DIFFERENTIATION IN THE ATTITUDES OF SECONDARY SCHOOL FEMALE STUDENTS TOWARDS A HEALTHY LIFESTYLE

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Abstract

A healthy lifestyle is important not only for the individual but also for society as a whole. A healthy person can actively and efficiently perform various tasks and thus become a useful member of society. This research aimed to determine the differences in attitudes towards a healthy lifestyle between students in different grades of high school. The population from which the sample of 256 respondents was taken was defined as the population of students of I, II, III, and IV grade of high schools from Tuzla, aged 15-18 years ± 6 months. A survey questionnaire was used to assess attitudes about a healthy lifestyle, which consisted of 25 items especially evaluated on a 5-point scale. To determine the differences in attitudes towards a healthy lifestyle between students of different grades, the Kruskal Wallis test was applied. The obtained results showed that there are statistically significant differences between the treated groups in 11 particles (6 particles that determine the cognitive component of attitude, ie in 3 particles that determine the affective and 2 particles that determine the behavioral component of attitude. first and fourth grade. A healthy lifestyle is not something we are given at birth but must be learned and patiently developed throughout life. Therefore, the role of kinesiologists in high schools is multiple and aims to prepare students for active use of free time by promoting regular physical exercise and a healthy lifestyle.

INTRODUCTION

The high school period is accompanied by intensive development and maturation from which young people adopt different habits and attitudes. In this way, they determine their lifestyle, which affects their current and future health. This period is crucial for the adoption of a healthy lifestyle because habits are still variable and there is a high probability of their retention in a later period.

The accelerated growth of technology and the ways of life that the modern individual is very much witnessing, which presents new risks and challenges, are becoming possible impacts on the body and health of society. At the same time, such a world offers numerous possibilities, and thus choices, with which one can decide on how to live and take care of one's health (Jordanić, 2017).

The problem with a healthy lifestyle is that interest is weakened from generation to generation. Young people see challenges and attraction in many other things. Smoking and alcohol are becoming increasingly popular among young people. Most young people are starting to use tobacco products to be accepted in their society. Poor diet, little sleep, a lot of stress, all these are factors that, along with physical inactivity, leave a mark on an individual's health. (Gloc, 2017).

A significant number of chronic non-communicable diseases could be prevented by a healthier lifestyle, ie. eliminating risk factors such as unhealthy diet, smoking, alcohol, excessive drinking of black coffee, drug use, insufficient physical activity, stress, environmentally unfavorable factors. Modern sedentary lifestyle, bad habits, and life in the advanced technical age lead to neglect of physical activities, which is unfavorable for health. It is important to point this out and encourage awareness of a healthy lifestyle (Kraml, Rendulić Slivar, Vidović, Rendulić, 2017).

Positive experiences from the past have proven to be the best hint of success in adopting healthy habits, which is a significant continuity in maintaining already adopted and adopting new healthy habits (Rakowski & Welles, 1991; Manfredo-Lazar, 1996).

The main goal of this research is to determine the differences in attitudes towards a healthy lifestyle between students of I, II, III, and IV grade of high school.

RESEARCH METHODOLOGY

Sample of respondents

The research was conducted in 3 high schools in Tuzla (High School of Medicine, High School "Meša Selimović" and High School "Ismet Mujezinović"). The population from which the sample of 256 respondents was taken was defined as the population of students of I, II, III, and IV grades of secondary schools, aged 15-18 years ± 6 months.

Sample variables

To measure attitudes towards a healthy lifestyle, the scale used in the research "Everyone dies, so you might as well have fun" Attitudes of Dutch youths about their health lifestyle was consulted (van Exel, de Graf & Brouwer, 2006, according to Markuš, 2011). Questions for the questionnaire,

ie. manifestations of attitudes are defined as parts of a three-component model of attitudes: cognitive, affective, and behavioral components (Hewstone and Stroebe, 2003). The scale consists of 25 particles. The questions that determine the cognitive component of attitude are SZDRO3 - I cannot understand those who find something useful in physical exercise; SZDRO4 - I don't think much about my health in the future; SZDRO7 - movement and physical activity in my life are irrelevant; SZDRO8 - anyone who smokes for me is reckless; SZDR10 - it is important to take care of your health; SZDR13 - what is healthy and what is unhealthy, I am not too interested; SZDR14 - I think that a doctor should always go on time; SZDR15 - daily physical activity is the basis of good health; SZDR16 - I think regular sleep is good for my health; SZDR17 - smoking makes a person less healthy; SZDR20 - drinking alcohol is risky; SZDR21 - exercise serves to relax and recover from daily worries, it is not something that should be easily discarded; SZDR22 - I am personally most responsible for my health; SZDR23 - smoking should be banned in all public places; SZDR25 - who lives unhealthily, will not look nice.

