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ABSTRACT

The aim of this research was to find possible relationships between goal orientations, motivational climate, physical self-perception and discipline and the teacher's gender, satisfaction with physical education and sport activity outside school hours in Spanish physical education students. The sample consisted of 565 students aged between 12 and 16. Participants completed the following scales: Goal Orientations, Motivational Climate in Physical Education Classes, Disciplined-Undisciplined Behaviour and Physical Self-Perception Profile. Correlations were raised among the discipline-indiscipline behaviours, perceptions of the motivational climate, goal orientations and physical self-perceptions. The results showed that students who have a female teacher have higher task-involving motivational climate, discipline, body attractiveness, sport competence, physical condition and self-confidence than those that have a male teacher. Those that are satisfied with physical education have higher task-involving motivational climate, task orientation, discipline, body attractiveness, sport competence, physical condition and self-confidence than those that are not satisfied. Exercisers have higher ego orientation, task orientation, body attractiveness, sport competence, physical condition and self-confidence than non-exercisers.

KEYWORDS: Physical self-perceptions; discipline; goal orientation; motivation; physical education; gender; physical activity involvement.

INTRODUCTION

Theories on achievement motivation in physical education have been studied by many researchers (Atkinson, 1977; McClelland, 1961). The relationship between the goal theory and intrinsic motivation has been examined very extensively, with evidence that task-oriented goals in physical education are associated with a great deal of intrinsic interest, while ego-oriented goals are connected with more extrinsic responses (Biddle, Cury, Goudas, Sarrazin, Famose & Durand, 1995; Dorobantu & Biddle, 1997; Goudas, Biddle & Fox, 1994; Papaioannou, 1995a, 1995b; Spray, 2002). Therefore, task-oriented subjects perceive sport and physical activity as something that strengthens their capacity for cooperation and social responsibility. On the other hand, ego-oriented subjects perceive physical activity as something that should help them to acquire more recognition and social status.

As a result, the perception of a task-oriented climate is related to the belief that effort and ability are the reason for success, huge feelings of satisfaction, a more positive attitude towards physical education classes and more perception of skill. By contrast, the perception of an ego-oriented climate supposes a direct relationship between skill and success and, with the negative and tedious belief, that this success is due to effort and a positive attitude in physical education classes (Carpenter & Morgan, 1999; Morgan & Carpenter, 2002; Papaioannou, 1995b; Solmon, 1996; Treasure, 1997).

Carr, Weigand & Hussey (1999) and Cecchini, González, Carmona, Arruza, Escartí & Balagué (2001) analysed the influence of teachers, among others, on goal orientations, intrinsic motivation and physical competence in children and adolescents in physical education classes. They discovered that teachers as well as peers were the most influential social agents in the different orientations, intrinsic motivation and physical competence of the adolescents. Studies such as those by Cervelló & Santos-Rosa (2000), Duda (1996) & Papaioannou (1995b, 1998a) showed that both goal orientation and the perception of the criteria used by the teacher in physical education classes determine the cognitive consequences that students show in these classes. This indicates that the work physical education teachers perform is essential when laying the foundations for building the student’s choice of the different goal orientations.

On the other hand, Papaioannou (1998a) and Spray & Wang (2001) found that task orientation and self-determination predicted disciplined behaviour. On the contrary, ego orientation was linked positively to external reasons and amotivation and did not predict disciplined behaviour. They also argued that task orientation identified intrinsic reasons for behaving well in physical education classes, so that students could

concentrate on aspects of skill development, affiliation and fun. Thus, task-oriented students should not feel obliged to be quiet or follow rules because they really want to learn, to cooperate with other pupils and to develop a sense of responsibility.

With regards to discipline, Papaioannou (1998b) and Spray (2002) indicated that the perception of a task-involving climate is related to intrinsic and identified reasons promoted by teachers for behaving well in physical education classes. This is due to the attention paid to the task in hand and which has to be mastered, while a disorderly atmosphere in class would hinder this learning process.

Consequently, the rules stressed by the teacher and threats of punishment to maintain discipline should not be as prominent when a task-involving climate predominates. However, the perception of an ego-involving climate is more likely to encourage more means of controlling motivation, due to the promotion of external assessment criteria. In this environment, the role of effort and hard work is emphasised, the students try to perform better than the others and they are concerned about the errors they make (Ames, 1992; Papaioannou, 1998b; Spray, 2002).

