

Personal and social development in physical education and sports: A review study

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Abstract

This review provides an overview of the existing literature on school-aged children's and youth's (i.e. 6- to 18-year-olds) personal and social development within the context of physical education and sports. A total of 4359 non-duplicate articles were retrieved from six databases. After the title, abstract and full text screening, 88 articles met the inclusion criteria and were included for further analysis. Articles had to be published in a peer-reviewed journal between 1 January 2008 and 6 December 2017. The 88 studies used several study designs, methods and instruments to investigate a variety of concepts related to personal and social development. Concepts were grouped into the following 11 themes: work ethic; control and management; goal-setting; decision-making; problem-solving; responsibility; leadership; cooperation; meeting people and making friends; communication; and prosocial behaviour. The main findings for each of the 11 themes are

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reported, and limitations and implications are provided to guide researchers and practitioners in their future work.

Keywords

Physical education, sports, personal development, social development, prosocial skills

Introduction

In a world that is rapidly changing, children in both primary and secondary schools benefit from developing a range of personal and social skills such as peer relationship skills, prosocial behaviours (e.g. respect), leadership skills, problem-solving skills, and personal and social responsibility skills. When children develop these personal and social skills, they will not only be more successful learners, they will also be more likely to make a more successful transition to adult life (Wright and Craig, 2011). Evidence suggests that youngsters can develop these personal and social skills through their participation in physical education (PE) (Weiss, 2011) and sports (e.g. Holt et al., 2011). Indeed, there is an increasing interest in PE's role in preparing youth for the demands and challenges of everyday life (Society of Health and Physical Educators, 2014). In response to a world-wide PE survey, Hardman et al. (2014) noted that personal and social development constitutes one of the main and most frequently cited goals of European PE programmes. Additionally, sports participation has been linked to personal (Danish et al., 1992; Fraser-Thomas et al., 2005; Gould and Carson, 2008; Smoll and Smith, 2002) and social development (Fraser-Thomas et al., 2005; Gould and Carson, 2008). While the development of personal and social skills seems to be a widely accepted goal of PE and sports worldwide, and although the body of evidence on this topic is developing, the literature currently appears to be fragmented in terms of terminology, the methods used, and the resulting conclusions.

First, when referring to personal and social development, different terms are used interchangeably to describe similar concepts. The World Health Organization (WHO) uses the terms *psychosocial competence* or *life skills education* (World Health Organization, 1997). "Psychosocial competence is defined as a person's ability to deal effectively with the demands and challenges of everyday life. It is a person's ability to maintain a state of mental well-being and to demonstrate this in adaptive and positive behaviour while interacting with others, his/her culture and his/her environment" (World Health Organization, 1997: 1). The term life skills education, which has also been used by scholars in the field (Bean and Forneris, 2017), was defined by the WHO as follows: "Life skills education is designed to facilitate the practice and reinforcement of psychosocial skills in a culturally and developmentally appropriate way; it contributes to the promotion of personal and social development, the prevention of health and social problems, and the protection of human rights" (World Health Organization, 1999). In April 1998, the WHO held a United Nations Inter-Agency Meeting to reach consensus on the meaning and objectives of life skills education. They concluded that participants were using the term life skills to refer to psychosocial skills (World Health Organization, 1999) for which they also used other keywords, including personal, social, and interpersonal skills. Other terms related to personal and social development that are often used in the literature are prosocial behaviour (e.g. Hodge and Lonsdale, 2011; Weinstein and Ryan, 2010), social competence (Petitpas and Champagne, 2000), personal and social responsibility (Hellison, 1995, 2011), social-emotional learning (Taylor et al., 2017)

and character development (e.g. Doty, 2006). It is clear that many different terms are used to describe a similar concept. For the purpose of this review, personal and social development will be used as an umbrella term.

