



PHYSICAL ACTIVITY AND PHYSICAL EXERCISE IN STUDENTS LIFE

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Abstract

Aim. The aim of the study is to investigate the level of physical activity in university students. In according with the results will see how active they are and what kind of measure may propose to increase the data obtained. The study pursues to find students' physical activity behaviors and to describe students' physical activity patterns and their determinants.

Methods. The study was a comparative research of two ascertaining studies from 2013 and 2017. Both studies took place in sport halls of Bucharest University of Economic Studies. I used the questionnaire method.

Results. The analysis of the results shows that most students practice physical exercise only once a week only during physical education classes 65 of males and more than 70% of females. Students unanimously believe that exercise is a vital factor in an adult's life in 2013 study as well as in 2017 study but claims lack of time for practice physical exercise.

Conclusions. Universities should implement programs to increase student awareness of beneficial effects of a healthy life management and the importance of physical activity.

Keywords: physical exercise, physical activities, students

Introduction

„Many studies paid attention to the worldwide decline in physical activity and increase the sedentary and obesity. The inactivity at different ages it is a major problem for most countries.” (Fagaras et al., 2015, pg. 427) Physical exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness. Physical exercise is important for maintaining physical fitness and can contribute to maintaining a healthy weight, regulating digestive health, building and maintaining healthy bone density, muscle strength, and joint mobility, promoting physiological well-being, reducing surgical risks, and strengthening the immune system. Some studies indicate that exercise may increase life expectancy and the overall quality of life (Gremeaux et al., 2012)

Over the years, many public health, medical, and educational authorities have called on schools to give greater attention to provision of physical activity to students. „As we move into the 21st century, alarming health trends are emerging, suggesting that schools need to renew and expand their role in providing and promoting physical activity for our nation's young people” (Pate et al., 2006). Schools can build a strong foundation that will promote physical activity and other health-enhancing behaviors. Regular physical activity is an important component of a healthy lifestyle for people. „However, despite the noted

short- and long-term health benefits associated with physical activity, monitoring and surveillance studies show that a significant percentage of children and adolescents fail to meet the recommended guideline of 60 minutes or more of moderate-to-vigorous physical activity daily” (Troost, Loprinzi, 2008). „The lack of adherence to daily physical exercise is considered to be one of the main obstacles when promoting a healthy and active lifestyle. This is because many people starting physical exercise tend to find some degree of difficulty not only in continuing with the activity undertaken but also practicing it on a regular basis.” (Gómez-López et al., 2010)

Physical activity practiced on a regular basis is associated with a great amount of physical, psychological and physiological benefits and plays an exceptional role in preventing a variety of illnesses. Leading a sedentary lifestyle, on the contrary, is closely connected with different pathologies. „Physical inactivity has been linked with chronic disease and obesity in most western populations. However, prevalence of inactivity, health beliefs, and knowledge of the risks of inactivity have rarely been assessed across a wide range of developed and developing countries” (Haase et al., 2004, pg. 182)

„Even in adolescences and in the transition to university, and more specifically during the period of study at university, there is a rise in the disregard of a

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healthy lifestyle and a decrease in the practice of moderate to vigorous physical activity). This becomes a critical moment for the promotion of physical activity; mainly among women) who start to reduce their level of physical-sport practice...’’ (Gómez-López et al., 2010)

Physical education is an integral part of the instructive-educational system that has as "the goal of harmonious, mental physical development and the education of the character traits of the individual" (Jinga, 2007, pg. 11). The activity of physical education and sport in higher education bears the mark of each institution, including a wide range of forms of deployment, such as:

- Practical lessons (1 class a week);
- Training lessons (1 weekly training sessions);
- Medical Physical Culture Lessons (1 weeks);
- Internal competitions in the university

In Bucharest University of Economic Studies students have once a week one compulsory physical education class in the first year of study and in the first semester of second year of study.

Study

The study was a comparative research of two ascertaining studies. The first study was conducted in April and May 2013 and the second one was conducted in April and May 2017. The first study was conducted on a sample of 520 students from first year of study - 251 males and 269 females and the second one was conducted on a sample of 560 students from first year of study – 204 males and 356 females. Both studies took place in sport halls of Bucharest University of Economic Studies. The objectives of this study were to assess the prevalence of exercise among young adults.