Recent studies have shown us the association between the perception of a motivational climate and discipline. Thus, Cervelló, Jiménez, Del Villar, Ramos & Santos-Rosa (2004) demonstrated that the perception of a motivational task-oriented climate is linked positively with more disciplined behaviour, while the perception of a motivational ego-oriented climate is linked to more indiscipline in physical education classes.

On the other hand, Heaven (1996) considers that the formation of a self-image, which is known as self-concept, is one of the challenges that the adolescent has to face. Thus, Sallis & McKenzie (1991) argue that positive experiences in physical education will be able to influence the students to adopt physically active lifestyles in adult life. In this respect, it is essential to know the motivational, cognitive and affective processes that will determine if the students perceive physical education classes as a valuable, pleasant and gratifying experience, or as something unpleasant, boring and humiliating (Ntoumanis, 2001). Therefore, the physical self-concept method for motivation (Deci & Ryan, 1985, 1991; Deci, Vallerand, Pelletier & Ryan, 1991; Frederick & Ryan, 1995; Vallerand, Deci & Ryan, 1987) can be particularly useful (Ntoumanis, 2001).

Research has shown that there is a decrease in the students' motivation to take part in physical education activities (Cothran & Ennis, 1998; Wigfield & Eccles, 1992) and a decrease in the level of perceived competence (Weiss & Amorose, 2005) as they progress through the school and perceive more

academic demands. Given the decrease in the level of physical self-perception and motivation that occurs in the first years of adolescence, it is important to understand the motivational process students are wrapped up in at these ages and their effects on their physical self-perceptions. The achievement goal theory framework (Ames, 1992; Dweck, 1986; Nicholls, 1989) was used in this study to understand how a student's goal orientations and the climate created by the teacher to enhance motivation might be associated with physical self-concept in adolescent boys and girls.

In this respect, Marsch (1998) points out that self-esteem is affected by exercise and by then increasing it, which leads to both psychological and physical benefits (Boyd & Hrycaiko, 1997; Jackson & Marsh, 1996; Weiss, McAuley, Ebbeck & Wiese, 1990). As part of this current, we can also highlight the contribution made by Alfermann & Stoll (2000), where it can be seen that there is a significant improvement in physical self-concept and a decrease in psychosomatic complaints in exercisers. Furthermore, Trew, Scully, Kremer, & Ogle, (1999) state that the most active adolescents in sports value themselves more highly than those that are sedentary. Therefore, university students that do some physical or sport activity have a more positive perception of their physical self-concept, a more positive self-esteem in all the dimensions forming this construct: body image perception, sport competence perception, physical condition, perception of general physical competence and physical strength (Gutiérrez, Moreno & Sicilia, 1999).

According to Ntoumanis (2001), positive social factors, such as promoting cooperative learning, emphasis on individual improvement and changes in tasks can allow for positive motivational results in physical education. Similarly, the perception of competence has a central role in physical education and in satisfying the need to compete, allowing for forms of self-concept in behaviour. Along these lines, Spray & Wang (2001) found that those students that had low scores in ego and task orientation, as well as in perceived competence in physical education, also had low self-concept feelings. They also assessed their discipline in physical education classes as being below the assessment of students that are strongly task and ego-oriented, who trusted in their abilities and had a feeling of autonomy in their behaviour, showing high levels of discipline.

Therefore, the aim of this paper is to analyse the possible relationships between, goal orientations, motivational climate, physical self-perception and discipline and the gender of the teacher, satisfaction with physical education and sport activity outside school hours in Spanish physical education students.

Therefore, there will be a positive and significant relationship between task orientation, the perception of a task-oriented motivational climate, the appearance of discipline related behaviour in the physical education class and higher physical self-concept. Similarly, there will be a positive and significant relationship between ego orientation, the perception of an ego-oriented motivational climate, the appearance of undisciplined behaviour in the students and the perception of lower physical self-concept.

On the other hand, when the teacher is male, the students are not satisfied with physical education and they do not do any physical or sport activity outside school hours, there will be a positive and significant relationship with ego orientation, with the appearance of undisciplined behaviour and lower physical self-concept than when the teacher is female, there is satisfaction with physical education and they do some physical or sport activity outside school hours.

