

Systematic Review

Motivational Climate, Physical Self-Concept, and Social Relationships in Adolescents in Physical Education Classes: A Systematic Review

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Abstract: The aim of the present study was to provide a comprehensive summary of scientific evidence related with the influence on physical self-concept and prosocial behaviours in adolescents, taking into account the motivational climate generated in Physical Education classes by the teacher. Studies with similar samples have shown that special consideration must be given to the motivational climate of involvement with the task and the coach's style in support of autonomy in a greater occurrence of prosocial behaviours in the sports context, which shows that the social context is the most important variable in the direction of moral behaviours. Following the application of a search protocol in the Web of Science (WoS) database, 131 articles were initially identified, with eight manuscripts finally being analysed according to previously established criteria for the various stages of the PRISMA checklist. Despite only a relatively small number of articles being available to have rigorously evaluated the topic of interest, analysed studies revealed a direct relationship between motivational climate and physical self-concept. In contrast, no relationship emerged with prosocial behaviour.

Keywords: physical education; prosocial; motivational climate



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1. Introduction

The National Institute of Health (NIH) of the United States indicates that PE is a formal area of study that is based on standards and consists of an evaluation of expected learnings framed by a schematic point of reference. It also argues that PE must comprise sequential planning of content, in addition to appropriate instruction around the development of the motor skills, knowledge, and behaviour that form the basis of healthy lifestyles, physical aptitude, fair play, self-regulation, and emotional intelligence [1].

The purpose of PE is to promote physical health through the consolidation of an active life, not only at a motor level, but also at an environmental level, in this way, favouring the comprehensive basic development of students [2]. PE has a great deal of pedagogical potential. However, for it to have a meaningful impact on student learning, it must work to address affective, cognitive, social, and motor spheres [3].

The subject of Physical Education (PE) comprises an essential academic component through its impact on wellbeing in school-aged children [4]. As a curricular discipline, PE is designed to play a meaningful role on the promotion of healthy lifestyles that provide opportunities for social relatedness in children [5], promoting prosocial and assertive behaviours and improving the development of diverse cognitive, physical, and emotional aspects [6,7].

As a part of the curricular functions and methodological dexterity available in PE, the motivational climate should contribute to the transmission of values, fair play, and positive behaviours, whilst also catering for basic psychological needs [8]. The term motivational climate refers to the way in which the setting is organised in order to motivate students to learn and master content. The focus is on learning [9], given that distinct contexts impact the influence on achievement in educational settings [10]. Further, the teaching of sports practice through prosocial resources and psychosocial interaction skills, turns PE into a protective agent against the emergence of aggressive or violent tendencies between peers. Thus, PE promotes positive social connections and acts to support socioemotional management, in this way, positively influencing personal wellbeing in students [11]. For this to occur, teachers must promote satisfactory experiences by increasing motivation through their interventions during classes [12].

1.1. Power of the Motivational Context in PE Classes

In this sense, the motivational climate created by the teacher in the classroom, determines the social–affective relationships formed between classmates. This can decrease their fear of failing and increase their confidence in themselves to perform any type of activity, even if they do not perform them correctly [13]. On the one hand, teachers that establish a mastery climate, namely, through generating a climate of understanding of the task to be undertaken, effort and personal improvement, supporting students to perceive themselves to be competent and to have positive attitudes to tackle tasks or school work, can help students have positive wellbeing [14,15]. Studies with similar samples have shown that special consideration must be given to the motivational climate of involvement with the task and the coach’s style in support of autonomy in a greater occurrence of prosocial behaviours in the sports context, which shows that the social context is the most important variable in the direction of moral behaviours [16]. On the other hand, climates that emphasise the importance of academic grades and competition between students, may drive the tendency in students to adopt performance goals and exhibit non-adaptive learning patterns, promoting negative components in student wellbeing [14,15].

PE students should hold values that are worthy of being transmitted to students, whilst also exhibiting socially desirable behaviour and guiding students through their learning [17,18]. An example of this scenario is a teacher who promotes group games without exerting pressure, giving way to student autonomy [19], and showing that, through engagement in sport, psychological resources can be acquired, leading them to also want to engage in sporting contexts [20]. When PE teachers are engaged and encourage student commitment, participation and engagement, they create an educational environment with positive values that support healthy and active lifestyles [15,21].

