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THE INFLUENCE OF BODY INDEX MASS ON THE LEISURE TYPES FOR THE STUDENTS OF THE FACULTY OF PHYSICAL EDUCATION AND SPORTS

George-Dănuț Mocanu [1], Daniel-Andrei Iordan[1*],

Editor: Mihail HOTETEU, Romanian Association of Balneology, hoteteu@yahoo.com

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*Corresponding author: **Daniel-Andrei Iordan**, „Dunărea de Jos" University, Faculty of Physical Education and Sports, Galați, România, e-mail: **daniel.iordan@ugal.ro;**

[1] "Dunărea de Jos" University, Faculty of Physical Education and Sports, 63-65 Gării Street, Galați, Romania

Abstract

The study aims to investigate the ways of spending free time for a group of 180 students of the Faculty of Physical Education and Sports in Galati (years 1, 2 and 3 of cycle 1 / bachelor's degree studies, with an average age of 22.34 ± 5.79 years.), by using a questionnaire-based survey, structured on 4 distinct factors: leisure time budget, causes limiting leisure time, favorite leisure activities and leisure sports activities. *The purpose of the research* is to determine the perception of students of the Faculty of Physical Education and Sports on how to spend free time and determine differences of opinion, depending on BMI / body mass index, by dividing them into 3 groups (underweight, normal weight or overweight). *Results:* The analysis of variance (ANOVA) indicates significant influences of the independent variable on the response values for the following items (F <.05): inaccessibility of going out with friends, stress generated by shopping, limiting free time to help others, spending free time with entourage and life partner, spending holidays in the country, etc. Socializing on the internet, physical sports activities, TV, internet and computer games, going out with friends are the preferred options for students, and reading gets low scores. The differences between groups (in most cases insignificant) however, signal that normal weight students watch TV and the Internet the least, but waste more time with commuting and household activities and have high scores when involved in most sports. Overweight people have low scores for time spent on favorite activities, are most dissatisfied with time management, work more overtime, spend less time with those around them, but prefer to spend time with their life partner or alone, have slightly better scores for reading and music auditions, get the lowest scores for involvement in most sports activities, but have high satisfaction generated by physical effort. Underweight students perceive the inaccessibility of going out with friends more strongly, are more affected by difficult homework, have a higher level of stress for reading, but perceive most other activities as less stressful, socialize more on the internet, prefer jogging and cycling / rollerblading as sports activities. Swimming is selected by all groups as indicated for optimizing health and ensuring body harmony, even if its practice is deficient, and contact / combat sports are indicated as the most risky for physical integrity.

Keywords: *active and passive leisure, lifestyle, physical and mental health, opinions, accessibility*

1. INTRODUCTION

The way of spending leisure time influences the lifestyle and the health of young people, but can generate unfavorable contexts, which induce risky behavioral manifestations. Decreased parental control or lack of it can trigger unwanted behaviors, associated with sexual risks, vandalism, and consumption of prohibited substances. However, leisure activities also have a number of undeniable advantages: they facilitate the manifestation of autonomous behavior, allow the assertion of one's identity, experimentation and understanding of new situations, with positive effects on physical, emotional, cognitive, spiritual and social levels (1).

Young girls' perception of health in the context of leisure activities is identified by (2). Healthy diets and involvement in physical activities are associated with the promotion of enjoyable leisure activities (enjoyable leisure), as a premise for the manifestation of healthy behaviors.

Leisure physical activity (for adolescents in the UK) will lead to an improvement in the physical and mental health of the adult population over 15 years later, but cannot sufficiently compensate for the social health inequalities caused by material deprivation during childhood (3,4).

Aggressive manifestations of young people, influenced by the type of leisure activities they adhere to are studied by (5). Those who are involved in structured leisure activities have low levels of antisocial behavior, in contrast to those involved in unstructured or low-structured leisure activities in recreation centers, where high levels of antisocial behavior are reported

(conflicting relationships, problems with parents, limited support from the business leader), especially for boys.
The influence of poor physical activity and excessive viewing of TV programs (as a dominant leisure activity) for adolescents in Sweden (average age 16) is studied by (6). These 2 factors predict later metabolic problems (at age 43): Excess TV in adolescence is associated with problems with central obesity, high blood pressure and low HDL cholesterol, and poor physical activity is associated with central obesity and high values of triglycerides in adulthood.
The analysis of the relationship between bone mineral density (BMD) and free time spent in front of computer screens by Norwegian adolescents is studied by (7). Many adolescents compensate for excess time in front of computers (2-4 hours daily) through moderate and intense physical activity, and high values of screen time have been positively associated with body mass index / BMI values for boys, who spend more time on average in front of the computer than the girls. Also in the case of boys, there are negative associations of time spent on the computer with BMD values, an aspect that is not confirmed in the case of girls, without being able to explain these gender differences.
Physical activities also play a role in the recovery of muscle and articular injuries, for athletes or people with various disease (8,9). Physical sports activities are also important for children with various disabilities, facilitating social adjustment, increasing self-confidence, improving motor skills, improving leisure time and lowering anxiety levels, according to (10). The variety and complexity of sports activities (from activities related to classic sports games, to variants of gymnastics, water activities, mountain tourism, and in recent years the diversity of fitness offered by national training centers) provides the premises for socialization and attractive variants that facilitates an active lifestyle (11–19).
The link between leisure time physical activity (LTPA) and health related quality of life (HQRL) for adults who survived childhood cancers (215 cases) is highlighted by (20), that obtain significant linear associations between LTPA and HQRL for those who survived childhood cancer.
The active / physical and sedentary leisure activities of young people aged 13-16 are studied by (21). Watching TV programs is dominant late in the evening, being the dominant variant of passive leisure, with a maximum level recorded on weekends. Watching TV is likely to manifest 2-3 times more than the involvement of young people in sports and physical activities. Boys prefer physical activities in open spaces (outdoors). Girls have a lower incidence of involvement in computer games. Motorized trips to school are 2 times more frequent than active travel.
The study of (22) analyzes the patterns of physical activity and their change for young people in Norway over a decade (13-23 years). The authors note a decrease in involvement in physical activities with the transition to adulthood, with men noticing a higher percentage of decrease in physical activism. Simultaneous participation in several forms of physical activity in adolescence is a factor that ensures a favorable behavior to practice physical exercise throughout life. Sedentary adolescent men are a risk group; they remain inactive also in other stages of life.
Changes in the organization of leisure time for young immigrants from Poland, Korea and Mexico in the Chicago and Champain Urbana areas are being investigated by (23). They will adopt new behavioral patterns related to leisure, which are no longer closely related to those specific and frequently encountered in the countries of origin. These changes are determined by 3 factors: comparison with members of one's own ethnic group, cultural differences from Americans, and the existence of the phenomenon of extreme labeling.
The identification of factors that generate physical inactivity among young people in New Zealand (15-18 years) is done by (24). The authors determine a complex of variables that contribute to the manifestation of sedentary behavior: cardio-respiratory problems and poor health, reduced orientation to family recreational activity, limited number of activities and tasks in which the adolescent was involved at home, persistent inactivity and so on. Persistent physical activity has been associated with a high level of cardio-respiratory fitness, these subjects allocating less time to watching TV in adolescence.