METHOD

Participants and Procedure

Our study sample consisted of 565 students (mean age = 14.5, SD = 0.49); there were 259 boys and 306 girls, all attending physical education classes in schools in a large Spanish city. 389 of these participants did physical activity outside physical education classes and 176 indicated that they did not do any physical activity. Of the 389 who did sport, 65 (16.7%) did it now and again, 202 (51.9%) two or three times a week and 122 (31.4%) more than three times a week. All subjects volunteered to participate in the study. 60% of the sample had male teachers while the remaining 40% had female teachers.

Permission to conduct this investigation was received from headteachers. The students were told the purpose of the research and their rights as study participants, and were asked to sign a consent form. The instruments for measuring the different variables were administered in a classroom to the chosen subjects when the teacher was not present. The measures were given to all students in the same order. Each participant took 15-20 minutes to complete the questionnaires and responses to the instrument were kept anonymous. The participants were told to ask for help if confused concerning either instructions or the clarity of particular items. No problems were encountered in either completing the inventories or understanding the nature of the questions.

Measures

Goal Orientations. To measure the students' dispositional goal orientation in the physical education classes, the Spanish version (Cervelló & Santos-Rosa, 2000, 2001) of the Perception of Success

Questionnaire was used (Roberts, Treasure & Balagué, 1998). This questionnaire has 12 items of which six measure task orientation (e.g. “In physical education classes, I feel successful when I reach a goal”) and six measure ego orientation (e.g. “In physical education classes, I feel successful when I win”). The replies are rated on a Likert-type scale on which each item has a response range from 1 to 100 (anchors: 0 = strongly disagree and 100 = strongly agree). The Spanish version of this questionnaire showed a factor distribution and internal consistency coefficients similar (ego orientation = .78, task orientation = .84) to those obtained for American athletes and students of physical education (Escartí, Roberts, Cervelló & Guzmán, 1999; Cervelló & Santos-Rosa, 2000, 2001). This inventory showed alpha results of .93 for the ego orientation subscale and .87 for the task orientation subscale.

Motivational Climate in Physical Education Classes. To measure the student's perception of motivational climate in physical education classes, the version translated into Spanish by Balaguer, Guivernau, Duda & Crespo (1997) of the Perception of Motivational Climate in Sport Questionnaire-2 (Newton & Duda, 1993) was adapted. The Spanish version of this questionnaire has two higher-order dimensions, which measure the Perception of Task-Involving Motivational Climate and the Perception of Ego-Involving Motivational Climate. In the Spanish version, the task-involving climate factor is composed of 11 items. Examples of the items include: “In physical education classes, students feel good when they try their best” and “In physical education classes, students help each other to learn”. The ego-involving climate factor includes 13 items (e.g. “In physical education classes, the teacher has his or her favourites”). The replies to the questionnaire are indicated on a Likert-type scale with a response range of 0 to 100 (0 = strongly disagree to 100 = strongly agree). Studies carried out with Spanish athletes have shown a factor distribution and internal consistency coefficients (ego-involving motivational climate = .81, task-involving motivational climate = .84) similar to those found in athletes and students in other countries (Balaguer et al., 1997; Cervelló & Santos-Rosa, 2000). This inventory showed alpha results of .71 for the ego-involving motivational climate subscale and .74 for the task-involving motivational climate subscale.

Disciplined-Undisciplined Behaviour. To measure disciplined and undisciplined behaviours in physical education classes, the Disciplined-Undisciplined Behaviour Inventory designed by Cervello, Jiménez, Nerea, Ramos, Del Villar & Santos-Rosa (2004) was given. This inventory has 19 items, nine grouped in the disciplined behaviour factor (e.g. “In physical education classes you comply with the rules established in the running of the class”) and 10 items belonging to the undisciplined behaviour factor (e.g. “You don’t pay

attention to the teacher's explanations"). The replies are formulated on a Likert-type scale on which each item has a response range based on anchors of 0 = total disagreement and 100 = total agreement. In the study developed by Cervelló et al. (2004), exploratory factor analysis confirmed the two-factor structure, and alphas for disciplined behaviour and undisciplined behaviour factors were .83 and .79, respectively. For the present investigation the Cronbach alphas were .75 for the Disciplined Behaviour factor and .80 for the Undisciplined Behaviour factor.