The questions that determine the affective component of the attitude are SZDRO1 - I hate any physical exercise; SZDR12 - I get angry at myself if I don't exercise; SZDR19 - I worry that not moving will harm my health; SZDR24 - I think regular exercise would make me healthier and happier.

The questions that determine the behavioral component of the attitude are SZDRO2 - if someone paid me, I would not engage in physical exercise; SZDRO5 - I exercise when I don't have a smarter job; SZDRO6 - I don't care at all when I go to bed and how much I exercise; SZDRO9 - sleepless night is not a problem for me; SZDR11 - when I'm tense, physical exercise alleviates my worries; SZDR18 - I live healthy because health is the most important thing in life.

On the Likert scale of 5 degrees, the respondents have the task to determine their degree of agreement with each statement from the questionnaire. The rating scale of 5 degrees is defined as follows: 1 - completely incorrect, 2 - mostly incorrect, 3 - not sure, 4 - mostly true, and 5 - completely true.

Data processing methods

To determine the differences in the particles for the assessment of attitudes towards a healthy lifestyle between students of different grades of high school, the Kruskal Wallis test was applied. To determine which of the treated groups differ statistically from each other, Bonferroni's alpha value correction was subsequently performed, to avoid errors of the first kind.

RESULTS AND DISCUSSION

To determine the differences in the treated variables of attitudes towards a healthy lifestyle between the examined students of different grades, the Kruskal Wallis test was applied. The students are divided into 4 groups according to the class they attend (first, second, third, and fourth).

Based on the obtained results of this test (Table 1a, b, c), a statistically significant ($p \leq .05$) difference was found between the treated groups in the following particles: SZDRO1 (.04), SZDRO2 (.05), SZDRO3 (.00), SZDRO8 (.00), SZDR11 (.00), SZDR12 (.00), SZDR16 (.00), SZDR19 (.02), SZDR20 (.00), SZDR21 (.00) and SZDR25 (.00).

To determine which of the treated groups are statistically different from each other, Bonferroni's alpha value correction was subsequently performed, to avoid errors of the first kind. This would mean dividing the alpha value by .05 by the number of tests we intend to perform and then using such a revised alpha level as a criterion for determining significance. This would mean a stricter alpha level of .01.

The obtained results of multiple comparisons of the examined groups of students (Differences between groups) tell us that there are statistically significant differences:
SZDRO1 - between the first (Mean Rank = 146.67; Med. = 2) and the second grade (Mean Rank = 114.96; Med. = 1); between first (Mean Rank = 146.67; Med. = 2) and fourth grade (Mean Rank = 120.44; Med. = 1).
SZDRO2 - between the first (Mean Rank = 143.46; Med. = 1) and the second grade (Mean Rank = 115.54; Med. = 1).
SZDRO3 - between the first (Mean Rank = 166.51; Med. = 2) and the second grade (Mean Rank = 99.11; Med. = 1); between first (Mean Rank = 166.51; Med. = 2) and third grade (Mean Rank = 117.72; Med. = 1); between first (Mean Rank = 166.51; Med. = 2) and fourth grade (Mean Rank = 128.40; Med. = 1).
SZDRO8 - between the first (Mean Rank = 154.46; Med. = 5) and the second grade (Mean Rank = 114.92; Med. = 3); between first (Mean Rank = 154.46; Med. = 5) and fourth grade (Mean Rank = 112.43; Med. = 3).
SZDR11 - between first (Mean Rank = 146.35; Med. = 5) and fourth grade (Mean Rank = 105.55; Med. = 3); between second (Mean Rank = 143.74; Med. = 4) and fourth grade (Mean Rank = 105.55; Med. = 3).

