

## ATTITUDES AND BEHAVIORAL PICTURE OF STUDENTS REGARDING ASPECTS OF PHYSICAL WELL-BEING

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**Abstract:** *The research is a synthesis of a survey based on the FRESH questionnaire - physical activity and lifestyle, adapted and translated, applied to students of the Faculty of Engineering Hunedoara. Out of the total of 50 items of the questionnaire, only those referring to the following indicators were processed: health status, level of physical activity, information on nutrition, lifestyle data and opinions on physical activity. The interpretation of the data with the help of the graphical method and the statistical method, using the program SPSS and Excel, allowed the creation of a relevant image of the studied phenomena and of the relations between them.*

**Key words:** *well-being, students, health, life quality, physical activity.*

### 1. Introduction

The modern man “is aware of all the aspects that contribute to the definition of the quality of his life, both as an individual, as a member of human society, and as a universal entity” [8].

A component of life quality, physical well-being, involves „health, physical mobility, adequate nutrition, availability of free time, interesting favourite activities in free time (hobbies and their satisfaction), optimal fitness or fitness, embodied in the four S: strength - physical strength,

stamina - physical strength or endurance, suppleness - physical suppleness and skills - physical skill or ability”[3].

Well-being is defined in a Canadian report as „the presence of the highest quality of life, in its fullest expression, pursuing (even if not exclusively) a high standard of living, robust health, an environment (living) sustainable, vital community services, educated population, judicious use of time, high level of civic participation in culture and recreation”. [6]. The level of physical activity, according to Kilpatrick et al. (2005), “decreases from

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high school to college, being insufficient to promote and maintain physical well-being" [2]. Physical activity is an essential component in assessing various aspects of life. Defined after Seabra [4] physical activity is "a multidimensional behaviour that can take place in a number of contexts. We can talk about physical activity in the following situations: physical activity in the form of play, dance, physical education, sports, work, transportation, etc." [4].

The study is based on the idea that, "in a realistic model, physical activity, physical condition and health are inter-conditioned. These inter-determinations will be modulated or influenced by a number of factors related to genetic inheritance, conditions in the physical and social environment, lifestyle, attributes or personal characteristics" [5].

## 2. Content of the Study

The identification of the attitudinal and behavioural aspects of the students that highlight some aspects of physical well-being was outlined by the interpretation of the Items of a sociological survey based on the FRESH questionnaire - physical activity and lifestyle, conducted between October and November 2019. Respondents, year I (Lot 1) and year IV (Lot 2), 175 in number, follow the bachelor's degree programs of the Hunedoara Faculty of Engineering. Considering the presence at the physical education seminar, in proportion of 75% of the number of hours / year, out of the 293 students enrolled in year I and year IV, 20 were selected from each specialization with the specification that in IV are only 15 in a specialization. The questionnaire included 50 Items, structured on four indicators, of which only those related to the following

indicators were processed: health status (A, Item 2), level of physical activity (B, Items 2,5,7, 10), information about nutrition (C, Items 1, 4, 5, 7, 8, 15, 17), lifestyle data (D, Items 1,3,4) and opinions about physical activity (E, Items 1 4.7). Of the total number of respondents, the male predominance is highlighted in a percentage of 69.72%, which is relevant to the technical profile of the higher education institution where the respondents study.

## 3. Results and Discussions

The request for data for health assessment was related to smoking.

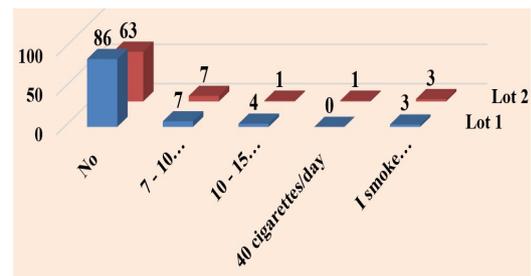


Fig. 1/A. Item 2 – Variables of subject's responses to smoking

Item 2 - Do you smoke? How? (per day / week / occasionally). In this question only 14.8% of respondents smoke in various proportions according to the data in figure 1.