Physical Self-Perception Profile. The Spanish adaptation (Moreno & Cervelló, 2005) of the Physical Self-Perception Profile (Fox, 1990; Fox & Corbin, 1989) was employed. The original instrument is composed of 30 items and five factors; one competence domain, physical self-worth, and four subdomains, physical condition, sport competence, physical strength and attractive body. The adapted Spanish version (Moreno & Cervelló, 2005) also showed five subscales, but with a different item factorial distribution: sport competence, attractive body, physical condition, physical strength and self-confidence. The Spanish version was called Physical-Self Questionnaire (PSQ) and the alphas of this work were between .85 and .62. The alphas obtained in this study were the following: body attractiveness (.79), sport competence (.78), physical condition (.76), physical strength (.67) and self-confidence (.70). Reliability coefficients for all scales exceeded .70 (Nunnally, 1978), except the physical strength factor (.67), so this factor will not be included in the different analyses shown below, as it did not reach the necessary minimum.

The replies to the questionnaire were indicated on a Likert-type scale with a response range of 0 to 100 (0 = strongly disagree and 100 = strongly agree).

Demographic Variables. Data about the teacher's gender and the level of physical activity involvement were also collected. Participants were asked to state whether they were satisfied with physical education. They were also asked about their level of physical activity involvement outside physical education classes. The question was "Please indicate if you do some physical activity (sport, fitness, swimming, trekking, aerobics, jogging, basketball, tennis, etc.) outside physical education classes". If the participant's response was "yes", another item was employed to measure the level of physical activity involvement. Three possibilities were presented: 1) 1 day per week or lower; 2) 2-3 days per week; 3) More than 3 days per week.

RESULTS

Descriptive Statistics and Correlations

In this section we present the correlations between the perceptions of motivational climate, goal orientations, disciplined-undisciplined behaviours, and physical self-concept.

We can see in Table 1 that the ego-involving motivational climate is related in a positive and significant manner with ego orientation and with indiscipline. Similarly, it is related in a negative manner with the task-involving motivational climate, with task orientation and with discipline.

The task-involving motivational climate is related in a positive and significant manner with task orientation, discipline, body attractiveness, sport competence, physical condition and self-confidence. Similarly, it is related in a negative manner with ego orientation and indiscipline.

Ego orientation is related in a positive and significant manner with task orientation, indiscipline, body attractiveness, sport competence, physical condition and self-confidence. It is also related in a negative manner with discipline.

Task orientation is related in a positive and significant manner with discipline, body attractiveness, sport competence, physical condition and self-confidence. Similarly, it is related in a negative manner with indiscipline.

Univariate and Multivariate Analyses

With regards to the teacher's gender and its relationship with the study variables (Table 2 and 3), we found differences in the task-involving motivational climate ($F(10, 564)= 10.99$, $p<.01$), ego orientation ($F(10, 564)= 3.91$, $p<.01$), discipline ($F(10, 564)= 5.36$, $p<.01$), body attractiveness ($F(10, 564)= 11.81$, $p<.01$), sport competence ($F(10, 564)= 6.59$, $p<.01$), physical condition ($F(10, 564)= 10.95$, $p<.01$) and self-confidence ($F(10, 564)= 11.89$, $p<.01$). In this respect, students that have a female teacher have higher task-involving motivational climate ($M= 64.32$), discipline ($M= 83.09$), body attractiveness ($M= 59.05$), sport competence ($M= 55.04$), physical condition ($M= 57.82$) and self-confidence ($M= 58.73$) than those that have a male teacher ($M= 59.84$, $M= 80.18$, $M= 53.68$, $M= 51.24$, $M= 53.15$ and $M= 53.30$, respectively). By contrast, students that have a male teacher have higher ego orientation ($M= 49.18$) than those that have a female teacher ($M= 43.86$).

As far as their satisfaction with physical education is concerned, we found significant differences with the factors of ego-involving motivational climate ($F(10, 564)= 14.68$, $p<.001$), task-involving motivational climate ($F(10, 564)= 21.75$, $p<.001$), task orientation ($F(10, 564)= 6.57$, $p<.01$), discipline ($F(10, 564)= 22.17$, $p<.001$), body attractiveness ($F(10, 564)= 31.49$, $p<.001$), sport competence ($F(10, 564)= 21.03$, $p<.001$),

physical condition (F(10, 564)= 31.33, p<.001) and self-confidence (F(10, 564)= 32.09, p<.001). In this respect, those that are satisfied with physical education have higher task-involving motivational climate (M= 62.57), task orientation (M =82.18), discipline (M= 82.23), body attractiveness (M= 57.13), sport competence (M= 53.77), physical condition (M= 56.19) and self-confidence (M= 56.79) than those that are not satisfied with it (M= 51.72, M= 75.10, M= 72.06, M= 42.12, M= 42.12, M= 42.66 and M= 41.54, respectively). By contrast, those that are not satisfied with physical education have higher ego-involving motivational climate (M= 33.39) than those that are satisfied with it (M= 25.51).

