

ANALYSIS OF THE ATTITUDES OF THE POPULATION IN DIFFERENT AGE GROUPS FOR SELECTED FOLDERS HEALTHY LIFESTYLE

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Abstrakt:

Attitudes supporting our health are evolving and changing throughout the life; and it is interesting to see components of a healthy lifestyle that people of age 70+ take most positively and which are accessed rather neutrally (in comparison with other age groups). Realized investigation is focused on the evaluation of attitudes of respondents of various ages towards compliance of the principles of healthy lifestyle. The aim of the research project was to identify the healthy lifestyle components that people respect the most often and which the least. Likert scale was used to obtain the data.

Based on using the Pearson contingent coefficient and comparison of the relative frequencies is possible to state that respondents assess themselves in compliance with the principles of a healthy lifestyle regimen better than the others.

In opinion of respondents the people have the most positive relationship to the activities with family and friends and activities in nature. According to respondents, the majority of people in the population do not perform too many physical activities. The data is necessary to consider in the nationally proclaimed programs focused on health promotion and activation.

Keywords

Attitudes, healthy lifestyle, educational and activation programs, healthy support

1 INTRODUCTION

"Healthy lifestyle" means various things for various people. For many people, the concept of "Healthy lifestyle" represents in particular a diet and physical activity. A diet in the sense of almost not-eating-at-all and drudgery of physical activity as a several-hour torture somewhere in fitness centres. The truth is that a healthy lifestyle consists of many aspects which put together are to lead to people's health. However, there is no suffering or cruelty there. People should realize that their health is the only one and unique and it does not matter how much they

earn, they cannot buy it with money. The following chapters of this paper will deal with explanations and clarifications what such a healthy style really means.

2 HEALTH AND HEALTHY LIFESTYLE

The World Health Organization (WHO) defines health as the State of physical, mental and social well-being and not only as the absence of illnesses or impairments. Health can also be defined negatively as the absence of illness, functionally as the

ability to cope with daily activities, or positively as the capability and form of mental and emotional balance. Health is a precondition for a full, productive, as well as high-quality human life.

The basis for a good, genuine life begins to be formed since the birth where a very important role is played by the family background, friendly relationships, a regular physical activity, the abundance of being in the fresh air in the nature and a well-balanced diet.

A healthy lifestyle can be expressed as a summary of relatively stabilized everyday habits and behavioral patterns of a human and it is proven that they positively influence his or her overall health. Up to 60% of the health is affected by the way of life. The environment impacts the health up to 20%, healthcare and genetics each affects it by 10%. (see Table 1: Health 21, 2004).

Tab. 1: Health 21, 2014

genetics – heredity	10%
environment	15-20%
healthcare systém	10%
the way of life	Approx. ± 60 %

A lifestyle is therefore the key determinant in health. It is a preventable factor which is possible to influence by education and up-bringing rightly aimed prevention in programmes and projects implemented since the early years.

According to Kubátová (2010), it is necessary to distinguish between a lifestyle of an individual and a lifestyle of a group of people. A life style of an individual can be defined up to a large extent as mostly consistent life style of and individual single parts of which are mutually compatible, interconnected, come out from one homogeneous basis, have a common core, respectively a red connecting line, i. e. homogeneous lifestyle that such as a red thread interwoven through these parts links all the important activities, relationships, habits, etc. of the individual. A lifestyle of a group of people on the contrary can be defined up to a certain extent as a set of typical social features abstracted from a

lifestyle of a group, respectively its major determining aspects which are characteristic for the majority of the group members (more often this concerns bigger or smaller groups the members of which do not know each other but, in general, have a common ground typical for expressing such a lifestyle. For example, a lifestyle of human doctors, professional athletes, undergraduates, etc.).

According to Žaloudíková (2009), a lifestyle is formed by a system of repeatedly occurring life activities, relationships and habits characteristic for a particular individual, which create the following categories:

- working style;
- personal, family, and partner life;
- conditions and ways of housing;
- nutrition;
- physical and mental regeneration;
- leisure time activities.

Each individual creates actively this or her own life style which is directed by intentional achieving his or her objectives and needs characterising his or her personality. Such creation is influenced by a range of various factors such as age, sex, place of living, education, profession or occupation, abilities, interests, health conditions, family status, material provision, and life experience. All of that is reflected in a life of the individual and influences a choice of friends, preference of interests, hobbies and free-time activities.

From the above, it is clear that it is necessary to understand a healthy lifestyle as a whole, i.e. not to separate physical health from the mental health or social one. All the parts mutually influence one another and therefore, if there is a disorder in one of them, the rest cannot work properly either.

2.1 Components of a healthy lifestyle

One of the main pillars creating a healthy lifestyle is a healthy regimen which according to Žaloudíková (2009) consists of: a regular daily regime, healthy nutrition, abundance of physical activities, observing the standards of hygiene, prevention against infectious diseases, responsible personal behaviour (sexual behaviour, for example, working, behaviour as a partner or a parent), mental resistance against harmful influences and addictions (such as smoking, alcohol consumption, drug abuse, etc), effort to achieve well-being and peace of mind, ease in interpersonal relationships, adequate adaptability techniques in stressful situations, safety preventions, environmental protection, and the least possible contact with unhealthy substances).

Kotulán holds a similar position in defining such an issue, however, he ranks the individual components of a healthy lifestyle differently:

- health and its importance;
- healthy nutrition;
- sleep;
- physical exercise;
- protection against diseases;
- protection against injuries, poisoning and intoxication;
- care of a health environment (Kotulán, 2002).

2.2 Risk factors and salutors affecting a healthy lifestyle

A healthy lifestyle is influenced by external factors as well as internal. Some of them work negatively and participate in creation of a series of civilization diseases, the other group on the other hand, works protectively in favour of health and contribute to maintaining the health of a person in the course of his life cycle. The latter ones are so-called "salutors".

The negative factors are as follows:

- consumption of industrially produced food;
- consumption of foodstuffs rich in calories (especially fatty and savoury edibles);
- excessive consumption of food;
- abuse of addictive substances (alcohol, cigarettes, light drugs, abuse of products containing caffeine);
- excessive and constant stress;
- work overload, much pressure on performance in a number of private companies;

- demonstrable subjective feeling of the financial lack, objective poverty;
- insufficiency of physical activities;
- negative effects of the air pollution and noise;
- incapability to have a rest, lack of competences to relax;
- negative thinking, low self-esteem, intellectual rigidity.

Amongst the salutors, there are mostly listed factors of mental character, i.e. namely positive thinking. A range of risk factors such as the air pollution cannot be changed in any noticeable way (of course, individuals can help influence the quality of the air due to their environmental-consciousness and appropriate behaviour, however, it can lesser or moderate overall pollution only insignificantly).

