

REGULATION OF BODY WEIGHT AS THE MAIN MOTIVATION FOR ACTIVE LIFESTYLE

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Abstract. Based on survey data there were shown the results of the weight investigation of students Ukrainian academy of banking of «Banking» speciality with BMI. Data analysis showed that sedentary lifestyle, poor nutrition, failure mode of the day leads to rejection of the body weight of good standard in boys and girls weight. There was used an informative and available for the whole world body mass index as a way to determine ideal body weight while assessing an excess body weight.

Key words: body mass index, motivation, obesity, physical activity.

Анотація. Шаповал Н. С. Регуляція маси тіла як основна мотивація до активного способу життя. На підставі отриманих даних анкетування проведено аналіз результатів маси тіла студентів УАБС НБУ. Дані проведеного аналізу свідчать, що малорухомий спосіб життя, нераціональне харчування, недотримання режиму дня веде до відхилення маси тіла від належної норми в юнаків і дівчат. Доведено, що дотримання тижневого рухового режиму позитивно впливає на нормування маси тіла. Під час оцінки зайвої маси тіла було використано інформативний і доступний всесвітньовідомий індекс маси тіла як один із способів визначення ідеальної маси тіла.

Ключові слова: індекс маси тіла, мотивація, ожиріння, рухова активність.

Аннотация. Шаповал Н. С. Регуляция массы тела как основная мотивация к активному способу жизни. На основании полученных данных анкетирования был проведен анализ результатов массы тела студентов УАБД НБУ. Данные проведенного анализа свидетельствуют о том, что малоподвижный образ жизни, нерациональное питание, несоблюдение режима дня ведет к отклонению массы тела от должной нормы у юношей и девушек. Доказано, что соблюдение недельного двигательного режима положительно влияет на нормирование массы тела. При оценке лишней массы тела был использован информативный и всемирно доступный индекс массы тела как один из способов определения идеальной массы тела.

Ключевые слова: индекс массы тела, мотивация, ожирение, двигательная активность.

Relevance of the topic of research. Obesity among students is a disease of the student lifestyle. Most of the students spend their day sitting. The reason is the upgrading of educational processes. We investigated that physical activity of students is approximately

30 minutes, although hygiene standards – 2 hours. Doctors at all times worried then the lack of physical activity undermines health, «enrich» it with new diseases, getting people old. Health depends on the conditions and ways of life by 50 % [6].

In university studying conditions rational organization of motor activity gets particular relevance due to imbal-

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ance between meal taken by the «fast food» (which becomes the norm for students living in dormitories), physical activity, which is limited for most classes of students in physical education and leisure time of students who mostly come to rest but to sports facilities, the cinema or to the bar. And in those places as well they sitting, eating harmful food (chips, nuts, etc.). Thus, there is a clear advantage of the bad habits over the healthy lifestyle. This rhythm of modern student's life leads to rapid weight gain while studying at the university.

Obesity development is the result of external and internal reasons. External ones include poor nutrition and sedentary lifestyle (all the experts are clearly claiming that lack of physical activity significantly is much more impact on the development of obesity than overeating), the internal reasons are disruption of the endocrine glands or the severe nervous system damage (trauma) [7].

Past medical studies have convincingly demonstrated the link between overweight, obesity and the development of cardiovascular disease [10; 11].

The problem of obesity and disease development in student's life according to many authoritative scholars, practitioners, data, literature is primarily in understanding of the causes of disturbances in metabolism and selecting the most effective means and forms to fight the progression of the process of accumulation of excess weight. In this case physical education is a means of eliminating this disease and prevent its occurrence at high school, and also – the main factor in rehabilitation and health promotion in the final formation of the body [1].

Law of Ukraine «On Physical Culture and Sports» [8] described the main challenges facing high school – radical and comprehensive physical education, which is the basis for health promotion. Exactly the high school is the last step of future specialists for independent life, and that what imposes on them a great responsibility for the health and level of physical fitness of students. Health for student is an indicator of its general cultural level of development, to meet his physical and spiritual interests in learning, everyday life, recreation and forming its future. Health status is clearly interconnected with a healthy lifestyle.

Body mass index is a highly sensitive indicator of conformity food energy to the needs of the body. In the absence of such compliance as a result of excessive or insufficient food intake or obesity appears exhaustion, which in both cases is a serious health disorder. The same effect is possible at low or high physical activity without corresponding changes in potential energy diet. In such situations firstly feeding becomes a normal diet or excessive or deficient with all the future consequences of this [3].

In a view to that, each person who is prone to obesity or not, should systematically control their weight to know its optimal values. They should weight in the morning, for this purpose the floor weight is suitable.

Weighing results are compared with the ideal or recommended limit of it. The ideal norm is the weight of a man in 25–30 years. At this age physical development ends, and if there was no violations in the diet or serious illness, body weight is the most suitable standard for comparison in the future.

The purpose is to determine the physical condition assessment of students on the basis of body mass index and their comparison with the ideal body weight.

Research Methods. Questioning, educational observations, interviews, body mass index (BMI), measurement of body weight using electronic scales TEFAL № 67846 up to 0,1 kg. Measurement of height was conducted using stadiometer graduated in 0,1 cm.

The research results. The study used data questionnaire of 60 students (32 boys and 28 girls) third year studying of the Ukrainian Academy of Banking «Banking» speciality to determine body mass index «BMI».

All methods were applied twice, as originally were surveyed the health and showing of students in March and October. After the first studies among students the lecture on how to improve health and performance benefits of regular exercise were conducted. It is proved that after the experiment BMI indicators have improved significantly in both girls and boys. Each of the students has got an opportunity for an individual approach in improving health.