Given the social character of PE and sports, they are considered to be appropriate means of developing students' personal and social skills, such as personal and social responsibility, cooperation, and other prosocial skills (Martinek and Hellison, 1997; Miller et al., 1997; Parker and Stiehl, 2005). According to Goudas and Giannoudis (2008), one of the reasons that PE and sports are suitable contexts for learning these skills is the transferability of these skills to other domains in life. For example, in PE and sports children can, under the right pedagogical circumstances (Bailey et al., 2009), learn how to solve problems and to communicate and work as a team, which are skills they will also need in daily life, for example, at home or at work. Over the years, several programmes were developed to purposefully teach these skills in PE or sports. For example, Hellison's model of Teaching Personal and Social Responsibility (TPSR) (Hellison, 2011), initially developed to re-engage troubled youth into society, is now widely implemented in regular PE classes (Beaudoin, 2012; Diedrich, 2014; Escartí et al., 2010a; Hemphill et al., 2015; Martins et al., 2015; Wright and Burton, 2008). Other examples of instructional models that foster personal and social development through PE are Cooperative Learning in Physical Education (Grineski, 1996) and Sport Education (Siedentop et al., 2011).

Even though there is an increasing interest in the role of PE and sports in the promotion of personal and social development, it is important to keep in mind that simply participating in PE and sports does not automatically lead to positive outcomes (Bailey et al., 2009; Cryan and Martinek, 2017; Fraser-Thomas and Côté, 2009). It is the responsibility of PE teachers and sports coaches to create the pedagogical circumstances under which positive outcomes can be obtained. As Petitpas et al. (2005: 66) stated: "Youth sports programs that promote psychosocial development are those that use sports as a vehicle to provide experiences that promote self-discovery and teach participants life skills in an intentional and systematic manner. In addition, these programs have clearly defined goals and strategies to enhance the generalizability and transfer of life skills to other important life domains".

Alongside the structured and intentional context, a positive approach toward children's development is highly recommended. The focus should be on the individual's strengths (e.g. prosocial behaviour such as respecting others), rather than on problems that need to be fixed, that is, a negative approach (e.g. reducing antisocial behaviour such as bullying) (Benson et al., 2006; Holt, 2016; Lerner et al., 2005). The promotion of personal and social development through PE and sports is receiving increasing attention from policy-makers, researchers and practitioners (e.g. Dudley et al., 2017; Haerens et al., 2017). However, evidence that supports the personal and social benefits of PE and sports has been inconclusive so far (Bailey et al., 2009; Morris et al., 2003). Bailey et al. (2009) provided an overview of studies on the educational benefits of PE and sports. They concluded that "robust evidence is needed to test some of the claims made for the benefits of PESS [PE and school sport], but the accumulation of evidence suggests that PESS can have some/may benefits for some/may pupils, given the right social, contextual and pedagogical circumstances" (Bailey et al., 2009: 16). Along similar lines, Coakley (2011) suggested that the emphasis on developing life skills in sports is supported by anecdotes and unsystematic observations and stressed the need to critically evaluate the assumptions being made. As such, there is a need for an updated overview of the research on personal and social development in PE and sports. Therefore, the purpose of this review is to provide an overview of the research that examined school-aged children and youth's (i.e. 6- to 18-year-olds) personal and social development within

the context of PE and sports, while simultaneously addressing gaps in the current literature and providing directions for future research and practice. This review aims to answer the following questions:

1. What characterizes studies investigating the benefits of PE and sports on children's personal and social development?
2. Which concepts of personal and social development are investigated in relation to PE and sports?
3. What does the literature indicate are the main benefits of PE and sports in terms of children's personal and social development?

Methods

This review was conducted in line with the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) protocol (Moher et al., 2009) and was registered with PROSPERO on 9 January 2018.

Search strategy

The databases of Embase, ERIC, PsycINFO, PubMed, SPORTDiscus and Web of Science were searched for records that contained a combination of the specified words in the title or abstract. The search strategy was composed using PICO (P = Population, I = Intervention, C = Comparison, O = Outcome):

[P] = child, adolescent, kids, minor, teenager, youngster, youth, pupil, primary education, primary school, secondary education, secondary school, high school.

[I] = physical education, sport.

[C] = no specific comparison group was added to the search strategy.