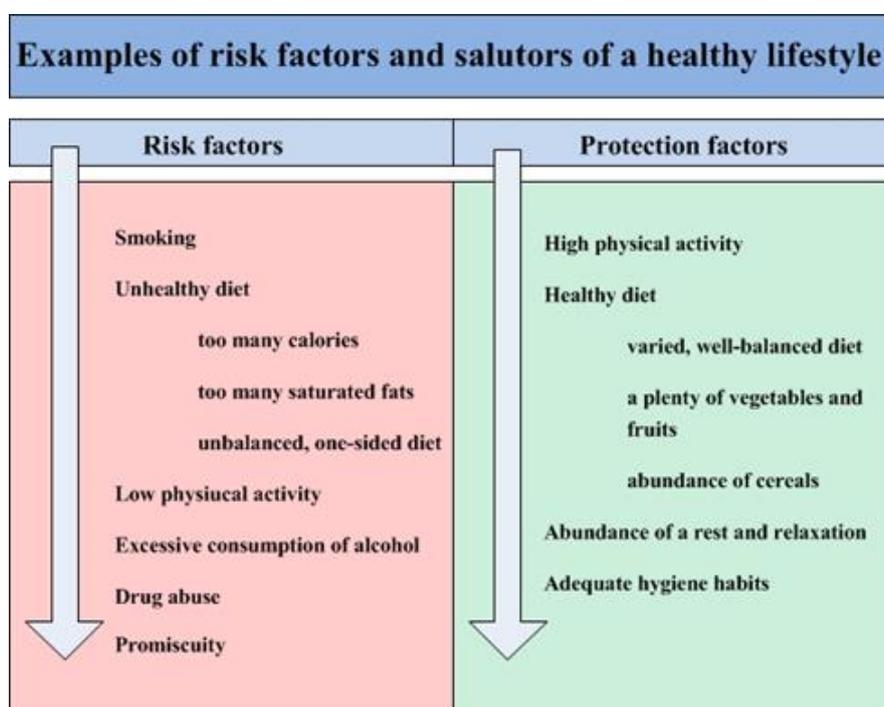


Figure 1 Examples of risk factors and salutors of a healthy lifestyle

Except for positive thinking, other dimensions of health are being considered here, such as techniques of stress and work overload management, ways of relaxation, preferences of a healthy scenario (confront: Starý, 2008, Šauerová, 2012). Knowing these factors plays important part in prevention of diseases and health protection. Apart from mental factors, physical activities and varied, well-balanced diet, as well as abundance of rest and relaxation and

adequate hygiene habits are also ranked amongst salutors.

It is often mistakenly believed that people just need to be provided with some information and they themselves can rightly decide and act in the interest of their own health. Awareness is undoubtedly very important. Unfortunately, most people begin to actively search for information only when they have started to have some more-or-less serious health complications

so a change in their lifestyle is the most effective remedy. That is why it is so important to pay attention to timely formation of positive attitudes to health and a healthy lifestyle, as the later one starts to follow these principles, the smaller the effect on his or her health it can have.

Most diseases are not manifested until in adulthood but risk factors which cause their development gradually affect a person since his or her childhood. Through learning and consolidating right behaviour in the early years, it is possible to minimize consequences or even avoid them completely. The period of younger school age is susceptible to formation of attitudes and habits leading to observing a healthy lifestyle. That is why the information and protection programme should also focus on this group and not only on the period of adulthood. Therefore it is highly important to pay attention to develop attitudes to healthy life style in single age groups because thus gained results will provide information useful for further planning educational programmes; it means to what age group the attention should be paid to, and how such an educational programme should be oriented. At the same time, it necessary to monitor whether any adequate (and essentially required) forming and shaping attitudes to a healthy lifestyle takes place since the early age, because this component is a significant part of further compliance with the healthy lifestyle and the incorporation of the individual components of a healthy lifestyle to one's own life style.

3 ATTITUDES

The attitude can be understood as "individual counterpart of a social value"

and the value as what is a "socially important object" – in other words, the attitude expresses relation to a value, a way to evaluation.

It is possible to say, that it is a classic conception of an attitude as a relation of a human to values, which were specified by W. Allport (1935): "The attitude is a mental and nerve state of readiness or preparedness organized by experience, developing directive or dynamic influences on responses of an individual towards all of the objects and situations in which he or she is in relation to." This definition, however, brought in attitudes of certain inconsistencies which lie in the fact that the attitudes were confused with motives. In reality, however, as it was proven by R. T. LaPierre (1934), there can be a disagreement between the attitude and corresponding acting; people do not always act in accordance with their own attitudes (Nakonečný, 2009, p 239, confront results of presented research). Nevertheless, with respect to these findings, creating positive attitudes to a healthy lifestyle is possible to understand as an important protective factor which with regard to the major emphasis on health promotion we should pay close attention to.

For education of a society or an individual, it is very important to consider a difference between attitudes and motives. According to Th. M. Newcomb (1950), the substantial issue is that the attitude determines a way of acting, meanwhile the motive is a cause of acting and expresses its psychological sense. But according to Newcomb, "an attitude is readiness or preparedness to activate a motive" and the attitude itself is possible to define followingly: "the attitude of an individual to a thing or a situation is understood as his

or her predisposition to act, perceive, think, and feel in such a situation."

Nakonečný points out that although the attitudes determine the way of acting, respectively, they are consistent with the ways of acting, they do it only if the situation allows it, though. The same author is critical to rising questions of measuring

attitudes and poses a question to an open discussion what actually the measuring of attitudes is to measure.

I. Ajzen a M. Fishbein (1977) tried to explain a relation between attitudes and behaviour and they showed it in the following scheme.

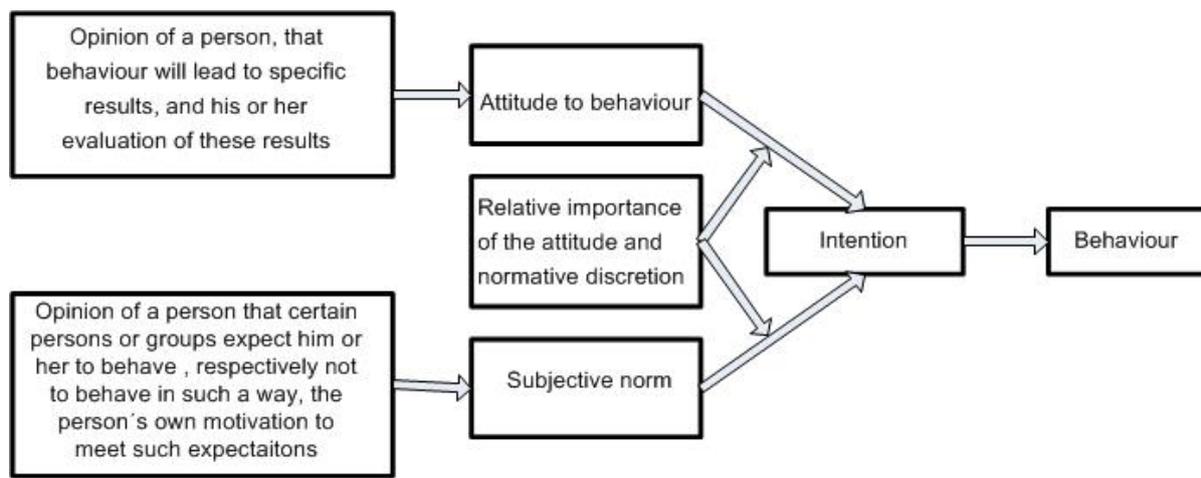


Figure 2 Relation between attitudes and behaviour

(According to Stahlberg and Frey, 1992)

As shown in the above scheme, this theory (of substantiated action) is based on an internal interaction of the own tendency of a situation to a specific behaviour and social pressure on such behaviour or against it.

It results in an attitude to one's own behaviour and meaning of the former comparison which has a nature of a decision-making process to choose between the internal and external pressure. This leads to the intention to behave or not to behave in such a way (Nakonečný, 2009, p. 244).

The emotional component specifies the strength of the attitude providing it with a subjective meaning: extremely positive or negative attitudes are the most powerful

and they are connected with the personality of the individual so that they meet the specific integrative function (Nakonečný, 2009, p. 244).