The identification of the level of physical activity was made based on the analysis of four Items, as follows: *Item 2 - How many times do you practice physical activities per week?*

The respondents of Lot 1 in a percentage of 27% exercise once, twice a week, 22% three times a week, while only 8% carry out systematic physical activity four times a week. The situation of Lot 2 delimits 16% of subjects who exercise three times a week, 21%, twice a week,

compared to 26% once a week. The proportion of 20% in Lot 2 who do not engage in physical activity is quite significant, figure 2.

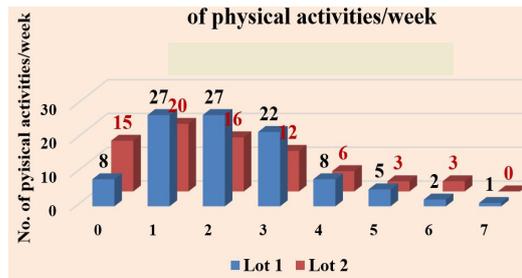


Fig. 2/B. Item 2 – Variables of the number of physical activities / week

Item 10 - When doing physical activities, give a score from 1 to 5 (1 - not at all important, 5 - very important) to the importance of the competition in relation to you or others.

The study of the answers regarding the importance of the competition, highlights 39% of the respondents of Lot 1 who ticked level 2 on the scale from 1-5. In other words, the components of Lot 2 chose the reference scale 3 in 29% (figure 3).

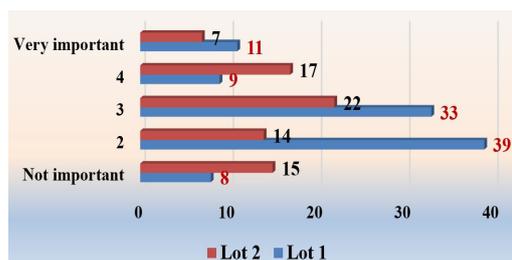


Fig. 3/B. Item 10 – Variables of the importance of the concept of competitions

Item 5 - What kind of physical activities do you include in your program?

In an attempt to hierarchies and graphically represent the respondents' opinions on the form of physical activities

performed, acronyms (A-H) were used: (figure 4).

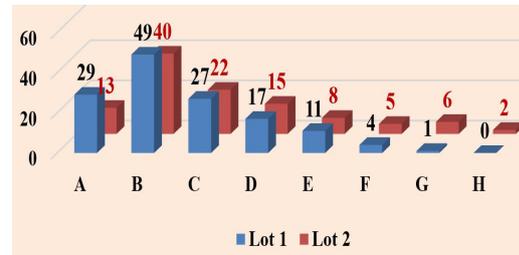


Fig. 4/B. Item 5 – Variables of physical activities practiced

- ✓ A - fitness room;
- ✓ B - walking / jogging;
- ✓ C - cycling;
- ✓ D - fitness at home;
- ✓ E - swimming;
- ✓ F - table tennis;
- ✓ G - football;
- ✓ H - dance.

The most popular form of physical activity is walking / jogging with 49 followers from Lot 1 and 40 followers from Lot 2. Respondents also go by bike and / or to the gym, practice fitness at home, and a small part swims or play table tennis, skills that require motivation, training and guidance.

Item 7 - In the age range in which you fall, specify on a scale from 1 to 5 (1 - minimum level, 5 - maximum level), the level of physical activity performed.

The information on the level of physical activity performed derives from the answers combined with those of Items 2 and 5. Information on the level of physical activity by age categories delimits the answers of Lot 1 at 19-21 years, respectively 32-39 years, level 3, compared to the answers of Lot 2 25-31 years, level 3, respectively over 40 years, level 1 (figures 5-8).

