THE ROLE OF PHYSICAL EDUCATION IN THE ADOPTION OF AN ACTIVE LIFESTYLE BY STUDENTS AT THE END OF SECONDARY SCHOOL: A SURVEY IN NORTH-EAST OF ITALY

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ABSTRACT

The main aim of the search is to identify the role of physical education in the choice of the lifestyle in 1469 students (male and female, 17-22 years) (Nuviala, 2010). Some anthropometric characteristics (BMI), amount of physical activity (IPAQ-A), self-efficacy perception (PSE), scholastic grades in physical education (EV – Values among 0÷10), and the gender of the teachers are been detected, in order to characterize the population and verify their (potential) role in the choice of lifestyles. This presentation, based on the results of 1469 subjects, concerns the characteristics of the students (males versus females), their opinions on physical education and the role it played in the adoption of their lifestyle. The study of the correlations among the parameters assessed and the justifications given by the students are still in progress. Males (M) show higher values than females (F) ($p<0.001$ for all) for Age, BMI, IPAQ-A, PSE and EV. While the great majority of students (81.2% of males and females) have a good opinion of Physical Education as they consider fun and important for their development, less than 50% considered important in the choice of lifestyle. Only 44.4% of the students (Female 39.8% - Male 49.6%; $p<0.01$) agree that Physical Education classes help their engage in the practice of sport during spare time. The limited percentage of student that attributes a significant role at PE in the adoption of their lifestyle should be considered in the PE guidelines and in teacher training. Data seems to confirm greater values of physical self efficacy perception and physical activity in males (Spence, 2010). The fact that males obtain better assessments of the females raises the question of whether the teachers adopt criteria for evaluating that pose males and females equally.

Keywords: physical education, active lifestyle

INTRODUCTION

Physical education (PE) can have a powerful influence on promoting youth's physical activity (PA) and health (Malina, 2001, Wallhead, 2004 a-b – Pate, 2006) but this will not necessarily resulted from participation per se: the effects are likely to be mediated by the nature of the interactions among students and their teachers, parents and coaches (Bailey, 2006). In Mozaffarian (2012) were identified some schools' intervention that demonstrates a good efficacy in PA promotion and in which the PE's "quality" is the key point. It's reasonable to think, therefore, that there is a connection between quality of physical education and quantity of physical activity practiced by students at the end of their scholastic education but, obviously, a lot of factors modulate this connection both with regard to the "quality" of PE and the living conditions of the students.

The main aim of the search is to identify the role of Physical Education in the choice of the lifestyle by students at the end of secondary school. In this paper we present some characteristics of students that attended the fifth year of the secondary schools (males versus females) and the role that they attribute to the Physical Education for the adoption of their lifestyle. The study of the correlations among the parameters assessed and the justifications given by the students are still in progress.

METHODS

The research was carried out in the fifth classes of secondary schools in nine cities in the north-east of Italy: Bolzano, Trento, Verona, Mantova, Modena, Vicenza, Padova, Treviso and Venezia.

The opinions of students about PE and the role that it played in determining their lifestyles was examined with one thousand eight hundred and seven students (17-22 years), through the Italian version of a questionnaire proposed by Nuviala et al. (2011), with some additions.

The items were related to the assessment that students give to the Physical Education and its teachers: 1-Physical Education classes are fun; 2-Physical Education classes help me engage in the practice of sport during spare time; 3-You don´t waste time in Physical Education classes; 4-Physical Education teaching staff help me become interested in physical activity and recreational sports; 5-Physical Education is important for my own personal development. Two items were added at those proposed from Nuviala: 6-What I learned in PE will be useful in the coming years; 7-In the coming years I will practice moderate and/or vigorous physical activity at least 150' (2 hours and half) for week. In all these items students could choose between the options "strongly agree", "agree", "disagree" and "strongly disagree". For the items number 2 – 3 – 5 – 6 – 7, they were also asked to write the main reason that determined their opinion.

