Considerations on Implications of Risk Behavior in Mental Condition at Students

ADRIANA HUREZEANU¹, ILEANA PREJBEANU¹, MARCELINA MIHAI¹

¹Hygiene Department, Faculty of Medicine, University of Medicine and Pharmacy of Craiova

ABSTRACT: Social and family factors significantly influence somatic and psychical development of children and young people, differentiated by social gradient. Their behavior externalizes their capacities to adapt to family and social environment. It is the result of positive or negative influences of actions of factors in these environments. In adolescence, the social motivation of these behaviors is determined by their social relations (family, school, friends, entourage). By our conducted study we aimed to identify such behaviors, which, under various influences may gain risk or impact on health condition. 160 students, by random sex and aged between 11 and 18, were investigated anthropometric and physiometric were asked to respond to a complex set of questionnaires. The research has shown that subjects with reduced anthropometric and physiometric parameters (of the head) have serious school concerns, they are frequently extracurricular pursuits with a good academic situation, they meet the program of rest, have a peaceful sleep, have a balanced diet, no violent events, do not smoke or consume alcohol.

KEYWORDS: student, behavior, development

Introduction

The body under growth is very sensitive to environmental factors, and this is emphasized by the intensity of reactions and their quality. The phenomena of development process can be highlighted at various levels of human organization. [1,2] The processes of growth and development are much more complex in a sense beyond biological laws, acquiring attributes of social order, assuming integration of the child into the family, the community and then in social life.[3,4,5]

Material and method

The research was conducted on children of different ages between 11-18 years old, middle school and high school students. All of 160 subjects of both sexes were investigated by anthropometric and physiological measurements. Also they answered questionnaires to identify the overuse syndrome in the school program and some behaviors in their health condition.

1. Anthropometric Measurements.

Among the points and anthropometric measurements described in the Practical Anthropology Guide Radu, [6,7] the following were used:

- Minimum frontal breadth/width (FT - FT);
- Cephalic cap height (height of the neurocranium) (TSV - TDV);
- Maximum face width (viscerocranium width) (Zy - Zy);
- The minimum width of the face (jaw width) (Go - Go);
- Head circumference (PC);
- Body height (waist);
- Weight (G),
- Thoracic perimeter (PT)

2. Physiometric determinations.

Consisted of appreciation (at rest) [7,8,9] of:
- Vital capacity (VC);
- Systolic blood pressure (SBP);
- Diastolic blood pressure (DBP);
- Heart rate (pulse)

3. Questionnaire for investigating the intellectual overload (fatigue).

It follows the detection of certain factors in the school environment (mainly the curriculum) and family (extracurricular activities), which may lead to onset of fatigue.

4. Questionnaire for the investigation of risk behaviors – YRBS

Results and discussions

In Table 1 it is shown that on the basis of question number 2 of YRBS, students who smoke for more than three years than those who smoke less than three years (considered 100%) have the anthropometric parameters expressed as percentage TSV, TDV, Zy-Zy, have higher percentages between 112.9% (at Zy-Zy) and 107-106 - 101%.

Therefore Zy-Zy parameter appears with a big difference, so smokers for more than 3 years have a wider face.

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Table 1 Percentage/average anthropometric parameters on question 2 YRBS

| YRBS 2 | Subjects | Average | DevStd | Percentage | Statistical p |
|---------|----------|---------|--------|------------|---------------|
| FT-FT   | a        | 73      | 100.8  | 8.46       | 100.0         | 0.00000       |
|         | b        | 87      | 108.2  | 6.68       | 107.3         |               |
| TSV     | a        | 73      | 111.6  | 5.73       | 100.0         | 0.00000       |
|         | b        | 87      | 117.3  | 5.55       | 105.1         |               |
| TDV     | a        | 73      | 112.1  | 5.26       | 100.0         | 0.00003       |
|         | b        | 87      | 116.1  | 6.13       | 103.6         |               |
| ZY-ZY   | a        | 73      | 108.6  | 8.59       | 100.0         | 0.00000       |
|         | b        | 87      | 122.6  | 13.57      | 112.9         |               |

At the same question No. 2 of YRBS in Table 2 produces the same, that subjects who smoked more than three years have much higher CV (156.5%) compared to those who smoke less than three years, and weight of 108.4% and 102.6% size. The PT is also higher (122.7%), TAS (105.6%) and pulse (103.6%). Head circumference is virtually equal to the two categories of subjects.

