DIFERENCIAS DE GÉNERO Y DE NIVEL ACADÉMICO EN LA UTILIDAD PERCIBIDA DE LA EDUCACIÓN FÍSICA ESCOLAR

GENDER AND ACADEMIC LEVEL DIFFERENCES ON SCHOLAR PHYSICAL EDUCATION’S PERCEIVED USEFULNESS AT SECONDARY COMPULSORY EDUCATION

Gómez-Mármol, A.; De la Cruz-Sánchez, E.

1Universidad de Murcia

Correspondence to:
Alberto Gomez-Mármol
Universidad de Murcia
Email: alberto.gomez1@um.es
RESUMEN

En este trabajo se ha comparado la opinión de alumnos de secundaria sobre la Educación Física con su participación en las clases de Educación Física, su autopercepción de apariencia física y competencia, así como su práctica fuera de la escuela. Con este objetivo, se ha administrado un cuestionario a 263 alumnos de 3º y 4º de ESO, de entre 14 y 17 años, para describir lo que los alumnos piensan sobre sus clases de Educación Física. Los resultados alcanzados no son muy optimistas: todas las dimensiones estudiadas ofrecen valores bajos, que disminuyen con la edad, especialmente en el caso de la opinión sobre la Educación Física (2.56 ± 1.24) y la autopercepción de apariencia (2.17 ± 1.27). Existen, así mismo, diferencias en función del sexo en la autopercepción de apariencia (2.83 ± 1.34 de las chicas frente a 2.25 ± 1.37 de los chicos), así como en función del nivel académico en la percepción de competencia (4.35 ± 0.99 de los alumnos repetidores frente a los 3.70 ± 1.11 de los alumnos no repetidores) y en la práctica fuera de la escuela (3.86 ± 1.24 de los repetidores frente a los 3.16 ± 1.32 de los no repetidores). Consecuentemente, es necesario que los profesores se convenzan de la importancia de este fenómeno de modo que incluyan mecanismos en sus clases para prevenir o evitar esta situación.

PALABRAS CLAVE: Deporte, Actividad Física, Educación Física, Autoconcepto, Participación.

ABSTRACT

In this research, secondary student’s Physical Education opinion has been contrasted with their participation in Physical Education classes, their self-perceived physical and competence concept, as well as their out-of-school practice. With this aim, a questionnaire has been provided to 263 students at 3rd and 4th grade of Compulsory Secondary Education, from 14 to 17 years old, in order to describe what students think about their Physical Education lessons. The achieved results are not very optimistic: all the studied dimensions offered low values that decrease with age, especially Physical Education opinion (2.56 ± 1.24) and self-perceived appearance (2.17 ± 1.27). There were also sex differences in self-perceived appearance (2.83 ± 1.34 girls versus 2.25 ± 1.37 boys), as well as academic level influenced self-perceived competence (4.35 ± 0.99 repeaters versus 3.70 ± 1.11 non-repeaters) and leisure time physical activity (3.86 ± 1.24 repeaters versus 3.16 ± 1.32 non-repeaters). Consequently, it is necessary for teachers to get convinced about the relevance of this phenomenon and to include mechanisms in their classes to prevent or avoid this situation.

KEYWORDS: Sport, Physical Activity, Physical Education, Self-concept, Engagement.
INTRODUCTION

The final stage of the Compulsory Secondary Education stands as a key moment in the education of adolescents, because it is the last period in which is guaranteed the educational coverage of the entire population (up to 16 years old). Clearly, the influence of both formal and non-formal education in the adolescents’ life could be considered one of the most important social concerns related with public welfare (Bonell, Fletcher, Sorhaindo, Wells & McKee, 2012). Because a good educational achievement supposes a beneficially impact on the health of people throughout their life, compulsory education in high schools cannot shirk its responsibility. That is the case for scholar PE, a frequently neglected matter in the actual curricula but commonly claimed as a good instrument for promoting a healthy lifestyle (Sallis et al., 2012).

It is widely believed that physical education could be considered as a key factor for health promotion and health behavior learning, because its body and physical related contents could suppose an approach to physical health and lifestyle that no one subject could reach, covering this way the lack of health education observed in other subjects in the school setting, actually centered in mainly theoretical contents (Fernández, 1998; Granda, Barbero & Montilla, 2008). Health behavior education would be one of the leading goals during childhood (Lefrançois, Leclerc & Poulin, 1998; Goñi, Esnaola, Ruiz de Azua, Rodriguez & Zulaika, 2003), because health related lifestyle and habits during scholar ages could suppose better health related lifestyle later; for example, an active lifestyle during childhood and adolescence is related with adult physical activity (Arruza & Arribas, 2008; Granda, Barbero & Montilla, 2008; Martínez de Quel, Fernández & Camacho, 2010; Telama et al., 2005). In this sense, García Ferrando (1993) and Martínez-López, Lozano, Zagalaz and Romero (2009) describe the importance of scholar physical education due to the association between physical education satisfaction and leisure time physical activity. Thus, physical education could be proposed as one of the leading factors for an active and healthy lifestyle development during early age, being then an important factor for adult health and life quality (Bouchard, Shephard & Stephens, 1994; Martínez, Romero & Delgado, 2010).