Emotionally strongly accepted attitudes, especially prejudices, can be completely irrational and can be accompanied by false information. The emotional component of attitude then determines its intensity and such an intensity of attitude can be expressed by a position on a line in a graph of continuity ranging from extremely positive over neutral to extremely negative attitude (Nakonečný, 2009, p. 247).

3.1 Categories of attitudes

An individual's knowledge of the subject is affected by his/her feelings, and tendencies to act in a specific way to the object/situation. A change in the understanding of a given object/situation may cause a change of feelings and tend to behave in a certain way in such a situation. Based on that, it can be said the attitude has three categories and so it was looked into at first. According to Rosenberg and Howland (1960), the attitudes of predisposition are to respond to a particular categories of motives using a category of reactions.

These categories of reactions are the following:

- a) affective – what feelings a person has to an object/situation of attitude, how positively or negatively he assesses it;
- b) cognitive – what a person nonbiasedly thinks of the object/situation of the attitude;
- c) behavioral (conative) – how a person behaves or intends to behave towards an object/situation of the attitude.

The following model was created by M. B. Smith et al. in 1974 (see the fig. 3, inspired by Škobrtal, 2012, p. 72)

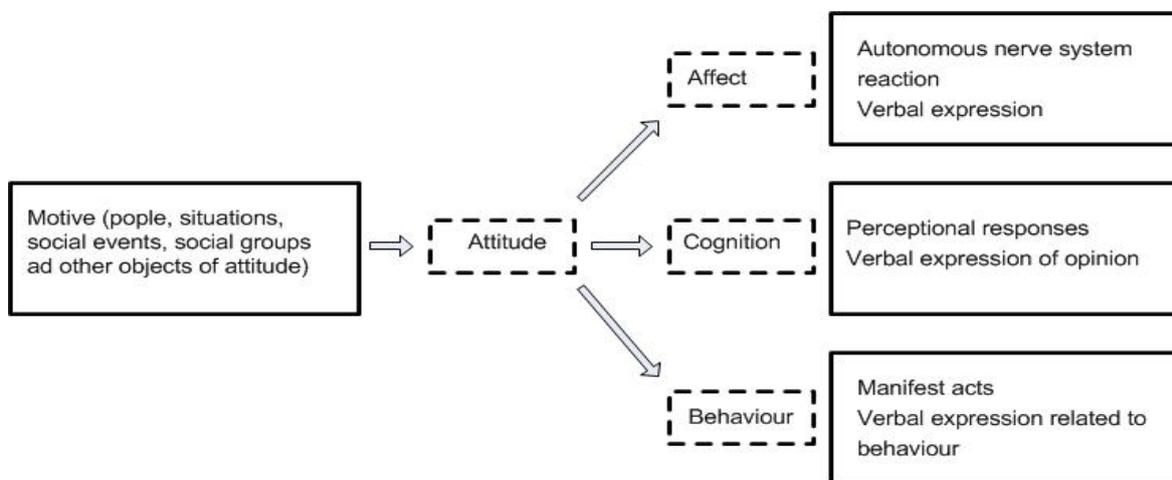


Figure 3 Three-component model

3.2 Attitude to health and healthy lifestyle

As it was said in the itroduction, health is the most significant value of a life of each human. Throughout the history of

human kind, health is always put on the very first place in hierarchy of values. Health, however, should not represent the aim of life but one of the basic condirions meningful life. (Čeledová L., Čevela R., p. 14). Maybe we could adjust this opinion a

little bit and so we could state that health could actually be the aim value and also at the same time necessarily an instrumental value through the medium of which we achieve other objectives and values.

Most of us are satisfied with our ways of lives as long as we feel all right. It is so even if we lead unhealthily lives and have unhealthy habits. This finding should make us start to think more of ourselves and seek ways to shape appropriate attitudes towards compliance with lifestyle even before the first signs of disturbance of the balance of health, disease, or discomfort occur. Therefore, there are very important key decisions about lifestyle, which a person acquires already in the course of growing up. The person decides on the choice of physical activities, exercise habits, which are necessary to build since childhood, he/she can make better decisions about his/her own diet, but also to use or abuse drugs, alcohol and smoking, and to comply with the sleep regime and to incorporate a rest, relaxation and other activities in order to reduce stress (see Blahušová, 2009, p. 10).

In shaping the attitude to a healthy lifestyle, it is necessary to be aware of how essential it is to consider this area as a complex, i.e. a well-balanced interconnection of the body, mind, soul, and spirit is for understanding the whole issue of a lifestyle fundamental. A change of lifestyle is a long-term systematic care on oneself which includes learning the order, vigilance, conscious attention and living at the present moment (Lojková, 2012, p. 16).

3.2.1 Shaping of a positive attitude to physical activity and healthy diet

At present, the quality of life is not influenced by infectious diseases or starvation, yet by various civilisation diseases, cardiovascular diseases, for example, oncological diseases, metabolic diseases (obesity, diabetes), and so on which are the result of a sedentary lifestyles and ways of life.

Lack of physical activities has a negative impact on our health and the whole organism. The physical activity is very important for metabolism, fat burning, muscle development, nourishing the bones, joints, as well as for the internal organs, the lymphatic system; for the prevention against and treatment of various diseases ranging from headaches over pains in locomotive musculoskeletal organs, and arthritis to heart and blood vessel problems, strokes, diabetes, hypertension, ISCH, lung disease, obesity, cancer, etc. (Lojková, 2012, p. 122).

In addition, it has been undoubtedly proven that physical exercise as a basic health determinant contributes to health by 50-60% (Čeledov, Čevela, 2010, p. 99).

Also observing a suitable healthy diet patterns of nutrition and keeping a healthy lifestyle in general belongs to the main factors creating good, strong health. Although one cannot avoid ageing, with the help of a healthy attitude towards nutrition it is possible to slow it down or prevent from physical deterioration.

Proper nutrition is also an excellent ally in the struggle with stress. Research has shown that long periods of everyday pressure weaken the immune system and lead to frequent occurrence of light diseases such as colds, flu, and cough. When a person is under the stress, some of the

nutrients are utilised much faster: the body needs more vitamin B for central nervous system health and vitamin C and zinc to boost the immunity (Arens, 1998, p. 296).

4 SURVEY METHODOLOGY

In connection with constantly growing interest in improving the health conditions of the population and its upcoming nationwide educational programs focused this way, it is essential also to monitor the evolution of attitudes among different age groups in order to target educational projects better and be able to choose the correct method of motivation. Very important is to follow the opinion of each respondent' own healthy lifestyle regimen and evaluation of other groups from the perspective of the respondents.

4.1 Proposed research issue

- How respondents evaluate their own healthy lifestyle regimen?
- How respondents evaluate healthy lifestyle regimen among the other age groups?
- Which parts of a healthy regimen people according to the respondents adhere to the least / the most?

4.2 Goals

The aim of the survey was to find out respondent's approach to the individual components of a healthy lifestyle. The aim was also to determine whether the self-adherence to a healthy lifestyle and assessments of others has existing correlation of a same range. This finding can be considered as the fundamental basis for planning educational projects for

selected target groups, educational activities, proper determination and appropriate choice of motivational means for specific target groups.

4.3 Hypothesis

Hypothesis: there is a correlation between what respondents think of themselves in case they are asked whether they adhere to a healthy lifestyle and think the same about others. To verify the validity of the hypothesis – correlation was used the Pearson correlation coefficient.