Material and method

The purpose of the research is to determine the perception of the students of the Faculty of Physical Education and Sports on the way of spending free time and the determination of differences of opinion, depending on the values of BMI / body index mass (underweight, normal weight or overweight).

Participants

The investigated subjects are 180 students of the Faculty of Physical Education and Sports from Galați from years 1, 2 and 3 of cycle 1 (bachelor's degree studies) with an average age of 22.34 ± 5.79 years. Out of these, 125 cases belong to the Physical Education and Sports specialization and 55 belong to the specialization Physiotherapy and Special Motor Skills, 9 cases are underweight, 137 normal weight and 34 overweight cases. Prior to the application of the questionnaire, all selected students were informed of the purpose of the planned research and agreed to the processing of personal data.

Procedures

The research took place in the 1st semester of the academic year 2019/2020 (before the outbreak of the Covid 19 pandemic and the transfer of teaching activities online), students being interviewed online on issues related to leisure time use and main activities to capitalize on it. The elaboration of the questionnaire was carried out within the Research Center for Human Performance, belonging to the Faculty of Physical Education and Sports, "Dunărea de Jos" University from Galați. The structuring of the questionnaire was done on 4 factors (leisure budget, causes that limit free time, favorite leisure activities and leisure sports activities). Items variants based on the selection of answers related to the 5-step Likert scale were preferred. Selective example: 5 (very high, very much, always, constantly, very strong influence, etc.); 4 (large, a lot, often, frequent, strong influence, etc.); 3 (medium, moderate, occasional, sometimes, medium influence, etc.); 2 (low, little, rarely, in a few cases, weak influence, etc.); 1 (very low, not at all, never, irrelevant, without influence, etc.). 6 independent variables were defined that influence the answers of the surveyed subjects: specialization, background, gender, age stages, level of physical activism and BMI grading. The study presented in this paper aims to present the data for the last independent variable, the others will be communicated in other scientific studies, due to the complexity of the questionnaire and the high volume of resulting data.

The statistical – mathematical analysis was made using IBM SPSS software version 24. There were used variance analysis procedures (multivariate and univariate test), effect size determination by Partial Eta Squared, calculation of mean values for the options expressed in each item and analysis of the significance of differences between pairs of variables, where the Bonferroni correction factor was used. The indicators of internal consistency (which express the fidelity of the measurement of the investigated features), expressed by Alpha Cronbach values were calculated, but are not presented in the current study, for reasons related to space. The confidence interval was set at 95% ($p < 0.05$), according to (25–29).

Results

The influence of BMI framing steps on the items of the questionnaire for the 4 analyzed factors is summarized in tables 1,3,5,7. Tables 2,4,6,8 indicate the average scores expressed by the 3 classes (underweight, normal weight and overweight) and the differences in pairs, with the corresponding significance thresholds. It is observed that for all items of factor 1 / leisure budget (table 1) no significant values of F are found, all thresholds (P) being <.05. The values of Partial Eta Squared (Ƞ2p) do not indicate strong effects of the independent variable either, the highest value being recorded for the free time allocated to TV and internet, where 2.9% of its variance is determined by BMI values.

Table 2 shows the average values of the 3 classes of subjects, which differ in the case of factor 1 items, but all the differences between the resulting pairs are not statistically significant (P <.05). For overweight people, the highest score assigned to the importance of free time and the lowest scores obtained in spending the weekend outside the locality and time allocated to favorite activities, they are also the most dissatisfied with the management of free time. Underweight people have higher results for the size of the leisure budget, the allocation of time for TV, internet, favorite activities and spending time on weekends away from home, free time on weekdays, they are also the most satisfied with organizing free time, and normal weight people allocate on average the least time for TV and internet.

Table 3 presents the results of the analysis of variance for the items of factor 2 (leisure time limiters). Only for 3 items there are obtained significant influences of BMI framing steps on these items / dependent variables: the stress generated by shopping, with $F(2, 177) = 3.446$, corresponding to a threshold $P = .034$ and 3.7% of the variance assigned to the influence of the independent variable; inaccessibility of going out with friends, with $F(2, 177) = 4.088$, corresponding to a threshold $P = .018$ and 4.4% of the variance attributed to the influence of the independent variable; limiting the time spent to help others, with $F(2, 177) = 3.183$, corresponding to a threshold $P = .044$ and 3.5% of the variance attributed to the influence of the independent variable.

Table 4 identifies the average values of the opinions of the 3 groups and the differences between them in pairs, for the items associated with factor 2 (limitation of free time). The only statistically significant difference is for the item Inaccessibility / going out with friends where the normal weight people have the lowest score, and the underweight people the highest score, perceiving the activity as inaccessible, resulting in a threshold $P = .039$, value <.05. Normal weight people are more affected by the loss of time due to housework, commuting and helping others, overweight people tend to work more overtime, and underweight people are most affected by difficult homework, which has the highest scores for all 3 groups. The highest stress scores for the 3 groups are obtained for reading, visits to relatives / friends and shopping, the lowest scores are obtained for music auditions, cinema, going out with friends, sports activities, walks in the park, socializing on the internet and trips / hikes. Overweight people have a higher level of stress than the other groups for: going out, sports activities, visits to relatives, socializing on the Internet, TV and computer games, shopping. Underweight people have a higher stress score for reading, but the lowest scores for socializing on the internet, TV and computer

games, shopping, and in general they are less stressed than the other 2 groups. The financial limitation of the preferred activities is more strongly perceived by the underweight ones. Financial constraints affect more going out with friends, going to the cinema / theater, trips / hiking and shopping, the rest of the activities getting low scores in this regard, and for the rest the differences between groups are statistically insignificant.

