

Systematic Review

The Sport Education Model in the Development of Psychosocial Factors in Primary School: A Systematic Review

Rafael Francisco Caracuel-Cáliz ^{1,2}, José Manuel Armada-Crespo ^{3,*} and Manuel Tomás Abad Robles ⁴

¹ Faculty of Education Sciences, International University of Valencia, 46002 Valencia, Spain

² Faculty of Education and Humanities, International University of La Rioja, 26006 Logroño, Spain

³ Department of Specific Didactics, Research Group in Sport and Physical Education for Personal and Social Development (GIDEPSO), University of Cordoba, 14071 Córdoba, Spain

⁴ Department of Integrated Didactics, University of Huelva, 21007 Huelva, Spain

* Correspondence: m62arcjr@uco.es

Abstract

Physical Education (PE) in primary education seems to be a privileged context for working on psychosocial factors, and the Sports Education Model (SEM) is of interest because of its potential in this regard. The purpose of this study was to conduct a systematic review to analyse the influence of the SEM on the psychosocial factors of primary school students. A systematic review based on the PRISMA guidelines was conducted using the Web of Science, Scopus, SportDiscus, ERIC and PsycInfo databases. The review analysed scientific literature examining the relationship between the SEM in Primary PE and psychosocial factors. The results found in the 20 articles included indicated that the SEM has a positive influence on psychosocial factors. The main conclusion is that this model may be of interest for the development or improvement of psychosocial factors in primary school students.

Keywords: socioemotional learning; Physical Education; pedagogical models; psychological variables; social variables; educational innovation

1. Introduction

The context of Physical Education (PE) has become a favourable setting for addressing, in addition to the motor skills specific to the subject, the development of psychosocial factors in students (Molina et al., 2020; Murillo-Pulido et al., 2025; Pérez-Pueyo et al., 2021; Rivera-Mancebo et al., 2020). In this regard, emerging methodologies such as student-centred pedagogical models that promote and enhance learners' skills, autonomy and protagonism, as well as addressing the characteristics of students on an individual basis, are promising pedagogical approaches in terms of the development of psychosocial factors (Aparicio et al., 2024; Pérez-Pueyo et al., 2021).

The development of psychosocial factors in PE classes is in line with the latest trends in this area, which aim to promote interdisciplinary learning and the comprehensive development of students, in addition to the motor content specific to PE (Abellán et al., 2022; Baena-Morales et al., 2022; Gutierrez & García-López, 2012; Sánchez-Queija et al., 2017). In relation to innovations based on the use of pedagogical models, the Sports Education Model (SEM) occupies a prominent position in terms of use and interest in PE (Martínez de Ojeda et al., 2019; Puente-Maxera et al., 2018a, 2018b), with a notable increase in studies using this model in recent years (Guijarro et al., 2020).

The SEM aims to provide authentic sporting experiences tailored to the development of students according to their stage of education. It emerged in the early 1990s with a



Academic Editor: Heng Luo

Received: 18 November 2025

Revised: 12 January 2026

Accepted: 11 February 2026

Published: 13 February 2026

Copyright: © 2026 by the authors.

Licensee MDPI, Basel, Switzerland.

This article is an open access article distributed under the terms and

conditions of the [Creative Commons Attribution \(CC BY\) license](https://creativecommons.org/licenses/by/4.0/).

purpose and characteristics that set it apart from traditional approaches (Siedentop et al., 2019). In this way, this pedagogical model aims to promote practical experiences that are not limited to motor skills alone, learning about sport from different angles (Guijarro et al., 2020; Mahedero, 2020; Méndez-Giménez, 2014). The content developed through the SEM is usually divided into phases, which are specified as: (I) guided practice phase; (II) independent practice phase; (III) formal competition phase; and (IV) final event phase. Students are organised into teams and roles related to sports practice are distributed within the team, with students able to perform more than one role during the season. These roles are usually rotational and have clear functions such as physical trainer, coach or player, among others (Mahedero, 2020; Martínez de Ojeda et al., 2019; Méndez-Giménez, 2014).

Psychosocial variables are those skills or competencies that promote or facilitate mental well-being in young people as they develop, as proposed by the World Health Organisation (WHO, 1996). The WHO defines psychosocial competencies, also known as life skills or socio-emotional competencies, as “capacities for adaptive and positive behaviour that enable individuals to effectively cope with the demands and challenges of everyday life” (WHO, 1997, p. 1). More recently, and due to its proximity to this concept, the term socio-affective skills has been defined, which encompasses the WHO (1997) concept in a more extensive way (Armada-Crespo et al., 2020). These skills are defined as ‘a set of abilities [...] to respond adaptively to different situations that arise in one’s personal and social life [...] in order to achieve one’s goals and ensure that one’s behaviour, emotions and thoughts are internally consistent [...]’ (Armada-Crespo et al., 2020, p. 14).

The impact of SEM was described by Guijarro et al. (2020), who highlighted its relevance to learning in the context of sport and the development of social and affective skills, particularly in relation to Basic Psychological Needs (BPN) and the social climate. Likewise, the model is relatively permeable to hybridisation with other models, enhancing the pedagogical benefits of each model (Guijarro et al., 2020) and giving rise to meaningful educational experiences for students in terms of socio-emotional development (Fernández-Bustos et al., 2024; Gutiérrez et al., 2019) and learning outcomes (Zhang et al., 2024).

Along these lines are studies such as that of Ang and Penney (2013) in which, after a season of Ultimate Frisbee using SEM, students reported greater satisfaction and competence in their practice, as well as an increase in their physical self-concept, resilience, socio-emotional skills, and tolerance for defeat. In addition to intrapersonal components, other studies reflect improvements in interpersonal factors, such as that by de Almeida and Arantes (2022), who, based on a season of athletics, observed improvements in social relationships and feelings of friendship, as well as increased satisfaction with BPNs (de Almeida & Arantes, 2022).

More recent studies indicate that SEM-based interventions improve prosociality in PE compared to other experiences based on traditional methodologies (Hoyo-Guillot et al., 2025; Vera-Fernández et al., 2025). In this way, and observing the possibilities in terms of social and emotional development (Ang & Penney, 2013; de Almeida & Arantes, 2022; Guijarro et al., 2020; Méndez-Giménez et al., 2017; Puente-Maxera et al., 2018a), as well as prosocial skills and behaviours (Gutiérrez et al., 2019; Rivera-Mancebo et al., 2020), the research question is how and on which psychosocial factors SEM influences primary school students.

The aforementioned experiences and others seem to show that this pedagogical model is a relevant educational innovation for addressing psychosocial aspects. However, there is no document that compiles the improvements that this model produces in Physical Education in Primary Education. Therefore, it is of interest to systematise and analyse this research in order to extract information that allows us to describe the benefits of SEM in this regard.

Given the possibilities in terms of social and emotional development and prosocial behaviour, this study has two objectives: (1) to conduct a systematic review to analyse the influence of SEM in PE on psychosocial factors in primary school students, and (2) to describe and analyse these interventions.

2. Materials and Methods

This systematic review was conducted in accordance with the PRISMA guidelines (Page et al., 2021). The PICO strategy was used to establish the inclusion and exclusion criteria (da Costa et al., 2007). The methodological recommendations proposed in the systematic review guide (Moher et al., 2015) were also followed. The procedures were defined prior to the start of the study, and the review was registered in PROSPERO (Prospective International Register of Systematic Reviews) with the identification number CRD420251054460 accessible at <https://www.crd.york.ac.uk/PROSPERO/view/CRD420251054460> (accessed on 22 May 2025).

2.1. Eligibility Criteria

The criteria for inclusion of studies were: (a) availability of the full text; (b) exclusion of systematic reviews and meta-analyses; (c) written in English, Spanish or Portuguese; (d) research conducted in the context of PE in primary education; (e) scientific studies examining the effects of SEM implementation on psychosocial variables; and (f) intervention studies with an experimental or quasi-experimental design.

