the Czech Republic. The percentage of people who are not self-sufficient is increasing proportionally to age, with nearly 30% of people dependent on outside care found in the population of people over 80.

The aim of this chapter is to introduce the importance of lifestyle for human's health and his quality of life. We have the way of life in our hands (in contrast to heredity and some aspects of working/living conditions), and the recommended behavior can and should be supported by the government, education in schools, families, and other institutions, because there are many reserves and challenges for improvement. The submitted data are used from international comparative databases as EUROSTAT, COMPASS or from own research projects (the methodology is short explained in relevant chapters). This chapter is organized as follows. Section 2 describes the socioeconomic determinants and impacts to life; Section 3 portrays lifestyle in Czech Republic; next section presents results from previous empirical work, and finally, the conclusion is presented.

2. Socioeconomic determinants and impacts to life

We all are members of the same (materialistic) culture and have internalized in a certain way what is considered as important, wishful and worthwhile: that is, individual success, popularity, and financial prosperity. Living under external and often materialistic values may result in personal, social and ecological losses. On the personality level, consumption values may be related with lower personal well-being, lower frequency of pleasant emotional experiences in everyday life, a higher degree of depression, feeling of oppressiveness and narcissism, as well as it may be related with a higher probability for drug abuse and physical symptoms like head ache and stomach ache. Individuals who are more materialistically orientated take other people as an instrument for fulfilling their own interests. The ecological sphere gets hurt by a low interest of materialistic individuals concerning environmental protection and restoration of natural resources [26].

The present materialistic orientated culture proclaims the accumulation of property as the successful way. On the basis of the found search results, we can surely say that the individual well-being will not be increased by a new car or a villa on the sea.

2.1 Cultural changes

The status of people in society is based on their relations to the other people and results from experiencing the change in roles, lifestyle and economic security. This refers to transitioning into retirement, which represents a combination of several social changes: in the sphere of the role at work, the transformation of the parental role, a change in the relations between husband and wife, and a changed position in society.

The economic well-being of elderly people often limits them in their deeply rooted cultural and social activities. Besides, the socio-economic and health balance these people can further be affected by diseases, family problems, loneliness, the lack of finances, and poor housing. For this reason, people ought to be active until old age, participate in various social activities to maintain their social, mental, and physical balance as long as possible.

The demographics of aging is affected by the growth in the education and qualifications of the population, changes in the upbringing of children, changes in the lifestyle of the population and also the population migration from rural to urban areas.

The conditions of civilization are permanently more comfortable for human and demands on his condition are constantly lower, thanks to technological progress. In human development, the evolution process, more capable individuals got easier access to food, to reproduction opportunities, and physical abilities were source of authority. The biological evolution created human's body adapted to movement impulses for physical development, cultural evolution. On the contrary, it gives rise to a reduction of necessity of intensive physical effort. Nowadays, the human is in disharmony with the biological and cultural development. Its evolution inherited naturalness to prefer energetic valuable food (fatty and sweet) rather than to economize energy expenditure. Therefore, it results in positive energetic balance, obesity increase, bad condition and broadening lifestyle diseases.

The main blame for this situation is the substantial different lifestyle, which created a "*Homo sapiens*" in progress. Supporters of modernity correctly point out the fact that common human does not need the caveman's condition for his existence because he does not face to merciless prehistoric conditions (as hunger, coldness, and predators).

Summing up, there are differences in health-related behavior according to the historic moment considered, according to culture and its influence on perception and evaluation of human's body, on health oriented habits. Today society has enough information about health benefits of involvement in sports and its influences on desirable behavior and personal satisfaction. For this reason, institutions should support prevention of lifestyle diseases and active way of life.

2.2 Family education

The family life changed dramatically in the last years. Many parents do not have time enough for their children, for healthy cooking and common leisure activities. Parents and health authorities commonly view television and computers as barriers to physical activity, lack of time, environmental and cost factors and personal factors. Fear of strangers (12.4%) and lack of safe areas for children to play in within today's communities may limit opportunities and prevent the development of physical activity patterns at a young age. It may be far easier for children to stay inside with computers and television than to venture out into a dangerous neighborhood. An ecological perspective would, however, suggest that it is not sufficient to reduce television and computer time without providing spaces outside to play in, safe neighborhoods and low-cost activities. Thus a complicated myriad of factors is highlighted and all may require addressing in order to increase the level of children's physical activity.

Health authorities propose that increased physical activity is a primary factor in reducing overweight and obesity, and argue that participation in physical activity during childhood and adolescence increases the likelihood that activity is continued as an adult. Other benefits of physical activity include socialization and physiological and developmental factors. Watching television and playing computer games are two most common reasons for children not being more physically active.

In particular, girls in their teenage years may be at risk of increased societal and cultural pressures for women to be thin. In order to commence activities aimed at reducing weight, it is important that people perceive themselves or their children to have normal weight. There is no evidence of suggestion that adult perceptions of their children would be more accurate. Thus, if parents do not perceive their children as overweight, they are unlikely to encourage physical activity to reduce obesity or to address issues which may limit physical activity, such as dangerous neighborhoods and lack of space.