4.4 Questions

Another part of the research project was to search answers to the specified questions:

- What is the other people's attitude to the individual components of a healthy style according to the respondents?
- What is the respondent's evaluation of themselves (We) in compliance with the principles of a healthy lifestyle compare to the other age groups (The others)?
- What is the attitude to the healthy lifestyle of the respondents themselves? Is there a difference between self-evaluation and evaluation of the others in following a healthy lifestyle?
- Which components of a healthy lifestyle do have other people the most positive relationship to according the respondents?
- Which components of a healthy lifestyle do have other people the

least positive relationship to according to the respondents?

To answer the questions is used the analysis of the relative frequency and graphic expression.

4.5 Research design - a plan, sample, organization and research methods

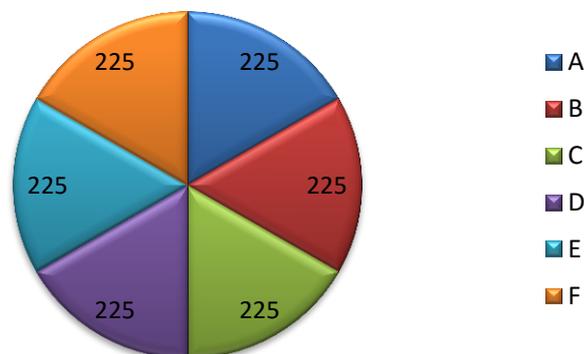
The research was conducted in the months of October to December in specified age groups, selection of respondents was limited by the capabilities of the team that collected the data. The respondents from the specific professional groups were excluded

from the survey (eg. physiotherapists at the hospital, soldiers in the army). All groups were with no significant relation to the given topic.

4.6 Researched group

The research sample consisted of 1,350 respondents, the entire group was divided into several age categories: A - second grade of primary school, B- secondary school, C- adults up to 30 years, D - adults up to 50 years, E - adults up to 70 years, F - seniors over 70 years, each age group numbered 225 respondents.

Graph No. 1 The Age structure of respondents



4.7 Description of the data collection methods

To obtain the data was used a modified Likert Scale which is normally used to measure attitudes. It is used in two variants - to detect the level of satisfaction or consent of respondents to the assertion. In the present paper was used second alternative for the respondent's evaluation

level of an agreement on a scale from "strongly agree" to "strongly disagree".

4.8 Description of the data evaluation methods

To evaluate the hypothesis we used Pearson correlation coefficient, which assessed the correlation in issues „Others keep healthy lifestyle (graph no. 10) and „I adhere healthy lifestyle“ (graph no. 11).

Pearson correlation coefficient:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

To answer the questions was used procedure for determining the incidence of the most common variants of the answers (mode) and calculation of the relative frequencies of all possible answers in all age categories, and for each age group separately.

4.9 Results of the survey

During the investigation was obtained a total of 22,950 data; that the conclusions are based on.

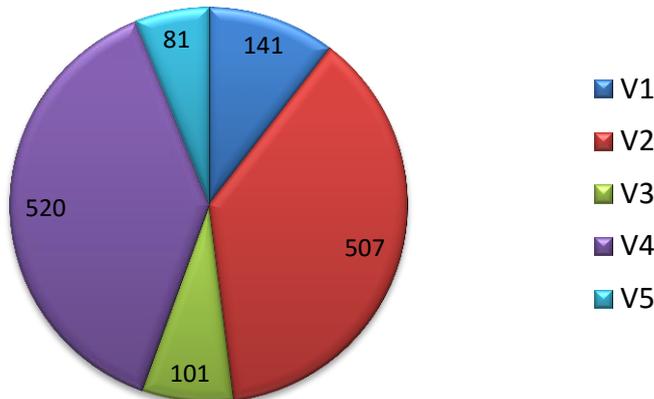
The legend used in graphs:

- V1- totally agree, V2 – ether agree, V3 – I dont know, V4 – reather disagree, V5 – totally disagree.

People usually sleep at least 8 hours

The graph no. 2 shows that mostly respondents believe that people do not respect the sleep regime.

Graph No. 2 People usually sleep at least 8 hours



Among the different age groups (graph No. 12) is the most positive attitude prevalent among primary school pupils - almost one half of them (in their own group) think that people sleep eight hours .

People participate in physical activity at least 3 times a week

Evaluating the motion activities we can observe also rather negative assessment, the majority of respondents believe that

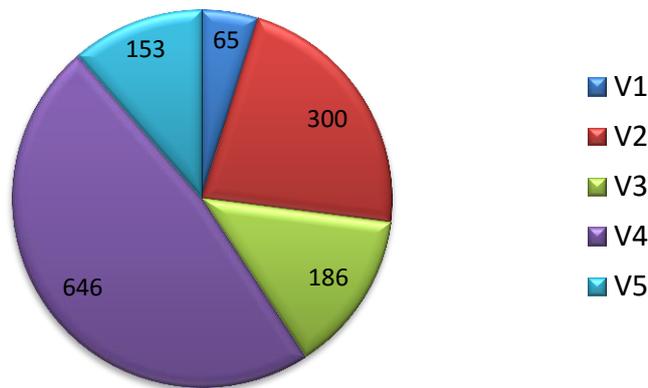
people do not comply with adequate physical activity.

This finding is very important when considering the content of healthy lifestyle educational programs focusing on the target groups where this view occurs

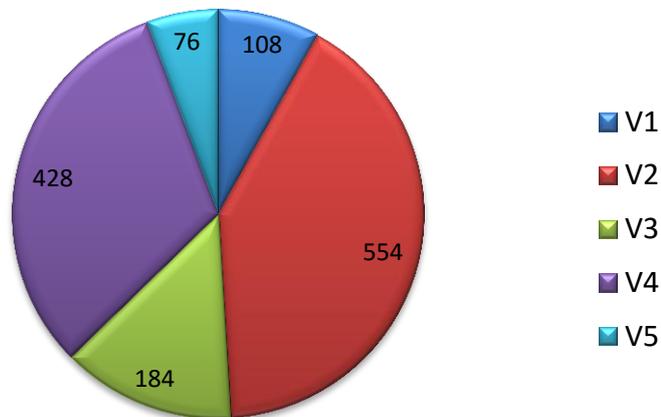
substantially across all age groups. People make attempt to a balanced diet

Dietary assessment shows a positive trend which can be aroused by educational programs implemented since elementary school (as part of the school curriculum).

Graph No. 3 People participate in physical activity at least 3 times a week



Graph No. 4 People make attempt to a balanced diet (vegetace, meet, milk, fruits, fiber)



Positive attitude slightly outweighs the negative, it is important the even distribution (see the chart No. 12). Furthermore, respondents were asked about the content of the drinking regime, fully half of the respondents believe that people do not likely drink plain water or unsweetened mineral water.