An informed consensus from the schools was obtained through a letter explaining the aim of the research and its procedures. Participants were informed that there were no right or wrong answers and were asked to respond with sincerity and honesty. Every student voluntarily answered at the questionnaire and authorized their data handling.

The Body Mass Index (BMI) was calculated asking the height and weight of each students; their physical activity (PA) was derived from the International Physical Activity Questionnaire for Adolescent (IPAQ-A) while, for the self-efficacy perception (PSE), a subscale of the "Physical Self Efficacy Scale" developed by Ryckman (1982) was adopted.

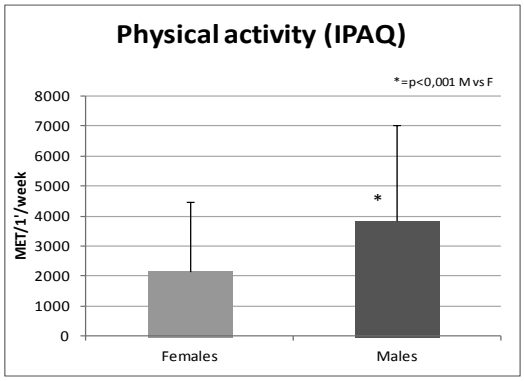
The students were asked also the average of the PE' grades (EV) in the last two years. The grades, in the Italian educational system, are comprised between 0 and 10; a grade equal to 6 is considered to be a mediocre but sufficient result, whereas having a grade superior to 7 is considered a good result. All these data are been detected in order to characterize the population and verify their (potential) role in the choice of lifestyles.

Differences between females and males, for parametric data, were detected with t-test while non-parametric data was analyzed through chi-square test.

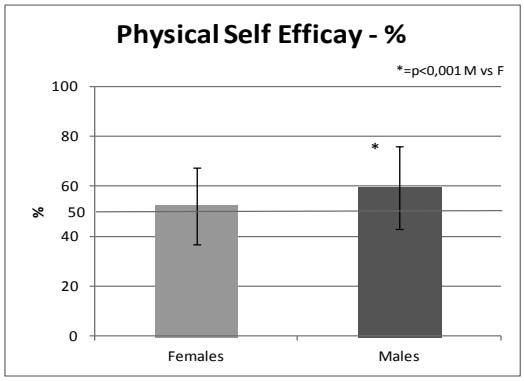
RESULTS

This presentation concerns the characteristics of the students (1023 females – 784 males), their opinions on physical education and the role it played in the adoption of their lifestyle. The motivation of the student opinions are still processing.

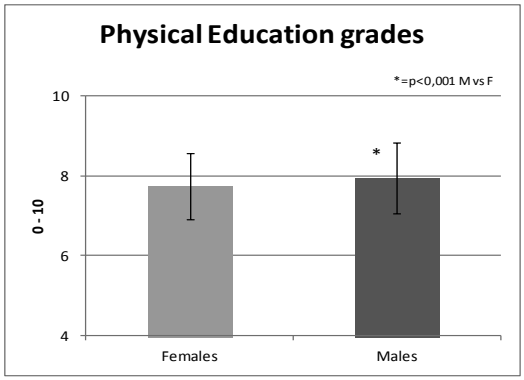
Males (M) show higher values than females (F) ($p <0.001$ for all) for age (M = 18.52y±0.78; F = 18.36y±0.65), BMI (M = 22.45±2.69; F = 20.89±2.86), PA (M = 3854.5±3274.7 MET/1'/w; F= 2003.9±2258.2 MET/1'/w), PSE (M = 39.33±8.17; F = 35.44±7.42) and EV (M = 7.90±0.88; F= 7.66±0.81).



