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# **Physical activity habits of the ESPN pupils and its relation with health pointers**

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## **Introduction**

The evidence that Portugal is the European country with the worst indexes of physical activity and the terrible consequences of that situation in public health, have lead us to query the role of School in the promotion of physical activity and as a space where this activity can guarantee the quality to improve positive health effects among the young people.

## **Objective**

This study intends to characterize habits and preferences concerned with physical activity of the Secondary School Pedro Nunes students. Moreover, we intended to understand the relation between some aspects of physical activity (volume: number of hours/week) and practice type (formal and informal practice) and health indicators: body composition, aerobic and muscular ability.

With this study we also wish to promote among the scholar field the discussion on the role of the school and the physical education in the development and maintenance of the physical aptitude of the young people and the adoption of healthful habits of life.

## **Methods**

In order to develop this study, we used two instruments to collect data: the questionnaire about life styles and physical activity (types (formal/informal) and volume of practice), built and valued specifically to this study; and some tests included on the Fitnessgram program, Arm extension, Curl Up and BMI test. These tests have aloud us to evaluate the health indicators referred. These instruments were applied in two

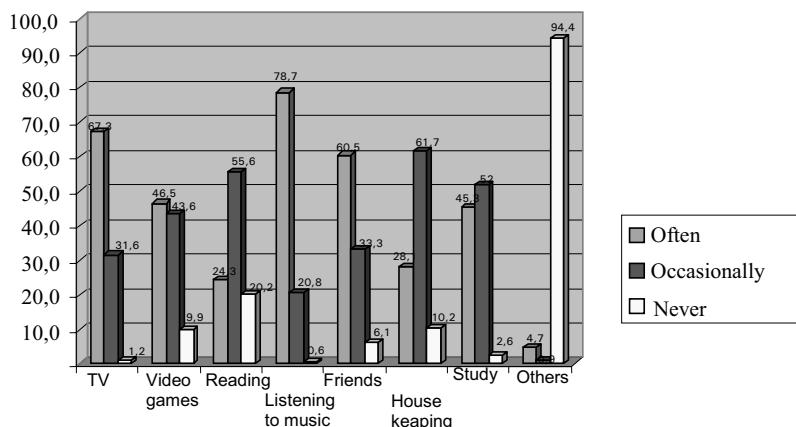
separated occasions (late October 2004 and beginning of March 2005). The study sample is constituted by 342 high-school students (age  $13,8 \pm 1,5$  years). The

## Results

The information that we collected from this study gave us a large area to explore information. The results presented in this paper are the ones that we considered as the most valuable, considering the next step: to develop strategies in order to increase physical habits among the young people.

### **Leisure activity and sport preferences**

Media related activities were the most valued ones. Football, Martial Arts, Swimming, Tennis and Rugby are the most practised sports. Is interesting to notice that the significance of media activities on leisure times is notice in other studies and normally associated with low levels of physical activity.



### **Physical Activity practice**

Physical activity practice decreases with age, especially among girls. Girls show lower physical activity indexes, in every considered form, independent of their age, when compared with boys.

The following table shows us the number of students that only do physical education and the number of students that practice other physical activities, besides the classes at school, considering gender and age.