SZDR12 - between first (Mean Rank = 126.05; Med. = 3) and second grade (Mean Rank = 169.21; Med. = 4); between first (Mean Rank = 126.05; Med. = 3) and third grade (Mean Rank = 91.71; Med. = 2); between second (Mean Rank = 169.21; Med. = 4) and third grade (Mean Rank = 91.71; Med. = 2); between second (Mean Rank = 169.21; Med. = 4) and fourth grade (Mean Rank = 130.14; Med. = 3); between third (Mean Rank = 91.71; Med. = 2) and fourth grade (Mean Rank = 130.14; Med. = 3).
SZDR16 - between first (Mean Rank = 129.12; Med. = 5) and second grade (Mean Rank = 88.94; Med. = 3); between second (Mean Rank = 88.94; Med. = 3) and third grade (Mean Rank = 138.32; Med. = 5); between second (Mean Rank = 88.94; Med. = 3) and fourth grade (Mean Rank = 154.19; Med. = 5).
SZDR19 - between first (Mean Rank = 147.41; Med. = 5) and third grade (Mean Rank = 111.62; Med. = 4).
SZDR20 - between first (Mean Rank = 143.51; Med. = 5) and second grade (Mean Rank = 73.50; Med. = 3); between second (Mean Rank = 73.50; Med. = 3) and third grade (Mean Rank = 127.54; Med. = 5); between second (Mean Rank = 73.50; Med. = 3) and fourth grade (Mean Rank = 164.67; Med. = 5); between third (Mean Rank = 127.54; Med. = 5) and fourth grade (Mean Rank = 164.67; Med. = 5).
SZDR21 - between first (Mean Rank = 138.02; Med. = 5) and third grade (Mean Rank = 87.31; Med. = 4); between second (Mean Rank = 132.15; Med. = 4) and third grade (Mean Rank = 87.31; Med. = 4); between third (Mean Rank = 87.31; Med. = 4) and fourth grade (Mean Rank = 156.38; Med. = 5).
SZDR25 - between first (Mean Rank = 142.93; Med. = 5) and fourth grade (Mean Rank = 98.43; Med. = 3); between second (Mean Rank = 141.78; Med. = 4) and fourth grade (Mean Rank = 98.43; Med. = 3); between third (Mean Rank = 132.35; Med. = 4) and fourth grade (Mean Rank = 98.43; Med. = 3).

The results obtained in this study show that the biggest differences between the treated groups are present in the particles that determine the cognitive component of attitude, and it concerns the subject's opinion about something (eg usefulness) and refers to physical activity and exercise, rest and sleep, smoking and alcohol consumption and tension and stress. To a somewhat lesser extent, differences between the treated groups exist in the particles that determine the affective and behavioral components of attitude.

The most important behaviors related to high school girls 'health are physical activity, sedentary behavior, healthy eating, and absence of alcohol and tobacco consumption (Brownson, Remington & Wegner, 2010; Liu, Wu & Yao, 2016; Rayner, Wickramasinghe, Williams, McColl & Mendis, 2017). Previous research has shown that a healthy lifestyle is associated with a health perception and quality of life (Marques, Peralta, Santos, Martins & Gaspar de Matos, 2019; Marques, Bordao, Tesler, Demetriou, Sturm & Gaspar de Matos, 2020).

The importance and duration of sleep, especially for young people, is an important health habit (WHO, 2004). Physical activity is important for health because it improves the cardiorespiratory condition, bone mineral density, blood pressure, and lipids in cholesterol. It also prevents depression, metabolic syndrome, and obesity, while being associated with improved immune responses and a lower rate of immune system aging (Janssen & Leblanc, 2010; Marques, Minderico, Martins, Palmeira, Ekelund & Sardinha, 2016; Sardinha, Marques, Minderico & Ekelund, 2016). Therefore, high school students must engage in regular physical activity, to improve their health and to use their free time comfortably and actively (WHO, 2010). Research has shown that time spent in real estate has a detrimental effect on health (Chinapaw, Proper, Brug, van Mechelen & Singh, 2011). Few studies try to combine several health habits and create a measure that expresses a healthy lifestyle (Kelly, Melnyk, Jacobson & O'Haver, 2011). Therefore, young people should be constantly encouraged to avoid unhealthy behaviors and adopt healthy ones, because interventions in this age group can affect healthy behavior in later stages of life (Landsberg, Plachta-Danielzik, Lange, Johannsen, Seiberl & Muller, 2010; Rendo - Urteaga, de Moraes, College, Manios, Hagstromer, Sjostrom, 2015). The cumulative result of a healthy lifestyle was achieved through certain forms of youth behavior, as used in previous research (Marques, Loureiro, Avelar - Rosa, Naia & Matos, 2018; Marques, Loureiro, Avelar - Rosa, Naia & Matos, 2019). The results of this research highlight the need to promote a healthy lifestyle and raise awareness among the key stages of the potential risk of unhealthy behavior to youth health. Given that health behavior sets in during this developmental period and tends to decrease with increasing age (Marques et al., 2018), knowing the mechanisms of behavioral change toward a healthy lifestyle during this age period is crucial.
High school students 'perceptions of health and health-related quality of life itself are closely correlated with a comprehensive spectrum of variables that reflect personal, social, psychological, behavioral, and medical factors (Breidablik, Meland & Lydersen, 2008; Vingilis, Wade & Seeley, 2002; Warnoff, Lekander,

Hemmingsson, Sorjonen, Melin & Andreasson, 2016).