Table 5 shows the results of the analysis of variance for the items of factor 3 (preferred leisure activities). Significant influences of the body mass index on the dependent variables are obtained for 5 items: spending free time with schoolmates or entourage (F (2, 177) = 6.726, with P = .002, value <.05, and 7.1% of the variance of this item is determined by the independent variable); Spending free time with the life partner (F (2, 177) = 3.853, with P = .023, value <.05, and 4.2% of the variance of this item is explained by the independent variable); Daily activities - going out with friends (F (2, 177) = 4.239, with P = .018, value <.05, and 4.5% of the variance of this item is explained by the independent variable); Weekend activities / going out with friends (F (2, 177) = 3.636, with P = .028, value <.05, and 3.9% of the variance of this item is attributed to the independent variable); Holidays spent in the countryside / grandparents / relatives (F (2, 177) = 6.498, with P = .002, value <.05, and 6.8% of the variance of this item is attributed to the independent variable). In the other cases no significant influence of the independent variable on the rest of the dependent items / variables is reported.

Table 6 shows the average values of the responses to the items of factor 3 / preferred leisure activities, as well as the differences in pairs between groups with the related significance thresholds. Significant differences between underweight and overweight, respectively normal weight and overweight are obtained for spending free time with schoolmates or entourage (P = .006, respectively P = .009, values <.05) so overweight are less engaged in this form of leisure. However, they have the highest score for spending time with their life partner, being signaled a significant difference between them and the underweight (P = .041, value <.05). Underweight people are most involved in going out with friends (during the week and weekend) and get higher and significant scores than overweight and for daily socialization on the Internet (P = .046, P = .027 and P = .049, values <. 05). The most common option for spending time for all categories of subjects is with family members, where underweight people have the highest score, followed by spending time with friends. Overweight people have a slight tendency to spend more time alone, and time in the company of the pet has the lowest average scores for the groups surveyed. Reading and listening to music every day are favorable for overweight people, who get lower scores on other daily leisure options. Socializing on the internet, sports activities, watching TV / computer games and going out with friends are the preferred forms of daily leisure of the 3 groups, with the mention that underweight and normal weight people have higher scores in most forms of daily leisure compared to overweight, but these are not significant (P> .05). The weekend shows higher scores underweight people for TV / computer games, increases for music auditions, cinema / theater, visits, walks in the park and trips for all categories, increases for shopping for normal and overweight. The lowest scores for weekend activities go to reading. All categories get high scores for spending holidays at home, the top being underweight, which raises questions about the financial possibilities of students, and holidays abroad have the lowest scores, but overweight have the highest value, with insignificant differences compared to the other groups. The normal weight has the highest values for holidays at sea, in the mountains and domestically in the countryside / at grandparents, and the differences between them and the underweight are significant for the latter aspect (P = .009, value <.05).

Table 7 presents the results of the analysis of variance for factor 4 / leisure sports activities. It is observed that all values of F are statistically insignificant, and the results of Partial Eta Squared indicate weak effects and no effect of the independent variable (BMI classification categories) on the dependent variables (items associated with this factor).

Table 8 presents the average values of the responses of the 3 groups to the items related to factor 4 (leisure sports activities), the differences of the averages on the resulting pairs and their significance. It is noticed that there are no significant differences to report, all values of significance thresholds being >.05. However, the results obtained indicate defining features for each group, in terms of physical activism and preferred motor activities. As expected, overweight people have the lowest scores for the active lifestyle, the importance given to sports activities and involvement in them, but get a good score on the satisfaction generated by physical effort, in accordance with the results of the other 2 groups. Sports, jogging, fitness and surprisingly cycling / rollerblading have the highest scores in the preferences of sports activities, and swimming and martial arts / combat sports get the lowest values. Underweight people are less attracted to sports games and are more involved in jogging and cycling / rollerblading, and normal weight people have higher scores than the other 2 groups for involvement in sports and fitness. Overweight people get the lowest scores in almost all sports. Regarding the favorable effects related to health and harmonious body development, the highest scores obtained by swimming are noted (even if it is less practiced), the overweight ones indicating the highest score in this case. It is

followed by fitness, sports games and jogging, and in the last place is placed the favorable influence of table tennis / tennis and contact sports, probably in terms of the injuries they can cause.

DISCUSSION

There are numerous investigations worldwide that analyze the influence of active and passive forms of leisure on the physical and mental health of different categories of the population, but especially on adolescents. The study of (30) highlights the significant connection between suicidal ideation and the existence of a meaning in life. Adolescent subjects (15-18 years) with involvement in various social activities are characterized by low levels of anxiety and depression, with low values related to suicidal ideas.

The investigation of the production of various physical injuries for a group of 8406 young Finnish (aged 11-13-15 years), in the time interval 2014-2016 showed that the injuries associated with leisure time (leisure time physical activity) have a value of 30%, a lower percentage than that generated by participation in activities organized by sports clubs (40%), but higher than that resulting from the involvement of students in curricular activities in schools / physical education lessons (18%). The values of those with injuries increase in 2016 compared to previous years, at least 50% of students reporting a lesion generated by physical activity (PA) in the last year, according to (31). A similar study was conducted by (32) , on a group of 1,011 adolescents aged 15-16 in the United States, Germany, Sweden and New Zealand. They identify an increased incidence of injuries generated by recreational sports activities, compared to those resulting from participation in school physical education lessons. Increases in injuries are reported for 2 groups involved in school or leisure physical activities: those who are physically active (who have renewed / recurrent injuries or are insufficiently recovered) and those who are physically inactive / fragile (who are unfamiliar with physical exertion and are slightly injured).

Substance use (alcohol and tobacco) among Icelandic adolescents (14-15 years) can be reduced and controlled through parental monitoring and organized involvement of young people in structured leisure activities (33).

The identification of the main risk behaviors / alcoholism that affect school performance for young people in Crete (14-19 years) is done by (34). Boys consume alcohol (75.5%), compared to girls (25.8%), and 48% of young people drink alcohol at night, with friends. Alcohol consumption scores are lower than those of non-consumers (especially boys), with increased consumption reported for those suspended from school, as well as for those who frequent bars, cafes and billiard rooms.

Understanding the motivation behind smoking and the relationship between smoking and physical activity for Danish adolescents (16-22 years old) is investigated by (35). Reverse associations are obtained between smoking and the level of involvement in physical activities. Motivations for effort related to gaining pleasure, maintaining health and reducing stress levels are associated with reducing smoking, and the reasons for gaining and maintaining self-esteem, maintaining the body weight and the strengthening of friendships are not positively related to smoking.