1.2. Physical Self-Concept and the Social Integration of the Adolescent

William James (1842–1910) studied self-concept [22] and then, later on, halfway through the 1970s, the idea of a hierarchical and multidimensional self-concept was conceived, namely, a physical, academic, personal, and social self-concept [23]. Within the concept of self-concept, different spheres impact individual wellbeing, with physical self-concept being the most important factor when students form self-evaluations [24] of their physical abilities and appearance. This makes it an important aspect of adolescent health development (body conception and resources), where their first autonomous prosocial social tendencies begin and where they are most likely to become socially active (by virtue of an important source of expectations about their body development, as well as physical comparison with others) [25]. In the 1990s, attention started to be placed on physical self-concept [26] and its four dimensions (condition, ability, attractiveness, and strength).

Physical self-concept is a fundamental psychological variable for understanding psychological identification wellbeing and social integration in adolescents [27]. Physical self-concept conditions the natural tendencies towards cementing personal and psychological growth experienced by adolescents, who actively search for ways in which to manage

their environment, interact with it, and integrate new experiences that will help them adapt and transition into adult life [28,29]. Physical self-concept has also been described as an important factor for the acquisition and maintenance of different domains of physical conditions linked with healthy lifestyles and psychological wellbeing. Specific examples of this come in reference to aspects such as life satisfaction [30], the frequency of positive relationships [31], and coping with negative emotions [32]. In this way, issues such as risk behaviours, sexual or romantic relationships, and engagement in sports, will form part of those priorities through the way in which adolescents relate with each other, as long as they consider that the feelings they experience are positive and of competence and esteem [33].

Although more research is needed in the field of physical self-concept and daily habits [24], the relationship between physical self-concept and some daily habits, whether healthy or not, appears to be relatively clear [34,35]. A study has confirmed the existence of a relationship between physical self-concept and a measure of subjective wellbeing in a sample of adolescents [36]. Another study concluded that poor wellbeing, anxiety, depression, and eating disorders were related with poor physical self-concept, with individuals with good physical self-concept having better psychological wellbeing [37].

1.3. Prosocial Tendencies in the Moral Reasoning and Social Relationships

In a similar sense, stimulation of moral reasoning (e.g., commitment to friendship) and emphatic processes in the delivery of PE classes promote the development of general self-concept and physical self-concept, specifically, through teaching–learning processes that enhance reinforcement and the social and differential understanding of skills and rhythms pertaining to psychomotor and physical materials [33]. Thus, adequate development of physical self-concept has a positive impact on prosocial behaviour and integration in students within the social setting of their PE class [38,39]. Prosocial behaviours began to be studied in the 70s with the aim of developing solidarity, tolerance, cooperation, and support behaviours from early ages, and preventing disruptive behaviours such as aggression and rule breaking [40]. The concept of prosociality refers to individual tendencies towards helping others in order to help others achieve their goals, without expectation of reward. The ultimate aim of this is to achieve favourable outcomes for society and interpersonal relationships [41].

A number of studies have demonstrated that experiences lived in PE classes facilitate social interactions and stimulate psychomotor engagement, creativity through bodily expression, understanding of competitive situations, the reframing of attitudes to favour individual and group effort, positive interactions and student integration, and the development of moral reasoning [42–47]. Turning attention towards the school setting, other research has placed the emphasis on PE teachers as the most relevant, important, and popular figures within school teaching rosters. This is due, to a large extent, to the individual support they provide to students and the fact that they often assume responsibility for important aspects of their personal and social development. This is seen through the conversion of PE classes into significantly meaningful social and experiential experiences, promoting values and supporting the creation of positive climates for students [48].

The educational setting is the ideal context for prosocial behaviours to be acquired. Adolescents spend a large amount of time at school, surrounded by other adolescents and education professionals with whom they must share the same space during many hours each week and each year. The educational institution is one of the primary agents of socialisation, and therefore it must establish a learning environment that incorporates prosocial values in girls and boys [41,49]. Different studies have shown that girls present more prosocial behaviours than boys [50,51]. In this context and, specifically, in the subject of PE, prosocial behaviours and thoughts can be shaped from school age as a part of personality and important learning acquisition for basic development [49].