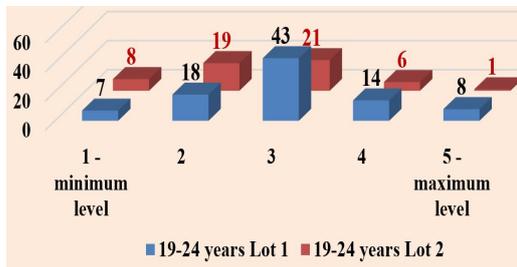


Fig. 5/B. Item 7a – Variables of the physical activity level

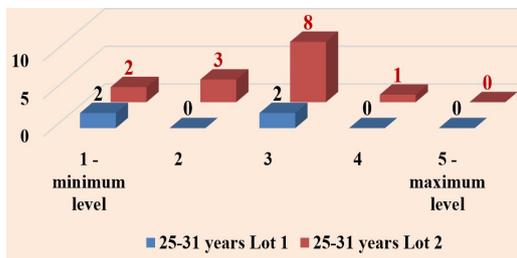


Fig. 6. Item 7b – Variables of the physical activity level

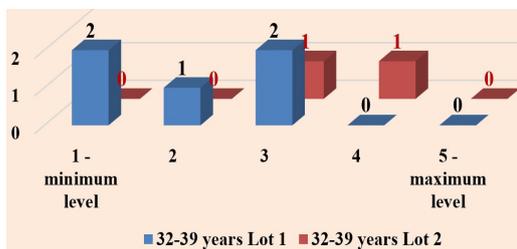


Fig. 7/B. Item 7c – Variables of the physical activity level

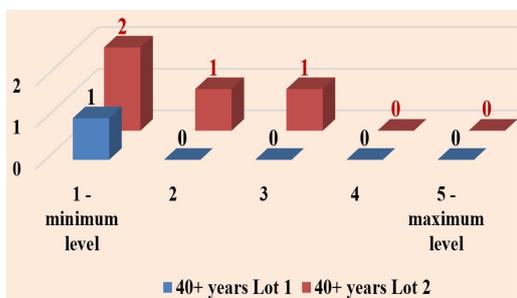


Fig. 8/B. Item 7d – Variables of the physical activity level

Analyzing by lots, it can be seen that Lot I has scores of 7.92, higher than Lot II which had a score of 7.44. And the analysis within the groups shows us that the scores obtained by Lot I, in *Items 2 and 7*, are higher compared to Lot II. And in *Item 10*, Lot II had a significantly higher score (Table 1).

Statistical processing Items 2, 7 and 10

Table 1

Item	Lot 1		Lot 2	
	Mean	Std. Deviation	Mean	Std. Deviation
B Item 2	2.2700	1.24604	2.1067	1.32107
B Item 7	2.8800	1.06629	2.5067	0.93539
B Item 10	2.7700	1.08110	2.8267	1.25605
<u>Results</u>	7.9200	3.39344	7.4400	3.51251

The data that outline the eating style of the subjects were extracted from Items 1, 5, 7, 8, 15, 17.

*Item 1 - On a scale of 1 to 5 (1 - very poor, 5 - very healthy), characterize your eating style.*

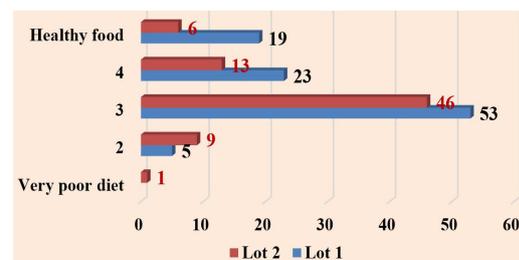


Fig. 9/C. Item 1 – Eating style variables

Asking for information on eating style characteristics, delimit on a scale of 3 out of 5 most answers: 53%, subjects of Lot 1 and 61%, subjects of Lot 2 (figure 9).

*Item 5 - When do you serve the most substantial meal during the day?*

The answers indicate the mid-day interval as the period of serving the most substantial meal, with 61% percent Lot 1, and 57% percent Lot 2. Considering this

interval as part of the study program and / or workplace of many subjects, it is estimated that the diet has a certain level of unhealthy composition (figure 10).

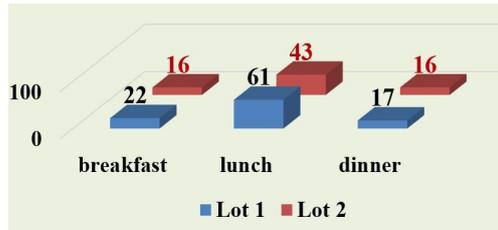


Fig. 10/C. Item 5 –Variables of the most consistent meal/day

Item 7 – What activities do you do while eating?

Regarding the feedback for this Item, it was found that during the meal, over 50% of the total respondents do not carry out related activities. The systematization of the answers regarding the activities carried out together with the serving of the table for 34 respondents of Lot1 and 25 respondents of Lot 2, allocates the main place of watching TV.

Item 8 – Apart from feeling hungry, why are you eating?