Studying leisure behavior for young girls in the U.K. (12.5 - 17.6 years) indicates a focus on watching TV programs, which is in the top of sedentary activities during the week and weekend, according to (36). Average values of 263min./week are recorded on weekdays and 400 min. in the weekend. Watching TV increases on weekends, over 21% of young people watch over 4 hours / day, but during the week only 3.3% spend more than 4 hours. The use of computers as a leisure activity is lower for the girls of the studied group, and the average value allocated to physical activities and active transport is 44 min / day during the week and 53 min / day on weekends, being clear the orientation towards a sedentary behavior.

Sedentary behavior among adolescent girls in Australia (Sydney) is studied by (37). At the age of 12.8 years old, 45% of free time is devoted to sedentary activities (TV, watching videos, video games, socializing with friends, homework and reading), and at 14.5 years to reach 63%. The sedentary behavior during the week is 1.4 hours daily and increases to 3.3 hours on weekends, so entering adolescence accentuates the sedentary lifestyle for the analyzed group.

The relationship between PA, screen time (ST-screen time), self-rated health (SRH - self rated health) and self-rated mental health (SRMH - self rated mental health) for Canadian adolescents aged 12-17 years is analyzed by (38). Excellent and very good SRH is obtained by 78% of active adolescents and only 62% of the inactive ones, and excellent and very good SRMH is registered by 81% of active ones and 76% of inactive ones. Those who exceed 2 hours daily for ST-based activities are more likely to have suboptimal SRH (over 30%) and suboptimal SRMH (30-50%) so ST time is negatively associated with SRH and SRMH.

The orientation of young people involved in leisure physical activities (UK) towards intrinsic goals is brought to the attention of educators and parents by (39). In this case, self-determined motivation has positive effects on the behavior of obese and overweight students and on their involvement in physical activities, favorably influencing the quality of life (QoL).

The motivational differences that justify the involvement of 11-13-15 year olds in leisure physical activities, for 3 different regions (Western Europe, Eastern Europe, North America) are studied by (40). They conclude that physical activity is mainly related to reasons for personal

and social achievement, and the health factor varied from one region to another, being a less strong reason for involvement in PA.

The relationship between the level of psychological well-being and involvement in leisure activities for adolescents in South Australia (average age 15) is studied by (41). The use of free time is associated with psychological well-being, only in the situation when young people have been involved in structured leisure activities. Spending free time in unstructured activities is specific to young people with a low level of self-esteem, some of them losing their free time (they do not do something specifically focused), and unsupervised activities, based on parties and club attendance are associated with substance use.

The study of (42), conducted on middle-aged and elderly Japanese women (40-79 years) identifies the relationship between the values of strength and muscle strength with leisure physical activities and adolescent exercises: 32.9% are not involved in physical leisure, 33.7% only in light efforts, 33.4% in moderate and heavy efforts, and 41.9% were involved in adolescent exercise. The variables that influence the values of strength and muscle strength are multiple: smoking status, annual income, leisure physical activity, adolescent exercise, level of education, etc.

CONCLUSIONS

The data shown represent a clear enough image to signal the differences that appear in the capitalization of leisure forms at the level of students of the Faculty of Physical Education and Sports, depending on their classification on different BMI classes. The classification of students by classes (underweight, normal weight and overweight) must be viewed with caution, because these values are less accurate than those resulting from the determination of body composition, in sports there are many cases of BMI values> 25, and body composition values to indicate a high percentage of muscle tissue and a low percentage of fat tissue. However, the results cannot be generalized to the entire university population, because other specializations have different objectives and skills, and a comparative analysis between different faculties would represent new research directions, as well as investigating the effect of other independent variables presented on students' opinions about leisure activities. Even if there are differences between the average scores of the 3 defined groups, they are only in a few cases significant, but the values obtained indicate the tendency of overweight to become less involved in forms of physical leisure, being necessary to find measures to compensate the potential problems generated by this lifestyle.

Declaration of conflict of interests

There is no conflict of interest for any of the authors regarding this paper.

Informed consent

The investigated subjects were informed about the purpose and methodology of the study presented here, expressing their agreement to the processing and publication of the results of the completed questionnaires, in compliance with the rules on personal data protection.

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Author contribution

The authors of this article have equal contribution and equal rights over it.

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Table 1 - Results of the analysis of univariate tests (ANOVA) / The effect of BMI framing steps on dependent variables for Factor 1 (leisure budget)

Item	Dependent Variable	Sum of Squares	Mean Square	F(2, 177)	Sig.	η^2_p	Observed Power
F1.1	Leisure budget size	.132	.066	.095	.909	.001	.064
F1.2	Free time on working days	.185	.092	.135	.874	.002	.071
F1.3	The importance of free time	.532	.266	.524	.593	.006	.135
F1.4	Hours allocated to favorite activities	1.645	.823	1.231	.295	.014	.266
F1.5	Free time for TV and internet	2.650	1.325	2.619	.076	.029	.516
F1.6	Weekends spent out of town	1.901	.951	1.271	.283	.014	.273
F1.7	Satisfaction in organizing free time	.411	.205	.312	.732	.004	.099

Table 2 – average values of the scores obtained by the groups and the significance of the difference between them for Factor 1 (leisure budget)

Dependent variable	Group	Mean±SD	a-b	Sig.[b]	a-c	Sig.[b]	b-c	Sig.[b]
F1.1 Leisure budget size	a. underweight	3.33±.50	.122	1.000	.098	1.000	-.024	1.000
	b. normal weight	3.21±.79						
	c. overweight	3.23±1.01						
F1.2 Free time on working days	a. underweight	3.33±.50	.107	1.000	.157	1.000	.050	1.000
	b. normal weight	3.22±.76						
	c. overweight	3.17±1.08						
F1.3 The importance of free time	a. underweight	3.88±.33	-.162	1.000	-.258	1.000	-.096	1.000
	b. normal weight	4.05±.76						
	c. overweight	4.14±.55						
F1.4 Hours allocated to favorite activities	a. underweight	3.11±.33	.308	.825	.464	.395	.156	.963
	b. normal weight	2.80±.77						
	c. overweight	2.64±1.04						
F1.5 Free time for TV and internet	a. underweight	3.33±.70	.560	.070	.539	.134	-.020	1.000
	b. normal weight	2.77±.69						
	c. overweight	2.79±.76						
F1.6 Weekends spent out of town	a. underweight	3.22±.97	.397	.551	.516	.339	.119	1.000
	b. normal weight	2.82±.88						
	c. overweight	2.70±.75						
F1.7 Satisfaction in organizing free time	a. underweight	3.55±.72	.212	1.000	.232	1.000	.020	1.000
	b. normal weight	3.34±.79						
	c. overweight	3.32±.87						

b Adjustment for multiple comparisons: Bonferroni.