By relating physical activity with the factors being studied, we have found significant differences with ego orientation (F(10, 564)= 4.41, p<.01), task orientation (F(10, 564)= 25.90, p<.001), body attractiveness (F(10, 564)= 63.27, p<.001), sport competence (F(10, 564)= 25.62, p<.001), physical condition (F(10, 564)= 55.71, p<.001) and self-confidence (F(10, 564)= 65.19, p<.001). In this respect, exercisers have higher ego orientation (M= 48.91), task orientation (M= 84.18), body attractiveness (M= 59.76), sport competence (M= 55.19), physical condition (M= 58.37) and self-confidence (M= 59.48) than non-exercisers (M= 42.94, M= 75.78, M= 47.15, M= 47.40, M= 47.62 and M= 46.62, respectively).

In order to establish the differences between the factors and every one of the sociodemographic variables, a multivariate factorial design was carried out (2 x 2). The results show significant differences (see Table 1) between the teacher's gender variables and liking for physical education (Wilks' Lambda = .95, F(10, 564)=2.76, p< .01) and liking for physical education and physical activity (Wilks' Lambda = .93, F(10, 564)=3.64, p< .001).

DISCUSSION

With the aim of discovering the value Secondary School adolescents attach to several psychosocial aspects in physical education, the objective sought after with this study has been to find out about the possible effects of the teacher's gender, satisfaction with physical education and sport activity outside school hours on motivational climate and orientation, discipline and physical self-concept.

We have obtained a relationship between the different dispositional goal orientations and the different motivational climates perceived by students in physical education classes. Thus, task orientation is linked in a positive and significant manner with the perception of a task-oriented motivational climate and, on the contrary, ego orientation corresponds in a positive and significant manner with the perception of an ego-oriented motivational climate. These results coincide with those found in numerous research studies in the

educational field (Ames, 1992; Cury, Biddle, Famose, Goudas, Sarrazin & Durand, 1996; Duda & Nicholls, 1992; Escartí, Roberts, Cervelló & Guzmán, 1999; Goudas & Biddle, 1994; Papaioannou & Theodorakis, 1996).

We also observed the existence of a positive and significant relation between task orientation, the perception of a task-involving motivational climate and the appearance of discipline related behaviour. Similarly, there is a correlation between ego orientation, the perception of an ego-involving motivational climate and the appearance of behaviour associated with indiscipline. These results coincide with those found by Cervelló, Jiménez, Del Villar, Ramos & Santos-Rosa (2004), Papaioannou (1998a) and Spray & Wang (2001).

Parallel to this research and confirming our results at the same time, we can observe the positive association between students' perception of a task-involving climate and the perception of teaching strategies that promote an internal locus of causality for the regulation of disciplined behaviour in Spray's study (2002). Similarly, Spray showed that the perception of a teacher who places more emphasis on internal reasons for sustaining discipline was stronger than the perception of a task-involving climate.

When we include self-concept in the analysis, we find that the task-involving motivational climate is linked in a positive and significant manner with task orientation, discipline, body attractiveness, sport competence, physical condition and self-confidence. Ego orientation is linked in a positive and significant manner with task orientation, indiscipline, body attractiveness, sport competence, physical condition and self-confidence. Task orientation is linked in a positive and significant manner with discipline, body attractiveness, sport competence, physical condition and self-confidence.

As we have mentioned above, the role played by physical education teachers that can convey key points to their pupils by the way they structure their classes, by which they encourage the appearance of behaviour that can adapt to the curricular objectives they aim to attain, is very important in this conflict. In this respect, we have found that students that have a female teacher have higher task-involving motivational climate, discipline, body attractiveness, sport competence, physical condition and self-confidence than those that have a male teacher. By contrast, students that have a male teacher have higher ego orientation than those that have a female teacher.

Duda & Whitehead (1998) state on the matter that gender acts as a modulating variable that influences the socialisation process in terms of the development of goal orientations. In this way, the

masculine gender tends to be more concerned with winning and demonstrating his ability in achievement contexts than the feminine gender, so, according to these authors, the masculine gender is more ego-oriented than the female gender.