Methods

The study used the questionnaire method, for this it was applied a questionnaire to students. The questionnaire had 20 questions and default answers.

1. How many times a week do you do physical exercises?
 - a) 4-7 times
 - b) 2-3 times
 - c) 1 time
2. Where do you do physical exercises?
 - a) At school.
 - b) In specialized class / gym.
 - c) Outdoor.
 - d) At home.
3. What kind of sport do you practice?
 - a) Games
 - b) Weight training.
 - c) Running

- d) Gymnastics
- e) Dance
- f) Fighting sports
- g) Other
4. Do you think physical exercises are a positive element in an adult's life?
 - a) Yes
 - b) No
5. Do you consider that physical education classes have improved your physical fitness?
 - a) Yes
 - b) No
 - c) I don't know
6. Do you consider that sport improves social life?
 - a) Yes
 - b) No
7. Do you consider that physical education classes should be compulsory?
 - a) Yes
 - b) No
8. If the physical education classes were optional you would have attended?
 - a) Yes
 - b) No
9. Your hobbies include sports?
 - a) Yes
 - b) No
10. Do you consider yourself a sedentary person?
 - a) Yes
 - b) No
11. Do you enjoy physical education classes?
 - a) Yes
 - b) No
12. Do you consider the level of the sport base as optimal?
 - a) Yes
 - b) No
13. What kind of physical education classes do you like most?
 - a) Basket-ball class.
 - b) Volley-ball class.
 - c) Aerobic class.
 - d) Weight training class/Fitness class.
14. What sports have you made in high school??
 - a) Basket-ball.
 - b) Handball.
 - c) Football.
 - d) Volley-ball.
 - e) Others
 - f) Physically exempt.
15. Do you practice a performance sport?
 - a) Yes
 - b) No.

16. How long do you practice?

- a) < 5 years
- b) 5-10 years
- c) >10 years

17. Did you practice a performance sport?

- a) Yes
- b) No.

18. How long did you practice?

- a) < 5 years
- b) 5-10 years
- c) >10 years

19. What kind of sport did you practice?

- a) Basket-ball.
- b) Football.

c) Volley-ball.

d) Handball.

e) Tennis.

f) Fighting sports.

g) Swimming

h) Dance

i) Gymnastics

j) Running

20. Have you been reluctant at first to gym classes?

- a) Yes
- b) No.

Results

The data obtained from the application of the questionnaires were processed, calculating for each item of the questionnaire the percentage. The results were put in table and were interpreted with

mathematics and graphic method. The percentage of responses was calculated on the total number of subjects and based on sex.