On the other hand, the exclusion criteria were: (a) studies whose full text was not available; (b) systematic reviews, meta-analyses and theoretical review articles (e.g., Guijarro et al., 2020); (c) publications in languages other than English, Spanish or Portuguese; (d) research conducted with populations at educational levels other than primary education in the field of PE; (e) studies that did not specifically address the impact of SEM on psychosocial variables; and (f) research that did not include an experimental or quasi-experimental intervention.

Thus, following the PICO questions (da Costa et al., 2007), this review considers the population of primary school students (P) in interventions addressing SEM in PE (I), comparing it with other teaching models or not (C), in relation to obtaining results related to psychosocial factors (O).

2.2. Search Strategy

To search for studies, it was agreed to use the following search phrase: (“Sport Education Model” OR “SEM”) AND (“primary education” OR “elementary school”). Subsequently, searches were conducted in four databases: Web of Science, Scopus, SportDiscus, ERIC, and PsycInfo during the period from 28 January to 2 March 2025. After completing the collection of articles, duplicate records were removed. The terms used in the search strategy corresponded to key concepts relating to the state of the art. Language filters were applied during the search, in accordance with the eligibility criteria.

2.3. Study Selection and Data Processing

A review of titles and abstracts was conducted to identify relevant studies. As a result, 13 articles that met the inclusion criteria were selected, which focused on the variables under study. The references of the selected studies were then examined, and five additional studies were incorporated. In addition, the related articles proposed by the databases for each of the 13 selected studies were reviewed individually, allowing two more manuscripts to be incorporated into the final analysis.

The review process was carried out independently by two researchers, who resolved any discrepancies by consensus. In cases where discrepancies arose regarding the inclusion

or exclusion of a study, a third researcher acted to make the final decision, thus ensuring the rigour of the selection process. The three researchers are experts in the field of PE thanks to their academic training and professional experience in this field, as well as their solid track record in conducting and publishing systematic reviews. Below is a flow chart illustrating the procedure followed in the selection of articles (Figure 1).

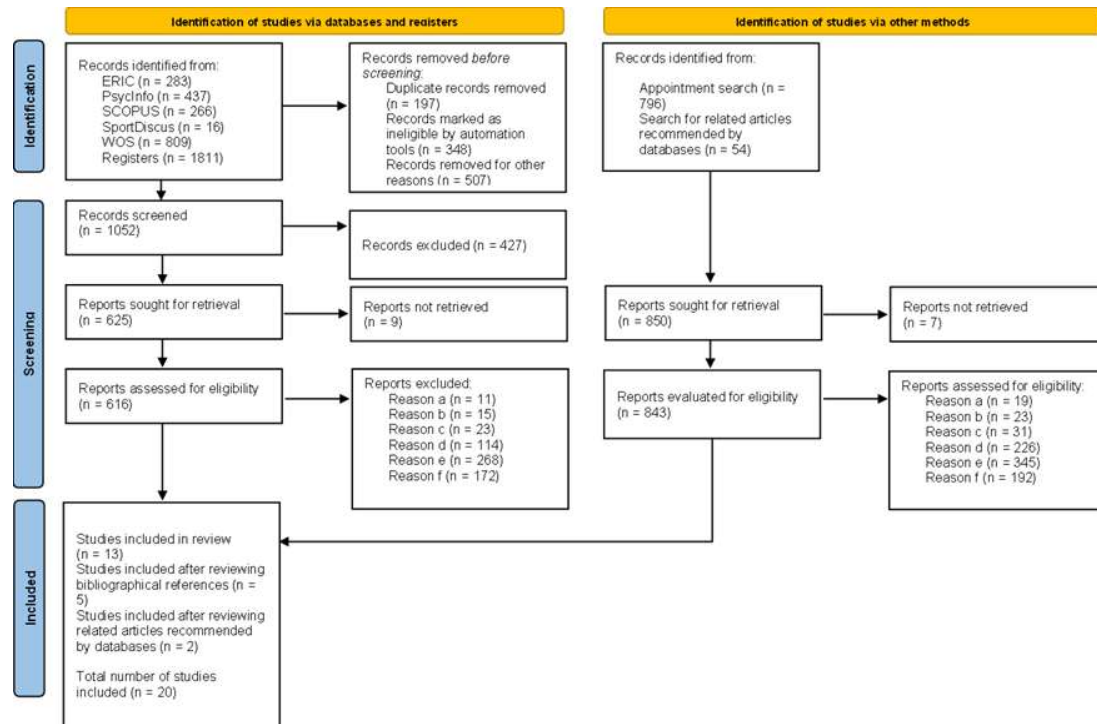


Figure 1. Flow diagram (PRISMA, 2020).

2.4. Quality Assessment

The quality of the 20 selected studies was analysed using the Standard Quality Assessment Criteria tool (Kmet et al., 2004). Two researchers evaluated each article, considering aspects such as design, sample, methodology, analysis and presentation of results, determining a final quality score for each one.

2.5. Data Collection

Two experts independently extracted the data and performed a consistency assessment, achieving a 96% level of agreement (González et al., 2019). In cases of discrepancy, a third expert intervened to resolve them and ensure the accuracy of the coding process.

3. Results

3.1. Study Selection

The initial search of the databases yielded 1811 results. Of these, 1798 documents were eliminated due to duplication, lack of relevance to the study topic, and compliance with the inclusion and exclusion criteria. Five additional articles were incorporated when reviewing the references of the studies selected in the databases. In addition, related articles proposed by the databases for each of the selected manuscripts were reviewed, allowing for the inclusion of two more studies. In total, 20 articles were selected for this systematic review, all of which met the established inclusion criteria.

3.2. Study Quality

The quality of the articles was presented on a scale of 0 to 100% (Table 1). The degree of agreement between the evaluators was assessed using the intraclass correlation coefficient, obtaining a score of 0.813 ($p < 0.001$), indicating a “good” level of agreement (Koo & Li, 2016). The observers assessed quality independently and without interaction between observers. The IBM Statistical Package for the Social Sciences (SPSS v.28) was used to calculate the intraclass correlation coefficient. After calculating the agreement between evaluators, a conservative threshold was established for the inclusion of studies, considering those with scores of no less than 60%.

Table 1. Assessment of the quality of studies.

Studies	Observer 1	Observer 2
García-López et al. (2012)	0.90	0.75
Ang and Penney (2013)	0.95	0.90
García-López and Gutiérrez (2015)	0.90	0.75
Calderón et al. (2016)	0.90	0.80
Martínez de Ojeda et al. (2016)	0.90	0.75
Méndez-Giménez et al. (2017)	0.85	0.75
Puente-Maxera et al. (2018a)	0.95	0.80
Puente-Maxera et al. (2018b)	0.85	0.70
Segovia and Gutiérrez (2018)	0.80	0.65
Sierra-Díaz et al. (2018)	0.88	0.75
Gutiérrez et al. (2019)	0.80	0.75
Martínez de Ojeda et al. (2019)	0.85	0.80
Rocamora et al. (2019)	0.90	0.80
Molina et al. (2020)	0.90	0.80
Rivera-Mancebo et al. (2020)	0.85	0.75
Abellán et al. (2022)	0.90	0.80
de Almeida and Arantes (2022)	0.85	0.80
Molina et al. (2023)	0.85	0.75
Puente-Maxera et al. (2023)	0.92	0.80
Fernández-Bustos et al. (2024)	0.86	0.75

3.3. Characteristics of the Studies

The information in the studies analysed was coded considering the following units of analysis: Author(s); Country; Subjects; Age; Methodology; Type of study; Duration; and Protocol. Some studies refer to secondary school subjects, as students at this educational level and in upper secondary students played the role of service providers, with primary school students being the recipients. The main characteristics of the studies are presented below (Table 2).