On the other hand, our results also coincide with those demonstrated in the research carried out by Spray (2002), where there is a positive association between the students' perception of a task-involving climate and the perception of teaching strategies that promote an internal locus of causality for the regulation of disciplined behaviour. On the contrary, the perception of an ego-involving climate is related to the promotion of an external locus of causality. Similarly, Spray demonstrates that the perception of a teacher who places more emphasis on internal reasons for maintaining discipline is stronger with the perception of a task-involving climate. The study carried out by Spray & Wang (2001) shows that those students who do not have competence and believe that they lack ability in physical education feel that disciplined behaviour in class is imposed externally.

With regards to satisfaction with physical education, those that are satisfied with physical education have higher task-involving motivational climate, task orientation, discipline, body attractiveness, sport competence, physical condition and self-confidence than those that are not satisfied. By contrast, those that are not satisfied have higher ego-involving motivational climate than those that are satisfied with physical education. These results coincide with those obtained by Carpenter & Morgan (1999), Morgan & Carpenter (2002), Papaioannou (1995b), Solmon (1996) and Treasure (1997). Similarly, the research carried out by Spray & Wang (2001) establishes a relationship between high task orientation and more self-concept. Task-oriented students centre their attention on learning and improvement during the physical education classes, developing an orderly work environment and cooperating with their class peers. These students' behaviour is less likely to be controlled externally by the teacher or by the school's predominant rules. Those students with low self-perception appear to be more "daring" from a motivational point of view. Prior research has shown the relationship between groups of "daring" students and low self-perception (Weiss, Ebbeck & Horn, 1997).

By relating physical activity with the factors being studied, we found that exercisers have higher ego orientation, task orientation, body attractiveness, sport competence, physical condition and self-confidence than non-exercisers. This statement is confirmed by Raich, Torras, & Figueras (1996), Trew et al. (1999) and Weinberg & Gould (1996), who state that regular exercisers have a high interest in physical exercise and

assess their physical shape better than those that do not exercise regularly and, in turn, those that do not do any exercise at all.

Within this trend, Li (1996) identifies four variables as significant predictors of self-esteem: attractive body, sport competence, appearance preferences and health assessment. Contrary to information found in the rest of research, he states that the self-esteem of non-exercisers reaches higher values than the self-esteem of physically active students. Indeed, in the work by Alexandris & Carroll (1997) it was stated that non-participants were significantly more limited in the intrapersonal dimension than participants.

According to Allison, Dwyer, & Makin (1999) and Douthitt (1994), sport competence is the most powerful predictor of physical activity of all the domains of self-concept. Therefore, students that perceive themselves as highly competent are less likely to be motivated externally or amotivated in physical education classes (Ntoumanis, 2001). On the contrary, those that perceive themselves as lacking in physical competence will normally find that physical education classes are an absurd experience or that they do no make any sense (amotivation), only attending them because it is the rule or because they are afraid of being punished (external regulation). Similar results have been found in the study carried out by Vallerand, Pelletier, Blais, Briere, Senecal & Vallieres (1993) in a Canadian school in which the competence perceived was linked negatively with amotivation, not linked with external regulation and linked positively with intrinsic motivation.

With regard to body attractiveness and physical activity, Aardahl (1999) states that dissatisfaction with one’s body image is the main motivator for exercise behaviour, while opinions on physical appearance during exercise can stop participation.

Finally, to sum up, we could state, as Spray & Wang (2001) do, that students who endorse task and ego orientations and who possess a sense of competence in physical education, have more self-concept for their conduct and consider that they behave well nearly all the time. By contrast, students that have negative profiles, low task and ego orientations, low perceived competence and low feelings of autonomy, will rate their conduct lower than their peers. In this respect, it is essential to promote perceptions of task-oriented climates, strengthening task orientation, as well as using strategies to increase feelings of perceived competence and self-concept.

It is extremely important for intrinsic motivation to be encouraged and promoted in physical education in order to allow for positive results and to facilitate the general goals of physical activity in adult life. Those

students with low competence will find physical education classes boring and they will be the first candidates to lead a sedentary life. In this respect, interventions should be aimed at increasing the perception of competence in students, as well as intrinsic motivation towards physical education. As Epstein (1989) points out, motivational dimensions can be particularly useful in the structure of the classes.