Moreover, leisure time physical activity could be mediated by self-perceived competence (Rees et al., 2001; Williams & Gill, 2005). In fact, people who reach high competences usually show a regular and a healthy physical activity pattern (Feltz & Petlichkoff, 1983). Harter (1986) has described that self-perceived competences and self-concept affect people choices and health related behaviors.

In this way, image self-perceptions are a matter of increasing concern to young people in our society and their role is very important for young people psychological wellbeing (Williams & Curie, 2000). Physical self-perception becomes very important during adolescence because it is a period in which maturation related changes in the body image are evident. In addition, there is a growing concern for aesthetics and body image in this age, and sometimes adolescents’ beliefs distort their reality and lead to harmful behavior as poor eating habits or appearence obsessions. According to Lindeman (1999), young persons are very influenced by the media, promoting physical activity as a resource for physical attractiveness and being popular. But surprisingly, physical education lessons are articulated with alarming frequency as the only physical activity amongst an increasing number of children (Román, Serra, Ribas, Pérez-Rodrigo & Aranceta, 2006; Vaquero, 2007) who could be qualified as sedentary (Amstrong & Biddle, 1992; Granda, Montilla, Barbero, Mingorance & Alemany, 2010; Lasheras, Aznar, Merino & López, 2001; Sallis & McKenzie, 1991).

Physical Education lessons should be not oriented only to improve physical fitness or motor development in scholar children (Fraile & Vizcarra, 2009), but from scholars perspective, it should be directed to develop positive attitudes towards exercise or to learn how to enjoy with exercise (Moreno & Hellín, 2002). This is the general teachers’ opinion, and this allows obtaining information about how youths feel and live their physical education lessons, and what is their attitude and psychological concerns about physical activity, exercise and sports (positives, negatives or neutrals).

In what has been called psychological orientations, there are several factors such as self-perceived
competence, physical appearance or inclination towards regular exercise that are very interesting for health promotion through scholar physical education. In this way, sometimes the importance of knowing the opinion that learners gradually acquire on their lessons remains latent. In fact, this opinion can influence later behavior (Castillo, Martínez-López & Zagalaz, 2010). Of course, this does not allow to fall into the trap of thinking that teachers, as primarily responsible for the development physical education lessons, should be formed to satisfy their students' likes (Gutiérrez, Pilsa & Torres, 2007), but it seems clear that their views on physical education lessons provides important indicators that should not be ignored. In addition, it could be considered that educational research in these issues is the process that lets know what's the point of departure for any desire to improve teaching skills (Macazaga, Vizcarra & Rekalde, 2006).

Therefore, as mentioned above, the objective of this work is to assess the relationship between physical education lessons engagement and leisure time physical activity practice, as well as the influence in this relation of self perceived competence and self perceived physical appearance regarding to gender, grade and academic level.

METHODS

Participants

Participants was formed by a total of 263 students, 147 men and 119 women between 13 and 17 years old, belonging to a public High School of Murcia Region (Spain), from 3rd and 4th Secondary Compulsory Education grades. This High School was selected ad hoc, and participants were randomly selected from this setting. Therefore, it has been considered their academic level and it has been registered those repeating grade (68) and those who are not repeating students (195). Participants distribution is summarized in Table 1.

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>147 (55.9)</td>
</tr>
<tr>
<td>Girls</td>
<td>116 (44.1)</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>128 (48.7)</td>
</tr>
<tr>
<td>4th</td>
<td>135 (51.3)</td>
</tr>
<tr>
<td>Academic level</td>
<td></td>
</tr>
<tr>
<td>Repeating student</td>
<td>68 (25.9)</td>
</tr>
<tr>
<td>Non repeating student</td>
<td>195 (74.1)</td>
</tr>
</tbody>
</table>

Instruments

To obtain data regarding this work objective, the following questions belonging to different previous validated questionnaires were selected:

- The Spanish language adaptation (Moreno & Cervelló, 2005) of the Physical Self-Perception Profile (Fox & Corbin, 1989) was employed. Responses to the questionnaire items were indicated on an 11-point Likert scale anchored by "strongly disagree" (0) and "strongly agree" (10). The selected items are showed below:
  1. I am very proud of myself and of my physical capabilities.
  2. I always get time to practice intense physical exercise regularly and continuously.
  3. I do not feel confident when I try to participate in sports.
  4. When it comes to situations that require strength, I am the first volunteer.
  5. When it comes to physical appearance, I feel very confident in myself.
  6. I'm not sure about the look of my body.