The majority of children's problems are solved instrumentally. The family ceases to be the example for children, emotional bonds loosen. The pace of life, interference of the media with all spheres of existence of man and pursuit of goods of consumption push realization of actual needs of children into the background. Poverty is more prevalent in families with single parents. Single parents, especially mothers and grandmothers have less time for their children in view of their job and duties in the household.

Home is the first setting where children have opportunities to foster an active life and motivate family members to be active. At home, children can practice and share what they learn about health and physical activity in the classroom. Parents, on the other hand, also hold important roles in the promotion of physical activity among children.

In summary, the active family life is very important. Parents are examples for their children in living healthy and having fun together. Working parents should believe that their investment to the common time with their children will help to both parent's and children's quality of life. Family is the most important institution in society, where children get first models for their behavior in the family. Eating habits and active participation in physical activity and sports influence the future

behavior of children a lot. About 80% of obese children stay obese as adults not because of heredity, but because of habits. Family and parents play dominant roles in forming children's behaviors and habits also in physical activities. Children and adolescents are more likely to be physically active if their parents and siblings are also physically active. Parental support positively influences participation in sport among children and adolescents, and parents' attitudes toward physical activity can influence children's involvement in physical activity. Support of families with children and the offering of multiple leisure activities for families could be key to active and healthy people in the future.

2.3 School education

Physical activity programs offered by school are a platform, which can provide a bridge that links schools to their community. These opportunities allow involvement of volunteer organization, health care providers and representative of sports programs and other school to interact and enhance integration in the community. These social events are not only financially beneficial but is also creates awareness of the importance of physical activity in younger generation [30]. This collaboration can encourage better student behavior and social skills such teaching them responsible behavior in physical activity settings and the values of physical activity. Physical activity also creates a healthy understanding among students that school is not merely an academic platform to but also a place to access health related fitness and to be competent in motor skills.

The new educational area focused on "Humans and health" in primary and secondary schools has been in place since 2007 in the Czech Republic. This educational area has been implemented in two subjects: Physical Education (practice) and Health Education (theory; either in one subject or inter-disciplinary).

Human health may be seen as a balanced state of physical, emotional, and social well-being. It is defined and influenced by several factors such as lifestyle, healthy conduct, interpersonal relationships, environment, and individual's safety and security. Health is a fundamental condition for guaranteeing a satisfying life and high work productivity. Learning about health, promoting health and preventing major health risks represent a priority of basic education [27].

Health Education gives pupils elemental knowledge about the perception, evaluation and preventative care of human body. Pupils learn active assistance and health cognizance of all its shapes (social, emotional, and physical) and responsibility for their own state of health. School leavers should be able to use their hygienic, eating, movement, work and other preventative healthcare habits, develop their power to decline harmful drugs, avoid trauma and deal with personal dangers in everyday and emergency situations. They develop and intensify their knowledge of family, peer group, society, nature, humans and interpersonal relationships, and learn to see their activities through the prism of the health-related needs and perspective of a growing young individual and to make decisions beneficial to the personal and also to the community health.

As part of pupils' comprehensive education in health-related Issues, the educational field of Physical Education focuses on becoming acquainted with one's personal abilities in physical activity and with the impacts of certain physical activities on physical fitness and emotional and social well-being. It starts with spontaneous physical activity and moves on to guided and elective activities aimed at giving pupils the ability to independently judge their level of physical fitness and to include physical activity into their daily routine, in order to promote the optimum development of fitness and performance, to recuperate strength and compensate for various forms of stress, and to promote health and health protection. The

subjects include the knowledge of physical education (organization, practical order, hygiene, and safety), exercises for condition and compensation, motion games and main sports [28].

Adequate, regular and appropriate training should be provided by physical education or activity teachers. This may also be done by other staff members who may be responsible for motivating students for physical activities, such as health service staff, teachers of other subjects, and voluntary coaches. Not all countries have adequate resources and teachers providing Physical and Health Education.

Concluding, the school system should help to build expected and rational life-style. Pupils are motivated for activities if they learn them. Their attitudes are built the most in families and schools, and the cognitive component of attitude is key. We believe that emotion influences our attitudes; therefore, we have to create positive examples and experiences. The attitude is supported by specific practice, social communication, imitation/usual models, institutional factors, principal group, and culture. Health is the most important thing that we have Health Education in school is required, health oriented lessons could create systematic, deep and context knowledge.

3. Lifestyle in Czech Republic

Essential reality of the present is growth of own responsibility for actual state of individuals, for their own health state, fitness level, and of course lifestyle. The modern consumer lifestyle is characterized by overconsumption of different things and often by their wasting, by negligence to environment, by lack of physical activity, by excessive food consumption (often unhealthy), and drugs (alcohol, tobacco, medicine, and narcotics) abuse, by noise, hurry, disquiet, and mental overloading from impulses and information. It is a paradox that the human shortens his healthy life expectancy through excessive behaviors.