Therefore, the promotion of a healthy lifestyle is a public health strategy that should be considered when the goal is to improve the health of young people.

This study shows similarities with previous research (Aquatias, 2000; Dawson, Grant, Stinson & Chou 2004; Orford, Krishna, Balaam, & Van Der Graf, 2004) indicate a poor positioning of healthy living habits in young people, ie their propensity for risky behaviors. which harms health.

Table 1a. Differences in attitudes towards a healthy lifestyle between the surveyed students of different grades

Test Statistics - Kruskal Wallis Test									Bonferroni
Grouping Variable	Chi-Square	df	Asymp. Sig.	Mean Rank	Med.	Min.	Max.	Group N	Differences between groups
SZDRO1	8.19	3	.04*	146.67	2	1	5	1 (65)	1
				114.96	1	1	5	2 (60)	2♦
				131.02	1	1	5	3 (65)	3
				120.44	1	1	5	4 (66)	4♦
SZDRO2	6.97	3	.05*	143.46	1	1	5	1 (65)	1
				115.54	1	1	5	2 (60)	2♦
				130.92	1	1	5	3 (65)	3
				123.16	1	1	5	4 (66)	4
SZDRO3	35.96	3	.00*	166.51	2	1	5	1 (65)	1
				99.11	1	1	5	2 (60)	2♦
				117.72	1	1	5	3 (65)	3♦
				128.4	1	1	5	4 (66)	4♦
SZDRO4	2.53	3	.47	133.68	1	1	5	1 (65)	
				119.42	1	1	5	2 (60)	
				125.27	1	1	5	3 (65)	
				134.84	1	1	5	4 (66)	
SZDRO5	0.29	3	.96	131.45	2	1	5	1 (65)	
				130.26	2	1	5	2 (60)	
				126.83	2	1	5	3 (65)	
				125.64	2	1	5	4 (66)	
SZDRO6	1.82	3	.61	122.79	1	1	5	1 (65)	
				122.28	2	1	5	2 (60)	
				135.61	2	1	5	3 (65)	
				132.77	2	1	5	4 (66)	
SZDRO7	1.53	3	.68	132.39	1	1	5	1 (65)	
				121.24	1	1	5	2 (60)	
				125.65	1	1	5	3 (65)	
				134.07	1	1	5	4 (66)	
SZDRO8	14.02	3	.00*	154.46	5	1	5	1 (65)	1
				114.92	3	1	5	2 (60)	2♦
				131.39	3	1	5	3 (65)	3
				112.43	3	1	5	4 (66)	4♦
SZDRO9	1.68	3	.64	132.19	2	1	5	1 (65)	
				123.34	2	1	5	2 (60)	
				122.2	2	1	5	3 (65)	
				135.76	2	1	5	4 (66)	

♦ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 1ST CLASS VALUES; P ≤ .05.
† STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO CLASS 2 VALUES; P ≤ .05.
‡ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 3RD CLASS VALUES; P ≤ .05.

Table 1b. Differences in attitudes towards a healthy lifestyle between the surveyed students of different grades

Test Statistics - Kruskal Wallis Test									Bonferroni
Grouping Variable	Chi-Square	df	Asymp. Sig.	Mean Rank	Med.	Min.	Max.	Group N	Differences between groups
SZDR10	2.18	3	.54	119.85	5	1	5	1 (65)	
				131.92	5	1	5	2 (60)	
				130.69	5	1	5	3 (65)	
				131.76	5	1	5	4 (66)	
SZDR11	14.42	3	.00*	146.35	5	1	5	1 (65)	1
				143.74	4	1	5	2 (60)	2
				119.89	4	1	5	3 (65)	3
				105.55	3	1	5	4 (66)	4♦†
SZDR12	35.75	3	.00*	126.05	3	1	5	1 (65)	1
				169.21	4	1	5	2 (60)	2♦
				91.71	2	1	5	3 (65)	3♦†
				130.14	3	1	5	4 (66)	4†‡
SZDR13	2.66	3	.45	137.83	2	1	5	1 (65)	
				120.17	2	1	5	2 (60)	
				122.48	2	1	5	3 (65)	
				132.82	2	1	5	4 (66)	
SZDR14	1.41	3	.70	135.72	5	1	5	1 (65)	
				123.98	4	1	5	2 (60)	
				130.36	5	1	5	3 (65)	
				123.67	4	1	5	4 (66)	
SZDR15	1.17	3	.76	128.93	5	1	5	1 (65)	
				133.06	5	1	5	2 (60)	
				121.26	5	1	5	3 (65)	
				131.06	5	1	5	4 (66)	
SZDR16	30.53	3	.00*	129.12	5	1	5	1 (65)	1
				88.94	3	1	5	2 (60)	2♦
				138.32	5	1	5	3 (65)	3†
				154.19	5	1	5	4 (66)	4†
SZDR17	2.2	3	.53	131.97	5	1	5	1 (65)	
				118.92	5	1	5	2 (60)	
				127.52	5	1	5	3 (65)	
				134.76	5	1	5	4 (66)	
SZDR18	3.54	3	.32	142.03	5	1	5	1 (65)	
				122.83	4	1	5	2 (60)	
				126.51	4	1	5	3 (65)	
				122.3	4	1	5	4 (66)	