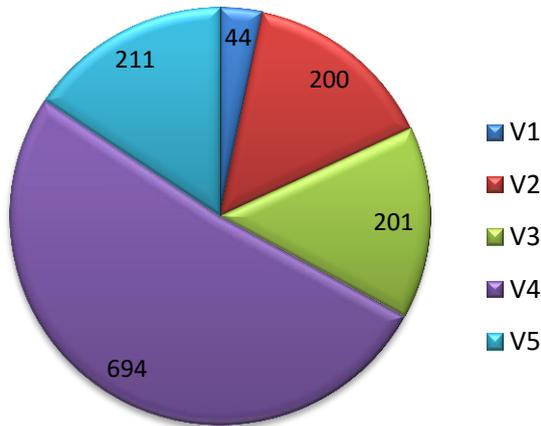
Teens and adults do not smoke

Graphs No. 5 and 6 show the evaluation of smoking adolescents and adults. Both groups are assessed similarly, all respondents believe that both teens and adults usually smoke. With the statement "mostly do not smoke" agreed just one

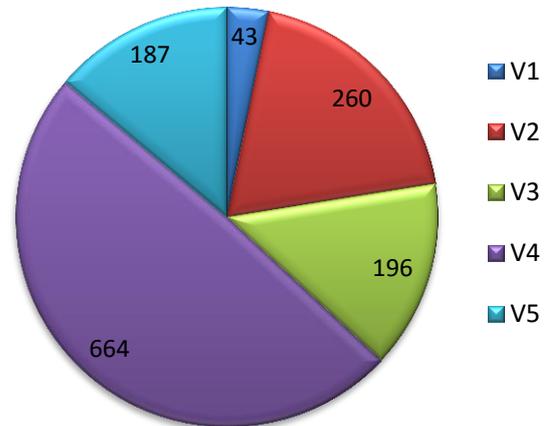
sixth of respondents. Other components focus on the so-called assessment of the environmental and social health. As we can

see from the graphs below, the respondents believe that in this area people respect the principles of a healthy lifestyle.

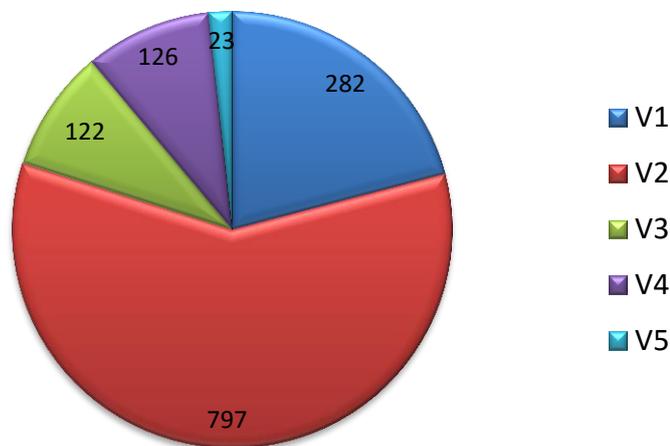
Graph No 5 Teens mostly do not smoke



Graph No 6 Adults mostly do not smoke



Graph No. 7 People often search activities with friends



Searching activities with friends

More than three-quarters of respondents stated that they think the others enjoy activities with friends, distribution of this opinion is very even across all age groups interviewed. Disagreement with this

behaviour shows only 23 respondents from all groups in total.

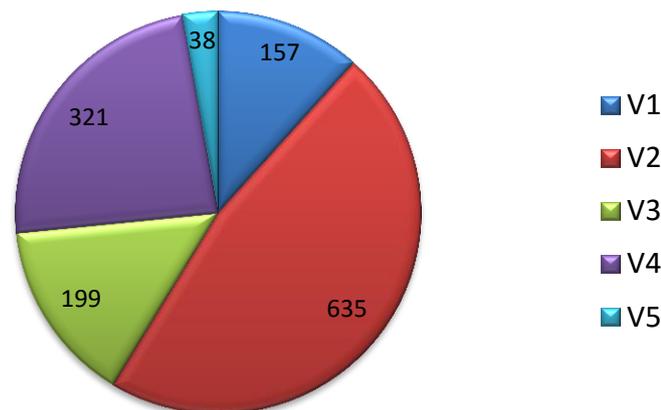
Similarly positive evaluation we see in the graph no. 8.

People like to spend their free time in the nature

With the statement "People like to spend their free time in the nature," agrees slightly

more than half (72%) of respondents. Again, there is important the even distribution of positive responses there.

Graph No. 8 People like to spend their free time in the nature



This question results are very valuable data because staying and exercising in the nature (i.e. green exercises) bring people a source of relaxation and number of researches shows that the effectiveness of outdoor physical activities is higher than indoor (gyms, halls, fitness) - cf. e.g. research Faber, Kuo (2009). In our conditions currently is interested in the importance of this issue e.g. J. Neuman (2015).

The importance of outdoor activities is in the prevention of increasing inactivity¹ of the population and the increase in number of civilization disorders (including the increase of obesity and overuse of computer and telephone games). The importance of staying in the nature in

upbringing of children with ADHD/ADD² shows for example Švamberk Šauerová. The importance of staying outside for a man (a child), supporting the individual strengthening, pointed out reformist educators already, for example. Jakub Jan Ryba. Other major promoters of the child outdoor stay was for example. E. Štorch.³ - the pioneer of so-called eubiotics - natural coexistence of man and nature.

Another significant asset of staying outdoors is also a natural absorbing of the vitamin D.

²Švamberk Šauerová, M. Hyperaktivita nebo hypoaktivita – výchovný problém? Bratislava: Wolters Kluwer, 2016. ISBN 978-80-8168-348-0.

³ Štorch quotes MUDr. M. Merhauta in his work which dealt with the fight against tuberculosis in schools, and drew attention to the health problems of children in closed schools. It also cites survey results showing that least cases of the disease are located in the outlying neighbourhoods near the water and meadows (Braník, Hodkovičky, Troja), while in neighbourhoods such as Vysočany, Hradčany reached the number of children with tuberculosis up to 70 % (Štorch, 1929).

¹ Hošek, V. Psychologie odolnosti. Dotisk 2.vyd. Praha: Karolinum, 2003. 69 s. ISBN 80-718-488-91.

Spending free time with a family

In the evaluation of spending time with a family we obtained very positive results.

1044 respondents (i.e. the whole 77%) agree that people like to spend time together with their families. And there is a positive evaluation evenly distributed across all age categories.

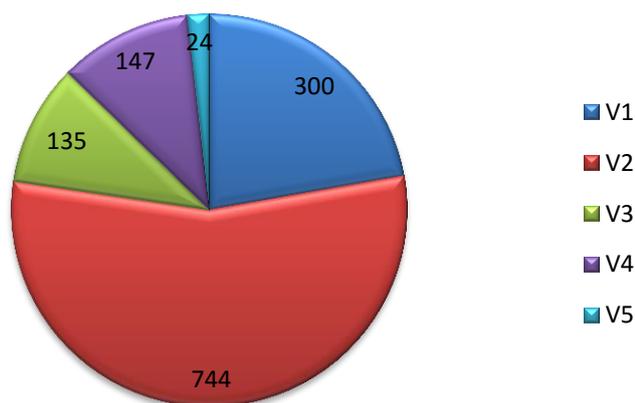
Evaluation of adherence to healthy lifestyle among other respondents (sleep, diet, exercise, good relationships with people)

If we evaluate the results of the questioning- the respondents tend to disagree.