Disturbing is the fact that calling after healthier lifestyle is not new and recommendation for more emphasis on attention to healthier lifestyle, physical development and intentional effort for improvement of human's condition, are not successful enough. Movement tradition of Czech Falcon (Sokol) came into existence 160 years ago, modern mass sport also has 150 years old tradition and more than 100 years also has obligatory school physical education, which educates the whole population. The secondary school graduate went through approximately 1000 physical education lessons, where he learned what and why and how to exercise, and also he has a lot of voluntary opportunities to do sport in his leisure time. It has effects on some children who move with pleasure and enjoy social contacts during their physical activities too. Rational health education over the last 100 years has promoted incentives for development of skeletal muscular and heart pulmonary systems. Modern medicine produces undisputed research results that indicate that inactivity damages life systems and physical activity in daily regime supports health, life satisfaction and self-sufficiency. It is a paradox that everything mentioned above does not have a sufficient effect on physical activities in the human's life rather it decreases it. Startling is the fact that children and youth find amusement activities more in physically unambitious observation of virtual world of modern technologies, compared to a previous engagement in movement games. Body-mind imbalance in education is evident—not comparable greater attention is paid to opportunities for mental development than for physical advancement.

The task of all interventions through physical activity is to change sedentary behavior to active lifestyle. Adequate movement influences the human not only in biological but also in psycho-social aspects. It can so cultivate not only condition

(fitness) and health state, but also integration to the society. It is deciding for regeneration after working and leisure loading area. Esthetically viewpoints help by struggle for condition. Since Antic time beauty believes are relatively constant. Actual discrepancy between ideal and statistical reality in population is rather large, for example, body mass index at attractive models is under 18, but a majority of self-compared women is nearly 10 points higher. The pressure on body treatment increases, not only through physical activities, but also through esthetic medicine and other through media promoted products.

Our health although depends on inborn factors, but it is possible to influence it by right regime – moderate nutrition, sufficiency of lifestyle, fresh air, mental balance, sleeping abundance, and hygiene.

3.1 Czech Republic lifestyle compared to some European countries

The active behavior as the part of lifestyle that influences the health and shows some important habits. We selected large and neighboring European countries for the presented comparison (Czech Republic, Finland, France, Germany, Poland, Austria, and Spain) [29].

Warning is the information about overweight and obesity in population aged 15 or over (according to Eurostat 2016). The highest overweight was founded in Czech females and males; pre-obesity is highest in Poland, and Czechs are on the second place, obese people are in the Czech Republic (but worse cases in Europe are Malta and Croatia). Not only objective, but also subjective well-being is determined by overweight and obesity [25].

Also, the distribution of smoking habits for the population aged 15 or over is warning. Most smokers are found in Poland (males) and Austria (females), but Czech Republic has the highest number of daily smokers (females and also males). Across all European countries, only people in Denmark smoke daily in the same rate as in Czech Republic.

The consumption of pure alcohol per capita in population 15 years and more harms the health too. The large number of consumers is found in France, Germany, and Austria; however, lately can be observed that Czechs are among the greatest drinkers (between all European countries drink more pure alcohol only people in Belgium and Austria).

Organized attendance in sports is satisfying in Youth, but very bad in adult population. In comparison to other, especially to the west and north European countries are Czechs adults significantly more passive as sport club members. They prefer unorganized forms of sport as walking, cycling, swimming alone or with friends irregularly in their leisure time. The most recent data on the participation in sports and physical activity has been provided by EUROBAROMETER 412 [21, 22]. This study found that, in EU, 48% of people participated in some type of physical activity at least once a week and 30% did not participate in any physical activity. The level of physical activity decreases with age—71% of men and 70% of women aged 55 or older participated in sports only rarely or never. Non-sporting physical activity may also improve people's lives and health. About 15% of EU citizens participate in a non-sporting physical activity (such as cycling, dancing, or gardening) 5 times or more per week. About one-third of EU citizens do these activities 1–4 times per week. About a half of EU citizens do not participate in this type of physical activity [21].

Also, cultural differences have been observed between various EU countries, above all between the Nordic countries and the rest. For example, 31% of Finnish and Swedish adults and only 6% of Bulgarian and Polish adults report that they participate in sports for health-related reasons. It is about 14% in the Czech Republic, which suggests that there is relatively low awareness of the importance of physical activity

for health in the Czech adults. The situation of the Czech Republic can be illustrated further by the barriers the Czech adults mention in relation to their sporting physical activity. More than a half of them reported the lack of time as the most important barrier to physical activity. At the same time, in comparison with Nordic and other western countries, the Czech adults spent much more time sitting and watching TV [24].

As conclusion can be said that Czech Republic shows significant bad features concerning lifestyles, such as shortages in nutrition habits (all ages), lack in physical activities (older people), and love in cigarettes, alcohol and other drugs.

3.2 Children's habits and behavior

Children habits and lifestyles in Czech Republic are briefly described according to EUROSTAT (2016) [30]. Czech boys and girls prefer beer drinking before wine, but they drink spirits, wine, and beer more than their European peers (even though the law allows to pour alcohol in the restaurant to 18 old and older people only). There has been an increase of allergic children with larger incidence over boys than on girls in the Czech Republic. There is an increase of overweight between Czech population in age 15 years—boys (more) and girls and the number of overweight and obesity growths in all ages. We can see the type of participation in physical activities performed by young women and men (aged 11–18)—to the favorites belong competitive, organized and intensive activities and also irregular sporting in boys. Girls prefer no membership in sports club and irregular activities.