Given the observations discussed above, the aim of the present work was to conduct a systematic review of scientific literature on motivational climates constructed by teachers in PE classes, development of physical self-concept, and prosocial tendencies throughout

adolescence. In addition, this paper aims to answer the following question: Do motivational climates constructed in physical education classes influence adolescents' prosocial reasoning and physical self-concept?

2. Materials and Methods

2.1. Design

For the present systematic review, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses [52]) checklist was followed.

The search was performed in the Web of Science database in the timeframe between May 2022 and July 2023. To this end, a combination of concepts and specific keywords associated with the following inclusion criteria were used: (a) population (school children undertaking compulsory secondary education), (b) age: (participants aged between 11 and 18 years), (c) language: (articles published in English or Spanish), (d) document type (full texts published in journals with a scientific impact), and (e) time: (articles published over the last 15 years prior to the time of writing). The search was conducted to only include articles from the last 15 years to ensure that the most up-to-date and current research was captured. The following search terms or keywords were used to define the search (alongside their Spanish translations): "Physical self-concept", "student school relationship"/and "physical education". Terms were listed alongside the Boolean operator "AND".

Doctoral theses, other systematic reviews, and didactic texts were excluded from the review. Articles in which the population was enrolled in education but at a level outside of compulsory secondary education, for example, university, primary education or early learning were also excluded, as were those set in contexts outside of education.

The initial search of the Web of Science database returned a result of 145 studies. These articles were screened according to title, with 109 articles being excluded and 36 being retained. Following abstract screening, 16 articles were selected and 20 were excluded. This left a total of 16 articles for evaluation and synthesis of findings and study quality. Following this final step, 8 more articles were excluded for not meeting the inclusion criteria set for the present review. The full process can be seen in Figure 1. Thus, the final sample selected for the present systematic review comprised a total of 8 relevant studies.

Following a preliminary review of the identified articles, an in-depth analysis was conducted of the 8 selected articles by three researchers. Further, a pre-established condition was that articles would be discarded if they did not discuss PE. Articles would be accepted in which a relationship was established between PE and physical activity, given that, in some articles, both disciplines were clearly related. The same approach was taken with articles that discussed any of the variables examined by the present systematic review in relation to adolescents, namely, physical self-concept, social relationships, and motivational climate.

2.2. Peer Review by Experts

In order to provide greater consistency in the selection and reporting of the studies included in this review, the analysis was reinforced by an expert assessment following the Appraisal Cross-Sectional Studies (AXIS) [53] methodology. Its structure is distributed in 10 yes/no items, resulting in a total score for rating the methodological quality of each study included into a literature review from (a) 1 to 4 (low), (b) from 5 to 7 (moderate), or (c) from 8 to 10 (high). Two independent experts of proven solvency (i.e., PE Teacher and Sport Psychologist), with experience (more than 5 years) in applied work in physical education assessed the suitability of the designs, as well as the risk of methodological biases (mainly recommended for cross-sectional or observational studies).