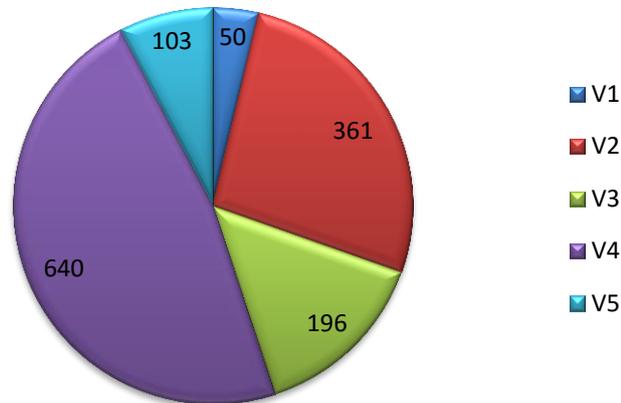
In the evaluation of most healthy lifestyle components are consistent and dissent responses ranging 50:50 (except smoking). Interesting is also their own self-esteem of adherence to a healthy lifestyle (chart no. 11, see below). While 743 respondents (V4+V5), i.e. 55%, think that other people do not respect healthy lifestyle, or only

410 respondents - 30% (V1+V2) think that they respect, then in the evaluation of themselves, 701 respondents (51%) say that they adhere to these principles and 487 of the respondents (36%) believe they are not respected (graph no. 11). Comparing these differences (distinct own evaluation than others) is shown in the graph no. 13. (Appendix 2). In terms of societal development and supporting the motivation to adhere to healthy lifestyle of the individual age groups, are presented results very valuable. The point is how to prepare educational programs, motivating the population to adhere to healthy lifestyle when the population is convinced that "Me" adhere to these principles, but others do not. So it is a problem of the others. This may imply still insufficient interest in the involvement of each person in thus-oriented programs (I do not need it after all, the others do ... !!) and the need to seek proper ways how to motivate the population to participate in programs aimed at health promotion.

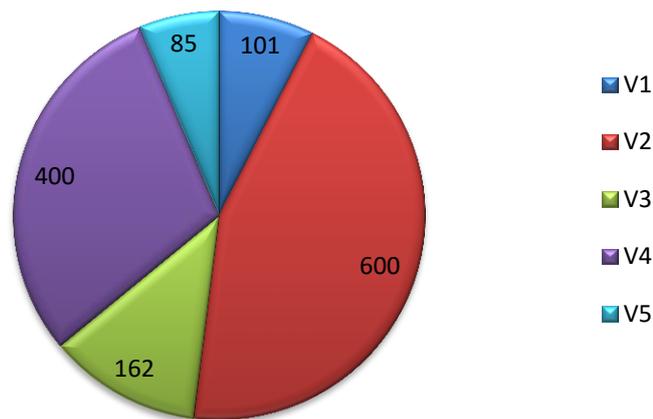
Graph No. 9 People like to spend their free time with a family



Graph No. 10 People adhere the principles of healthy lifestyle (the sleep, diet, exercise, good relations with people)



Graph No. 11 I adhere the principles of healthy lifestyle



4.10 Summary and evaluation

Taking into account the results of the last question may be interesting to look more closely at the results observed in the individual age groups - see below. The results regarding the lifestyle and their own adherence are presented in merger for better overview- the rate of approval in all surveyed age groups at once (graph of absolute consent to the graph of utter disapproval).

Given data can be viewed and presented from many different perspectives, below is

a comprehensive evaluation of the data obtained - see graph no. 12 and no. 13.

Graph no. 12 shows the cumulative affirmative answers "totally agree" and "rather agree" on all issues at all ages. Age categories are shown always in the same colour, so it is possible to evaluate results in the specific category of respondents, so as cumulative frequency of positive answers of all respondents.

As the results in the graph show most respondents assess adherence to healthy lifestyle in the area of spending time together with friends, nature and family. Positive results are also in the evaluation of

their own healthy lifestyle adherence. It is also necessary to mention that regarding to sub-components of healthy lifestyle was reported a lower frequency of positive attitudes than the evaluation of the overall style.

Even this result is very important when planning educational activities, because it can be speculated that the motivation of different age groups should be considered even when planning simple educational inputs (pointing to the importance of compliance with specific sub-components of a healthy lifestyle).

4.11 Evaluation of hypotheses, evaluation of research questions

The hypothesis was: There is a correlation between what respondents think of themselves in case they are asked whether they adhere to a healthy lifestyle and think the same about others. ext

To verify the hypothesis was used Pearson correlation coefficient. Based on the resulting coefficient, $r = 0.33$ can be stated that there is not a correlation between what respondents think of themselves and what they think of the others.

It means that the respondents have a different opinion of themselves than of others, which is a major impetus for planning preparation of the motivational activities specifically targeted programs for selected target groups in the field of wellness and support of the population in different age groups to adhere to a healthy lifestyle.

Another part of the research project was to find answers to specified questions. To answer these questions was used an analysis of the relative frequency and the graphic presentation of the data obtained.

According to partial results can be summarized that the respondents believe population has different attitudes to the individual components of a healthy lifestyle, most people adhere to them joining the activities with friends, family and in nature. Roughly half of respondents believe that others make attempt to a balanced diet including fruits and vegetables into their diet.

According to respondents, the majority of the population does not adhere to the proper drinking regime, does not have adequate and sufficient exercise, smoke and drink alcohol in higher extent.

Respondents themselves stated they have a positive attitude towards a healthy way of life, 51% of them believe they comply with a healthy style (compared to others).

There is a contradiction among the self-assessment and evaluation of the others so respondents have better opinion of themselves than of others. Only half of those who said they adhere to the principles of a healthy lifestyle believe the others adhere to these principles too.

5 DISCUSSION

The data obtained confirmed to some extent the results of other investigations, in particular the results pointing out the "problematic" areas of a healthy lifestyle, which are in our survey: drinking sweetened beverages, smoking and alcohol consumption. The inappropriate consumption of sweetened beverages is pointed out in the team research of the Institute of Endocrinology⁴, also

⁴Authors team. Kolektiv autorů: *ŽIVOTNÍ STYL A OBEZITA – longitudinální epidemiologická studie prevalence obezity v ČR* http://www.khsova.cz/03_plneni/files/obezita_dospeli.pdf.

healthy lifestyle is affected by growing inactivity of population⁵, increased smoking and alcohol abuse among teens⁶.

Results of the evaluation of sleeping time are alarming, nearly half of respondents believe that people do not sleep eight hours, which corresponds to the other findings of an increased difficulty in sleeping regime and the importance of circadian rhythmicity especially for children, adolescents and productive adults - in connection with increased stress and pressure on the performance is growing number of the diagnoses in the field of psychosomatic problems.⁷

From a methodological perspective it can be noted that questioning was possible to extent further in the question no. 17 with the self-assessment in the individual healthy lifestyle components, not only to monitor the overall evaluation of their own behaviour. The team felt however that questioning would be already escalated into a no tolerable level for respondents

(especially elementary school pupils and seniors over 70 years).

The obtained data was possible to evaluate in many other aspects, for the term project, however, were chosen partial assessment data, with a view that the data might be used in the next stage.

It would be also useful to compare the data with other results obtained in the new investigation - appropriately to find respondents according to another predetermined criteria

6 CONCLUSION

The carried out investigation was focused on the evaluation of the attitudes of respondents of various age to the principles of a healthy lifestyle in the population. To obtain the data, a Likerts scale was used. The obtained result brought interesting information from the point of view of general evaluation (overall summary of obtained data) of individual categories of observing a healthy lifestyle as well as from the point of view of a complex evaluation. In conclusion, for a clear presentation of the findings it is possible to show a summary of responses of agreement and disagreement (in cumulative frequency) which is presented in the graph No. 12 and 13 (appendix No. 1, 2). As it is clearly shown in the graph, the most problematic part of observing a healthy lifestyle is, according to all respondents, consumption of sweetened beverages and coffee, smoking and consumption of alcohol (in both adults and in teenagers). Drawbacks in observing the basic principles are obvious in the area of physical activities (people dedicate time to physical exercise less than three times per

⁵ Stackeová, D. Zdravotní benefity pohybové aktivity. In: Harada, T., Krejčí, M., Řepko, M., Švejda, G. (eds.) *Health Education and Quality of Life II.* (sborník z mezinárodní konference konané v Hluboké nad Vltavou ve dnech 8. – 10. 10. 2009. Str. 288 – 292. ISBN 978-80-7394-180-2.