Table 3 - Results of the analysis of univariate tests (ANOVA) / Effect of BMI framing steps on dependent variables for Factor 2 (leisure limiting factors)

Item	Dependent Variable	Sum of Squares	Mean Square	F(2, 177)	Sig.	η^2_p	Observed Power
F2.1a	Limitation / working overtime	2.366	1.183	.919	.401	.010	.207
F2.1b	Limitation / difficult homework	.761	.381	.621	.538	.007	.153
F2.1c	Limitation / household activities	2.508	1.254	.967	.382	.011	.216
F2.1d	Limitation / commute	.715	.358	.276	.759	.003	.093
F2.1e	Limitation / help given to others	5.416	2.708	3.183	.044	.035	.603
F2.2a	Stress / going out with friends	1.433	.717	1.753	.176	.019	.364

F2.2b	Stress / reading	1.424	.712	.607	.546	.007	.150
F2.2c	Stress /listening to music	1.900	.950	1.855	.160	.021	.383
F2.2d	Stress / cinema, theatre	.865	.432	.808	.447	.009	.187
F2.2e	Stress / various sports activities	.463	.232	.462	.631	.005	.125
F2.2f	Stress / walks in the park	.003	.001	.006	.994	.000	.051
F2.2g	Stress / visits to relatives, friends	.989	.495	.452	.637	.005	.123
F2.2h	Stress / socializing on the internet	3.228	1.614	2.286	.105	.025	.460
F2.2i	Stress / TV, computer games	5.895	2.947	2.476	.087	.027	.493
F2.2j	Stress / excursions, hiking	1.368	.684	1.622	.200	.018	.340
F2.2k	Stress / shopping	7.262	3.631	3.446	.034	.037	.640
F2.3	Financial limitation of preferred activities	1.352	.676	1.026	.361	.011	.227
F2.4a	Inaccessibility / going out with friends	3.867	1.933	4.088	.018	.044	.720
F2.4b	Inaccessibility / reading	1.424	.712	1.257	.287	.014	.271
F2.4c	Inaccessibility /listening to music	.553	.277	.461	.631	.005	.125
F2.4d	Inaccessibility /cinema, theatre	.069	.035	.064	.938	.001	.060
F2.4e	Inaccessibility /various sports activities	.374	.187	.294	.746	.003	.096
F2.4f	Inaccessibility / walks in the park	.144	.072	.412	.663	.005	.116
F2.4g	Inaccessibility /visits to relatives, friends	.102	.051	.107	.899	.001	.066
F2.4h	Inaccessibility /socializing on the internet	1.147	.574	1.492	.228	.017	.315
F2.4i	Inaccessibility / TV, computer games	.911	.456	1.721	.182	.019	.358
F2.4j	Inaccessibility / excursions, hiking	.762	.381	.611	.544	.007	.151
F2.4k	Inaccessibility / shopping	1.319	.660	1.230	.295	.014	.266

Table 4 – average values of the scores obtained by the groups and the significance of the difference between them for Factor 2 (leisure limiting factors)

Dependent variable	Group	Mean±SD	a-b	Sig.[b]	a-c	Sig.[b]	b-c	Sig.[b]
F2.1a Limitation / working overtime	a. underweight	1.88±.1.53	.006	1.000	-.288	1.000	-.293	.537
	b. normal weight	1.88±.1.11						
	c. overweight	2.17±.1.08						
F2.1b Limitation / difficult homework	a. underweight	3.00±.86	.292	.839	.235	1.000	-.057	1.000
	b. normal weight	2.70±.77						
	c. overweight	2.76±.78						
F2.1c Limitation / household activities	a. underweight	2.11±1.05	-.517	.567	-.389	1.000	.128	1.000
	b. normal weight	2.62±1.18						
	c. overweight	2.50±.92						
F2.1d Limitation / commute	a. underweight	1.77±.83	-.222	1.000	-.105	1.000	.118	1.000
	b. normal weight	2.00±1.15						
	c. overweight	1.88±1.14						
F2.1e Limitation / help given to others	a. underweight	1.77±.66	-.529	.292	-.163	1.000	.365	.120
	b. normal weight	2.30±.93						
	c. overweight	1.94±.91						
F2.2a Stress / going out with	a. underweight	1.11±.33	-.159	1.000	-.359	.406	-.201	.310
	b. normal weight	1.27±.62						

friends	c. overweight	1.47±.74						
F2.2b Stress / reading	a. underweight	2.11±1.26	.002	1.000	.229	1.000	.227	.826
	b. normal weight	2.10±1.09						
	c. overweight	1.88±.97						
F2.2c Stress /listening to music	a. underweight	1.00±.02	-.431	.246	-.294	.823	.137	.962
	b. normal weight	1.43±.73						
	c. overweight	1.29±.71						
F2.2d Stress / cinema, theater	a. underweight	1.11±.33	-.283	.787	-.183	1.000	.100	1.000
	b. normal weight	1.39±.78						
	c. overweight	1.29±.52						
F2.2e Stress / various sports activities	a. underweight	1.44±1.01	.072	1.000	-.056	1.000	-.128	1.000
	b. normal weight	1.37±.66						
	c. overweight	1.50±.78						
F2.2f Stress / walks in the park	a. underweight	1.22±.66	.018	1.000	.016	1.000	-.002	1.000
	b. normal weight	1.20±.48						
	c. overweight	1.20±.41						
F2.2g Stress / visits to relatives, friends	a. underweight	1.77±.66	-.149	1.000	-.310	1.000	-.161	1.000
	b. normal weight	1.92±1.01						
	c. overweight	2.08±1.21						
F2.2h Stress / socializing on the internet	a. underweight	1.11±.33	-.612	.107	-.624	.147	-.013	1.000
	b. normal weight	1.72±.88						
	c. overweight	1.73±.75						
F2.2i Stress /TV, computer games	a. underweight	1.11±.33	-.794	.107	-.889	.093	-.095	1.000
	b. normal weight	1.90±1.11						
	c. overweight	2.00±1.10						
F2.2j Stress / excursions, hiking	a. underweight	1.00±.00	-.372	.292	-.265	.835	.108	1.000
	b. normal weight	1.37±.69						
	c. overweight	1.26±.51						
F2.2k Stress / shopping	a. underweight	1.55±.88	-.474	.545	-.886	.068	-.412	.113
	b. normal weight	2.02±1.04						
	c. overweight	2.44±.99						
F2.3 Financial limitation of preferred activities	a. underweight	3.11±.33	.075	1.000	.288	1.000	.213	.518
	b. normal weight	3.03±.82						
	c. overweight	2.82±.83						
F2.4a Inaccessibility / going out with friends	a. underweight	3.11±.33	.593*	.039	.376	.440	-.217	.304
	b. normal weight	2.51±.70						
	c. overweight	2.73±.66						
F2.4b Inaccessibility / reading	a. underweight	1.44±.52	-.329	.616	-.173	1.000	.156	.842
	b. normal weight	1.77±.76						
	c. overweight	1.61±.73						
F2.4c Inaccessibility /listening to music	a. underweight	1.33±.50	-.236	1.000	-.167	1.000	.069	1.000
	b. normal weight	1.56±.74						
	c. overweight	1.50±.92						
F2.4d Inaccessibility /cinema, theater	a. underweight	2.66±.70	.090	1.000	.078	1.000	-.012	1.000
	b. normal weight	2.57±.73						
	c. overweight	2.58±.74						
F2.4e	a. underweight	1.44±.50	.070	1.000	-.060	1.000	-.130	1.000