Table 2. Main characteristics of studies.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
García-López et al. (2012)	Spain	21 students (10 boys/11 girls)	10 to 11 years	Mixed	Quasi-experimental	18 sessions	NR	The intervention was divided into pre-season, regular season and final phase. The teams, consisting of five or six players, rotated roles as coach, physical trainer and referee.
Ang and Penney (2013)	Singapore	256 students (140 boys/ 116 girls)	10 to 12 years	Mixed	Quasi-experimental	15 weeks (15 sessions— 60 min)	NR	Over 15 weeks, organised into three phases (teacher-led, responsibility-taking, and student-led), an Ultimate Frisbee season was used to strengthen confidence, emotional and social skills, and coping with defeat. The students had no previous experience in SEM and no developed social and emotional skills.
García-López and Gutiérrez (2015)	Spain	154 students (76 boys/78 girls)	11 to 14 years	Mixed	Quasi-experimental	18 sessions (60 min)	NR	A handball programme based on the Sports Education model was implemented. The programme was carried out in co-educational teams of five players, with assigned roles (coach, physical trainer, referee, etc.). The teams were selected by the students through a draft system, and the weekly meetings of the teachers were recorded to resolve doubts and share solutions.
Calderón et al. (2016)	Spain	112 students (60 boys/47 girls)	9.85 (± 1.20)	Mixed	Quasi-experimental	10 sessions (60 min)	Two classes received SEM with traditional grouping, one teacher per class	Four classes experienced the application of SEM with shared teaching, i.e., with two teachers per class
Martínez de Ojeda et al. (2016)	Spain	51 students (34 boys/17 girls)	8.86 (± 0.75)	Mixed	Quasi-experimental	10 sessions (60 min)	NR	Work was carried out with football and handball, organising students into teams with assigned roles (coach, physical trainer, journalist and equipment manager), using co-teaching and rotation so that everyone also took on the roles of referee and scorekeeper.

Table 2. Cont.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
Méndez-Giménez et al. (2017)	Spain	94 students (50 boys/44 girls)	11.62 (±0.79)	Mixed	Quasi-experimental	12 sessions (60 min)	The teachers in charge of teaching did not use SEM. They developed introductory sports teaching units	with previous experience in SEM, experienced a season of mime structured around the characteristic phases of the model: Introductory, Guided, Independent Practice with Student Director, Independent Practice with Duty Team, and Final Competition
Puente-Maxera et al. (2018a)	Spain	18 students (18 children)	11.65 (±0.76)	Mixed	Quasi-experimental	10 sessions (60 min)	NR	An ultimate frisbee teaching unit was developed in five phases (Introductory, Guided, Independent Practice, Formal Competition, and Final Event), with groups formed according to learning level and nationality. Each team assumed the roles of coach, physical trainer, equipment manager, occupational risk manager, referee, and scorekeeper.
Puente-Maxera et al. (2018b)	Spain	36 students (17 boys/19 girls)	11 to 13 years	Mixed	Quasi-experimental	10 sessions (60 min)	Group B developed a handball teaching unit using SEM with weekly role rotations. It included the usual SEM phases: Introductory, Directed, Independent Practice, Formal Competition, and Final Event.	Group "A" carried out a teaching unit on handball using SEM, without role rotation. The unit consisted of five phases: Introductory, Guided, Independent Practice, Formal Competition, and Final Event. The units included introductory sessions, guided sessions, independent sessions, competitions, and a final celebration. In Years 3 and 4, pichi was played, and in Years 5 and 6, handball was practised.

Table 2. Cont.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
Segovia and Gutiérrez (2018)	Spain	47 students (22 boys/25 girls)	11 to 12 years	Mixed	Quasi-experimental	21 sessions	NR	A unit on “Traditional Games Around the World” was implemented using SEM and Project-Based Learning, divided into three phases: interdisciplinary preparation, development with a league and final tournament, and communication, where students taught games during recess. Heterogeneous teams took on the roles of referee, coach, and journalist, promoting the inclusion of a student with special educational needs.
Sierra-Díaz et al. (2018)	Spain	51 students (28 boys/23 girls)	10.72 (± 0.76)	Quantitative	Experimental	8 sessions (60 min)	Group B developed strategies focused on individual improvements	Group A developed a floorball teaching unit using SEM aimed at promoting prosocial behaviour
Gutiérrez et al. (2019)	Spain	142 primary school students 64 secondary and sixth form students	NR	Mixed	Quasi-experimental	15 sessions	NR	The programme was implemented in five educational centres with a teaching unit focused on ringo, using the SEM model and integrating Service-Learning (SL) actions.
Martínez de Ojeda et al. (2019)	Spain	18 students (10 boys/8 girls)	6.61 (± 0.50)	Mixed	Quasi-experimental	10 sessions (60 min)	NR	A teaching unit on “pichi” was developed in five phases: Introductory, Directed, Independent Practice, Formal Competition, and Final Event. Students were organised into mixed teams according to ability, gender, and origin, assuming roles as players, coach, equipment manager, health manager, physical trainer, referees, and scorekeepers.

Table 2. Cont.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
Rocamora et al. (2019)	Spain	88 students (44 boys/44 girls)	11.16 (± 0.63)	Mixed	Experimental	15 sessions (45 min)	A 15-session handball teaching unit was carried out using Direct Instruction (DI), with classes structured into warm-up, main part and cool-down, focused on technical and tactical learning, without autonomy or roles for the students	SEM-based programme is divided into pre-season, season and final event. Students, organised into mixed teams, took on roles as players, captains and referees, participating in formal competitions and recreational activities to encourage affiliation and commitment.
Molina et al. (2020)	Spain	24 students	10.12 (± 1.29)	Mixed	Quasi-experimental	18 sessions (45 min)	NR	A basketball season based on the structure and identity aspects of SEM, where content teaching was organised around ECD
Rivera-Mancebo et al. (2020)	Spain	45 students (18 boys/27 girls)	11.44 (± 0.50)	Mixed	Pre-experimental	15 sessions (45 min)	NR	A season of ringo with SEM, divided into three phases: pre-season, regular season and final phase. The students, organised into mixed teams, took on roles such as coach and referee, promoting social interactions and prosocial behaviour.
Abellán et al. (2022)	Spain	101 Primary school pupils 80 secondary school students (84 boys/97 girls)	11.86 (± 2.05)	Qualitative	Quasi-experimental	14 sessions (30 min)	NR	Educational intervention combining SEM and SL with sitting volleyball to raise awareness about disability. The project was divided into four phases: design, teacher training, implementation, and evaluation through interviews. Teachers received theoretical and practical training on SEM and SL

Table 2. Cont.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
de Almeida and Arantes (2022)	Brazil	17 students (11 boys/6 girls)	NR	Qualitative	Quasi-experimental	20 sessions (120 min)	NR	Throughout the sessions, a SEM season was developed based on athletics and, more specifically, on endurance running, high jump and javelin throw. The structure of the intervention was divided into four phases: Introduction, Pre-season, Season and Final Event.
Molina et al. (2023)	Spain	24 students (6 boys/18 girls)	11.12 (± 1.29)	Mixed	Quasi-experimental	18 sessions (45 min)	NR	The basketball programme, implemented with SEM. The teams, made up of 4–5 students from different educational levels, were designed to be heterogeneous within each team and homogeneous between groups. The season was structured into a pre-season, regular season and final, combining teams from different classes to encourage interaction and cooperation between students.
Puente-Maxera et al. (2023)	Spain	77 students (42 boys/35 girls)	10.87 (± 1.09)	Quantitative	Quasi-experimental	10 sessions (60 min)	Fourth and fifth grade students who were taught using traditional teaching methods, applying SEM	SEM season focused on colpbol, implemented in two sixth-grade groups through co-teaching. For five weeks, the students, organised into heterogeneous teams, took on the roles of players, coaches and referees. The programme included data recording and ended with a culminating event. The implementation was validated with recordings and external observations

Table 2. Cont.