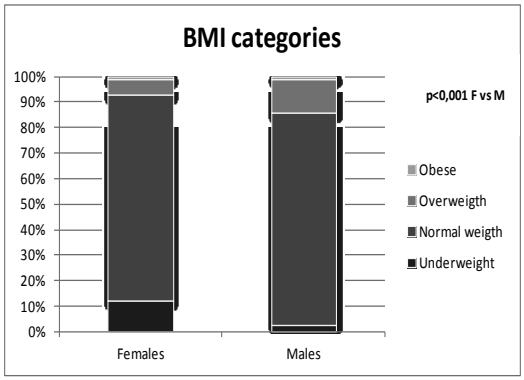
Graph n.1



Graph n.2

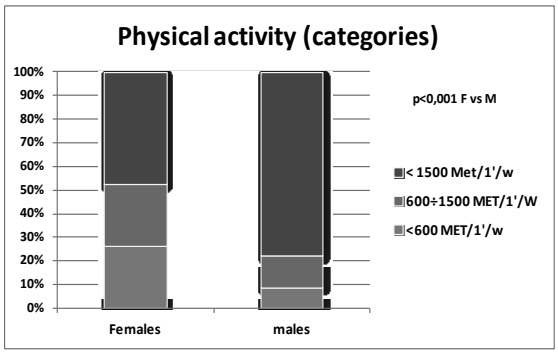


Graph n.3

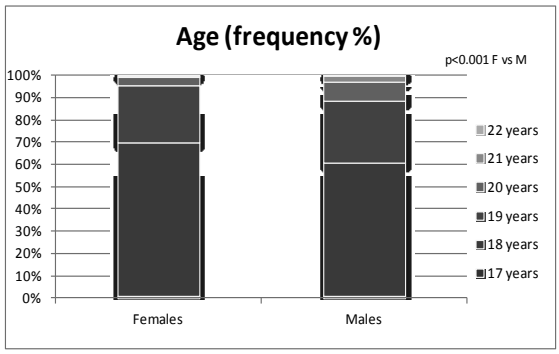


Graph n.4

As regards the BMI, as you see in Graph. n.4, also the distribution of the subjects in the categories of underweight, normal-weight, overweight and obese show a prevalence of males in overweight and of females in underweight (p<0.001 M vs F). Twenty females (2.0%) did not write the details of their weight, while all males have them declared.



Graph n.5



Graph n.6

On the basis of IPAQ-A data, the 26.6% of females and the 8.9% of males (Graph n. 5) don't meet the minimum at least 600 MET/1'/week and should be considered sedentary (IPAQ Research Committee, 2005).

The difference in the age is determined from the presence of a higher number of males repeating school years (Graph n.6); it is notable that, despite this, the PE grades are higher for males. The study of correlations between the grades and the other factors will help in getting more information on this topic.

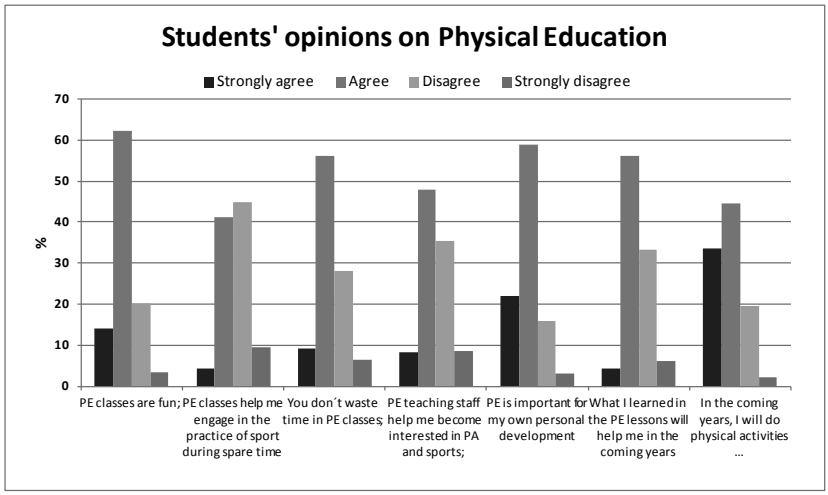
Despite 81.1% of the students (p=n.s M vs F) affirm that Physical Education is important for their development and 76.3% say that PE is fun (M = 82.2%±17.8, F = 71.8%±28.1, p<0.001), less of 50% of them attribute at PE a significant role for the adoption of their lifestyle (Graph n. 7 and 8). In particular 58.8% of the females and 49.1% of males (p<0.001) says that PE classes don't help them engaging in the practice of sport during spare time. The judgment about PE teachers, in this field, is just a little better than that about the discipline: only 56.1% of the students (p=n.s. M vs F) affirm that Physical Education teaching staff helps them become interested in physical activity and recreational sports. 37.8% of the females and the 30.6% of the males (p<0.001) declare that they waste time in PE classes. 39.5% explicitly declare that what they learn in PE lessons will not be useful in coming years. Despite this, 80.2% of students affirm that will carry enough physical activity in later years.