Inaccessibility /various sports activities	b. normal weight	1.37±.79						
	c. overweight	1.50±.86						
F2.4f Inaccessibility / walks in the park	a. underweight	1.11±.33	-.071	1.000	-.007	1.000	.065	1.000
	b. normal weight	1.18±.44						
	c. overweight	1.11±.32						
F2.4g Inaccessibility /visits to relatives, friends	a. underweight	1.44±.72	-.074	1.000	-.114	1.000	-.041	1.000
	b. normal weight	1.51±.67						
	c. overweight	1.55±.74						
F2.4h Inaccessibility /socializing on the internet	a. underweight	1.11±.33	-.327	.382	-.212	1.000	.114	1.000
	b. normal weight	1.43±.65						
	c. overweight	1.32±.53						
F2.4i Inaccessibility / TV, computer games	a. underweight	1.00±.00	-.285	.329	-.176	1.000	.108	.821
	b. normal weight	1.28±55						
	c. overweight	1.17±.38						
F2.4j Inaccessibility / excursions, hiking	a. underweight	3.22±.44	-.033	1.000	.134	1.000	.167	.811
	b. normal weight	3.25±.81						
	c. overweight	3.08±.75						
F2.4k Inaccessibility / shopping	a. underweight	3.22±.44	.317	.629	.428	.362	.111	1.000
	b. normal weight	2.90±.76						
	c. overweight	2.79±.64						

The mean difference is significant at the .05 level.
b - Adjustment for multiple comparisons: Bonferroni.

Table 5 - Results of the analysis of univariate tests (ANOVA) / Effect of BMI framing steps on dependent variables for Factor 3 (preferred leisure activities)

Item	Dependent Variable	Sum of Squares	Mean Square	F(2, 177)	Sig.	Η2p	Observed Power
F3.1a	Spending free time / family members	1.637	.818	.826	.439	.009	.190
F3.1b	Spending free time / schoolmates or entourage	9.762	4.881	6.726	.002	.071	.913
F3.1c	Spending free time / life partner	16.686	8.343	3.853	.023	.042	.692
F3.1d	Spending free time / pet	.155	.078	.046	.955	.001	.057
F3.1e	Spending free time / alone	.662	.331	.310	.734	.003	.099
F3.2a	Daily activities / going out with friends	6.254	3.127	4.139	.018	.045	.725
F3.2b	Daily activities / reading	.450	.225	.259	.772	.003	.090
F3.2c	Daily activities / listening to music	1.780	.890	.619	.540	.007	.152
F3.2d	Daily activities / cinema, theatre	2.175	1.088	1.951	.145	.022	.400
F3.2e	Daily activities / various sports activities	.156	.078	.076	.927	.001	.061
F3.2f	Daily activities / walks in the park	2.371	1.186	1.578	.209	.018	.331
F3.2g	Daily activities / visits to relatives, friends	2.533	1.266	1.805	.168	.020	.374
F3.2h	Daily activities /socializing on the internet	5.479	2.739	3.032	.051	.033	.581
F3.2i	Daily activities / TV, computer games	4.844	2.422	2.293	.104	.025	.461
F3.2j	Daily activities / excursions and hiking	.585	.292	.771	.464	.009	.180
F3.2k	Daily activities / shopping	4.144	2.072	2.568	.080	.028	.508
F3.3a	Weekend activities / going out with friends	5.327	2.664	3.636	.028	.039	.665
F3.3b	Weekend activities / reading	.518	.259	.295	.745	.003	.096
F3.3c	Weekend activities / listening to music	4.249	2.125	1.432	.242	.016	.304

F3.3d	Weekend activities / cinema, theatre	.168	.084	.114	.892	.001	.067
F3.3e	Weekend activities / various sports activities	.075	.038	.039	.962	.000	.056
F3.3f	Weekend activities / walks in the park	2.226	1.113	1.541	.217	.017	.324
F3.3g	Weekend activities / visits to relatives, friends	3.595	1.797	1.839	.162	.020	.380
F3.3h	Weekend activities / socializing on the internet	3.759	1.880	1.928	.148	.021	.396
F3.3i	Weekend activities /TV, computer games	4.643	2.322	2.423	.092	.027	.484
F3.3j	Weekend activities / excursions and hiking	.160	.080	.117	.889	.001	.068
F3.3k	Weekend activities / shopping	.521	.261	.254	.776	.003	.090
F3.4a	Domestic holidays at sea	4.088	2.044	1.503	.225	.017	.317
F3.4b	Domestic holidays in the mountains	1.170	.585	.487	.615	.005	.129
F3.4c	Holidays countryside / grandparents / relatives	20.342	10.171	6.498	.002	.068	.903
F3.4d	Holidays abroad	.101	.051	.039	.962	.000	.056
F3.4e	Spending holidays at home	.571	.285	.280	.756	.003	.094

Table 6 – Average values of scores obtained by groups and the significance of the difference between them for Factor 3 (preferred leisure activities)