As a conclusion it may be inferred that lifestyles in Czech Republic do not tend to be healthy. Czech adults belong to the fattest European nations, they smoke and drink more than average and they participate in sports insufficiently. For this reason there is a large incidence of cardiovascular diseases. This may be considered as a warning to young people, because of the so-called in behavior. This behavior includes smoking, alcohol drinking, trying of drugs and playing computer games and other activities with smart phones and tablets (sedentary lifestyle) which are not favorable for health reasons. Czechs are very tolerant to different life ways, and the result is the long-term depraved life with misconducts against healthy life.

3.3 Lifestyles challenges

The growing technological, economic, cultural, biomedical, and social developments of European societies produce a high-level of comfortable living for a very large segment of population. For an increasing amount of inhabitants, the need to perform considerable physical activity in daily lives no longer exists. This results in a growing number of people who develop sedentary lifestyle. People today lead very different lives than their parents and grandparents did. For the most part, our generation is more educated, in better financial and geographical condition and more mobile than our predecessors.

It is generally accepted that genetics participates in population health in a proportion of 10–15%. The share of environment is about 20% and lifestyle participates in forming health or disease 50%. In the context of time and space, the phenomenon of nutrition and physical activities as a part of an environmental and lifestyle play a crucial role [31].

Recent research has focused on an enlarged set of factors in the development of lifestyle diseases. These factors include:

- Demographic factors (age, sex, and ethnic)
- Social and cultural factors (education, income)

- Biological factors (genetic, motherhood)
- Behavioral factors (physical activity, eating habits, smoking, and alcohol).

Lifestyle, and consequently also the structure of needs are the result of conditioning and choices of man, although for children, it is more often a question of conditioning rather choices. With age, the conditioning loses ground in favor of conscious choices. However, in childhood family and school are more important institutions that shape children's lifestyle.

Researchers ought to collaborate with schools to develop and implement interventions, and also to evaluate their impact on health and educational outcomes. In addition, the assessment and evaluation of interventions that promote physical activity and nutrition during school age are to be performed. Finally, these evaluations are to be more than simple measures of acceptability/fidelity and they include detailed contextual information to explicitly indicate what works, for whom, in what contexts and why [32].

In other words, obesity is an important worldwide health matter. Health precedence is to change eating and movement habits (to increase physical activity, restrict sedentary behavior and enhance the quality of nutrition). A little stress on health oriented education and lack of institutional support are barriers to healthier lifestyles of current population. Stronger cooperation between institutions that are responsible for health and education contributes essential to intervention success. If we would like to live long, happy, without difficulties and self-sufficiently, we have to change our lifestyle. It is necessary to check energy intake and energy output, avoid the stress, relax active, think positive and build self-respect, self-control and also self-satisfaction.

4. Previous empirical results

The aim of this chapter is to present some previous results obtained in empirical research conducted by the author. Three empirical works with different samples and tasks were selected. The first research shows the actual situation in health-oriented knowledge in graduates of elementary school education (15 years old children) and effectiveness of teaching health education as full-bodied school subject in contrast to previous form of teaching some health-oriented topics in more other subjects. These results should support the new form of gaining necessary knowledge related to desirable lifestyle. The second research deals with existing lifestyles in university students, there represent the best educated groups of the population. Therefore, we can take them as representatives of our society, there will have opportunity to form attitudes and habits of future generations. We can see strong and weak points in lifestyles of young adults (graduates of our educational system). The last research results document contribution of active lifestyle for some health, mental and physical aspects of life in adult population. We have to know benefits of physical activity for the life and these inventions should endorse education for health, not only in schools. The founded results are very important for a positive change in the health behavior—changes in physical activity, nutrition and health-oriented habits.

4.1 Health education in school

There are many objectives in children's schooling, among them include development of intellect, economic purposes of job preparation and social purposes such as social standards and morality as well and health education. In terms of health education, schools serve as a platform for students to learn and access necessary

knowledge, skills, and attitudes for them to develop healthy interests and practices related to health as they navigate through the decision making in their teenage years.

Health education is currently taught as an independent subject with at least 2 lessons per week within the school educational programme by 76% of schools. 53% of schools use lessons with teacher and lectures with experts (policemen for addiction theme, firemen for topics about behavior in danger) for health education. Health education was presently implemented by most of the surveyed primary schools (as an independent school subject in at least three grades in the primary school = 6–9th grade) [33].

We made a set of didactic manuals on the topic of body care, self-concept, physical self-concept and physical activity in our research study and promoted by them lessons of health education in experimental classes [34]. We applied this didactic material in the seventh classes in regularly subject Health Education (2 h per week) in duration half-year and we check out their effectiveness. The final questionnaire survey verified knowledge and the comparison with the knowledge of pupils from the ninth classes came after (old teaching model - pupils got health oriented information in other subjects as biology, family education...).

The main objective of this research at primary school was the elaboration and subsequent verification of the effectiveness of didactic manuals for the subject health education (analysis of their contribution to improving the knowledge and skills of pupils. The research project searched for the answer to the question: Can the quality of pupil's knowledge be increased in connection with the teaching form (regular lessons with the help of new didactic manuals)?

The experimental group was constituted by seventh-grade pupils (average age of 12.5 years) of the Second primary school in Plzen (n = 53 children). All of them completed the input and output questionnaire survey. Personal interviews were successively conducted with selected pupils. The closing questionnaire was also completed in control group in ninth grade in age 14.7 years (n = 34 pupils) and, lastly, the knowledge was compared.