Table 2 Percentage/average anthropometric parameters on question 2 YRBS

| YRBS 2 | Subjects | Average | DevStd | Percentage | Statistical p |
|---------|----------|---------|--------|------------|---------------|
| PC      | a        | 73      | 53.9   | 1.96       | 100.0         | 0.01546       |
|         | b        | 87      | 54.0   | 3.94       | 100.3         |               |
| Weight  | a        | 73      | 44.2   | 10.37      | 100.0         | 0.00000       |
|         | b        | 87      | 56.0   | 9.95       | 126.8         |               |
| Size/Height | a | 73 | 1.6 | 0.11 | 100.0 | 0.00000 |
|         | b        | 87      | 1.7    | 0.09       | 108.4         |               |
| PT      | a        | 73      | 73.9   | 6.35       | 100.0         | 0.00000       |
|         | b        | 87      | 90.7   | 98.86      | 122.7         |               |
| CV      | a        | 73      | 1534.1 | 600.4      | 100.0         | 0.00000       |
|         | b        | 87      | 2400.9 | 673.82     | 156.5         |               |
| TAS     | a        | 73      | 99.7   | 9.71       | 100.0         | 0.00168       |
|         | b        | 87      | 105.3  | 9.07       | 105.6         |               |
| PULSE   | a        | 73      | 66.0   | 4.23       | 100.0         | 0.00035       |
|         | b        | 87      | 68.4   | 4.04       | 103.6         |               |

Table 3 Percentage/average anthropometric parameters on question 2 YRBS

| YRBS 2 | Subjects | Average | DevStd | Percentage | Statistical p |
|---------|----------|---------|--------|------------|---------------|
| FT-FT   | a        | 71      | 109.0  | 6.81       | 100.0         | 0.00000       |
|         | b        | 89      | 101.5  | 8.03       | 93.1          |               |
| TSV     | a        | 71      | 117.1  | 5.57       | 100.0         | 0.00000       |
|         | b        | 89      | 112.8  | 6.19       | 96.3          |               |
| TDV     | a        | 71      | 115.9  | 6.33       | 100.0         | 0.00207       |
|         | b        | 89      | 112.9  | 5.55       | 97.4          |               |
| ZY-ZY   | a        | 71      | 121.8  | 13.75      | 100.0         | 0.00002       |
|         | b        | 89      | 111.8  | 11.57      | 91.8          |               |
| PC      | a        | 71      | 54.3   | 3.05       | 100.0         | 0.02174       |
|         | b        | 89      | 53.6   | 3.28       | 98.7          |               |
At question no. 3 of YRBS, according to Table 3, subjects who responded positively to the question b (occasional consumption of alcohol) than those who answered yes to question a) (regularly consume alcohol) present values of anthropometric parameters with lower percentage as for FT, TSV, TDV, Zy - Zy, PC. Have values between 91 and 97%, the lowest is at Zy - Zy is (91.8%) than those who habitually consume alcohol. So smokers have almost all given parameters (p less than 0.05) almost identical to those who frequently consume alcohol, probably in most cases the same individuals.

From Table 4 further results: subjects who consume alcohol frequently have 82.6% weight, height 91.8%, 80.1% PT, CV, which was enormous for many years, or at smokers or alcohol consumers, here is 63%, 96% TAS, pulse 96.4%.

Therefore old smokers have almost all anthropometric parameters similar to regular consumers of alcohol.

**Table 4 Percentage/average anthropometric parameters on question 2 YRBS**

|                         | YRBS 2 | Subjects | Average | DevStd | Percentage | Statistical p |
|-------------------------|--------|----------|---------|--------|------------|---------------|
| Weight                  | a      | 71       | 56.0    | 9.94   | 100.0      | 0.00000       |
|                         | b      | 89       | 46.3    | 11.24  | 82.5       |               |
| Size/Height             | a      | 71       | 1.7     | 0.09   | 100.0      | 0.00000       |
|                         | b      | 89       | 1.6     | 0.11   | 91.8       |               |
| PT                      | a      | 71       | 93.4    | 109.34 | 100.0      | 0.00000       |
|                         | b      | 89       | 74.8    | 6.83   | 80.1       |               |
| CV                      | a      | 71       | 2524.5  | 565.98 | 100.0      | 0.00000       |
|                         | b      | 89       | 1591.4  | 657.25 | 63.0       |               |
| TAS                     | a      | 71       | 105.7   | 9.23   | 100.0      | 0.00243       |
|                         | b      | 89       | 100.4   | 9.54   | 95.0       |               |
| PULS                    | a      | 71       | 68.7    | 4.01   | 100.0      | 0.00049       |
|                         | b      | 89       | 66.3    | 4.2    | 96.4       |               |

In Table 5, students who say they are tired after school program, have higher weight (106.7%). By greater weight is like jailbirds smokers and those who consume alcohol frequently.