| Question | Answer | 2013 Study | | | | | | 2017 Study | | | | | |
|----------|--------|------------|-------|------|-------|--------|-------|------------|-------|------|-------|--------|-------|
| | | Total | | Male | | Female | | Total | | Male | | Female | |
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1 | a | 60 | 11,53 | 46 | 18,32 | 14 | 5,20 | 43 | 7,67 | 25 | 12,25 | 18 | 5,05 |
| | b | 98 | 18,84 | 37 | 14,74 | 61 | 22,67 | 109 | 19,46 | 48 | 23,52 | 61 | 17,13 |
| | c | 362 | 69,61 | 168 | 66,93 | 194 | 72,11 | 408 | 72,85 | 131 | 64,22 | 277 | 77,81 |
| 2 | a | 362 | 69,61 | 168 | 66,93 | 194 | 72,11 | 408 | 72,85 | 131 | 64,22 | 277 | 77,81 |
| | b | 89 | 17,11 | 43 | 17,13 | 46 | 17,10 | 101 | 18,03 | 48 | 23,52 | 34 | 9,55 |
| | c | 58 | 11,15 | 40 | 15,94 | 18 | 6,69 | 41 | 7,32 | 16 | 7,84 | 25 | 7,02 |
| | d | 11 | 2,11 | 0 | 0 | 11 | 4,08 | 10 | 1,78 | 9 | 4,41 | 20 | 5,62 |
| 3 | a | 23 | 14,56 | 18 | 21,68 | 5 | 6,67 | 22 | 14,47 | 20 | 27,39 | 2 | 2,53 |
| | b | 81 | 51,26 | 53 | 63,85 | 28 | 37,33 | 52 | 34,21 | 37 | 53,42 | 15 | 16,45 |
| | c | 27 | 17,1 | 5 | 6,02 | 22 | 29,33 | 32 | 21,05 | 6 | 8,21 | 26 | 32,91 |
| | d | 11 | 6,96 | 0 | 0 | 11 | 14,67 | 30 | 19,74 | 0 | 0 | 30 | 37,97 |
| | e | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2,63 | 2 | 2,73 | 2 | 2,53 |
| | f | 12 | 7,59 | 7 | 8,43 | 5 | 6,67 | 8 | 5,23 | 6 | 8,21 | 2 | 2,53 |
| | g | 4 | 2,53 | 0 | 0 | 4 | 5,33 | 4 | 2,63 | 2 | 2,73 | 2 | 2,53 |
| 4 | a | 520 | 100 | 251 | 100 | 269 | 100 | 560 | 100 | 204 | 100 | 356 | 100 |
| | b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | a | 432 | 83,08 | 223 | 88,85 | 209 | 77,70 | 455 | 81,25 | 168 | 82,35 | 287 | 80,61 |
| | b | 77 | 14,81 | 26 | 10,35 | 51 | 18,96 | 97 | 17,32 | 35 | 17,15 | 62 | 17,41 |
| | c | 11 | 2,11 | 2 | 0,8 | 9 | 3,34 | 8 | 1,42 | 1 | 0,49 | 7 | 1,97 |
| 6 | a | 520 | 100 | 251 | 100 | 269 | 100 | 527 | 94,10 | 194 | 95,10 | 333 | 93,54 |
| | b | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 5,90 | 10 | 4,90 | 23 | 6,46 |
| 7 | a | 483 | 92,88 | 229 | 91,24 | 254 | 94,42 | 367 | 65,54 | 103 | 50,49 | 264 | 74,15 |
| | b | 37 | 7,12 | 22 | 8,76 | 15 | 5,56 | 193 | 34,46 | 101 | 49,51 | 92 | 25,84 |