We used as the main method for evaluation of health-oriented knowledge the questionnaire with 17 questions, 12 of them were formulated as closed (answers on a 5-point scale), other five questions were open (pupils expressed their opinion and attitude). We collected the data twice - first, before the start of teaching, the second time, 6 months later. The second used questionnaire was composed of seven open questions.

Our research according to eating habits of boys and girls shows a lot of limits. The boys are eating and drinking more often sweets, smoked products, and sweet drinks. The eating habits of girls are different they drink more water and eat more vegetable and fruit than boys. Interestingly, 18% of boys and 8% of girls do not eat meat.

Also in physical activity of our samples, we founded reserves. Recommended 7 h per week (together with two lessons of physical education) completing 53% of children. Very low physical activity demonstrated 22% of children (20% with 1–2 h and 2% with 1 and less hours of individual physical activity).

The knowledge in all monitored aspects of health was significantly better in the experimental classes (with health education as a separate school subject) in contrast to control classes (with information about health-oriented knowledge in other subjects according to previous teaching model).

In summary the research confirmed the effectiveness of regular lessons of Health education - pupils' knowledge significantly improved during this form of education (the most the area of self-concept and benefits of physical activities). The knowledge of the seventh-grade pupils was significantly better in all aspects than those of the ninth-grade pupils. It is more effective to teach health-oriented themes in the separate school subject, not as less important part in other school subjects. It is better to teach and practice skills through physical tasks and practical goals. Memory is enhanced when a skill is performed physically and visually and when

they attach emotions (such as competition and stress of deadlines) to a task, in comparison to simply writing notes down in front of a blackboard.

4.2 University students' lifestyles

The purpose of this empirical investigation [35] was to determine the relationship between selected personality characteristics and health-supporting behavior in university students in the Czech Republic. In addition, an analysis of decision making in their lifestyles was conducted. The underlying assumptions of developmental stages of adolescence and the dynamics of young adults were based upon the importance of a hierarchical value system and the relations to responsible behavior, focusing individual and societal influences. The requirement of the important part of health and its values in that phase of development can open the opportunity for a desirable behavior in the same way as for a disciplined individual lifestyle in the future. If basic principles of quality of life are not valued early, it will be very difficult to live a healthy lifestyle.

The sample included students at three major universities in the Czech Republic: Charles University, Prague; Masaryk University, Brno; and Palacky University, Olomouc. Students constitute one of the best-educated groups in every society. We can, therefore, consider them as representatives of our country, taking part in the formation of attitudes and habits of future generations. Students (N = 4292), aged between 18 and 29 years, answered a questionnaire.

The research project was conducted using the following measuring instruments: Questionnaire "Health, Sport and Body Concepts in Middle- and Eastern-Europe" [36] and "Scale of schematic body silhouettes" (Modification of Fallon and Rozin, 1985), "NEO Personality-questionnaire" with five factors [37] about basic personality factors: openness to experience, dutifulness, extroversion, kindness, and neuroticism, "Questionnaire to Life-satisfaction" [38].

Questionnaire, "Health, Sport and Body-concepts in Middle- and East- Europe" with 40 items for body- and health-supporting behavior - main-component analysis with oblique rotation Promax (value Kappa = 4). Results revealed 11 factors explaining 65% of the common variance: physical activity, personal hygiene and care of appearance, weight- and figure- control, optimal habits of healthy lifestyle, enjoyment of smoking, alcohol, drug and/or drug use, taking medicine, satisfaction with own body, attention to health issues, including prevention, alternative treatments, regular physician visits, and avoiding of body-contact and presentation of own nakedness.

Through a cluster analysis (method K-Means), the types of lifestyles were determined under use of the 11 factors, presented above, of health- and body-related behaviors. We identified six different types of lifestyles and qualified them based on their usefulness to improve health.

(1) Hypochondriac (22.5%)

These people paid immoderate attention for their bodies (appearance care, hygiene, and medicine). They assumed the responsibility for prevention and possible health challenges, often visited physicians, did not smoke and drink alcohol. Women were clearly more focused than men (9.3% men, 90.7% women) in this group. Exponents of this lifestyle were relatively often discovered in all faculties—the most we found were medical students, with many students also in social sciences. The outstanding hypochondriacs were represented as sport science-related majors.

(2) Conscientious people (20.3%)

Many factors were evidenced in this group—physical activities were part of their lives, they focused on their lifestyle, and sought preventative measures to improve. They were interested in their health and, while critiquing their bodies, accepted

them. In this group, women were at a ratio of 1:2 (32.9% men, 67.1% women). These students were very careful, living healthy and aware according to relation to their health. Many of these health-conscious students were medical majors. In comparison, social science majors were less health-conscious than medical students.

(3) Barrelhouse loafers (17.6%)

Students in this group were worried about hygiene and physical appearance, were more physically passive, less concerned with their health, consumed alcohol overly and used drugs socially. The lifestyles and health were not important for this group (24.7% men, 75.3% women). Many representatives of this attitudes and behaviors were from social sciences, a relatively large number was also law and economics majors.

This lifestyle was represented less in sport science students.