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Table 1. Mean, standard deviation, alpha coefficient and correlations of all variables.

Factors	M	SD	Alpha	1	2	3	4	5	6	7	8	9	10
1. Ego-involving motivational climate	26.2	13.9	.71	-	-.48**	.32**	-.10*	.44**	-.34**	-.02	.05	.00	-.02
2. Task-involving motivational climate	61.6	15.8	.74	-	-	-.13*	.24**	-.30**	.48**	.212**	.08*	.17**	.21**
3. Ego orientation	47.0	31.3	.93	-	-	-	.16**	.36**	-.14**	.15**	.17**	.17**	.17**
4. Task orientation	81.5	18.5	.87	-	-	-	-	-.20**	.287**	.19**	.15**	.20**	.20**
5. Indiscipline	16.6	15.4	.80	-	-	-	-	-	-.51**	-.05	-.04	-.06	-.04
6. Discipline	81.3	14.7	.75	-	-	-	-	-	-	.19**	.16**	.19**	.19**
7. Body attractiveness	55.8	18.3	.79	-	-	-	-	-	-	-	.70**	.93**	.99**
8. Sport competence	52.7	17.3	.78	-	-	-	-	-	-	-	-	.90**	.69**
9. Physical condition	55.0	16.6	.76	-	-	-	-	-	-	-	-	-	.92**
10. Self-confidence	55.4	18.5	.70	-	-	-	-	-	-	-	-	-	-

p<.01; **p<.001

Table 2. Univariate and multivariate analysis of variance of variables.

	Principal effects				
	Teacher's gender	Satisfaction with PE	Physical Activity	Teacher's gender x satisfaction with PE	Satisfaction with PE x Physical Activity
Variables					
Ego-involving motivational climate	.45	14.68**	.19	2.33	.30
Task-involving motivational	10.99*	21.75**	3.53	6.26*	6.63*
Ego orientation	3.91*	1.60	4.41*	.03	2.46
Task orientation	1.39	6.57*	25.90**	5.60*	.57
Indiscipline	.34	.19	.00	11.62*	5.43*
Discipline	5.36*	22.17**	1.07	22.00*	.00
Body attractiveness	11.81*	31.49**	63.27**	.15	.37
Sport competence	6.59*	21.03**	25.62**	.19	.06
Physical condition	10.95*	31.33**	55.71**	.26	.07
Self-confidence	11.89*	32.09**	65.19**	.07	.39
Multivariate analysis					
Wilks' Lambda	.94	.90	.93	.95	.93
Multivariate F	3.41**	5.88**	3.64**	2.76*	3.64**

* p<.01; **p<.001

Table 3. Mean and standard deviation for the sociodemographic variables teacher's gender, satisfaction with Physical Education and sport activity.

Teacher's gender	Boys	Girls	SD
Ego-involving motivational climate	25.87	26.68	13.91
Task-involving motivational climate	59.84	64.32	15.85
Ego orientation	49.18	43.86	31.38
Task orientation	80.81	82.69	18.56
Indiscipline	16.97	16.20	15.41
Discipline	80.18	83.09	14.70
Body attractiveness	53.68	59.05	18.37
Sport competence	51.24	55.04	17.30
Physical condition	53.15	57.82	16.59
Self-confidence	53.30	58.73	18.50
Satisfaction with Physical Education	Dissatisfied	Satisfied	SD
Ego-involving motivational climate	33.39	25.51	13.91
Task-involving motivational climate	51.72	62.57	15.85
Ego orientation	41.63	47.57	31.38
Task orientation	75.10	82.18	18.56
Indiscipline	17.58	16.58	15.41
Discipline	72.06	82.23	14.70
Body attractiveness	42.12	57.13	18.37
Sport competence	42.12	53.77	17.30
Physical condition	42.66	56.19	16.59
Self-confidence	41.54	56.79	18.50
Sport activity	No	Yes	SD
Ego-involving motivational climate	25.81	26.37	13.91
Task-involving motivational climate	59.77	62.47	15.85
Ego orientation	42.94	48.91	31.38
Task orientation	75.78	84.18	18.56
Indiscipline	16.60	16.69	14.70
Discipline	80.39	81.78	14.70
Body attractiveness	47.15	59.76	18.37
Sport competence	47.40	55.19	17.30
Physical condition	47.62	58.37	16.59
Self-confidence	46.62	59.48	18.50