| Question | Answer | 2013 Study | | | | | | 2017 Study | | | | | |
|----------|--------|------------|-------|------|-------|--------|-------|------------|-------|------|-------|--------|-------|
| | | Total | | Male | | Female | | Total | | Male | | Female | |
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 8 | a | 453 | 87,12 | 242 | 96,41 | 211 | 78,44 | 287 | 51,25 | 83 | 40,68 | 204 | 57,30 |
| | b | 67 | 12,88 | 9 | 3,59 | 58 | 21,56 | 273 | 48,75 | 121 | 59,31 | 152 | 42,70 |
| 9 | a | 431 | 82,88 | 235 | 93,63 | 196 | 72,86 | 294 | 52,5 | 173 | 84,80 | 121 | 33,99 |
| | b | 89 | 17,12 | 16 | 6,37 | 73 | 27,14 | 266 | 47,5 | 31 | 15,20 | 235 | 66,01 |
| 10 | a | 84 | 16,15 | 6 | 2,39 | 78 | 29 | 139 | 24,82 | 12 | 5,89 | 127 | 35,67 |
| | b | 436 | 83,85 | 245 | 97,60 | 191 | 71 | 521 | 75,18 | 192 | 94,11 | 229 | 64,32 |
| 11 | a | 509 | 97,88 | 250 | 99,60 | 259 | 96,28 | 502 | 89,64 | 186 | 91,18 | 316 | 88,76 |
| | b | 11 | 2,12 | 1 | 0,40 | 10 | 3,72 | 58 | 10,36 | 18 | 8,82 | 40 | 11,24 |
| 12 | a | 490 | 94,23 | 223 | 88,84 | 267 | 99,26 | 483 | 86,25 | 145 | 71,08 | 348 | 97,75 |
| | b | 30 | 5,77 | 28 | 11,16 | 2 | 0,74 | 77 | 13,75 | 59 | 28,92 | 8 | 2,25 |
| 13 | a | 67 | 12,88 | 53 | 21,12 | 14 | 5,20 | 61 | 10,89 | 49 | 24,02 | 12 | 3,37 |
| | b | 49 | 9,42 | 15 | 5,98 | 34 | 12,65 | 31 | 5,54 | 10 | 4,90 | 21 | 5,90 |
| | c | 24 | 4,62 | 0 | 0 | 24 | 8,92 | 72 | 12,86 | 0 | 0 | 72 | 20,22 |
| | d | 380 | 73,08 | 183 | 72,91 | 197 | 73,23 | 396 | 70,71 | 145 | 71,08 | 251 | 70,51 |
| 14 | a | 114 | 21,92 | 78 | 31,08 | 36 | 13,38 | 147 | 26,25 | 71 | 34,80 | 76 | 21,35 |
| | b | 110 | 21,15 | 40 | 15,94 | 70 | 26,02 | 41 | 7,31 | 10 | 4,90 | 31 | 8,71 |
| | c | 87 | 16,73 | 77 | 30,68 | 10 | 3,72 | 84 | 15 | 83 | 40,69 | 1 | 0,28 |
| | d | 111 | 21,35 | 14 | 5,58 | 97 | 36,06 | 182 | 32,5 | 22 | 10,78 | 160 | 44,94 |
| | e | 62 | 11,93 | 30 | 11,95 | 32 | 11,90 | 37 | 6,61 | 4 | 1,96 | 33 | 9,27 |
| | f | 36 | 6,92 | 12 | 4,78 | 24 | 8,92 | 69 | 12,32 | 14 | 6,87 | 55 | 15,44 |
| 15 | a | 4 | 0,77 | 2 | 0,79 | 2 | 0,74 | 21 | 3,75 | 16 | 7,84 | 5 | 1,40 |
| | b | 516 | 99,23 | 249 | 99,20 | 267 | 99,26 | 539 | 96,25 | 188 | 92,15 | 351 | 98,60 |
| 16 | a | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 14,29 | 1 | 6,25 | 2 | 40 |
| | b | 2 | 50 | 0 | 0 | 2 | 100 | 11 | 52,38 | 10 | 62,5 | 1 | 20 |
| | c | 2 | 50 | 2 | 100 | 0 | 0 | 7 | 33,33 | 5 | 31,25 | 2 | 40 |
| 17 | a | 138 | 26,74 | 71 | 28,51 | 67 | 25,10 | 91 | 16,88 | 53 | 28,19 | 38 | 14,90 |
| | b | 378 | 73,26 | 178 | 71,48 | 200 | 74,90 | 448 | 83,12 | 135 | 71,81 | 217 | 85,10 |
| 18 | a | 109 | 78,99 | 53 | 74,65 | 56 | 83,58 | 60 | 65,93 | 41 | 77,36 | 19 | 50 |
| | b | 26 | 18,84 | 16 | 22,53 | 10 | 14,92 | 28 | 30,77 | 9 | 16,98 | 19 | 50 |
| | c | 3 | 2,17 | 2 | 2,82 | 1 | 1,49 | 3 | 3,29 | 3 | 5,66 | 0 | 0 |
| 19 | a | 39 | 28,26 | 25 | 35,20 | 14 | 20,90 | 22 | 24,18 | 11 | 20,75 | 11 | 28,95 |
| | b | 18 | 13,04 | 18 | 25,35 | 0 | 0 | 21 | 23,07 | 20 | 37,74 | 1 | 2,63 |
| | c | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9,89 | 3 | 5,66 | 6 | 15,79 |
| | d | 5 | 3,62 | 2 | 2,82 | 3 | 4,48 | 5 | 5,49 | 4 | 7,55 | 1 | 2,63 |
| | e | 6 | 4,35 | 1 | 1,41 | 5 | 7,46 | 4 | 4,40 | 3 | 5,66 | 1 | 2,63 |
| | f | 32 | 23,19 | 16 | 22,54 | 16 | 23,88 | 11 | 12,09 | 7 | 13,21 | 4 | 10,53 |
| | g | 12 | 8,69 | 2 | 2,82 | 10 | 14,93 | 2 | 2,20 | 1 | 1,89 | 1 | 2,63 |
| | h | 4 | 2,90 | 0 | 0 | 4 | 5,97 | 4 | 4,39 | 1 | 1,89 | 3 | 7,89 |
| | i | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1,10 | 0 | 0 | 1 | 2,63 |
| | j | 22 | 15,95 | 7 | 9,86 | 15 | 22,38 | 12 | 13,19 | 3 | 5,66 | 9 | 23,68 |
| 20 | a | 96 | 18,46 | 41 | 16,33 | 55 | 20,45 | 318 | 56,79 | 51 | 25 | 267 | 75 |