(4) Good Examples (16.8%)

This group was higher than average in all items—students exercised regularly, paid attention to their weight and their physique were concerned with good nutrition and placed special emphasis on prevention. This group was mostly women (82.2% women, 17.8% men). The representatives of this style were comprised of many sport science and medical students. In contrast, representatives of this lifestyle very rarely included mathematical-technical and natural sciences majors.

(5) Sportsmen/pleasure lovers (12.5%)

These students spent many hours per week physically active, dedicating less attention to their lifestyles as well as on care of health and appearance, paying less attention to weight and physique, visiting physicians regularly but viewing their bodies critically. This group involved 59.7% males and 40.3% females. Most of the students in this category represented sport science majors, but not many included competitive athletes; a relative large number of these students were mathematical-technical majors. Noticeably absent were representatives from medical majors.

(6) Careless people (10.4%)

These people ignored themselves and their health, they were physically passive and had ambivalent or negative relationship to their own bodies; hygiene and appearance care were for them not important. This group was overwhelmingly male, with a ratio of 2:1 (63.4% men, 36.6 women). Most of those in this category were found to be mathematical-technical majors, whereas sport science majors were barely found.

As conclusion to University students lifestyles is possible to say that only two of the six explored lifestyles could be termed as “healthy” (“Good examples” and “Conscious people”) in University student lifestyles in the Czech Republic. Students representing these lifestyles were largely engaged in positive behaviors, including those declared as health-supporting (physical activity, quality of life, limited consumption of addictive drugs, control of health challenges in daily life, attentiveness about health issues, and regular physician and health care professional consultation). Contrary to these healthy lifestyles are those who are labeled “barrelhouse loafers” and “careless people.” Some criteria of health-supporting behaviors are described by the last types as “sportsmen/pleasure lovers” and “hypochondriacs.” Students characterized by those types concerned themselves in only one of the investigated categories: “Sportsmen/Pleasure lover” involved physical activity; “Hypochondriacs” included lack of minimization of health risks. Other health-supporting habits were ignored by students. Results indicated these modes of living are not very effective in terms of health support. Approximately 40% of our sample successfully participated in healthy lifestyles, whereas 60% still have attention and care deficits relative to their own health.

4.3 Adult lifestyle and self-assessed body image

We observed and analyzed the relation to the body not as independent aspects of individual lifestyles but as the components of the basic body concept. Personal

physical satisfaction can be the result of individual experiences linked to one's own body. In many situations, the social environment also becomes a factor. When perusing published information about participation in sports activities and its influence on one's own health, little is still known about the area of intentional, planned behaviors, which contribute to one's personal satisfaction. Perceptions about one's body are very important for positive change in health behaviors—changes in physical activity, nutrition, and health habits.

The main task of the research, "Physical self and health" [39], was to analyze benefits of physical activities for physical and mental feelings of well-being. We made a website for objective of this study, containing the questionnaire, "Self-concept, Quality of Life" (SQL), which concluded eight parts.

The subdivision, "My body and health," concentrated on: visual aspects, physical activity and fitness, hygiene and body care, nourishment and food consumed, physical health and sexual behaviors. This subdivision focused the body image, which was judged from several views: its importance for me, my contentment with it, my feeling of having it under control, possibility for change.

The subdivision, "My thoughts and feelings," concentrated on psychological aspects that took into consideration impressions, abilities to learn and to self-assess. It focused on self-confidence, opinion in relation to several matters, power to check and deal with troubles and stress. The questions looked on accepting the way I am, a life free from redundant anxiety, worry and tension, self-esteem, mental health, spirit, and independence of ideas and behavior. Personal meaning of these matters is evaluated as well as self-satisfaction, feeling of control and possibilities for change.

Cronbach's α (internal consistency) for our sample—male and female—ranged between 0.68 and 0.92, respectively. Content validity of the questionnaire was verified. The data were analyzed using NCSS program. We present in results the comparison between adult men and women and among active and passive groups (different levels of physical activity per week).

We analyzed physical self at 864 adults in age 18–60 years [39]. The analysis of physical and mental self-image according to sex and level of physical activities (active people have four and more hours of physical activities in a week) shows interesting differences. While physically more active females focused their attention on body care and hygiene, physical health and activity, less sporting females focused on hygiene, physical health and visual aspects of their bodies. The crucial aspects of physically active males related physical health, sports behavior and fitness, and also hygiene. Physically passive males focused on hygiene, physical health, and sexual life. The whole sample expressed the highest satisfaction with hygiene and body care. Higher rate of dissatisfaction was watched in the physically passive groups. Active people in our sample were mostly oriented on nutrition and eating habits. In general, males supposed physical aspects less important than females, and physically passive males were even less happy than women. Both active groups were more contented than passive groups. Physically active males represented the happiest group of all.

Sport active females and males perceived more to control their health status and body. Females noticed a significantly higher control over their behavior for fun and significantly more liveliness for alteration than males. This marked greater openness and consciousness of personal chances. All groups perceived the highest chances for fun via sport and physical activity participation. Sport participants believed they had greater opportunities of reaching all aspects, but males saw less opportunities than females. By mentioning few chances, passive groups also manifested specific skepticism in regard to personal possibility to change.