Author(s)	Country	Subjects	Age	Methodology	Type of Study	Duration	Control Group	Protocol Experimental Group
Fernández-Bustos et al. (2024)	Spain	276 students Primary Education 202 secondary education students	NR	Quantitative	Quasi-experimental	18–21 sessions for secondary education 14–18 sessions for primary school	In the first phase, GC students in Primary Education and Secondary Education participated in a ringo unit using traditional methodology. In the second phase, Primary Education students familiar with SEM continued with regular physical activities without SEM or SL integration	In the first phase, SEM was implemented with a ringo unit and SL actions, where Secondary Education students visited Primary Education centres and organised final events. The methodology combined SEM and SL to facilitate the transition between educational levels. In the second phase, Primary Education students participated in training, competitions and final events with a SEM season that included modified games

NR: Not reported. NCG: No Control Group.

Table 3 presents the studies that explored various variables in the context of SEM and its impact on students. Using a wide variety of instruments and methodologies, the research addressed topics such as emotional intelligence, basic psychological needs, satisfaction with the educational experience, and the development of social and sporting skills. They revealed that SEM was effective in promoting social, emotional, and motivational skills, contributing significantly to improving the social climate in the classroom, interpersonal relationships, and the development of emotional and social skills. In addition, these approaches appeared to be useful in fostering inclusion and cooperation among students, underscoring their relevance in the educational context at the time.

Table 3. Treatment variables and main results.

Studies	Variables	Instruments	Objectives	Main Results
García-López et al. (2012)	Level of participation Fulfilment of roles Empathy Assertive behaviour Friendship	Empathy Assessment Questionnaire (Garaigordóbil, 2008) Assertive Behaviour Scale for Children (Segura, 1994) Sociometric Questionnaire (J. L. Moreno, 1972)	Analyse the development of empathy, assertiveness and social relationships that are often attributed to SEM	There were no improvements in empathy, assertiveness or general aggression. Nor did the total number of positive or negative friends change. There was less passive behaviour in the group. Aggression decreased in some roles and negative friends decreased among girls. Positive friends increased within each team
Ang and Penney (2013)	Confidence Development of social skills Development of emotional skills Stress management in the face of failure Self-concept regarding sports and physical activity skills	Physical Activity and Sport Profile (Hay, 2008) Ad hoc questionnaires Focus group Structured observation	Explore the influence of SEM in responding to students' attitudes and abilities to cope with defeat or failure in PE sessions	Improved physical self-concept, resilience and social-emotional learning. Better stress management in the face of defeat. Greater satisfaction with practice and sessions. Less skilled players were excluded
García-López and Gutiérrez (2015)	Empathy Assertiveness	Empathy Questionnaire (Garaigordóbil, 2009) Children's Assertiveness Behaviour Scale (Michelson & Wood, 1982)	Analyse the effect of SEM on students' empathy and assertiveness	Assertiveness increased after the intervention. The group and the team were key. SEM was effective, but requires consistent teaching strategies and attention in the classroom
Calderón et al. (2016)	Classroom Social Climate	Social Climate Scale Classroom (Pérez et al., 2009) Interviews with students Teachers' diaries Interviews with teachers/headteacher	Explore the impact of the model by implementing a joint intervention between two teachers in PE classes, in order to assess its influence on variables that can improve student learning and participation, such as the Classroom Social Climate	The intervention and shared teaching improved the social climate in the classroom. Co-teaching increased student involvement and cooperation

Table 3. Cont.

Studies	Variables	Instruments	Objectives	Main Results
Martínez de Ojeda et al. (2016)	Classroom Social Climate Intention to be physically active Perceived competence	Classroom Social Climate Scale (Pérez et al., 2009)	Analyse the impact of the prolonged application of the Sports Education model on the social environment of the classroom, the perception of competence and the motivation to remain physically active in primary school students	The social climate improved, especially among boys, and remained so over time. The intention to be active remained high; girls equalled boys. Perceived competence remained stable, with a slight decline among boys. Variables with positive correlations. The model helped reduce disruptive behaviour and encourage physical activity
Méndez-Giménez et al. (2017)	Self-reported emotional intelligence BPN Satisfaction with the development of the experience	Trait Meta-Mood Scale (Fernández-Berrocal et al., 2004) Motivational Mediators in Sport Scale (González-Cutre et al., 2007) Interviews with students and teachers Teacher diaries	Explore the effects of SEM during the development of a mime season on students' emotional intelligence and motivational mediators	Improved emotional intelligence and BPN. The content and model, used together, enhance its benefits
Puente-Maxera et al. (2018a)	Positive emotional response Intercultural behaviour	Positive Emotional Response Subscale (Chen & Starosta, 2000) Student Behaviour Self-Assessment Scale (Kellis et al., 2010) Interviews with students and teachers Teacher diaries	Assess the impact of SEM use, through an ultimate teaching unit, on students' behaviour and intercultural sensitivity. To determine its specific impact on the student-coach role	SEM promoted student inclusion. It improved intercultural sensitivity. There were no clear changes in intercultural behaviour, but there were qualitative improvements
Puente-Maxera et al. (2018b)	Motivational orientation Motivational climate BPN satisfaction	Exercise Goal Orientation Scale (J. A. Moreno et al., 2007a) Peer Motivational Climate Perception Scale (J. A. Moreno et al., 2007b) Motivational Mediators in Sport Scale (González-Cutre et al., 2007) Interviews with students and teachers	To understand the influence of fixed and rotating roles on goal orientations, motivational climate and self-determined motivation among students	Task goals and psychological needs improved, especially among female and Spanish students. The ego climate decreased, especially in the rotation group. Role rotation favoured task orientation. Girls excelled in task goals and perception of competence
Segovia and Gutiérrez (2018)	Positive and negative relationships in class group cohesion Evolution of social relationships Degree of autonomy	Sociometric questionnaire (Ander-Egg, 1995) Open-ended anecdotal field notebook (Calderón et al., 2010)	Analyse whether the implementation of a project-based SEM teaching unit promotes the improvement of social and civic competences, as well as a sense of initiative and entrepreneurial spirit	Improved autonomy and social relationships, especially in leadership roles. Project-based SEM enhances bonds, social skills and autonomy

Table 3. Cont.

Studies	Variables	Instruments	Objectives	Main Results
Sierra-Díaz et al. (2018)	Social behaviour	Antisocial Behaviour Questionnaire (M. C. Martorell & González, 1992)	Analyse and compare the application of SEM in combination with pedagogical strategies that promote prosocial behaviour among participants	Antisocial behaviour decreased in group A. SEM works best when combined with strategies to encourage prosocial behaviour
Gutiérrez et al. (2019)	Key competence: Social and civic awareness Student perception Social interactions	Focus groups Physical Education Season Survey questionnaire (Hastie & Sinelnikov, 2006), Spanish version (Gutiérrez et al., 2013) Edmodo social network	Present and evaluate a proposal based on the integration of the SEM pedagogical model and SL, aimed at facilitating the transition from primary to secondary education through the development of the key competence of social and civic awareness	Social and Civic competence improved, especially in primary education. Participants rated the experience positively, highlighting relationships and motivation. More interaction between groups and greater use of Edmodo were suggested, especially in primary education. SEM was well received, although there were difficulties in managing roles and behaviours.
Martínez de Ojeda et al. (2019)	Students' perception of SEM Teachers' perceptions of SEM BPN	Teacher and student interviews Teacher diary Argumentative drawing Sports education questionnaire (Mohr et al., 2003)	To understand the influence of SEM on teachers' and students' perceptions of the model itself, as well as on BPN	Improved sports culture and enthusiasm for the model. Students rated the roles positively, but there were negative experiences with peer feedback. Improvements in competence and autonomy were highlighted, positively impacting BPN
Rocamora et al. (2019)	Levels of physical activity Friendship goals Game performance	Actigraph GT3X accelerometers Questionnaires Game Performance Assessment Instrument (GPAI)	To analyse the effects of two pedagogical approaches, SEM and Direct Instruction (DI), on levels of physical activity intensity, game performance and friendship-related goals in primary school pupils	SEM students engaged in more light and moderate physical activity. They showed greater approach and avoidance goals in friendships. The DI group was more sedentary. Both groups improved in game performance, with SEM showing greater improvement
Molina et al. (2020)	Level of satisfaction with BPNs. Friendship preferences. Level of personal and social responsibility. Student perception.	PE-adapted version of the Basic Psychological Needs in Exercise Scale (BPNES) (Vlachopoulos & Michailidou, 2006) Sociometric questionnaire. Five cumulative levels (Hellison, 2011, pp. 32–34) Discussion groups	Analyse the effect of a Sports Education season on BPN satisfaction, the promotion of responsibility and the development of social relationships in students	Competition, relationship and responsibility needs improved The negative friend variable decreased. Progress in social relationships, suggesting that multilevel relationships optimise the benefits of the model

Table 3. Cont.