♦ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 1ST CLASS VALUES; P ≤ .05.
† STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO CLASS 2 VALUES; P ≤ .05.
‡ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 3RD CLASS VALUES; P ≤ .05.

Table 1c. Differences in attitudes towards a healthy lifestyle between the surveyed students of different grades

Test Statistics - Kruskal Wallis Test									Bonferroni
Grouping Variable	Chi-Square	df	Asymp. Sig.	Mean Rank	Med.	Min.	Max.	Group N	Differences between groups
SZDR19	10.39	3	.02*	147.41	5	1	5	1 (65)	1
				133.64	5	1	5	2 (60)	2
				111.62	4	1	5	3 (65)	3♦
				121.83	4	1	5	4 (66)	4
SZDR20	63.34	3	.00*	143.51	5	1	5	1 (65)	1
				73.5	3	1	5	2 (60)	2♦
				127.54	5	1	5	3 (65)	3†
				164.67	5	1	5	4 (66)	4†‡
SZDR21	35.2	3	.00*	138.02	5	1	5	1 (65)	1
				132.15	4	1	5	2 (60)	2
				87.31	4	1	5	3 (65)	3♦†
				156.38	5	1	5	4 (66)	4‡
SZDR22	0.61	3	0.89	132.59	5	1	5	1 (65)	
				127.9	5	1	5	2 (60)	
				123.99	5	1	5	3 (65)	
				129.45	5	1	5	4 (66)	
SZDR23	1.38	3	0.71	132.97	5	1	5	1 (65)	
				122.23	5	1	5	2 (60)	
				125.05	5	1	5	3 (65)	
				133.2	5	1	5	4 (66)	
SZDR24	5.64	3	0.13	138.56	5	1	5	1 (65)	
				133.78	5	1	5	2 (60)	
				112.99	4	1	5	3 (65)	
				129.07	5	1	5	4 (66)	
SZDR25	16.72	3	.00*	142.93	5	1	5	1 (65)	1
				141.78	4	1	5	2 (60)	2
				132.35	4	1	5	3 (65)	3
				98.43	3	1	5	4 (66)	4♦†‡

♦ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 1ST CLASS VALUES; P ≤ .05.
† STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO CLASS 2 VALUES; P ≤ .05.
‡ STATISTICALLY SIGNIFICANT DIFFERENCES IN RELATION TO 3RD CLASS VALUES; P ≤ .05.

CONCLUSION

The results obtained show that statistically significant differences were found between the treated groups of subjects in 6 particles that determine the cognitive component of attitude, ie in 3 particles that determine the affective and 2 particles that determine the behavioral component of attitude. We know that health is the greatest value of every individual and the most important resource in every social community. We cannot choose health, but we can choose a healthy lifestyle. Health and a healthy lifestyle are becoming one of the priorities when it comes to human life goals, and to achieve them it is of great importance to developing an understanding of habits about maintaining and

developing health. This implies the active role of each individual in maintaining their health, their responsible behavior, first towards themselves and then towards others, and the environment in general. A healthy lifestyle is not something that was given to us at birth but must be learned and patiently developed throughout life. The role of kinesiologists in high schools is multiple, and it aims to prepare students for the active use of free time by promoting regular physical exercise and a healthy lifestyle. To succeed in their calling, kinesiologists need to possess a wide range of competent motor skills, psycho-sociological skills and use modern teaching methods to meet today's student needs. Physical exercise and a healthy lifestyle have shown positive effects on the function of most organ systems, on psychological stability, more comfortable aging, and the prevention of several non-communicable chronic diseases.

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