We also took interest in discovery differences in the perceptions and evaluation of health status, health matters, and health-related body care. The most frequently mentioned health trouble was backache, which was reported by nearly half of all

female participants and as many as 80% of male partakers. Exhaustion, digestive complaints, and sleep disorders were quite often as well. In general, males had more health troubles than females (except headaches). Sport active groups reported significantly less complaints than the passive groups. The largest incongruity was found in exhausting and, in men, in digestive complaints. The positive results accomplished by the active respondents were conclusive.

In brief and in conclusion the results denote that physical self-concept is in large measure ascertained by the sex of the person rather than by other conditions. The self-concept and the feelings about myself (mental, physical, and also social) ride primarily on taking part in physical activity and less on age, education, and other factors. The sporting people were aware of body fitness and attractiveness and health status more, were also significantly satisfied with most aspects evaluated on physical and mental states. Simultaneously they felt more in check-up of their bodies and emotions. Active women saw more chances for change, which marked a higher level of self-confidence. Furthermore, the number of health troubles manifested by active part of sample was significantly lower than those mentioned by inactive adults.

5. Conclusion

This chapter demonstrated that there is a need to advocate for increases in physical activity and decreases in sedentary behavior. It is believed that a multi-level, multi-sectorial approach is required for this to be successful. This contribution brings some comparative findings in the European context and enriches the previous literature about lifestyle and education possibilities for improving health status and desirable behavior in contemporary population.

Society is now under media pressure, which demands that everybody take good care of their bodies without respecting individual possibilities and limits faced by every individual. Our task is to educate people to take qualified measures to improve their health and accept themselves the way they are. Success and socio-economic prosperity can be achieved only by a healthy society. A healthy society is composed of healthy individuals who recognize their own value, who accept themselves and who work on their own growth and development with their own individual limits. Regular physical activity brings numerous health benefits, such as reduced risks of cardiovascular disease, some types of cancer (e.g., breast and colon) and diabetes. It also helps to maintain the optimum body weight, improves the blood lipid profile, the digestive tract function and mental health (reduces stress, increases self-esteem and self-control and ability to concentrate) and boosts the body's immune system. Physical activity also helps to control already existing health problems (e.g., diabetes, high blood pressure or high cholesterol levels), and it is important for maintaining physical, mental and cognitive health in older age people. There is a link between physical activity and life expectancy physically active people tend to live longer than inactive ones. On the other hand, insufficient physical activity, along with poor eating habits, leads to an increase in obesity in the population and unhealthy life.

The best way to live healthier is to have reasons to move (instead of using escalators to go upstairs, instead to buy sweet cookies and drinks in school vending machine to bring fruit and vegetable from home, instead of going by the car as transport to the school and leisure activities to use bike or to walk, instead to sitting in front of the TV or computer for hours to move outdoors for 1 h).

Another foundation for the improvement of lifestyles relies on some more conscious behavior supported from the government (less opportunities and more difficulties buying alcohol drinks, tobacco and other drugs, by breathing fresh air,

by eating and drinking valuable and low-cost food and drinks, by using a variable type of movement and inexpensive leisure activities and also by providing education for healthy life in all generations).

Young generation is highly perceptive to the adoption of values, attitudes, and behaviors, which are offered by social environment. Therefore, it is very important in which social surroundings young people grow up. It is evident that the basis for possible changes to the health lifestyle is the revision of basic life values for a young generation.

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References

- [1] Bouchard C, Shephard RJ. Physical Activity, Fitness and Health. International Proceedings and Consensus Statement. Champaign: Human Kinetics; 1994
- [2] World Health Organisation. Obesity and Overweight. 2014. Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/>. [Accessed: 2017-01-12]
- [3] U.S. Department of Health and Human Services: Physical Activity and Health: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996
- [4] Colley RC, Garriguet D, Janssen I, Craig C, Clarke J, Tremblay MS. Physical activity of Canadian children and youth: Accelerometer results from the 2007-2009 Canadian health measures survey. Health Reports. 2011;22:22. Statistics Canada, Catalogue no. 82-003-XPE
- [5] Active Healthy Kids Canada. Active Kids Are Fit to Learn - Report Card on Physical Activity for Children and Youth. Toronto: Active Healthy Kids Canada; 2009
- [6] Katzmarzyk PT, Church TS, Craig CL, Bouchard C. Sitting time and mortality from all causes, cardiovascular disease, and cancer. Medicine and Science in Sports and Exercise. 2009;41:998-1005
- [7] Rychtecky A. Physical, sports, and health education against the sedentary lifestyles and obesity in Czech young people. In: Kai Chin M, editor. Physical Education and Health. Global Perspectives and Best Practice. USA: Sagamore Publishing; 2014. pp. 147-161
- [8] Janssen I, Leblanc AG: Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. International Journal of Behavioral Nutrition and Physical Activity. 2010;7:40
- [9] Paterson D, Warburton D. Physical activity and functional limitations in older adults: A systematic review related to Canada's physical activity guidelines. International Journal of Behavioral Nutrition and Physical Activity. 2010;7:38
- [10] Carpensen CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. Public Health Reports. 1985;100:126-131
- [11] Marcus BH, Forsyth HL. Psychologie aktivního způsobu života: motivace lidí k pohybovým aktivitám. Praha: Portál; 2010
- [12] Owen N, Bauman A, Brown W. Too much sitting: A novel and important predictor of chronic disease risk? British Journal of Sports Medicine. 2009;43(2):81-83
- [13] Tremblay MS, Colley R, Saunders TJ, Healy GN, Owen N. Physiological and health implications of a sedentary lifestyle. Applied Physiology, Nutrition, and Metabolism. 2010;35:725-740
- [14] American Academy of Pediatrics. Active healthy living: Prevention of childhood obesity through increased physical activity. Pediatrics. 2006;117(5):1834-1842
- [15] Whitt-Glover MC, Taylor WC, Floyd MF, Yore MM, Yancey AK, Matthews CE. Disparities in physical activity and sedentary behaviours among US children and adolescents: Prevalence, correlates, and intervention