Studies	Variables	Instruments	Objectives	Main Results
Rivera-Mancebo et al. (2020)	Prosocial behaviour Student relationships	Subscales of the BAS-3 socialisation battery and the prosocial behaviour questionnaire (C. Martorell et al., 2011) Field notes	Examine the effect of sports education on prosocial behaviour in primary school children	Prosocial behaviours increased: consideration, leadership, empathy and quality of relationships. Disruptive behaviours decreased, and conflict resolution skills improved. Interactions between genders increased and excluded students were integrated
Abellán et al. (2022)	Teachers' perceptions	Semi-structured interviews	Encouraging acceptance by peers is a way to promote the inclusion of students with special educational needs in the classroom.	They expressed a favourable perception, highlighting, among other benefits, the promotion of awareness among primary school students and the development of empathy among secondary school students
de Almeida and Arantes (2022)	BPN	Assess Affective Domain End-of-season Survey Students' written work	Measuring the impact of SEM on student BPN satisfaction	BPN satisfaction improved. Students felt more autonomous and competent in making decisions. Social relationships, socialisation and feelings of friendship increased.
Molina et al. (2023)	Student perception Teacher perception	Discussion group Physical Education Season Survey questionnaire by Mohr et al. (2003) modified by Hastie and Sinelnikov (2006) in its Spanish translation (Gutiérrez et al., 2013) Interview	Design a season in a rural centre with multilevel groups, making adaptations in the planning and structuring of SEM, and evaluate the perception of students and teachers regarding their participation in the programme	SEM in multi-level groups promoted collaborative learning and social cohesion. Students valued the interaction between different ages, although there were tensions due to skill differences The model promoted respect, emotional management and sportsmanship, especially among older students, who took on leadership roles
Puente-Maxera et al. (2023)	Educational climate Emotional intelligence Perceived competence	Peer social network and normative adjustment subscales (Del Rey et al., 2017) Emotional Intelligence in Physical Education Questionnaire (Cecchini et al., 2018) Perceived competence subscale, included in the Physical Self-concept Scale for teenagers (J. A. Moreno et al., 2007b)	To analyse the effect of a season of colpbol, based on SEM, on school coexistence, emotional intelligence and perceived competence in primary school students	Significant improvements in sixth grade in all variables. In fifth grade, perceived competence and emotional control improved. There were no changes in the fourth grade group

Table 3. Cont.

Studies	Variables	Instruments	Objectives	Main Results
Fernández-Bustos et al. (2024)	Social Competencies Execution and decision-making in the game Theoretical knowledge of ringo	Multidimensional Social Competence Questionnaire for Adolescents (Gómez-Ortiz et al., 2017) Game Performance Assessment Instrument (GPAI) Assessment questionnaire	Analyse the effect of a programme combining SL with SEM on social competence (SC) and student learning	Participants demonstrated significant learning. Phase 2 of SEM-SL improved social competence and its dimensions The integration of both methodologies promoted the development of socio-emotional skills and sports knowledge, especially for volunteers

One of the recurring aspects in the studies was the influence of the model on students' self-perception and on improving emotional and social resilience. Research such as that by Gutiérrez et al. (2019) and Rocamora et al. (2019) highlighted that the application of the pedagogical model improved student motivation and enhanced social interaction within the educational environment. Similarly, Puente-Maxera et al. (2023) indicated that the autonomy promoted by the SEM fostered a better perception of competence and increased socialisation. From this perspective, Segovia and Gutiérrez (2018) stated that autonomy and social relationships were related to leadership roles.

Another relevant finding was the relationship between the implementation of the SEM and the development of social and civic competence, as observed in the study by Abellán et al. (2022). The inclusion of complementary methodologies, such as Service Learning (SL), was shown to enhance the model's impact on student integration and prosocial behaviour (Rivera-Mancebo et al., 2020).

With regard to emotional intelligence, Fernández-Bustos et al. (2024) found that the application of the SEM in teaching colpbol led to significant improvements in school coexistence and emotional control among primary school students. On the other hand, studies such as that by Molina et al. (2020) focused on the development of personal and social responsibility within SEM, noting that this model facilitated greater integration and cohesion within the school group. Finally, it was observed that the studies included a combination of quantitative and qualitative approaches, with the use of standardised questionnaires, interviews and teacher diaries. This methodological triangulation allowed for a more comprehensive evaluation of the impact of this pedagogical model, corroborating its effectiveness in improving various psychological, social, and pedagogical aspects of the students.

Table 3 below presents the variables (2), the instruments used (3), the objectives (4), and the main results (5).

The results obtained showed significant improvements in various dimensions of students' social-emotional competence and personal development. Overall, there was an increase in autonomy, perceived competence, social relationships, and the ability to manage emotions and conflicts, especially in groups that participated in SEM and interventions based on collaborative and multilevel methodologies. SEM promoted inclusion, cooperation between peers of different ages, and mutual respect, highlighting the role of leadership, mainly among older students, who took on responsibilities that contributed to the development of socio-emotional skills.

In addition, there was evidence of improved motivation for physical activity and reduced antisocial behaviour, suggesting that the approach also had a positive impact on discipline and coexistence. The integration of methodologies such as SEM-SL proved effective

tive in promoting social competence, conflict resolution and the learning of sport-specific skills, providing an enriching educational experience for both students and volunteers. Taken together, these findings suggested that the model contributed significantly to the improvement of basic psychological needs and interpersonal relationships, creating a favourable environment for learning and socialisation. These findings are organised and presented in Table 4.

Table 4. Key findings.

Variables	Subjects	Observed Improvements
Autonomy and Perceived Competence	Students in the SEM and multilevel groups (different grades of Primary Education)	Increased autonomy and perception of competence
Social Relations	Students participating in the SEM, especially in interaction between different age groups.	Improved social relations and quality of interpersonal interactions.
Emotional Management and Conflict Resolution	Groups that participated in the SEM and the collaborative methodology	Improved emotional regulation and conflict resolution skills
Anti-social behaviour	Groups participating in the SEM	Significant reduction in anti-social behaviour
Motivation for Physical Activity	SEM students, especially women	Increased motivation to participate in physical activity
Inclusion and Cooperation	Multi-level groups (different grades of Primary Education), with emphasis on leadership roles.	Improved inclusion and cooperation, especially in leadership roles, where older students supported younger ones.
Impact on Social Competence	Groups participating in the SEM-SL, especially issuers of the service	Improvements in social competence and its dimensions (Cognitive Reassessment, Social Adjustment, Social Efficacy, Normative Adjustment).
Sport Specific Skill Development	Groups participating in the SEM-SL	Advances in learning sport skills, related to social interaction and competition.
Satisfaction of Basic Psychological Needs	All groups participating in the SEM	Improved satisfaction of basic psychological needs, especially autonomy and competence.
Socialisation and Sense of Friendship	Groups of SEM students and in integration contexts	Increased socialisation and sense of friendship, especially in previously excluded groups of students.

4. Discussion

The objective of this study was to conduct a systematic review to analyse the influence of SEM in PE on psychosocial factors in primary school students, as well as to describe and analyse these interventions. In this regard, the 20 studies found presented various benefits in relation to the object of study.