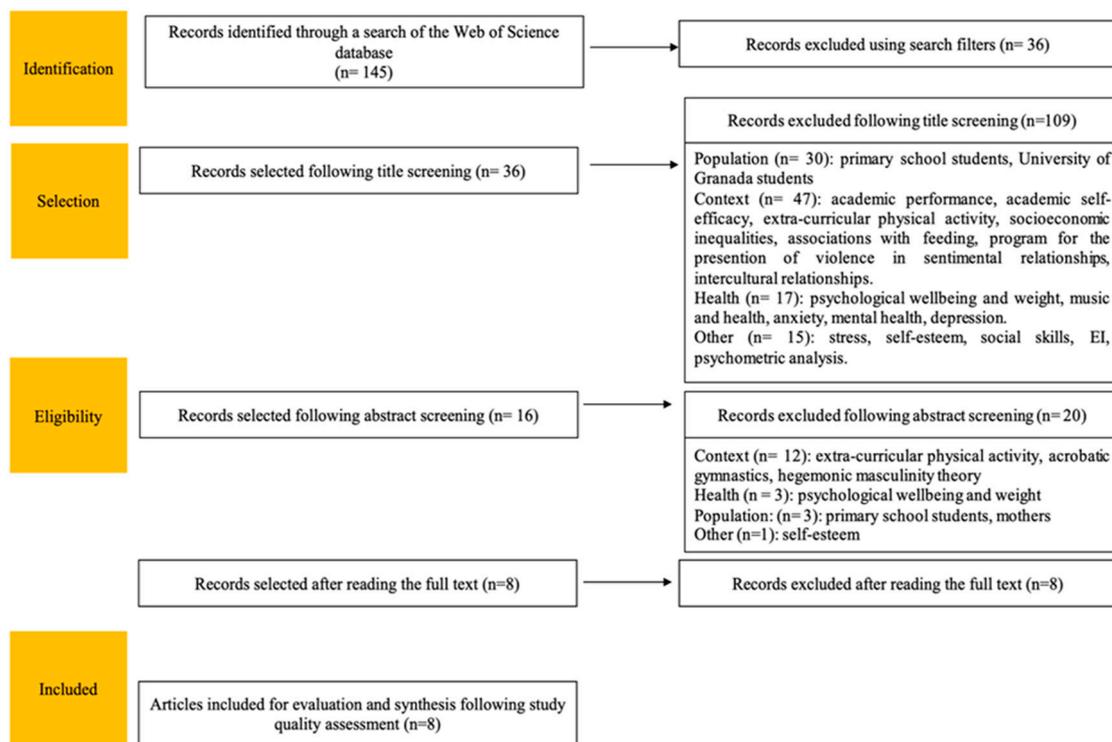


Figure 1. Flow diagram of the search strategy used in accordance with the PRISMA checklist.

3. Results

Data gathered from the studies selected for inclusion in the present review were extracted and organised according to categories denominated as (1) authors and year of publication, (2) main study aim, (3) population, (4) instruments, (5) study findings, and (6) conclusions. Findings corresponding to these categories are presented in Table 1.

Table 1. Descriptive findings extracted from the included articles.

Descriptive Data Extracted from Articles					
Author	Aim	Participants	Instruments	Results	Conclusions
González-Cutre et al. (2009) [54]	Analyse the mediating effects of social goals and perceived competence on student perceptions of the motivational climate and dispositional flow in PE.	779 students aged 12 to 16 years N boys = 358 N girls = 421	- Perceived Motivational Climate in Sport (PMCSQ-2) - Social Objectives Scale-Physical Education (SGS-PE) - Sports competence factor of the Physical Self-Perception Profile and the Dispositional Flow Scale-2 (DFS-2).	A task climate positively predicts relatedness and responsibility, and perceived competence. Social goals and perceived competence positively predict dispositional flow. An ego-involving climate positively predicts dispositional flow through perceived competence.	PE teachers are important when it comes to favouring optimal psychological states in students during class.
Inglés et al. (2012) [55]	Use logistic regression analysis to determine to what extent prosocial behaviour predicts high scores in dimensions of self-concept as a function of sex and school year.	2022 secondary school students aged between 12 and 16 years N boys = 1033 N girls = 989	- Teenage Inventory of Social Skills (TISSs) - Self-Description Questionnaire (SDQ-II).	Prosocial behaviour has a significant positive influence on physical ability-related dimensions, relationships with parents and peers, general verbal and academic abilities, honesty and self-esteem in both males and females, and in all school years during compulsory secondary education.	The study demonstrated that, in both males and females from all years of CSE, prosocial behaviour is related with high scores for different dimensions of self-concept, including self-esteem.

Table 1. Cont.