The points of view on eating habits practiced by the subjects of the investigation identify the most invoked reasons why a party eats, apart from the feeling of hunger, as: *boredom, happiness, socialization and stress*. It was found that 8% of the subjects of Lot 1, respectively 10% of the subjects of Lot 2 did not tick anything, it turns out that they do not eat between meals.

Item 15 – How many glasses full of water do you consume during an ordinary day?

Opinions about daily water consumption outline the range of 4-7 glasses in a percentage of 59% Lot 1 and 57% Lot 2,

respectively, which means a normal level of hydration.

Item 17 – How many alcoholic beverages (liters) do you consume in a week?

The data on alcohol consumption, quite subjective, mean the lack of alcohol consumption with 59% responses in year I (Lot 1) and 47% responses in year IV (Lot 2).

Continuing the study, information was requested about some aspects of the subjects' lifestyle (Items 1, 3, 4), sleep duration being an issue.

Item 1 - How many hours of sleep do you usually sleep at night?

Data processing shows that sleep duration is in the range of 5-8 hours / night for 64% of Lot 1 and 67% of Lot 2.

Item 3 - What is your daily stress level? (1 - no stress, 5 - high stress)

In order to interpret the factors that cause a certain level of daily stress, possible variables were used in order to group the answers from Items 3 and 4 of the lifestyle. The analysis of the answers highlights a high level of daily stress in first year subjects (Lot1) with 38%, which is largely due to the new situations they face, especially education / school with 49%. On the other hand, the percentage of 24% of the high level of daily stress in the subjects of year IV (Lot 2), identifies as main factors the service with 35% and the education / school with 33% (figures 11, 12).

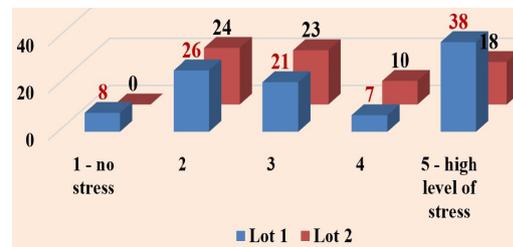


Fig. 11/D - Item 3 –Variables Stress level/day

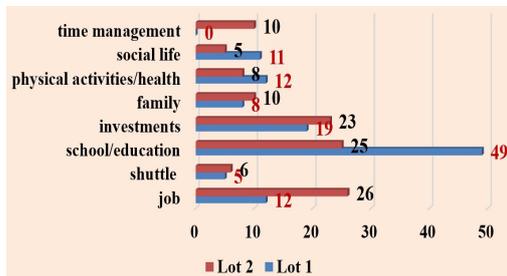


Fig. 12/D - Item 4 –Variables of stress factors

The marks regarding the time factor, introduced in *Item 4*, are also interesting. The respondents of Lot 1 did not check anything, and the respondents of Lot 2 mentioned it as a stress factor in proportion of 13%.

The last researched aspect of the study, E, refers to the concept of physical activity extracted from the answers to *Items 1, 4, 7*.

*Item 1 Do you think you need a personal trainer?*

When the subjects were asked about the need to use a personal trainer to guide their physical activity, the subjects of both groups refused this in proportion of 93%, year I (Lot1), respectively 84% year IV (Lot2).

*Item 4 Classify the following benefits of physical activity in order of importance: (1 - not important, 5 - very important)*

Listing the importance of physical activity benefits on the subjects of the two groups highlights the knowledge and appreciation of each benefit relevant to achieving physical well-being.

On a scale of 1 to 5, the 10 variables of the Item were interpreted separately graphically, using acronyms, (A-J), as follows:

**A.** *the improvement of the cardiovascular capacity* is very important for Lot 2 by 49%, compared to Lot 1 by 43%;

**B.** *the elimination of body fat* is very important for Lot 1 in a percentage of 46%, Lot 2 considering it very important with 40%;

**C.** *body toning* is of major importance after the 52% percentage of Lot 1, compared to 42%, the percentage of Lot 2;

**D.** *the improvement of the performance in a sports branch* delimits Lot 1 by 26%, compared to the score of Lot 2 by 22%;

**E.** *the improvement of good mood and the ability to cope with stress* is ahead of Lot 2 by 56% Lot 1 by 52%;

**F.** *the improvement of mobility and flexibility* highlights its importance for 46% of the respondents of Lot 1, while for Lot 2 the percentage is 34%;