Firstly, with regard to social factors, an improvement can be noted in aspects such as the social climate in the classroom, with numerous pieces of evidence found in relation to the improvement of this variable (Calderón et al., 2016; Martínez de Ojeda et al., 2016; Molina et al., 2020, 2023; Puente-Maxera et al., 2018b, 2023), or social relationships (de Almeida & Arantes, 2022; García-López et al., 2012; Gutiérrez et al., 2019; Molina et al., 2020;

Rivera-Mancebo et al., 2020; Rocamora et al., 2019; Segovia & Gutiérrez, 2018; Sierra-Díaz et al., 2019). In terms of inclusion Puente-Maxera et al. (2018a) highlight that intervention through SEM had a positive impact on inclusion, sensitivity and intercultural behaviour. On the other hand, from the perspective of students with disabilities, findings have also been found that relate SEM to increased sensitivity and empathy towards their peers with disabilities (Abellán et al., 2022). Along these lines, the work carried out by Rivera-Mancebo et al. (2020) also points to improvements in terms of reducing exclusion and the ability to resolve conflicts. The improvement in social aspects such as inclusion or classroom climate through SEM is in line with the proposals of Guijarro et al. (2020) and is directly related to the life skills proposed by the WHO (1997). However, this contrasts with experiences in which the use of SEM has a negative impact on social aspects such as inclusion, with greater exclusion found among students with poorer motor skills (Ang & Penney, 2013), despite an increase in social learning.

In terms of psychological and/or emotional factors, the studies included pointed to improvements related to life skills (WHO, 1996, 1997) or socio-affective skills (Armada-Crespo et al., 2020), which coincides with the findings of Guijarro et al. (2020). Thus, experiences incorporating SEM highlight improvements in empathy (Abellán et al., 2022; Rivera-Mancebo et al., 2020), resilience and self-concept (Ang & Penney, 2013), perceived competence (Ang & Penney, 2013; de Almeida & Arantes, 2022; Martínez de Ojeda et al., 2019; Méndez-Giménez et al., 2017; Molina et al., 2020; Puente-Maxera et al., 2018b, 2023), assertiveness (García-López & Gutiérrez, 2015) and emotional and socio-emotional skills or competencies (Ang & Penney, 2013; Fernández-Bustos et al., 2024; Molina et al., 2023; Méndez-Giménez et al., 2017; Puente-Maxera et al., 2018a, 2023). On the other hand, the work of (García-López et al., 2012) found no improvements in empathy, assertiveness, aggressiveness, or friendships within the group, despite a decrease in aggressiveness in some roles, negative friends among girls, and an improvement in friendships within each team.

It is important to highlight the studies that showed improvements in emotional aspects in negative situations, such as improvements in stress management in the face of defeat (Ang & Penney, 2013) or in aspects such as social withdrawal, anxiety and shyness (Rivera-Mancebo et al., 2020). One of the most notable variables in the selected studies is BPN (autonomy, competence and relationships or affinity) (Ryan & Deci, 2002), which has an impact on the emotional well-being described above (Armada-Crespo et al., 2020; WHO, 1996, 1997). Thus, there are improvements in these BPNs in the works of Méndez-Giménez et al. (2017), Puente-Maxera et al. (2018b), Martínez de Ojeda et al. (2019), Molina et al. (2020) and de Almeida and Arantes (2022), coinciding with the findings of Guijarro et al. (2020).

The findings of the study should be viewed with caution due to the limitations of the research. It should be noted that the study of psychosocial factors related to PE has been conducted in a general manner, which involves the incorporation of aspects related to BPN, social relationships, resilience, and self-concept. In this sense, the study does not focus on a single psychosocial variable but rather includes all those that are present in the research. In relation to this limitation, it is worth highlighting the numerous instruments used by the studies included in the review and the different variables analysed. This provides an overview of psychosocial factors but limits the ability to focus specifically on some of them. Similarly, the language aspect can be considered another limitation, as articles in Spanish, English and Portuguese have been reviewed. In this regard, it could be considered that the risk of bias in the reports included could be moderate overall, finding studies that do not have registered or accessible protocols. Due to the diversity of results, instruments, sample sizes, or research design used and, therefore, the quality of the studies, the results

and conclusions drawn should be taken with caution. Similarly, the improvements found coexist with some negative results or inconsistencies. This shows that the model itself or PE are not sufficient in themselves as promoters of psychosocial factors but are influenced by the adult role model who teaches (Montero-Carretero et al., 2020; Pelegrín et al., 2010).

With regard to future research, it would be interesting to conduct a specific review of some of the variables found in this study that relate to SEM and psychosocial factors in the field of primary education. Other age groups could also be studied to determine the influence of SEM at different educational stages. Furthermore, increasing the number of languages in the studies reviewed would provide an even more comprehensive overview of the state of the SEM.

5. Conclusions

From the studies reviewed, it can be concluded that SEM can be appropriate for the improvement of different psychosocial factors. From this perspective, it is effective not only in promoting inclusion, classroom climate or social relations, but also in reducing aggressiveness or increasing friendship. Likewise, the development of emotional intelligence, Basic Psychological Needs, empathy, resilience, self-concept, intercultural sensitivity and sensitivity to disability or perceived competence, are an important contribution to the psychosocial or life skills proposed by WHO and once again highlight the importance of PE for the promotion of psychosocial factors and well-being in students.

The results found in this review indicate that the SEM in PE classes can be a model of interest for promoting and developing psychosocial factors in Primary School pupils. Therefore, the main practical application of this research is related to the implementation of the SEM itself to enhance life skills in Primary School students, improve their interpersonal relationships, their socioemotional skills and, ultimately, their well-being both inside and outside the PE sessions. It can also be useful for PE teachers as a valid approach to enhance psychosocial factors at the Primary Education stage.

These findings reinforce the position of PE as a privileged setting for promoting psychosocial wellbeing during primary education.

Author Contributions: Conceptualization, R.F.C.-C., J.M.A.-C. and M.T.A.R.; methodology, R.F.C.-C. and M.T.A.R.; software, R.F.C.-C., J.M.A.-C. and M.T.A.R.; validation, R.F.C.-C., J.M.A.-C. and M.T.A.R.; formal analysis, R.F.C.-C. and J.M.A.-C.; investigation, R.F.C.-C., J.M.A.-C. and M.T.A.R.; resources, R.F.C.-C., J.M.A.-C. and M.T.A.R.; data curation, R.F.C.-C., J.M.A.-C. and M.T.A.R.; writing—original draft preparation, R.F.C.-C., J.M.A.-C. and M.T.A.R.; writing—review and editing, R.F.C.-C., J.M.A.-C. and M.T.A.R.; visualization, R.F.C.-C., J.M.A.-C. and M.T.A.R.; supervision, R.F.C.-C., J.M.A.-C. and M.T.A.R.; project administration, J.M.A.-C. and M.T.A.R.; funding acquisition, R.F.C.-C. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: All information relating to the results can be found in the manuscript. For further information, please consult the bibliographical references of the articles selected for the study.