Descriptive Data Extracted from Articles					
Author	Aim	Participants	Instruments	Results	Conclusions
Jackson-Kersey and Spray (2013) [56]	Identify existing relationships between demotivation in students, physical self-concept, and teacher ratings of achievement levels pertaining to the national PE curriculum.	510 secondary school students aged between 11 and 16 years N boys = 217 N girls = 293	- Amotivation in Physical Education (AI-PE) - Physical Self-Description Questionnaire (PSDQ). - A 20-item questionnaire designed to evaluate student behaviour (actual and emotional) in PE classes.	Findings confirm that if students believe that they cannot perform a task correctly they will have a low physical self-concept.	Physical self-concept in PE depends on the student's motivation towards the subject.
Kerner, Haerens, and Kirk, (2018) [57]	Identify whether physical self-concept is dependent on lesson content or perceptions of competence in PE.	446 secondary school students aged between 13 and 14 years N boys = 210 N girls = 236	- Perceived competence subscale of the intrinsic motivation inventory (competence perceptions). - BMI (Body Mass Index)	Students with poorer physical self-concepts perceived themselves to be less competent in the subject.	PE teachers must plan lessons so that adolescents feel competent in order to reduce poor perceptions regarding physical self-concept in adolescents.
Lubans, Philip and McCormack (2011) [58]	Explore the relationship between student beliefs about school sport, social support received whilst involved in school sport, and physical self-esteem in adolescents.	249 adolescents N boys = 126 N girls = 123	- Sociodemographic questionnaire	Students with high levels of social sport whilst participating in school sport also held more positive beliefs about the value of school sport.	Secondary schools must consider student preferences when it comes to putting together their sports programs for students.
Méndez-Giménez et al. (2017) [59]	Analyse the relationships and predictive factors pertaining to 3 × 2 classroom goal structures, emotional regulation, dimensions of self-concept and affectivity in the context of secondary education.	1347 secondary school students N boys = 768 N girls = 579	- A 3 × 2 questionnaire of classroom goal structures - Educational motivation scale: high school version - The AF5 self-concept form - Positive and Negative Affect Schedule for Children and Adolescents (PANASN)	Findings related a task climate with self-concept in the PE context with the physical self-concept dimension improving participants. Teachers generally emphasised climates oriented towards task completion and personal improvement more than comparisons with others.	Teachers must promote climates oriented towards raising intrapersonal standards and successful task completion, whilst, at the same time, identifying appropriate circumstances for making comparisons with others in order to obtain desired outcomes.
Morales-Sánchez et al. (2021) [60]	Analyse the relationship of self-efficacy for motor skills and physical self-concept with enjoyment/satisfaction and boredom in school PE classes.	195 adolescents aged between 14 and 15 years N boys = 92 N girls = 103	- Motor Self-efficacy Scale (MSES) - Children's Physical Self-Efficacy Questionnaire (C-PSQ) - Sports Satisfaction Instrument (SSI)	Various factors of physical self-concept and self-efficacy for motor skills were positively related with satisfaction and negatively related with boredom in PE classes.	The physical self-perceptions and those regarding motor skills held by adolescents may modify attitudes towards PE classes.
Sparks et al. (2017) [61]	Examine whether an interpersonally engaging training program based on SDT principles could improve students' classroom experiences.	18 teachers N men = 8 N women = 10 382 students aged between 11 and 15 years N boys = 155 N girls = 227	- Physical activity enjoyment scale - Perceived Locus of Causality (PLOC)	Findings indicate overall effectiveness of a training program on the use of relationship support strategies in PE.	Teachers were able to understand and implement relationship support strategies to improve coexistence.

The systematic review is based on a total of N = 5948 participants of which N = 2967 are boys and N = 2981 are girls.

The instruments used in the first study [53] included the Perceived Motivational Climate in Sport (PMCSQ-2) which measured the perception of task- and ego-involving climates, the Social Goal Scale-Physical Education (SGS-PE) which measured two factors:

relationship goal and responsibility goal, the sport competence factor of the Physical Self-Perception Profile, and the Dispositional Flow Scale-2 (DFS-2) which measured the dispositional flow. The structural equation model was used for data analysis. A total of 779 students aged 12 to 16 years (358 boys and 421 girls) participated in this study.

The second study [54] used the logistic regression analyses. The instruments used were Teenage Inventory of Social Skills (TISSs) which measured the positive and negative behaviours of adolescents in their relations with peers (prosocial and aggressive behaviour) and Self-Description Questionnaire (SDQ-II) which measured the self-concept of adolescents. A total of 2022 secondary school students aged between 12 and 16 years (1033 boys and 989 girls) participated in this study.

The third study [55] used the confirmatory factor analysis and hierarchical multiple regression analyses. The instruments used were Amotivation in Physical Education (AI-PE) which measured four dimensions of amotivation: deficient ability beliefs, deficient effort beliefs, unappealing characteristics of the task, and insufficient value of the task. Physical Self-Description Questionnaire (PSDQ) which measured the physical self-concept and a 20-item questionnaire designed to evaluate student behaviour (actual and emotional) in PE classes. A total of 510 secondary school students aged between 11 and 16 years (217 boys and 293 girls) participated in this study.