**G.** *the increase of force* is found to be very important for the two groups, Lot1 41%, Lot 2 39%;

**H.** *the increase of the energy level* is perceived as very important for Lot 2 by 69% compared to the respondents of Lot 1 by 57%;

**I.** *physical well-being*, variable completed under the heading others, is very important for the respondents of both groups, in a percentage of 76% Lot 2, and 72% Lot 1;

**J.** *joy*, the second variable from the *other* section, is perceived as very important by Lot 2 with 69% answers, Lot 1 registering a percentage of 57%.

In order to build a more objective image about the importance of the benefits of physical activities, the variables with over 50% of the responses to at least one of

the groups were judged on scale 5 (figure 13).

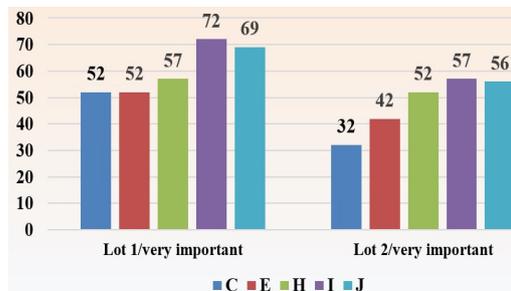


Fig. 13/E - Item 4 / scale 5

In this context, considered the reference for the present study, the variable with the most responses to the superlative is mentioned as *physical well-being*, followed by *joy*, *increased energy levels* and last but not least by the *improvement of good mood and ability to do face stress and toning the body*.

Item 7 - What is the place of health in your life?

The aspects that outline the importance of the place of health in the life of the subjects mean their preoccupation in this aspect, in a percentage of 82% Lot1 and 77%, Lot 2.

#### 4. Conclusions

- From the obtained data it can be shown that most of the respondents have an active lifestyle, which adds value to maintaining physical well-being.
- The most popular form of physical activity for the researched students is walking / jogging. Respondents also go by bike and / or to the gym, practice fitness at home, and a small part swims or plays table tennis, skills that require motivation, training and guidance.

- Analyzing by groups information about the level of physical activities, it can be seen that Lot I has scores of 7.92, higher than Lot II which had a score of 7.44. And the analysis within the groups shows us that the scores obtained by Lot I, in *Items 2 and 7*, are higher compared to Lot II. And in *Item 10*, Lot II had a significantly higher score.
- The answers indicate the *mid-day* interval as the period of serving the most consistent meal.
- Considering this interval as part of the study program and / or workplace of many subjects, it is estimated that the diet has a certain level of unhealthy composition.
- The points of view about the eating habits practiced by the subjects of the investigation identify the most invoked reasons for which a party eats, apart from the feeling of hunger, as: *boredom*, *happiness*, *socialization and stress*.
- Opinions about daily water consumption outline the range of 4-7 glasses, means a normal level of hydration.
- A high level of daily stress in first year subjects (Lot1) by 38%, is largely due to new situations they face, especially education / school by 49%. On the other hand, the percentage of 24% of the high level of daily stress in the subjects of year IV (Lot 2), identifies as main factors the service with 35% and the education / school with 33%.
- Regarding the importance of the benefits of performing physical activities, judging on a scale 5 the variables with over 50% of responses to at least one of the groups shows the variable with the most responses

to the superlative as *physical well-being*, followed by *joy*, *increased energy levels* and last but not least by *improving good mood* and the ability to cope with stress and toning the body.

### Recommendations

- Healthy lifestyle includes „the actions of each person, the actions and decisions taken by groups, organizations, and the factors that affect these decisions, including social change, strategies and action programs in the field of health to improve the quality of life.” [7]

- Among the personal decisions that lead to the formation of a sanogenetic lifestyle, favourable to health are the following: „the systematic practice of physical exercises in order to acquire an optimal physical condition (fitness); moderate alcohol consumption (1-2 units of alcohol per day, especially wine; red wine - 250 ml - with the antioxidants contained, is recommended); balanced and varied diet (rich in fresh vegetables and fruits, low in fat supersaturated in cholesterol); avoiding drug use; the use of appropriate ergonomic strategies for adjusting (reducing) occupational stress” [1].

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