- The Spanish version of Basic Psychological Needs in Exercise Scale (BPNES) by Sánchez and Núñez (2007) translated from Vlachopoulos and Michailidou (2006). Its first sentence says “During my trainings...”. The selected items are showed below:
  7. The training program is set to follow my interests.
8. Exercise is an activity that I do very well.
9. I can master the technical demands.
10. I run the exercises effectively.

- The translation into Spanish of the Sport Motivation Scale (SMS) by Núñez, Martín-Albo, Navarro and González (2006) from Pelletier et al. (1995) validated questionnaire. It is composed by 28 items in Likert type scale from 1 (absolutely disagree) to 7 (completely agree). Its first sentence says “I do sports and effort in my exercise practice...”. The selected items are showed below:
11. Because it is a good way to learn many things that could be useful in other facets of my life.
12. Because sports are absolutely necessary if one wants to be fit.
13. Because I need to exercise regularly.

- The Implicit Theories about Scholar Physical Education Scale (TIEFE 2) designed by Delgado Noguera, Medina and Chillón (2002). It is composed by 40 items in Likert type scale from 1 (absolutely disagree) to 7 (completely agree). The selected items are showed below:
14. I believe that doing physical education makes easy some tasks of daily living.
15. I think that the best manner of engaging a student in physical education is to have fun in class.
16. I for one think that if you exercise only in the physical education lessons, the benefit to health is low.

In this way, the information about Scholar Physical Education’s perceived usefulness is registered by these 16 items, in Likert type scale from 1 (absolutely disagree) to 5 (absolutely agree) points. Items are grouped into five categories: Physical Education lessons opinion (items 7, 11 and 16), physical self perception in Physical Education lessons (items 5, 6, 9 and 10), self perceived competence in Physical Education lessons (items 1, 3 and 14), engagement in Physical Education lessons (items 4, 8 and 15) and physical activity practice out of school (items 2, 12 and 13).

Procedures

This is a descriptive and cross-sectional study, based on data from a questionnaire. This questionnaire was developed anonymously in 20 minutes on the school setting, during students’ class time, with teachers permissions. The principal investigator assisted and attended to the entire group for this task, providing additional information when needed.

Statistical analysis

Data analysis was developed using SPSS 18.0 software (MS Windows version). A $\chi^2$ and Kolmogorov-Smirnov normality test were run and non-parametric distribution was observed. Comparisons between groups were performed through U Mann Whitney test. A Spearman’s correlation coefficient was also employed in order to analyze the relationship between self-perceived competence and non scholar physical activity, and Physical Education engagement and Physical Education lessons’ opinion.

RESULTS

Table 2 shows the complete descriptive analysis of data obtained in the different dimensions of the studied variables.
Table 2. Descriptive statistics (Mean ± SD) of the different variables studied.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Variables</th>
<th>Opinion</th>
<th>Appearance</th>
<th>Competence</th>
<th>Engagement</th>
<th>Physical Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td>2.98 ± 1.42</td>
<td>2.25 ± 1.37</td>
<td>4.12 ± 1.04</td>
<td>2.85 ± 1.12</td>
<td>3.53 ± 1.40</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td>3.39 ± 1.16</td>
<td>2.83 ± 1.34</td>
<td>3.75 ± 1.16</td>
<td>2.98 ± 0.95</td>
<td>3.30 ± 1.26</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3\textsuperscript{rd}</td>
<td></td>
<td>3.79 ± 1.02</td>
<td>2.83 ± 1.41</td>
<td>4.07 ± 1.03</td>
<td>3.06 ± 1.01</td>
<td>3.52 ± 1.17</td>
</tr>
<tr>
<td>4\textsuperscript{th}</td>
<td></td>
<td>2.56 ± 1.24</td>
<td>2.17 ± 1.27</td>
<td>3.87 ± 1.18</td>
<td>2.75 ± 1.14</td>
<td>3.35 ± 1.17</td>
</tr>
<tr>
<td><strong>Academic Level</strong></td>
<td>Repeating student</td>
<td>3.52 ± 1.33</td>
<td>2.44 ± 1.32</td>
<td>4.35 ± 0.99</td>
<td>3.14 ± 1.06</td>
<td>3.86 ± 1.24</td>
</tr>
<tr>
<td></td>
<td>Non repeating student</td>
<td>2.93 ± 1.31</td>
<td>2.52 ± 1.4</td>
<td>3.70 ± 1.11</td>
<td>2.75 ± 1.06</td>
<td>3.16 ± 1.32</td>
</tr>
</tbody>
</table>

A general analysis shows a high correlation obtained between self-perceived competence and non scholar physical activity (p = .001; .980). Also data allow to describe how the Physical Education engagement is mediated by Physical Education lessons’ opinion (p = .012; .909).