Dependent variable	**Group**	**Mean±SD**	**a-b**	**Sig.[b]**	**a-c**	**Sig.[b]**	**b-c**	**Sig.[b]**
F3.1a Spending free time / family members	a. underweight	3.88±.78	.400	.734	.477	.608	.077	1.000
	b. normal weight	3.48±.99						
	c. overweight	3.41±1.04						
F3.1b Spending free time / schoolmates or entourage	a. underweight	3.88±.60	.517	.239	1.007*	.006	.490*	.009
	b. normal weight	3.37±.85						
	c. overweight	2.88±.87						
F3.1c Spending free time / life partner	a. underweight	2.55±1.58	-.693	.519	-1.32*	.041	-.634	.077
	b. normal weight	3.24±1.53						
	c. overweight	3.88±1.14						
F3.1d Spending free time / pet	a. underweight	2.00±1.58	-.015	1.000	-.088	1.000	-.074	1.000
	b. normal weight	2.01±1.29						
	c. overweight	2.08±1.21						
F3.1e Spending free time / alone	a. underweight	2.22±.97	.025	1.000	-.131	1.000	-.156	1.000
	b. normal weight	2.19±1.05						
	c. overweight	2.35±.94						
F3.2a Daily activities / going out with friends	a. underweight	3.44±.72	.401	.546	.797*	.046	.397	.055
	b. normal weight	3.04±.89						
	c. overweight	2.64±.81						
F3.2b Daily activities / reading	a. underweight	2.11±.92	-.159	1.000	-.242	1.000	-.083	1.000
	b. normal weight	2.27±.95						
	c. overweight	2.35±.81						
F3.2c Daily activities / listening to music	a. underweight	3.33±1.00	.457	.807	.451	.951	-.006	1.000
	b. normal weight	2.87±1.17						
	c. overweight	2.88±1.32						
F3.2d Daily activities / cinema, theatre	a. underweight	1.55±.52	-.466	.214	-.327	.734	.140	.992
	b. normal weight	2.02±.77						
	c. overweight	1.88±.68						
F3.2e Daily activities / various sports activities	a. underweight	3.66±1.00	.083	1.000	.137	1.000	.055	1.000
	b. normal weight	3.58±1.00						
	c. overweight	3.52±1.05						
F3.2f Daily activities / walks in the park	a. underweight	2.11±.78	-.524	.242	-.448	.510	.076	1.000
	b. normal weight	2.63±.86						

	c. overweight	2.55±.89						
F3.2g Daily activities / visits to relatives, friends	a. underweight	2.66±1.22	.389	.536	.578	.201	.189	.721
	b. normal weight	2.27±.80						
	c. overweight	2.08±.86						
F3.2h Daily activities /socializing on the internet	a. underweight	4.33±.70	.757	.066	.863*	.049	.106	1.000
	b. normal weight	3.57±.98						
	c. overweight	3.47±.86						
F3.2i Daily activities / TV, computer games	a. underweight	3.33±.70	.706	.143	.510	.562	-.196	.964
	b. normal weight	2.62±.98						
	c. overweight	2.82±.86						
F3.2j Daily activities / excursions and hiking	a. underweight	1.77±.66	.187	1.000	.278	.692	.091	1.000
	b. normal weight	1.59±.62						
	c. overweight	1.50±.56						
F3.2k Daily activities / shopping	a. underweight	3.11±.92	.359	.740	.670	.145	.311	.218
	b. normal weight	2.75±.90						
	c. overweight	2.44±.85						
F3.3a Weekend activities / going out with friends	a. underweight	4.11±.92	.586	.145	.846*	.027	.261	.340
	b. normal weight	3.52±.86						
	c. overweight	3.26±.79						
F3.3b Weekend activities / reading	a. underweight	2.00±.70	-.234	1.000	-.265	1.000	-.031	1.000
	b. normal weight	2.23±.97						
	c. overweight	2.26±.82						
F3.3c Weekend activities / listening to music	a. underweight	3.55±.88	.643	.380	.438	1.000	-.205	1.000
	b. normal weight	2.91±1.20						
	c. overweight	3.11±1.34						
F3.3d Weekend activities / cinema, theatre	a. underweight	2.55±.88	.088	1.000	.144	1.000	.055	1.000
	b. normal weight	2.46±.87						
	c. overweight	2.41±.78						
F3.3e Weekend activities / various sports activities	a. underweight	3.44±1.01	.094	1.000	.092	1.000	-.003	1.000
	b. normal weight	3.35±.98						
	c. overweight	3.35±.91						
F3.3f Weekend activities / walks in the park	a. underweight	2.44±.88	-.504	.259	-.526	.301	-.022	1.000
	b. normal weight	2.94±.85						
	c. overweight	2.97±.83						
F3.3g Weekend activities / visits to relatives, friends	a. underweight	2.55±1.13	-.211	1.000	.144	1.000	.355	.188
	b. normal weight	2.76±1.00						
	c. overweight	2.41±.85						
F3.3h Weekend activities / socializing on the internet	a. underweight	4.22±.83	.609	.224	.722	.158	.113	1.000
	b. normal weight	3.61±1.02						
	c. overweight	3.50±.86						
F3.3i Weekend activities /TV, computer games	a. underweight	3.55±.88	.738	.089	.732	.143	-.006	1.000
	b. normal weight	2.81±.98						
	c. overweight	2.82±.96						
F3.3j Weekend activities / excursions and hiking	a. underweight	2.33±.86	-.134	1.000	-.108	1.000	.026	1.000
	b. normal weight	2.46±.84						
	c. overweight	2.44±.74						
F3.3k Weekend activities / shopping	a. underweight	3.00±1.11	-.102	1.000	.029	1.000	.132	1.000
	b. normal weight	3.10±1.05						
	c. overweight	2.97±.79						
F3.4a Domestic holidays at sea	a. underweight	3.11±1.16	-.210	1.000	.170	1.000	.380	.272
	b. normal weight	3.32±1.16						
	c. overweight	2.94±1.17						

F3.4b Domestic holidays in the mountains	a. underweight	3.00±1.11	-.234	1.000	-.059	1.000	.175	1.000
	b. normal weight	3.23±1.08						
	c. overweight	3.05±1.12						
F3.4c Holidays countryside / grandparents / relatives	a. underweight	1.66±.70	-1.29*	.009	-.745	.342	.552	.068
	b. normal weight	2.96±1.28						
	c. overweight	2.41±1.20						
F3.4d Holidays abroad	a. underweight	2.00±.88	-.102	1.000	-.118	1.000	-.015	1.000
	b. normal weight	2.10±1.03						
	c. overweight	2.12±.93						
F3.4e Spending holidays at home	a. underweight	3.44±.88	.255	1.000	.268	1.000	.013	1.000
	b. normal weight	3.18±.1.03						
	c. overweight	3.17±.93						