**Table 5 Percentage/average anthropometric parameters on question 1 FATIGUE**

|                 | FATIGUE1 | Subjects | Average | DevStd | Percentage | Statistical p |
|-----------------|----------|----------|---------|--------|------------|---------------|
| Weight          | yes      | 106      | 49.2    | 12.51  | 100.0      | 0.02565       |
|                 | No       | 54       | 53.4    | 9.43   | 108.7      |               |

Table 6 show the results of the question no. 2 of questionnaire of fatigue, namely that those who sleep well without headaches or eyeaches after high school work, have lower body weight (90.9%) and have small waist (97.6%) so the parameters are similar to those who do not frequently consume alcohol and smoke less than three years.

**Table 6 Percentage/average anthropometric parameters on question 2FATIGUE**

|                 | FATIGUE2 | Subjects | Average | DevStd | Percentage | Statistical p |
|-----------------|----------|----------|---------|--------|------------|---------------|
| Weight          | Yes      | 83       | 52.9    | 9.77   | 100.0      | 0.00544       |
|                 | No       | 77       | 48.1    | 13.1   | 90.9       |               |
| Size/Height     | Yes      | 83       | 1.6     | 0.11   | 100.0      | 0.03187       |
In Table 7 it is shown that subjects who give fewer hours for study have GO-GO parameter and head circumference significantly smaller of 97.5%, respectively 98.1%.

Table 7 Percentage/average anthropometric parameters on question 4 FATIGUE

| FATIGUE4 | Subjects | Average | DevStd | Percentage | Statistical p |
|----------|----------|---------|--------|------------|---------------|
| GO-GO    | Yes      | 72      | 103.7  | 6.92       | 100.0         | 0.02531       |
|          | No       | 88      | 101.1  | 5.23       | 97.5          |               |
| PC       | Yes      | 72      | 54.5   | 2.96       | 100.0         | 0.01191       |
|          | No       | 88      | 53.5   | 3.3        | 98.1          |               |

Table 8 represents the answer to question no. 5 of fatigue questionnaire (subjects with various extracurricular pursuits). It appears that individuals who have other extracurricular pursuits (sports, reading, technical activities etc.) have lower vital capacity (82.7%), thoracic perimeter of 88.3%, 94.3% Zy-Zy and about the same low for parameters, FT-FT, TSV, TDV. And this group of subjects with significantly less vital capacity, height, weight, Zy-Zy lower are closer to subjects who smoke and occasionally drink alcohol and sleep several hours.

Table 8 Percentage/average anthropometric parameters on question 5 FATIGUE

| FATIGUE5 | Subjects | Average | DevStd | Percentage | Statistical p |
|----------|----------|---------|--------|------------|---------------|
| FT-FT    | Yes      | 122     | 105.5  | 8.34       | 100.0         | 0.03041       |
|          | No       | 38      | 102.5  | 8.18       | 97.1          |               |
| TSV      | Yes      | 122     | 115.5  | 6.39       | 100.0         | 0.00410       |
|          | No       | 38      | 112.3  | 5.31       | 97.2          |               |
| TDV      | Yes      | 122     | 115.1  | 6.18       | 100.0         | 0.00203       |
|          | No       | 38      | 111.7  | 4.93       | 97.0          |               |
| ZY-ZY    | Yes      | 122     | 117.9  | 14.01      | 100.0         | 0.01778       |
|          | No       | 38      | 111.1  | 10.21      | 94.3          |               |
| PT       | Yes      | 122     | 85.4   | 83.83      | 100.0         | 0.04691       |
|          | No       | 38      | 75.4   | 6.38       | 88.3          |               |
| CV       | Yes      | 122     | 2091.4 | 773.63     | 100.0         | 0.01937       |
|          | No       | 38      | 1729.6 | 709.34     | 82.7          |               |

Conclusions

Statistical and mathematical processing of all this information and complex processing result with following conclusions:

Subjects with larger head dimensions (skull and face), body (weight, height, thorax perimeter) and physiological (vital capacity, blood pressure, heart rate) have higher propensity to smoking, they start smoking at younger age, frequently consume alcohol, give few hours of rest, sleep is restless, have no extracurricular creative pursuits (sports, music, art, etc).

While smaller subjects at anthropometric parameters, with blood pressure and pulse with smaller, have prolonged sleep and quiet, have various extracurricular pursuits, do not smoke, do not drink alcohol.

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