| Question | Answer | 2013 Study | | | | | | 2017 Study | | | | | |
|----------|--------|------------|-------|------|-------|--------|-------|------------|-------|------|----|--------|----|
| | | Total | | Male | | Female | | Total | | Male | | Female | |
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| b | | 424 | 81,54 | 210 | 83,67 | 214 | 79,55 | 242 | 43,21 | 153 | 75 | 89 | 25 |

Discussions

The analysis of the results shows that most students practice physical exercise only once a week only during physical education classes. The percentages obtained in different years are approximate as a result. What's worrying is that only 5% of the girls do exercises between 4 and 7 times a week. Boys show a better periodicity (although

inadequate according to WHO guidelines) compared to girls in 2013 study, which decreases in 2017 study. Those who do exercise independently prefer to perform physical activities in specially designed, enclosed spaces to outdoor activities. Students say that lack of time is the main reason why they do not exercise more often.

Chart 1 How many times a week do you do physical exercises?

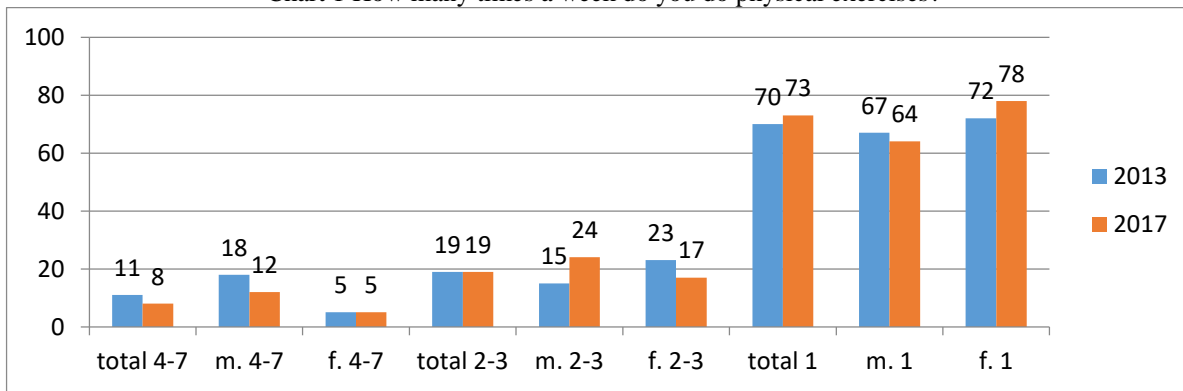
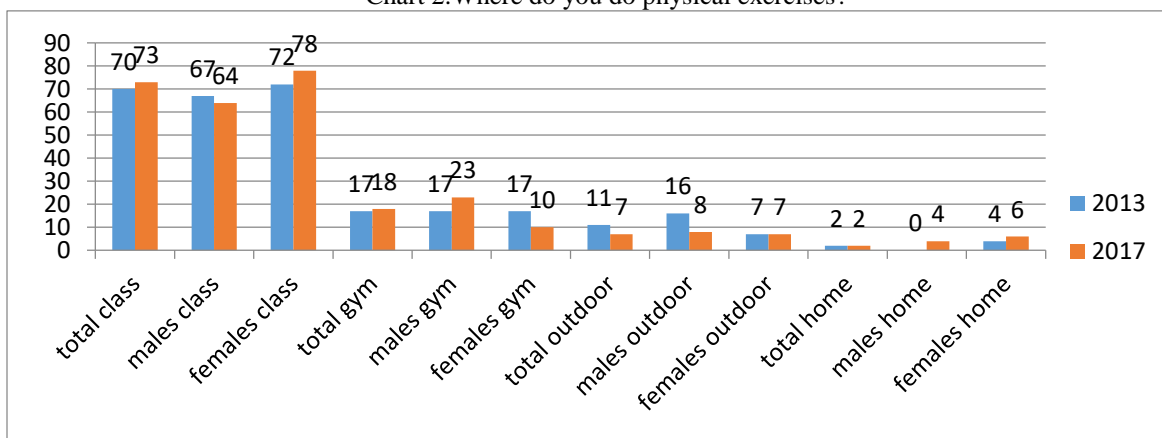