The fourth study [56] used the multilevel analysis. The instruments used were perceived competence subscale of the intrinsic motivation inventory (competence perceptions) and Body Mass Index (BMI). A total of 446 secondary school students aged between 13 and 14 years (210 boys and 236 girls) participated in this study.

The fifth study [57] used the research design: cross-sectional. The instrument used was the sociodemographic questionnaire that included the following sections: participation in school sport, role of school sport, school sport beliefs, social support for school sport, physical self-perception profile, and piloting of questionnaire in a sample of 249 adolescents (126 boys and 123 girls).

The sixth study [58] used hierarchical regression analyses. The instruments used included a 3×2 questionnaire on objective structures in the classroom which measured the classroom goal structure, Educational Motivation Scale in Secondary School which measured the motivation in the academic context, The Self-Concept Form 5 which measured the self-concept, and Positive and Negative Affect Schedule for Children and Adolescents (PANASN) which measured affectivity in class in a sample of 1347 secondary school students (768 boys and 579 girls).

The seventh study [59] used correlation and multiple regression analyses. The instruments used were Motor Self-efficacy Scale (MSES) which analysed the perception of motor self-efficacy in contexts of physical practice, Children's Physical Self-Efficacy Questionnaire (C-PSQ) which was used to analyse the multidimensional physical self-concept, and Sports Satisfaction Instrument (SSI) which measured satisfaction/enjoyment and boredom in PE with 195 adolescents aged between 14 and 15 years (103 girls and 92 boys).

Finally, [60] a cluster-randomized controlled design was utilized. The instruments used were Perceived Locus of Causality (PLOC) which measured student motivation, and physical activity enjoyment scale which measured student enjoyment in a sample of 18 teachers (8 men and 10 women) and 382 students aged between 11 and 15 years (155 boys and 227 girls).

4. Discussion and Conclusions

The aim of the present work was to perform a systematic review of literature examining the motivational climate created by teachers in PE classes, development of physical self-concept, and the connection of these two aspects with the social relationships formed by adolescents. With this aim in mind, a systematic review was carried out following PRISMA methodology. This revealed the scarcity of research that examined relationships between prosocial behaviour, physical self-concept and motivational climate in PE in adolescents.

The first article [53] examined the potential impact of the motivational climate instilled by PE teachers in their classes on the psychological state and social skills of their students. Highly similar findings were reported in a study conducted with 249 adolescent students, in which the social relationships that students established with their peers were more important than their physical self-concept.

For this reason, the climate set by teachers during PE classes is crucial given that a task-oriented climate is related with physical self-concept through the fact that students, regardless of gender, tend to compare themselves with their peers and, in this way, provide themselves with information which ultimately defines their views of their limitations and potential [57]. Teachers are faced with the major challenge of motivating students during classes through different strategies or methods, which implicitly reflect their teaching style [58]. Teachers must train themselves in new techniques, favouring cooperative learning, and promoting positive attitudes and behaviours [61]. Consequently, during out-of-school hours, students will continue to engage in different physical activities that strengthen the socio-emotional connection with their peers.

Physical self-concept is dependent on the subject material delivered by teachers and perceptions of competence in PE [62]. Another notable finding was that body dissatisfaction (physical self-concept) did not significantly differ as a function of sex. In this study with adolescents, females presented with lower levels of physical self-concept compared with males, who considered a muscular body to be the male beauty ideal. These findings highlight the importance of educating adolescents about physical self-concept in schools. In this sense, PE teachers should take into account the fact that students who are dissatisfied with their body will also exhibit lower levels of performance in PE classes. As a means of tackling this, PE teachers should impart classes in such a way that all adolescents can feel competent in order to decrease body dissatisfaction in this group [63]. Physical self-concept is related with healthy habits and self-esteem, promoting regular engagement in physical activity, and driving improvements in physical, psychological, and social spheres [64]. In this regard, PE plays a fundamental role due to the fact that, during adolescence, individuals start to become aware of changes taking place in their bodies, and thus become increasingly concerned about their physical appearance. In the school context, limited time is dedicated to working on self-concept in students, despite the importance of this construct for development [65]. PE promotes good mental health and improves the quality of life in children and adolescents [54]. In this sense, both this subject and the teachers who impart it are crucial for promoting healthy lifestyles in students, favouring basic development and encouraging future active lifestyles during adulthood [57]. Sport provides favourable opportunities and experiences for the development of adolescents, leading young people to engage in sport out of their own interest and volition [57].