[O] = personal development, social development, positive development, youth development, psychosocial development, social-emotional development, life skill, transfer skill, personal skill, personal outcome, personal benefit, personal competence, social skill, social outcome, social benefit, social competence, social behavio(u)r, prosocial skill, prosocial behavio(u)r, psychosocial skill, psychosocial outcome, psychosocial benefit, psychosocial competence, psychosocial behavio(u)r, social-emotional skill, social-emotional outcome, social-emotional benefit, social-emotional behavio(u)r, initiative, self-directed behavio(u)r, goal-setting, decision-making skill, problem-solving, regulation skill, coping skill, leadership, responsibility, responsible behavio(u)r, relationship skill, interpersonal skill, cooperation, collaboration, communication, conflict resolution, respect.

Scientific literature (e.g. Bailey et al., 2009) and books (e.g. *Cooperative Learning in Physical Education* by Grineski (1996)) were consulted to find keywords related to personal/social development. In addition, Emtree, a search engine in Embase, and Thesaurus were used to explore all synonyms of the relevant keywords. A wildcard (i.e. an asterisk) was used to find all relevant variations of the truncated term and, if applicable, terms were adopted according to both British and American spelling (i.e. behaviour and behavior). The search strategy was drafted by the first author (KO) and discussed and adjusted in consultation with the other authors.



Figure 1. Overview of the stages of study selection.

Screening and selection

Figure 1 provides an overview of the stages of study selection. A total of 8308 records retrieved from all six databases were imported into Covidence (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org). In total, 3949 duplicates were automatically removed by the system. Two reviewers (KO and LC) carried out the substantial task of independently screening titles and abstracts of the remaining 4359 articles to see whether they met the inclusion and exclusion criteria, which are specified below. Any disagreements between the two reviewers were discussed. In this phase, 4133 articles were excluded. Then, the first author (KO) was responsible for retrieving the full texts of the 226 remaining articles. If the full text was not available online, the corresponding author was contacted. The full texts were

screened independently by reviewers (KO and LC) on the basis of the inclusion and exclusion criteria. Any disagreements on whether to include a paper were discussed between the two reviewers (KO and LC) and, if necessary, were resolved by a third reviewer (KDM). In this phase, 149 articles were excluded, leaving 77 relevant articles. Then, the reference lists of all included articles were checked for any missing relevant articles (backward tracking). These articles underwent the same selection procedure. A total of 11 additional articles met the inclusion criteria. In total, 88 articles were included for data extraction, of which 34 were quantitative studies, 39 were qualitative studies and 15 were mixed-method studies.

Inclusion criteria. Articles were included if they met three different criteria: (1) if they reported on the relation between PE/sports programmes/activities and personal, social, psychosocial, social-emotional or life skills development, or the development of related skills or outcomes (e.g. communication skills or initiative); (2) in primary and/or secondary school children (i.e. 6- to 18-year-old children); and (3) if the context of the activities was intentional and structured, thus intentionally aiming to foster personal and social development.

In relation to inclusion criterion 1, sports activities were broadly considered, including school sports activities, as well as different types of leisure time sports activities, such as competitive organized sports activities and sports summer camps. In relation to the second criterion, in the event that some of the participants were younger than 6 or older than 18, for example, 12 to 19 years old, the article was included when the majority of the participants were between 6 and 18 years old. In relation to criterion 3, articles concerning free play, which is not structured, were not included. Articles also had to be (4) written in English and (5) published in a peer-reviewed journal between 1 January 2008 and 6 December 2017. The range of publication years was limited to 2008–2017 to provide an overview of the last decade of literature following the review conducted by Bailey et al. (2009).

Exclusion criteria. As it was beyond the scope of this paper, articles were excluded if solely: (1) concerning children with physical or mental health disorders (e.g. autism spectrum disorders); (2) reporting on the validation of an instrument or not reporting on primary data (e.g. reviews, practical and theoretical articles); or (3) reporting on the side-effects or negative outcomes associated with PE and sports (e.g. antisocial behaviour or the negative influence of peers).