Chart 2. Where do you do physical exercises?





It is noted that regardless of the year when the study was applied, the males prefer the weight training and sports games, and the females jogging. The 2017 study reveals that females are also heading to gymnastic exercises.

Students unanimously believe that exercise is a vital factor in an adult's life in 2013 study as well as in 2017 study. They appreciate, in both studies, at a rate of about 80 beneficial effects on physical condition of physical education classes. The remaining 20% believe that the number of classes (1 time per week) is insufficient to achieve the desired effects.

While in 2013 students believe that through physical activities social life is improved, in 2017 5 percent of the group believes that sport does not help them to optimize social life more than other activities.

Very large differences between studies results appear in items 7, 8 and 20. If in 2013 study 90% of students appreciate compulsory physical education classes, in 2017 study 50% of males and 26% of females believe that classes should not be made compulsory. They also said that if these classes would be optional only 57% of girls and 40% of boys would participated in physical education activities, while in 2013 study approximately 90% of students would have participated in activities in the same conditions. Here comes the natural question of how many times these young people would exercise independent, given the fact that 30% of students practice physical exercise free of compulsory classes! Girls said in the 2017 study that they were reticent when they found out about the compulsory sport classes (75% of them).

It is noticed that sport as a hobby is more popular among boys and girls percentage results decreased considerably from 70% in 2013 study to 30% in 2017 study. However, only 35% of the girls said in the 2017 study that they would be sedentary. The boys see themselves as dynamic people in a percentage of about 95.

Satisfaction of attendance at classes is decreasing in 2017 (89%) versus 2013 (98%), and discontent with the sporting base offered is on the rise, boys (29%) claim more often the desire to have soccer fields, tennis and swimming pool, in order to perform various sports fields.

It is noted that students' interest in weight training classes is constantly maintained in both studies. Here, it could be argued that during these classes, they work independently, self-dose the intensity and complexity of exercises, do not have to follow some strict rules or perform fixed exercises. In 2017 study girls appreciate the gymnastics programs (20% of them), to the detriment of the volleyball game.

It is find out that 2017 students were exempted from physical education in double percentage compared to 2013 students during the high school cycle, the percentage of girls exempted from physical education being in both studies higher than boys.

In 2013 study, only 4 out of 520 students were performing sports (tennis, football, swimming, karate), 2 for 5-10 years and 2 for more than 10 years. In 2017 study, 21 students practiced performance sports. (6 combat sports, 1 handball, 4 dance, 5 basketball, 1 volleyball, 2 swimming, 1 rugby, 1 canoeing). The number of 2017 girls who had practiced sports performance is down from 2013 (15% vs. 25%), so only 17% of 2017 students practiced performance sports compared to 27% in 2013 study. Most had practiced less than 5 years a sport, and team sports are favorite in 2017 study. The most practiced are basketball and football. The interest for combat, swimming, athletics decreases in the 2017 study.

Conclusions

1. Students' tendency to avoid physical exercise is worrying.
2. The young generation recognizes the importance of physical exercise, but claims lack of time for practice physical exercise.
3. Students begin to think that compulsory physical education in the curriculum should not be necessary.
4. Young people, although not practicing daily exercise programs, don't consider to have a sedentary life.
5. We need a model teaching approach that uses sport and exercise to help young people take more responsibility for themselves and the wellbeing of others.
6. Universities should implement programs to increase student awareness of beneficial effects of a healthy life management and the importance of physical activity.

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