Body mass index is equal to your weight in kilograms divided by the square of your growth in meters [4]:

$$BMI = \text{Weight}(\text{kg}) / \text{Height}(\text{m})^2$$

For example:

Weight=75 kg and Height=1 m 75 cm,
then, $BMI = 75 / 1,75^2 = 24,49$

Based on the formula developed metric table. Below calculated data were for different BMI ratio height and weight that will work for most of the people. If the table doesn't include the required parameters, it is necessary to calculate your BMI using the given above formula.

After calculations of the student's BMI we summarized the data presented in Table 2 [5]:

Here on fig. 1 you can see the analysis of changes of the total number of students in relation to body mass index prior to the experiment and after it.

As a result of this analysis there was found that 50 % of the surveyed girls present overweight and between the young men the figure is slightly lower – 42,9 %.

Only 48,3% of all respondents has normal weight and adequate body mass index, even less than a half.

The higher level of BMI, the higher the risk of diseases associated with obesity, and premature mortality [7]. Using the indicator of BMI, aware of his convention, as for the calculations do not take into account gender, physique, development of muscles and other human characteristics.

Analyzing the survey data of students was found that 76 % do not adhere to the NPT regime, 59 % feeds disabled, 52 % leading sedentary lifestyles.

Another important task in preventing obesity is change the lifestyle to a more agile. It is advisable to visit a sports hall under the supervision of specialists in physical education to help pick up an exercise program for weight loss and improve the cardiovascular system [9].

Within three months the students 2–3 times a week visited the gym and running. Also harmful food were excluded from the diet, and they eating only healthy foods. After that, the measurements of body mass and growth of students were carried out again and received new indicators BMI, which are listed at the table 2.

From the table 2 we can see that after the experiment BMI indicators have improved significantly, as a result both girl's and boy's physical activity increased from 4 to 8 hours because of good nutrition.

One should keep in mind that regular physical ex-



Table 1

Index of ideal body weight for different ratios of height and body weight [4]

	Height, m								BMI
	150	155	160	165	170	175	180	185	
Weight, kg	40	43	46	49	52	55	58	62	18
	43	46	49	52	55	58	62	65	19
	45	48	51	54	58	61	65	68	20
	47	50	54	57	61	64	68	72	21
	50	53	56	60	64	67	71	75	22
	52	55	59	63	67	70	75	79	23
	54	57	61	65	69	73	78	82	24
	56	60	64	68	72	77	81	86	25
	63	67	72	76	81	86	91	96	28
	67	72	77	82	87	92	97	103	30
	79	84	90	95	101	107	113	120	35
	90	96	102	109	116	122	130	137	40

Table 2

Summary data of students by category of body weight, as defined by BMI

Body Mass Index	Before experiment		After experiment		Correspondence between human weight and its height
	Boys	Girls	Boys	Girls	
15	0	0	0	0	acute shortage of supply
15-18,5	1	2	1	1	acute shortage of supply
18,5-25	19	10	23	15	rate
25-30	10	13	7	9	overweight (smoothness)
30-35	1	1	1	2	obesity of the first-degree
35-40	1	1	0	1	second degree obesity
40	0	1	0	0	obesity of third degree

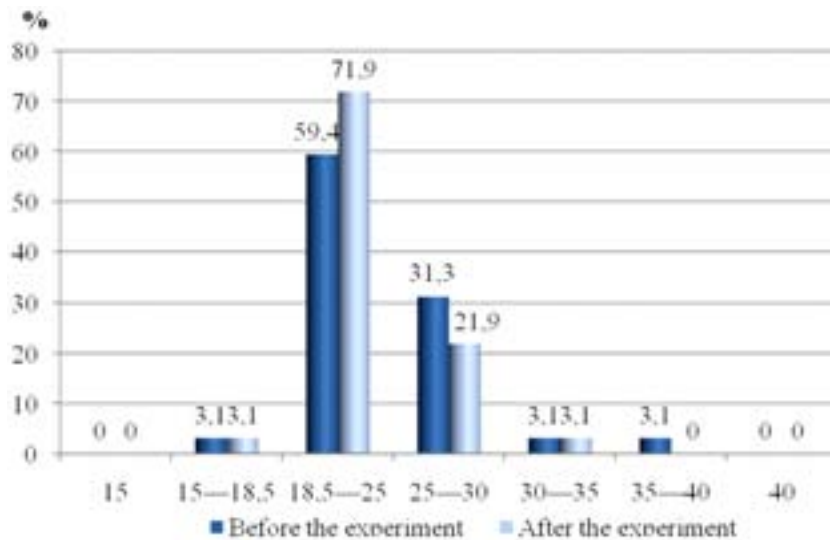


Fig. 1. Changes in the number of students in relation to body mass index before and after the experiment

ercises and sports contribute to fitness of the whole organism, and thus make a positive impact not only on the physical qualities of education, thus improving the physical condition of the body, but also have some influence on the functional state of the central nervous system, its plasticity, mobility and strength of nerve processes also affect the mental activity of students and, consequently, promote good progress of students [6]. Thus, during regular physical exercise and sports it is very important to monitor their general health state regularly.

To overcome the problem of overweight and obesity one should from the school desks teach children an active lifestyle, nutrition, eliminate bad habits, and over the years, we will not only have strong but also healthy nation.

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Conclusions:

1. Initial investigation revealed that in the 3rd year 48 % of students are with normal BMI, and after – 63 %. Before the experiment, about 48 % of students has not satisfactory and excess body weight, and after only 33 %. In 50 % of the surveyed girls present overweight in young men, the figure being slightly lower – 42,9 %.

2. Nutrition and weekly observance of the weekly motor regime in full (more than 6 hours) positively influenced on the regulation of body weight among the students.

3. The method of self-control is the main subject of healthy lifestyle.

Prospects for further research: further research is aimed to study the dynamics of body mass indexes for the following academic years.