Hošek, V. The Role of Experience in the Activation of Senior's Lifestyle. In: ADÁMKOVÁ SÉGARD, M., Hátlová, B., Louková, T. (Eds.) *Psychomotor Therapy.* Ústí nad Labem: University of J.E. Purkyně, 2013.

Hošek V. Wellness, well-being a pohybová aktivita. In: Hošek, V., Tilinger, P. (Eds.) *Wellness jako odbornost.* Sborník sdělení z mezinárodní konference „Východiska pro odborné vzdělávání wellness specialistů“ konané 10. 12. 2009. VŠTVS Palestra. Spol s.r.o., Praha, 2010. S. 6-13.

⁶ Nešpor, K. Návykové chování a závislost: současné poznatky a perspektivy léčby. Praha: Portál, 2011. ISBN 978-80-7367-9028.

⁷ Krejčí, M., Takeuchi, H. (2011). Effect of birth season on circadian typology appearing in Japanese young children aged 2 to 12 years disappears in older students aged 18 to 25 years. *Chronobiology International.* Vol. 28, No. 7, 638-642. 2011. ISSN 0742-0528.

week) and, of course, observing the sleep regime.

It is necessary to consider these data when creating educational programmes, aiming activities in terms of social demand and react suitably to them offering new educational activities connected with appropriate way of motivation.

In general, the respondents think that people do not observe the principles of a healthy lifestyle, they evaluate themselves in better way, i. e. up to 30% better than the other, which is also necessary to take in consideration for further education of wellness specialists as well as in nationwide governmental programmes focused on healthcare and health support.

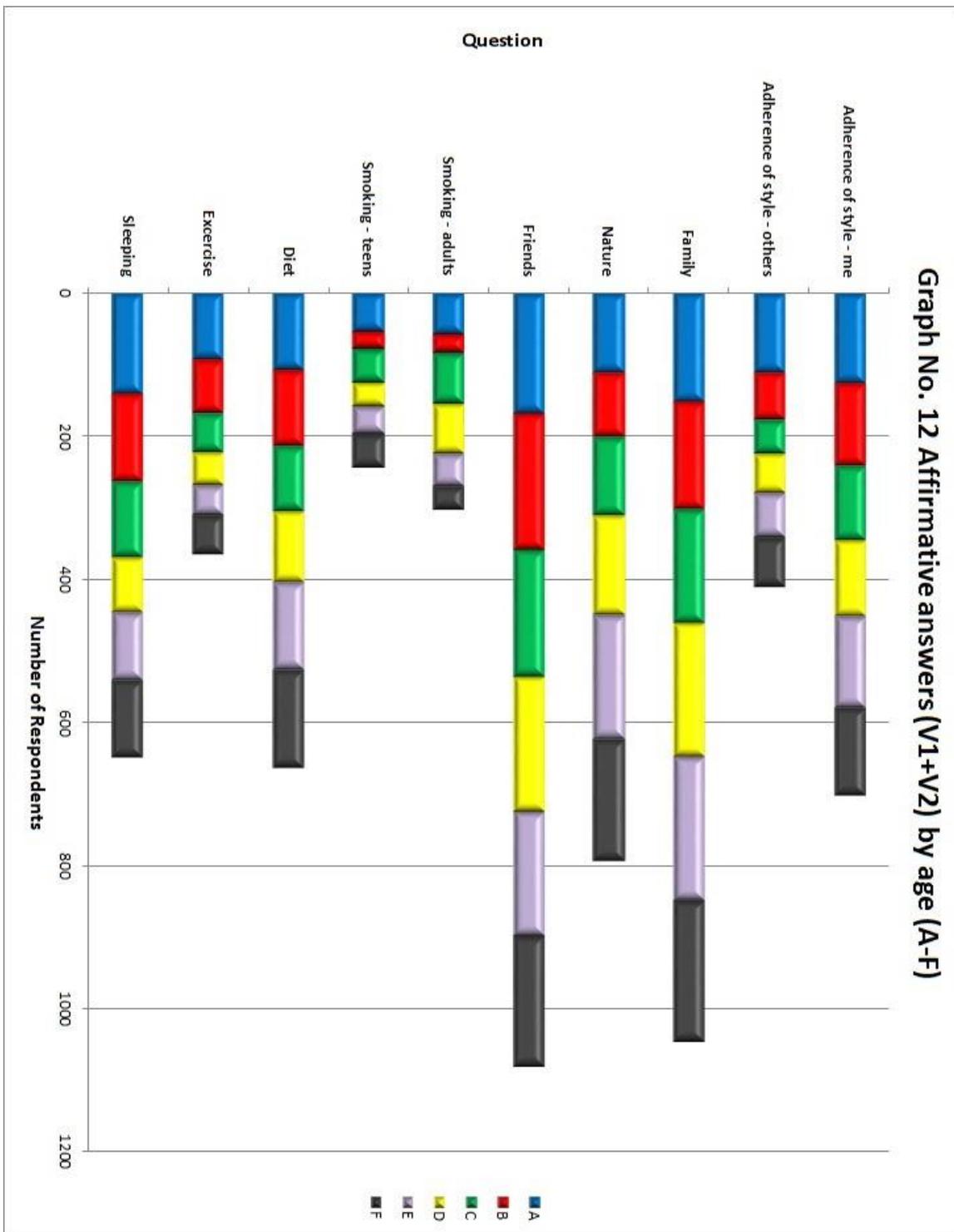
7 LITERATURE

- Ajzen, I., Fishbein, M. (1980) *Understanding attitudes and predicting social behavior*, Englewood Cliffs/N. J.
- Allport, G., W. (1935) Attitudes. In: *Handbook of social psychology*. Edited by C. Murchison, 798–844. Worcester, MA: Clark Univ. Press.1.
- Arens, U. (1998) *Jídlo jako jed, jídlo jako lék: [abecední průvodce bezpečnou a zdravou výživou]*. Praha: Reader's Digest Výběr, 400 s.
- Blahušová, E. (2009) *Wellness: jak si udržet zdraví a pohodu*. Velké Bílovice: TeMi. 149 s.
- Čeledová, L a Čevela, R. (2010). *Výchova ke zdraví: vybrané kapitoly*. Praha: Grada, 126 s.
- Faber, T., A., Kuo, F., E. (2009) Children with attention deficits concentrate better after walk in the park. *Journal of Attention Disorders*, 12,402 – 409.
- Hošek, V. (2003). *Psychologie odolnosti*. Praha: Karolinum, 2003. 69 s. ISBN 80-718-488-91.
- Hošek, V. (2013) The Role of Experience in the Activation of Senior's Lifestyle. In: Adámková Ségard, M., Hátlová, B., Louková, T. (Eds.) *Psychomotor Therapy*. Ústí nad Labem: University of J. E. Purkyně.
- Hošek, V. (2010) Wellness, well-being a pohybová aktivita. In: Hošek, V., Tilinger, P. (Eds.) *Wellness jako odbornost. Sborník sdělení z mezinárodní konference „Východiska pro odborné vzdělávání wellness specialistů“ konané 10. 12. 2009*. VŠTVS PALESTRA: Praha, 6-13.
- Kolektiv autorů: *Životní styl a obezita – longitudinální epidemiologická studie prevalence obezity v ČR* http://www.khsova.cz/03_plneni/files/obezita_dospeli.pdf
- Kotulán, J. a kol. (2002) *Zdravotní nauky pro pedagogy*. Brno: Masarykova univerzita.
- Krejčí, M., Takeuchi, H. (2011) Effect of birth season on circadian typology appearing in Japanese young children aged 2 to 12 years disappears in older students aged 18 to 25 years. *Chronobiology International*. Vol. 28, No. 7, 638-642. WoS, Imp Factor 4,35.
- Kubátová, H. (2010) *Sociologie životního způsobu*. Praha: Grada Publishing a.s. 272 s.
- Lapierre, R. T. (1934) Attitudes Versus Actions. In: *Social Forces*.
- Lojtková, D. (2012) *Získejte rovnováhu těla, mysli, duše a ducha*. Praha: Grada, 152 s.