Then data are analyzed more specifically to each of studied categories, that is, gender, grade and academic level:

**Gender differences**

Data analysis showed that girls had a better opinion of PE lessons than boys had. Also, girls had a higher engagement level and were more satisfied with their body appearance than men were (see Figure 1).

Conversely, boys were more active out of school and had better self-perceived competence than girls had.

**Grade differences**

Results obtained in the two groups (3rd and 4th, see Figure 2) showed that older students had lower concerns regarding PE lessons. There were significative differences between 3rd and 4th students in PE opinion (.007) dropping 1.22 points from 3rd to 4th grade and self-perceived appearance was also diminished in the older students.

![Figure 2. Grade differences in dimensions of PE perceived usefulness related variables.](image)

**Academic level differences**

In this study, academic level was referred to the degree of the academic progression, resulting a broader but more objective approach. Figure 3 showed that repeating students (low academic level) had a better opinion and PE engagement, but these differences were not significatives.
There were significative differences between repeating and non-repeating students in self-perceived competence (p = .018) and low academic students often did more exercise out of school (p = .029).

DISCUSSION

This study is an approach to the importance of students’ opinion of PE lessons and related variables that could influence people lifestyle. Its findings can be summarized as follows:

Firstly, through this study, it has been shown that girls are much more concerned about their body image, consistent with the results of Goñi and Zulaika (2000), Ingledew and Sullivan (2002), Hagger, Biddle and Wang (2005) and Espinoza, Rodríguez, Gálvez, Vargas and Yáñez (2011). However, it cannot be directly linked this with worse physical appearance as a function of physical fitness or health-related weight status; as Strauss pointed out in 1999, female adolescents (also males but less frequent) showed several psychological traits that could influence self-perceived body image and there is a lack between self perceived physical appearance and real weight or fitness status. On the other hand, boys are considered much more competent in physical education lessons than girls, thus confirming other studies (Asçi, Eklund, Whitehead, Kirazci & Koca, 2005; Piéron, Ledent, Almond, Airstone & Newberry, 1996; Raudsepp, Liblik & Hannus, 2002; Welk & Eklund, 2005). Besides, boys have lower levels of engagement in physical education lessons (slightly lower than girls have), but they perform leisure time physical activity out of the school setting more often, according to Henning, Brodersen, Williamson and Wardle (2005), Alvariñas, Fernández and López (2009).

Secondly, from a chronological perspective, it can be seen that as adolescents progress through their educational stage, they have a poorer understanding of Physical Education (which is closely linked to reduced engagement in PE lessons) as well as a decreased self-perceived physical appearance, especially in women (Espinoza et al., 2011; Lintunen, Leskinen, Oinonen, Salinto & Rakhila, 1995) and self-perceived competence, assuming this a decrease of time devoted to leisure time physical activity (Moreno, Muñoz, Pérez & Sánchez; 2005; Piéron, 2002; Piéron et al., 1996).

Thirdly, there are differences related to the academic level of the scholars studied: it could be observed a significant difference in self-perceived competence variables and scholar physical activity between repeating and non-repeating students. Note that these variables have strong correlations with each other, as happens between engagement in physical education lessons and the opinion on them.

CONCLUSIONS

Finally, a broader analysis of the results allows stating that students’ PE concerns are worryingly low and also there is a tendency to decrease. Because of the great importance of scholar PE for an active lifestyle promotion, it is particularly important to influence students’ engagement in physical education lessons, for which it should raise more attractive to students, taking into account their interests. However, unfortunately, the own teachers recognize they don’t get the skills they need to work during their degree formation (Romero & Campos, 2010). Considering their interests can cause beneficially changes in the 5 categories studied, for instance, an increase in the self-perceived competence levels, for what it is very important to adjust not only the type but also the level of difficulty of the tasks developed, thus making them achievable. Furthermore, an important help to the development of a better physical self-perception and appearance in these ages, which would have a positive impact on students' interest in physical activity, could be related with a better conception of PE lessons. In this regard, and from the PE teachers perspective, it is necessary to make
changes in the current pedagogical approaches in scholar PE in order to encourage also a greater involvement of all 5 studied categories.

REFERENCES