**Table 1.** Distribution of the practice of Physical Education considering age and gender

| Género    |                     |                    | P. EF  |        | Total  |
|-----------|---------------------|--------------------|--------|--------|--------|
|           |                     |                    | EF     | Outros |        |
| Feminino  | Idade<br>(31/12/04) | 12,00 N            | 2      | 46     | 48     |
|           |                     | % Idade (31/12/04) | 4,2%   | 95,8%  | 100,0% |
|           |                     | % P. EF            | 11,1%  | 29,5%  | 27,6%  |
|           | 13,00 N             |                    | 4      | 44     | 48     |
|           |                     | % Idade (31/12/04) | 8,3%   | 91,7%  | 100,0% |
|           |                     | % P. EF            | 22,2%  | 28,2%  | 27,6%  |
|           | 14,00 N             |                    | 2      | 16     | 18     |
|           |                     | % Idade (31/12/04) | 11,1%  | 88,9%  | 100,0% |
|           |                     | % P. EF            | 11,1%  | 10,3%  | 10,3%  |
|           | 15,00 N             |                    | 4      | 34     | 38     |
|           |                     | % Idade (31/12/04) | 10,5%  | 89,5%  | 100,0% |
|           |                     | % P. EF            | 22,2%  | 21,8%  | 21,8%  |
|           | 16,00 N             |                    | 6      | 15     | 21     |
|           |                     | % Idade (31/12/04) | 28,6%  | 71,4%  | 100,0% |
|           |                     | % P. EF            | 33,3%  | 9,6%   | 12,1%  |
|           | 17,00 N             |                    | 0      | 1      | 1      |
|           |                     | % Idade (31/12/04) | ,0%    | 100,0% | 100,0% |
|           |                     | % P. EF            | ,0%    | ,6%    | ,6%    |
|           | Total               | N                  | 18     | 156    | 174    |
|           |                     | % Idade (31/12/04) | 10,3%  | 89,7%  | 100,0% |
|           |                     | % P. EF            | 100,0% | 100,0% | 100,0% |
| Masculino | Idade<br>(31/12/04) | 12,00 N            | 1      | 38     | 39     |
|           |                     | % Idade (31/12/04) | 2,6%   | 97,4%  | 100,0% |
|           |                     | % P. EF            | 6,7%   | 24,8%  | 23,2%  |
|           | 13,00 N             |                    | 3      | 37     | 40     |
|           |                     | % Idade (31/12/04) | 7,5%   | 92,5%  | 100,0% |
|           |                     | % P. EF            | 20,0%  | 24,2%  | 23,8%  |
|           | 14,00 N             |                    | 4      | 15     | 19     |
|           |                     | % Idade (31/12/04) | 21,1%  | 78,9%  | 100,0% |
|           |                     | % P. EF            | 26,7%  | 9,8%   | 11,3%  |
|           | 15,00 N             |                    | 2      | 37     | 39     |
|           |                     | % Idade (31/12/04) | 5,1%   | 94,9%  | 100,0% |
|           |                     | % P. EF            | 13,3%  | 24,2%  | 23,2%  |
|           | 16,00 N             |                    | 5      | 21     | 26     |
|           |                     | % Idade (31/12/04) | 19,2%  | 80,8%  | 100,0% |
|           |                     | % P. EF            | 33,3%  | 13,7%  | 15,5%  |
|           | 17,00 N             |                    | 0      | 4      | 4      |
|           |                     | % Idade (31/12/04) | ,0%    | 100,0% | 100,0% |
|           |                     | % P. EF            | ,0%    | 2,6%   | 2,4%   |
|           | 18,00 N             |                    | 0      | 1      | 1      |
|           |                     | % Idade (31/12/04) | ,0%    | 100,0% | 100,0% |
|           |                     | % P. EF            | ,0%    | ,7%    | ,6%    |
|           | Total               | N                  | 15     | 153    | 168    |
|           |                     | % Idade (31/12/04) | 8,9%   | 91,1%  | 100,0% |
|           |                     | % P. EF            | 100,0% | 100,0% | 100,0% |

The study also revealed low compliance to school sport (14%), although there's a significant percentage of students practicing formal physical activities outside school (63,2 %).

### ***Correlation between physical activity and health indicators***

Those students who have physical education classes as their only formal physical activity seem to show improvements respective to the health indicators. However for the great majority of students, physical education seems to be insufficient to promote health indicators improvement.

### **Discussion / Conclusions**

The results show that the levels of physical activity are quite good, despite our expectations. The evidence that the most of their physical practice is done outside the school, is a fact that requires some reflection. That fact can be related with the evidence that physical education only provides the necessary stimulus to improve health indicators among the pupils who only practice physical activity during the physical education lessons. The physical education must be rethought in order to become significant for the majority of the pupils, without forgetting the concern to infuse in the youngest people habits of physical activity that last all their lives.

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