Further, the relationship of self-efficacy for motor skills and physical self-concept with enjoyment/satisfaction and boredom during school PE lessons has also been analysed, concluding that physical and motor skill perceptions are capable of modifying attitudes towards PE classes [42]. In this sense, a training program targeting the use of relationship support strategies in PE has been shown to lead to better teacher–student relationships [29]. A relationship has also been proposed to exist in students between demotivation, physical self-concept and teacher ratings of achievement levels pertaining to the national PE curriculum in the southeast of England. These findings indicated that determined dimensions of demotivation negatively predicted physical self-concept. Thus, low levels of physical self-concept were attributed to students' perceptions of their ability to perform tasks in PE and their tendency to compare themselves with their classmates. This suggests that teachers should promote a motivational climate that develops and caters for the three basic psychological needs of autonomy, competence, and relatedness in students, as a means of favouring the development of positive behaviours and relationships in PE classes [42]. Further, it is important that the teacher promotes intrinsic motivation in their students and supports their social relatedness in order to favour more positive experiences [46]. Indeed, feedback received by students during the teaching–learning process favours motor

execution of the activity, reinforcement, and motivates and improves the socio-affective climate in the classroom [59].

Although the aforementioned studies have associated physical self-concept with social relatedness, it has been demonstrated that, whilst prosocial relationships are not related with physical appearance or physical attractiveness, they are related with physical abilities or the degree to which young people show interest in sport. In this case, adolescents who behave in a prosocial way, do so because of the positive perceptions they have of themselves in other areas of self-concept [6,53,66].

Following the review of relevant work and the aim of the present research, it can be concluded that PE is a context with a great deal of influence over the development of physical self-concept and its association with social relationships in adolescents. This influence is felt through the motivational climate established by teachers in PE classes. A number of studies argue that secondary school students place greater importance on the social relationships that are formed in the classroom than on their physical self-concept. Further, a relationship was found between motivational climate and physical self-concept with the climate established by the teacher in the classroom being of paramount importance (task-oriented motivational climate). An unfavourable climate can lead students to not enjoy engaging in sport, become demotivated, and tend towards always comparing themselves with their classmates. For this reason, teachers must establish a task-based motivational climate, ensuring that students enjoy learning and performing the tasks performed in class, putting competitiveness and rivalry to one side. To achieve this, PE teachers must bear in mind that they should impart their classes striving for intrinsic motivation developing, in this way, the social relationships that lead them to have more positive experiences. Teachers must employ different methods and strategies and train themselves in new techniques, favouring cooperative learning, and promoting positive attitudes and behaviours. In addition to reinforcing social relationships, it is necessary to spend dedicated time on developing and working on self-concept given that physical changes start to appear during adolescence and adolescents start to worry about their body. A good physical self-concept gives adolescents more security in themselves and, resultantly, more security at the time of relating with others. Finally, the educational context is ideal for encouraging social relationships in adolescents given that they spend a large amount of time there. It is already acknowledged that school is the main socialising agent together with family. Thus, it is important to establish a learning environment that considers prosocial values as a means to promoting their use in any given social context.

Despite only a small number of research studies of acceptable quality being available on the topic of interest, the studies analysed shed light on the existence of a direct relationship between motivational climate and physical self-concept, although no such relationship could be elucidated with regards to prosocial behaviour. For this reason, further studies are desperately needed in this field in order to provide a guide for teachers to incorporate their findings in their classes. This should equip teachers to deliver their classes with the optimal approach for supporting the development of suitable physical self-concept, promoting engagement in prosocial behaviours, and reducing engagement in aggressive behaviours. This will provide students with positive and rewarding experiences, whilst also increasing their motivation and commitment to engage in sport outside of school.

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