Conflicts of Interest: The authors declare no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

SEM	Sport Education Model
PE	Physical Education
SL	Service Learning
BPN	Basic Psychological Needs
DI	Direct Instruction
PROSPERO	Prospective International Register of Systematic Reviews
NR	No reported
NCG	No control group

References

- Abellán, J., Segovia, Y., Gutiérrez, D., & García, L. M. (2022). Disability awareness through an integrated program of sport education and service-learning. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, *43*, 477–487. [[CrossRef](#)]
- Ander-Egg, E. (1995). *Técnicas de investigación social* (24th ed.). Lumen.
- Ang, S. C., & Penney, D. (2013). Promoting social and emotional learning outcomes in physical education: Insights from a school-based research project in Singapore. *Asia-Pacific Journal of Health, Sport and Physical Education*, *4*(3), 267–286. [[CrossRef](#)]
- Aparicio, R., Sánchez, A., Cenizo, J. M., & Vázquez, F. J. (2024). The BigBall-X through a hybridization of models to contribute to SDG 5 and SDG 17 in Physical Education. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, *56*, 216–227. [[CrossRef](#)]
- Armada-Crespo, J. M., Montávez, M., & González, I. (2020). Influencia de la Expresión Corporal en el desarrollo de las Habilidades Socioafectivas en Educación Secundaria. *Movimiento (ESEFID/UFGRS)*, *26*, e26080. [[CrossRef](#)]
- Baena-Morales, S., Ferriz-Valero, A., & García-Taino, O. (2022). Influence of cooperative strategies and mindfulness on the perception and control of emotions in primary physical education. A proposal to improve sustainability in the social dimension. *Journal of Physical Education and Sport*, *22*(7), 1590–1598.
- Calderón, A., Hastie, P. A., & Martínez de Ojeda, D. (2010). Aprendiendo a enseñar mediante el Modelo de Educación Deportiva (Sport Education Model). Experiencia inicial en Educación Primaria. *Cultura, Ciencia y Deporte*, *5*(15), 169–180. [[CrossRef](#)]
- Calderón, A., Martínez de Ojeda, D., Valverde, J. J., & Méndez-Giménez, A. (2016). “Ahora nos ayudamos más”: Docencia compartida y clima social de aula. Experiencia con el modelo de Educación. Deportiva. *RICYDE. Revista Internacional de Ciencias Del Deporte*, *12*(44), 121–136. [[CrossRef](#)]
- Cecchini, J. A., Méndez-Giménez, A., & García-Romero, C. (2018). Validation of the Emotional Intelligence Questionnaire in Physical Education. *Revista de Psicología del Deporte*, *27*(1), 87–96.
- Chen, G. M., & Starosta, W. J. (2000). The development and validation of the Intercultural Sensitivity Scale. *Human Communication*, *3*(1), 2–14.
- da Costa, C. M., de Mattos, C. A., & Cuce, M. R. (2007). The PICO strategy for the research question construction and evidence search. *Revista Latino-Americana de Enfermagem*, *15*(3), 508–511. [[CrossRef](#)]
- de Almeida, E., & Arantes, L. (2022). Necessidades psicológicas básicas e aulas de educação física: Potencialidades do sport education model. *Humanidades & Inovação*, *9*(12), 128–140.
- Del Rey, R., Casas, J. A., & Ortega-Ruiz, R. (2017). The Development and Validation of the Schoolwide Climate Scale. *Universitas Psychologica*, *16*(1), 275–285. [[CrossRef](#)]
- Fernández-Berrocal, P., Extremera, N., & Ramos, N. (2004). Validity and reliability of the Spanish modified version on the Trait Meta-Mood Scale. *Psychological Reports*, *94*, 751–755. [[CrossRef](#)] [[PubMed](#)]
- Fernández-Bustos, J.-G., López, L. M. G., Gutiérrez, D., González-Martí, I., & Abellán, J. (2024). Impact of a service-learning and sport education program on social competence and learning. *Educacion XX1*, *27*(2), 301–339. [[CrossRef](#)]
- Garaigordóbil, M. (2008). *Intervención psicológica con adolescentes. Un programa para el desarrollo de la personalidad y la educación en derechos humanos*. Pirámide.
- Garaigordóbil, M. (2009). A comparative analysis of empathy in childhood and adolescence: Gender differences and associated socio-emotional variables. *International Journal of Psychology and Psychological Therapy*, *9*(2), 217–235.
- García-López, L. M., & Gutiérrez, D. (2015). The effects of a sport education season on empathy and assertiveness. *Physical Education and Sport Pedagogy*, *20*(1), 1–16. [[CrossRef](#)]
- García-López, L. M., Gutiérrez, D., González-Víllora, S., & Valero-Valenzuela, A. (2012). Cambios en la empatía, la asertividad y las relaciones sociales por la aplicación del modelo de instrucción educación deportiva. *Revista de Psicología Del Deporte*, *21*(2), 321–330.

- González, G., Ubago, J. L., Castro, M., García, I., & Sánchez, M. (2019). Prevención y tratamiento de lesiones lumbares con herramientas físico-médicas. Una revisión sistemática. *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 5(2), 232–249. [CrossRef]
- González-Cutre, D., Martínez Galindo, C., Alonso, N., Cervelló, E., Conte, L., & Moreno, J. A. (2007). Las creencias implícitas de habilidad y los mediadores psicológicos como variables predictoras de la motivación autodeterminada en deportistas adolescentes. In J. Castellano, & O. Usabiaga (Eds.), *Investigación en la Actividad Física y el Deporte II* (pp. 407–417). Universidad del País Vasco.
- Gómez-Ortiz, O., Romera-Félix, E. M., & Ortega-Ruiz, R. (2017). Multidimensionalidad de la competencia social: Medición del constructo y su relación con los roles del bullying. *Revista de Psicodidáctica*, 22(1), 37–44. [CrossRef]
- Guijarro, E., Rocamora, I., Evangelio, C., & González Víllora, S. (2020). Sport education model in Spain: A systematic review. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, 38, 886–894. [CrossRef]
- Gutierrez, D., & García-López, L. M. (2012). Gender differences in game behaviour in invasion games. *Physical Education & Sport Pedagogy*, 17(3), 289–301. [CrossRef]
- Gutiérrez, D., García-López, L. M., Hastie, P., & Calderón, A. (2013). Spanish students' perceptions of their participation in season of Sport Education. *The Global Journal of Health and Physical Education Pedagogy*, 2(2), 111–127.
- Gutiérrez, D., Segovia, Y., García-López, L. M., & Fernández-Bustos, J. G. (2019). Service-learning integrated into the sport education model as a facilitator of the transition to secondary education. *Publicaciones de La Facultad de Educacion y Humanidades del Campus de Melilla*, 49(4), 89–110. [CrossRef]
- Hastie, P., & Sinelnikov, O. A. (2006). Russian students' participation in and perceptions of a season of sport education. *European Physical Education Review*, 12, 131–150. [CrossRef]
- Hay, I. (2008). *Physical activity and sport profile*. Faculty of Education, University of Tasmania.
- Hellison, D. (2011). *Teaching personal and social responsibility through physical activity*. Human Kinetics.
- Hoyo-Guillot, A., Fernández, F. T. G., & Ruíz-Montero, P. J. (2025). Effects of sport education model and physical fitness on motivation and prosociality for a healthy approach in secondary students using an experimental design. *Sports*, 13(8), 274. [CrossRef]
- Kellis, I., Vernadakis, N., Albanidis, E., Derri, V., & Kourtesses, T. (2010). The development of a student's behaviors' self-evaluation scale (SBSS) in multicultural physical education class settings. *Educational Research and Review*, 5(11), 637–645.
- Kmet, L. M., Lee, R. C., & Cook, L. S. (2004). *Standard quality assessment criteria for evaluating primary research papers from a variety of fields*. Alberta Heritage Foundation for Medical Research.
- Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 15(2), 155–163. [CrossRef] [PubMed]
- Mahedero, M. (2020). El modelo de educación deportiva. In B. Sánchez-Alcaraz, A. Valero, D. Navarro, & A. Merino (Eds.), *Metodologías emergentes en educación física* (pp. 161–172). Wanceulen.
- Martínez de Ojeda, D., Méndez-Giménez, A., & Valverde, J. (2016). Efectos del modelo educación deportiva en el clima social del aula, la competencia percibida y la intención de ser físicamente activo: Un estudio prolongado en primaria. *SPORTTK: Revista Euroamericana de Ciencias Del Deporte*, 5(2), 153–166.
- Martínez de Ojeda, D., Puente-Maxera, F., Méndez-Giménez, A., & Mahedero-Navarrete, M. P. (2019). Initial experience with the Sport Education model in primary school first-grade. Students and teachers' perceptions. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, 36, 203–210. [CrossRef]
- Martorell, C., González, R., Ordóñez, A., & Gómez, O. (2011). Estudio confirmatorio del cuestionario de conducta prosocial (CP) y su relación con variables de personalidad y socialización. *Revista Iberoamericana de Diagnóstico y Evaluación*, 32(2), 35–52.
- Martorell, M. C., & González, R. (1992). *Cuestionario de conducta antisocial*. Universidad de Valencia.
- Méndez-Giménez, A. (2014). Modelos de enseñanza y síntesis de las investigaciones recientes. In A. Méndez-Giménez (Ed.), *Modelos de enseñanza en educación física*. Ciclo Grupo 5.
- Méndez-Giménez, A., Martínez de Ojeda-Pérez, D., & Valverde-Pérez, J. J. (2017). Inteligencia emocional y mediadores motivacionales en una temporada de Educación Deportiva sobre mimo. *Ágora Para la Educación Física y el Deporte*, 19(1), 52–72. [CrossRef]
- Michelson, L., & Wood, R. (1982). Development and psychometric properties of the Children's Assertive Behavior Scale. *Journal of Behavioral Assessment*, 4(1), 3–13. [CrossRef]
- Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic Reviews*, 4(1), 1. [CrossRef]
- Mohr, D. J., Townsend, J. S., Rairigh, R., & Mohr, C. (2003). Students' perceptions of Sport Education when taught using the pedagogical approach to Sport Education (PASE) planning and instructional framework. *Research Quarterly for Exercise and Sport*, 74, A51–A52.
- Molina, M., Gutiérrez, D., Segovia, Y., & Hopper, T. (2020). The sport education model in a rural school: Friendship, responsibility and psychological basic needs. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, 83, 291–299.
- Molina, M., Segovia, Y., & Gutiérrez, D. (2023). Propuesta de una temporada de educación deportiva multinivel: Aplicación en la escuela rural. *Journal of Sport and Health Research*, 15(1), 131–150. [CrossRef]