DISCUSSION

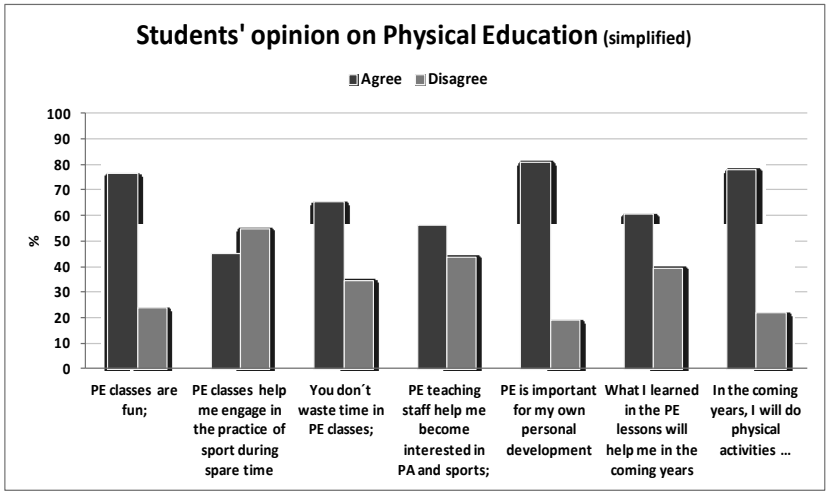
Data confirm the well known difference between males and females, in Physical Self Efficacy Perception (Spence, 2010), in BMI and in Physical Activity (Istat, 2012).

It isn't clear if the fact that males obtain, on physical education, a slightly higher evaluation than females (1.9%), is a real didactic problem. If it were, we should ask ourselves if teachers adopt criteria that put men and women on an equal level. Data about Physical Activity indicate that, at the end of scholastic education, 26.6% of females and 8.9% of males don't perform the minimum at least 600 MET/1'/week and too many females don't believe that PE help them to improve their lifestyle. All these results seem to indicate that the "gender theme" should be a priority for PE teachers and researchers.

The results of Nuviala's questionnaire, integrated with our two items, shows that PE is considered in an ambivalent way: on one side most of the students attribute to PE an theoretical role for development but, on the other side, only about half of them recognize it has an effective role in the adoption of an active lifestyle.



Graph n.7



Graph n.8

Dark column shows the amount of data expressed as “agree” and “strongly agree”; clearer column shows the amount of data expressed as “disagree” and “strongly disagree”.

CONCLUSIONS

The framework represented by these data is not flattering at all for the Physical Education teachers in the northeast of Italy. The next step of the research will try to highlight the main reasons for the limited role of physical education in the adoption of active lifestyles by students.

The motivations adopted from the students and the correlations between the students’s answers and their characteristics (BMI. IPAQ-A, PSE, VE), perhaps, will help us understand some of the critical points of the relationship between teaching and learning of an active lifestyle in Physical Education.

These results should be carefully considered in the PE guidelines, in teacher training and in the refresher courses.

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