implications. *Journal of Public Health Policy*. 2009;**30**(Suppl 1):309-340

[16] Kenny E, Taoiseach A. *Get Active! Physical Education, Physical Activity and Sport for Children and Young People: A Guiding Framework*. Ireland: Department of Education and Skills; 2012

[17] Kirk SFL, PENNEY TL, LANGILLE JJ. *The Relationship between Screen Time, Physical Activity, Dietary Intake and Healthy Weights in Children and Youth: Literature Review and Recommendations for Intervention*. Halifax: Halifax Regional Physical Activity and the IWK Health Centre. Nova Scotia Department of Health Promotion and Protection; 2009

[18] Whitlock EP, O'Connor EA, Williams SB, Beil TL, Lutz KW. Effectiveness of weight management interventions in children: A targeted systematic review for the USPSTF. *Pediatrics*. 2010;**125**:396-418

[19] *Healthy People. Understanding and Improving Health*. Washington, DC: U.S. Government Printing Office; 2010

[20] *Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report*. Washington, DC: U.S. Department of Health and Human Services; 2008

[21] Slepíčka P, Mudrák J, Slepíčková I. *Sport a pohyb v životě seniorů*. Praha: Karolinum; 2015

[22] Eurobarometr. 2014. Available from: http://ec.europa.eu/commfrontoffice/publicopinion//indexb_en.htm [Accessed: 2018-11-23]

[23] *Raport about the Health of Czech citizens*. 2014. Available from: http://www.mzcr.cz/verejne/dokumenty/zprava-o-zdravi-obyvatel-ceske-republiky2014-_9420_3016_5.html. [Accessed: 2017-01-14]

[24] World Health Organization. Office for Europe. *Obesity*. 2012. Available from: <http://www.euro.who.int/en/what-we-do/health-topics/noncommunicablediseases/obesity>. [Accessed: 2017-01-12]

[25] Diener E. *Mint: Subjective well-being*. *Psychological Bulletin*. 1984;**95**:542-575

[26] Kasser T. *Materialism and its Alternatives* (I.S. Csikszentmihalyi). *A Life Worth Living: Contributions to Positive Psychology*. Oxford: University Press; 2006

[27] Kelder SH, Perry CL, Klepp KI. *Mint: Community- wide youth exercise promotion: Long- term outcomes of the Minnesota heart health program and the class of 1989 study*. *The Journal of School Health*. 1993;**63**:218-223

[28] Jeřábek J, Tupý J. *Framework Educational Programme (Rámcový vzdělávací program)*. Praha: VUP; 2007

[29] Fialova L. Differences in body image and health among sport active and passive adults as a base for school health education. *American Journal of Educational Research*. 2014;**2**:782-787

[30] Eurostat. 2016. Available from: <http://ec.europa.eu/eurostat/data/statistics-a-z/abc> [Accessed: 2018-1-26]

[31] *Health 2020 – National Strategy for Health Protection and Promotion and Disease Prevention*. Praha: Ministry of Health of the Czech Republic; 2014

[32] Langford R, Bonell CH, Jones H, Campbell R. *Obesity prevention and the health promoting schools framework: Essential components and barriers to success*. *International Journal of Behavioral Nutrition and Physical Activity*. 2015;**129**:167-171

[33] Fialová L, Flemr L, Marádová E, Mužík V. *Vzdělávací oblast Člověk*

a zdraví v současné škole. Praha:
Karolinum; 2014

[34] Hájková L. Health education in the primary school/ Výchova ke zdraví na základní škole. Diploma thesis. Praha: UK FTVS; 2012

[35] Dosedlová J, Fialová L, Kebza V, Slováčková Z. Prerequisites of Health and Life Satisfaction/ Předpoklady zdraví a životní Spokojenosti. Brno: MSD; 2008

[36] Mrazek J, Fialová L, Bychovská I. Sport, health and body concepts in central and eastern Europe. *Journal of Comparative Physical Education and Sport*. 1982;2:52-56

[37] Costa PT, Mc Crae RR. Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology*. 1980;38:668-678

[38] Pavot W, Diener E. Review of the satisfaction with life scale. *Psychological Assessment*. 1993;5:164-172

[39] Fialová L. Personal satisfaction, physical self and health related behaviour from the aspect of involvement in sports in adult population. In: Louková T, Hátlová B, Adámková M, editors. *Psychomotor Therapy*. Ústí Nad Labem: University of J. E. Purkyně; 2015. pp. 55-66