The mean difference is significant at the .05 level.
b - Adjustment for multiple comparisons: Bonferroni

Table 7 - Results of the analysis of univariate tests (ANOVA) / Effect of BMI framing steps on dependent variables for Factor 4 (leisure sports activities)

Item	Dependent Variable	Sum of Squares	Mean Square	F(2, 177)	Sig.	Partial Eta Squared	Observed Power
F4.1	Active lifestyle	.611	.305	.358	.700	.004	.107
F4.2	Involvement in sports activities	1.066	.533	.575	.564	.006	.144
F4.3	The importance of sports activities	1.803	.902	.964	.383	.011	.216
F4.4	Satisfaction produced by physical effort	.334	.167	.290	.748	.003	.096
F4.5a	Practice / Sports games	1.367	.684	.463	.630	.005	.125
F4.5b	Practice / Jogging	1.994	.997	1.003	.369	.011	.223
F4.5c	Practice / fitness-bodybuilding	2.848	1.424	.915	.402	.010	.207
F4.5d	Practice / Tennis or table tennis	.030	.015	.014	.986	.000	.052
F4.5e	Practice / swimming	.672	.336	.381	.684	.004	.111
F4.5f	Practice / contact sports: boxing, karate, wrestling.	.700	.350	.336	.715	.004	.103
F4.5g	Practice / cycling, rollerblading	.813	.406	.423	.656	.005	.118
F4.6a	Health effects / Sports games	.058	.029	.044	.957	.000	.057
F4.6b	Health effects / Jogging	.474	.237	.319	.727	.004	.100
F4.6c	Health effects / fitness-bodybuilding	.370	.185	.213	.808	.002	.083
F4.6d	Health effects / Tennis or table tennis	2.573	1.287	2.655	.073	.029	.522
F4.6e	Health effects / swimming	2.715	1.358	2.245	.109	.025	.453
F4.6f	Health effects / contact sports: boxing, karate, wrestling.	3.156	1.578	1.428	.243	.016	.303
F4.6g	Health effects / cycling, rollerblading	3.365	1.683	2.427	.091	.027	.484

Table 8 – Average values of scores obtained by groups and the significance of the difference between them for Factor 4 (leisure sports activities)

Dependent variable	Group	Mean±SD	a-b	Sig.[b]	a-c	Sig.[b]	b-c	Sig.[b]
F4.1 Active lifestyle	a. underweight	3.66±1.00	.054	1.000	.196	1.000	.143	1.000
	b. normal weight	3.61±.91						
	c. overweight	3.47±.92						
F4.2 Involvement in sports activities	a. underweight	3.66±1.00	.032	1.000	.225	1.000	.194	.884
	b. normal weight	3.63±.96						
	c. overweight	3.44±.95						
F4.3 The importance of sports activities	a. underweight	3.88±1.16	.049	1.000	.301	1.000	.251	.531
	b. normal weight	3.83±.97						
	c. overweight	3.58±.85						

F4.4 Satisfaction produced by physical effort	a. underweight	3.77±.97	-.171	1.000	-.105	1.000	.067	1.000
	b. normal weight	3.94±.74						
	c. overweight	3.88±.76						
F4.5a Practice / Sports games	a. underweight	2.88±.92	-.323	1.000	-.170	1.000	.153	1.000
	b. normal weight	3.21±1.18						
	c. overweight	3.05±1.39						
F4.5b Practice / Jogging	a. underweight	3.11±1.05	.301	1.000	.493	.565	.193	.945
	b. normal weight	2.81±1.02						
	c. overweight	2.61±.85						
F4.5c Practice / fitness-bodybuilding	a. underweight	2.22±1.09	-.581	.533	-.542	.743	.038	1.000
	b. normal weight	2.80±1.27						
	c. overweight	2.76±1.18						
F4.5d Practice / Tennis or table tennis	a. underweight	2.11±1.36	.024	1.000	.052	1.000	.029	1.000
	b. normal weight	2.08±1.03						
	c. overweight	2.05±.98						
F4.5e Practice / swimming	a. underweight	1.66±.70	-.231	1.000	-.127	1.000	.104	1.000
	b. normal weight	1.89±.96						
	c. overweight	1.79±.88						
F4.5f Practice / boxing, karate, wrestling.	a. underweight	1.66±1.41	.163	1.000	.284	1.000	.121	1.000
	b. normal weight	1.50±1.01						
	c. overweight	1.38±.92						
F4.5g Practice / cycling, rollerblading	a. underweight	2.77±1.09	.252	1.000	.337	1.000	.084	1.000
	b. normal weight	2.52±.97						
	c. overweight	2.44±.95						
F4.6a Health effects / Sports games	a. underweight	3.66±1.11	-.027	1.000	-.069	1.000	-.042	1.000
	b. normal weight	3.69±.76						
	c. overweight	3.73±.93						
F4.6b Health effects / Jogging	a. underweight	3.44±.72	-.161	1.000	-.056	1.000	.106	1.000
	b. normal weight	3.60±.87						
	c. overweight	3.50±.82						
F4.6c Health effects / fitness-bodybuilding	a. underweight	3.66±.50	-.136	1.000	-.216	1.000	-.079	1.000
	b. normal weight	3.80±.93						
	c. overweight	3.88±.97						
F4.6d Health effects / Tennis or table tennis	a. underweight	2.88±.60	.393	.309	.154	1.000	-.239	.225
	b. normal weight	2.49±.69						
	c. overweight	2.73±.70						
F4.6e Health effects / swimming	a. underweight	3.88±1.26	-.177	1.000	-.464	.340	-.287	.167
	b. normal weight	4.06±.77						
	c. overweight	4.35±.59						
F4.6f Health effects /: boxing, karate, wrestling.	a. underweight	2.55±1.01	-.379	.889	-.621	.351	-.242	.692
	b. normal weight	2.93±.99						
	c. overweight	3.17±1.26						
F4.6g Health effects / cycling, rollerblading	a. underweight	3.11±.78	.315	.817	-.007	1.000	-.322	.135
	b. normal weight	2.79±.85						
	c. overweight	3.11±.72						

b - Adjustment for multiple comparisons: Bonferroni.