- Montero-Carretero, C., Barbado, D., & Cervelló, E. (2020). Predicting Bullying through motivation and teaching styles in physical education. *International Journal of Environmental Research and Public Health*, 17(1), 87. [CrossRef] [PubMed]
- Moreno, J. A., López, M., Martínez Galindo, C. M., Alonso, N., & González-Cutre, D. (2007a). Validación preliminar de la escala de percepción del clima motivacional de los iguales (CMI) y la escala de las orientaciones de meta en el ejercicio (GOES) con practicantes españoles de actividades físico-deportivas. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 1(2), 13–28.
- Moreno, J. A., Moreno, R., & Cervelló, E. (2007b). The physical self-concept as predictor of the intention of being physically active. *Psicología y Salud*, 17(2), 261–267.
- Moreno, J. L. (1972). *Fundamentos de la sociometría*. Paidós.
- Murillo-Pulido, J. L., Amar-Cantos, F. E., Aguilar-Herrero, M. D., Rodríguez-Cano, A., & Armada-Crespo, J. M. (2025). Emotional intelligence in physical education in primary education: A systematic review. *Healthcare*, 13(23), 3166. [CrossRef] [PubMed]
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., & Moher, D. (2021). Updating guidance for reporting systematic reviews: Development of the PRISMA 2020 statement. *Journal of Clinical Epidemiology*, 134, 103–112. [CrossRef] [PubMed]
- Pelegrín, A., Garcés, E., & Cantón, E. (2010). Estudio de conductas prosociales y antisociales. Comparación entre niños y adolescentes que practican y no practican deporte. *Informació Psicològica*, 99, 64–78.
- Pérez, A., Ramos, G., & López, E. (2009). Diseño y análisis de una escala para la valoración de la variable clima social aula en alumnos de Educación Primaria y Secundaria. *Revista de Educación*, 350, 221–252.
- Pérez-Pueyo, Á., Hortigüela-Alcalá, D., & Fernández-Río, J. (2021). *Los modelos pedagógicos en educación física: Qué, cómo, por qué y para qué*. Universidad de León.
- Puente-Maxera, F., Martínez de Ojeda, D., Méndez-Giménez, A., Valverde, J. J., & Jiménez-Martínez, I. (2023). Effects of a sport education season of an alternative sport on school climate, emotional intelligence, and perceived competence of elementary school students in a culturally diverse context. *Retos. Nuevas Tendencias en Educación Física, Deporte y Recreación*, 50, 1019–1028. [CrossRef]
- Puente-Maxera, F., Méndez-Giménez, A., & Martínez de Ojeda Pérez, D. (2018a). Efectos del modelo de educación deportiva sobre la interculturalidad: El papel del alumno-entrenador en estudiantes de primaria. *ESPIRAL. Cuadernos del Profesorado*, 11(22), 1–14. [CrossRef]
- Puente-Maxera, F., Méndez-Giménez, A., & Martínez de Ojeda Pérez, D. (2018b). Sport education model and roles' dynamics. Effects of an intervention on motivational variables of elementary school's students. *Cultura, Ciencia y Deporte*, 13(39), 281–290. [CrossRef]
- Rivera-Mancebo, M. C., Gutiérrez, D., Segovia, Y., & Valcárcel, J. V. (2020). Effect of the sport education model on prosocial behavior in primary. *Cultura, Ciencia y Deporte*, 15(46), 561–574. [CrossRef]
- Rocamora, I., González-Víllora, S., Fernández-Río, J., & Arias-Palencia, N. M. (2019). Physical activity levels, game performance and friendship goals using two different pedagogical models: Sport education and direct instruction. *Physical Education and Sport Pedagogy*, 24(1), 87–102. [CrossRef]
- Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci, & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). The University of Rochester.
- Sánchez-Queija, I., García-Moya, I., & Moreno, C. (2017). Trend analysis of bullying victimization prevalence in spanish adolescent youth at school. *Journal of School Health*, 87(6), 457–464. [CrossRef]
- Segovia, Y., & Gutiérrez, D. (2018). Efecto de una unidad didáctica de educación deportiva por proyectos sobre las relaciones sociales y nivel de autonomía. *EmásF. Revista Digital de Educación Física*, 9(51), 89–103.
- Segura, M. (1994). *Habilidades sociales en la escuela*. Fundación ECCA.
- Siedentop, D., Hastie, P., & Van der Mars, H. (2019). *Complete guide to sport education*. Human Kinetics.
- Sierra-Díaz, M. J., Evangelio, C., Pérez-Torralba, A., & González-Víllora, S. (2018). Hacia un comportamiento más social y cooperativo en educación física: Aplicación del modelo de educación deportiva. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 7, 83–91. [CrossRef]
- Sierra-Díaz, M. J., González-Víllora, S., Pastor-Vicedo, J. C., & López-Sánchez, G. F. (2019). Can we motivate students to practice physical activities and sports through models-based practice? A systematic review and meta-analysis of psychosocial factors related to physical education. *Frontiers in Psychology*, 10, 2115. [CrossRef]
- Vera-Fernández, D., Pizarro-Mateo, D., & Valero-Valenzuela, A. (2025). Efectos de un programa hibridado entre el Modelo de Educación Deportiva y el Modelo Ludotécnico sobre la motivación y la intención de ser físicamente activo en Educación Física en la Educación Secundaria. *Publicaciones*, 55(1), 81–101. [CrossRef]
- Vlachopoulos, S. P., & Michailidou, S. (2006). Development and initial validation of a measure of autonomy, competence, and relatedness in exercise: The basic psychological needs in exercise scale. *Measurement in Physical Education and Exercise Science*, 10(3), 179–201. [CrossRef]
- WHO. (1996). Introduction. In *Life skills education planning for research as an integral part of life skills education development, implementation and maintenance* (pp. 1–12). World Health Organization (WHO).

- WHO. (1997). Introduction to life skills for psychosocial competence. In *Life skills education for children and adolescents in schools* (pp. 1–8). World Health Organization (WHO).
- Zhang, J., Geok Soh, K., Bai, X., Mohd Anuar, M. A., & Xiao, W. (2024). Optimizing learning outcomes in physical education: A comprehensive systematic review of hybrid pedagogical models integrated with the Sport Education Model. *PLoS ONE*, *19*(12), E0311957. [[CrossRef](#)]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.