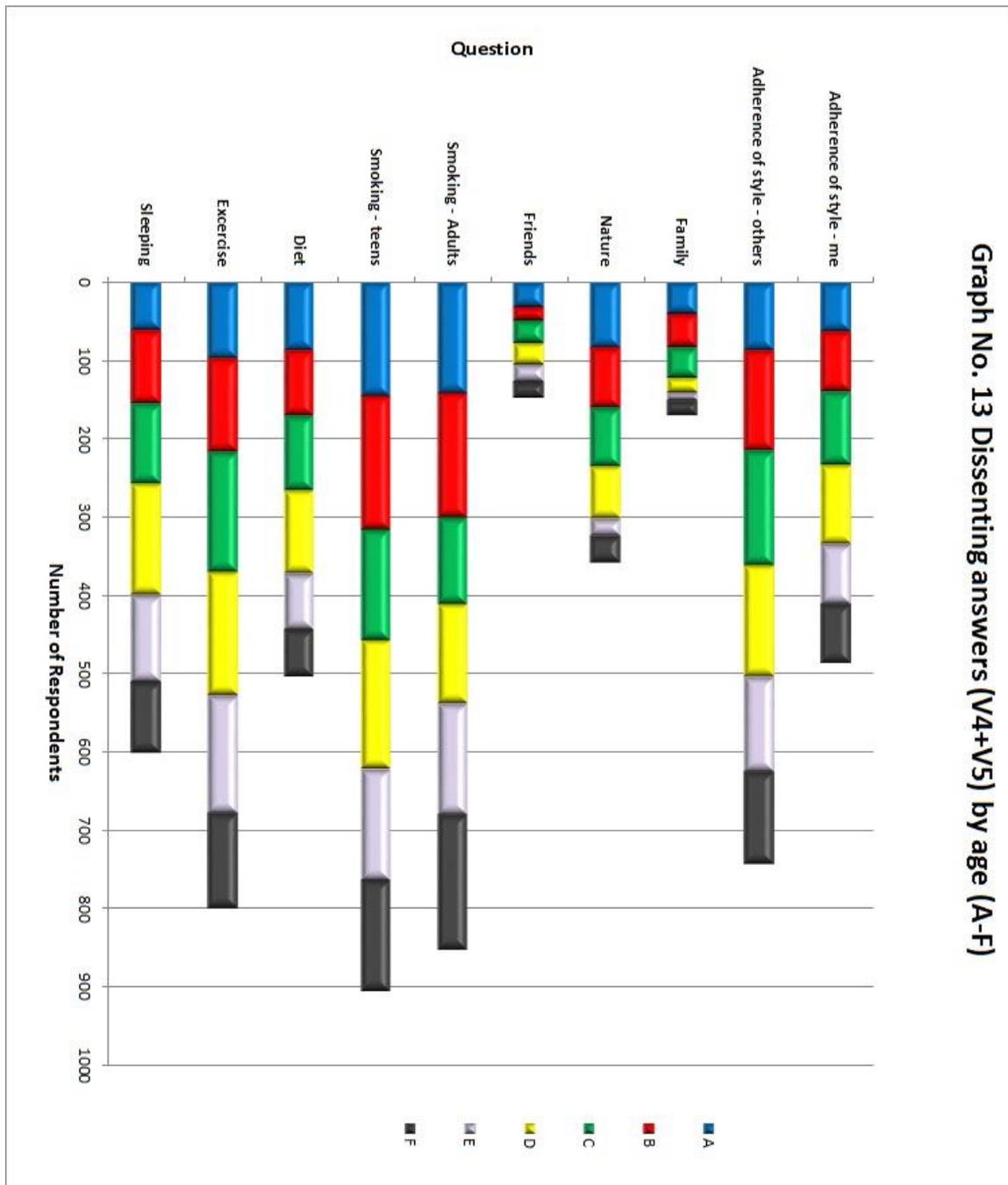
- MZ ČR. (2004) *Health 21. Zdraví 21 – Výklad základních pojmů. Úvod do evropské zdravotní strategie* Praha.
- Nakonečný, M. (2009) *Sociální psychologie*. Praha: Nakladatelství Academia.
- Nešpor, K. (2011) *Návykové chování a závislost: současné poznatky a perspektivy léčby*. Praha: Portál.
- Neuman, J., Turčová, I, Martin, A. Green Exercise for health and well-being. *Acta Salus Vitae*. Vol 3, No, 1, 2015
- Newcomb, Th. M. (1950) *Social psychology*, New York.
- Rosenberg, M. J., Howland, C. L., McGuire, W., Albeson, R. P., Brehm, J., W. (1960) *Attitude organization and change*, New Haven.
- Stackeová, D. (2009) Zdravotní benefity pohybové aktivity. In: Harada, T., Krejčí, M., Repko, M., Švejda, G. (recs.) *Health Education and Quality of Life II. (sborník z mezinárodní konference konané v Hluboké nad Vltavou ve dnech 8. – 10. 10.* Str. 288 – 292.
- Starý, K. (2008) *Pedagogika ve škole*. Praha: Portál. 151 s.
- Stahlberg, D., Frey, D., (1990). Einstellungen I: Struktur, Messung und Funktion. In Stroebe, W., Hewstone, M., Codol, J. P., Stephenson, G. S. *Sozialpsychologie: Eine Einführung*. Berlin.
- Šauerová, M. (2012) Edukace klientů ve wellness. In: Hošek, V., Tilinger, P. (Eds.). *Wellness a bio-psycho-sociální kontext. Recenzovaný sborník příspěvků z mezinárodní vědecké konference. VŠTVS PALESTRA*. Praha: VŠTVS PALESTRA.
- Škobrtal, P. (2012). *Vybrané kapitoly ze sociální psychologie*. Ostrava: Ostravská univerzita.
- Štörch, E. (1929). *Dětská farma: eubiotická reforma školy*. V Praze: Dědictví Komenského, 177 - [iv] s. Pedagogická práce; sv. III.
- Švamberk Šauerová, M. (2016) *Hyperaktivita nebo hypoaktivita – výchovný problém?* Bratislava: Wolters Kluwer.
- Žaloudíková, I. (2009) *Podpora zdraví a zdravého životního stylu s důrazem na onkologickou prevenci ve škole*. Disertační práce, Brno: Pedagogická fakulta Masarykovy univerzity.

APPENDIXS

Appendix No 1 Affirmative answers



Appendix No 2 Dissenting answers



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