Data extraction

To start with, general information on the included studies was extracted (research question 1). More specifically, information regarding the context of the study, that is, PE, sports or both (for a description see inclusion criteria); the location of the study; the study design; the study method; the sample (i.e. number of participants, age and gender), selection and allocation; and the instruments. Next, the subsample of studies investigating PE or sports programmes were further described in terms of the following characteristics: aim; setting; sport(s) or activities; theory base or framework underlying the programme; participants; programme length; and amount, length and frequency of the sessions.

Analyses

To structure the results of the included studies, the investigated concepts were grouped into different themes by the first author (KO) (research question 2). The themes were not predefined, but

constructed by the researchers by grouping similar concepts (i.e. the inductive method) (Miles et al., 2013). A card was made for every concept. In a stepwise fashion and a random order, a card (e.g. hard work) was drawn and compared to the ones previously drawn. If the concept was found to be similar to another, based on their definition and synonyms, the concepts were placed together (e.g. hard work and effort). If, however, a concept (e.g. helping each other) did not fit into any of the themes already formed, a new theme was created (i.e. cooperation). These steps were repeated until all concepts were grouped. A second reviewer (FP) was consulted to check the themes and underlying concepts by answering the following questions: (1) Does every concept fit the theme? (2) Are there similar concepts that can be placed together under the same concept? (3) Do all concepts exclude others? (4) Does the label of the theme fit the underlying concepts? Any disagreement was discussed and some minor adjustments were made. The main findings were extracted and structured under the different themes and presented for PE and sports separately (research question 3).

Results

General information about the included studies

The full reference list of the included studies, as well as all tables (i.e. Tables 1 to 5), have been added as online supplementary files, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054>. To increase the readability of the Results section, the reference numbers in online supplementary Table 1, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054> will be used as reference citations in square brackets in the text. In the online supplementary Table 1, general information for each of the included studies ($n = 88$) is provided, including: the context of the study (PE, sports or both); the location of the study; the study design; the study method; the sample, selection and allocation; and the instruments. The online supplementary Table 2, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054> presents a summarized overview of this information. Of the 88 studies, 23 studies were conducted in the context of PE, 62 studies in the context of sports and in three studies PE and sports were combined.

In the online supplementary Table 3, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054>, a selection is made by presenting those studies ($n = 60$) that report on the (perceived) benefits of a PE or sports programme. The other 28 studies focused on the (perceived) benefits of PE or sports in general, without measuring changes due to a specific programme. Of these 60 studies presented in the online supplementary Table 3, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054>, 23 studies were conducted in PE and 35 studies were conducted in sports. Two studies [54, 55] combined PE and sports in their programme. The 35 studies in sports can further be divided into school sports programmes ($n = 8$), afterschool sports programmes ($n = 20$) and summer or sports camps ($n = 7$). The length of the programmes ranged from 8.75 hours [3] to one school year [26] for PE and from 10 days [28] to two school years [81] for sports, and sessions were provided on a daily [25], weekly [39], twice-weekly [38] or thrice-weekly [67] basis. The number of sessions ranged from 10 sessions [39] to 35 sessions [3] for PE and from 5 sessions [48] to 45 sessions [81] for sports. The programmes used a variety of sports and/or activities (e.g. volleyball, yoga, athletics, adventure activities and cooperative games) to address a variety of personal and social skills (e.g. helping peers and responsibility). It must be noted that 47 studies did not include one or more of the descriptors (e.g.

programme length) mentioned above. Positive Youth Development (Holt, 2016), life skills development (e.g. World Health Organization, 1999) and TPSR (Hellison, 2011) are most often referred to as the theoretical bases for the programmes. Other instructional models or theoretical frameworks include Sport Education [36] (Siedentop et al., 2011), Cooperative Learning in Physical Education [39] (Grineski, 1996), Kolb's (2014) experiential learning theory [54] and the conceptual framework of team building [67] (Carron and Spink, 1993). Seven studies did not specify an instructional model or theoretical framework in their programme description. In addition, most studies did not specify the lesson content of the programme or teaching strategies. One of the exceptions is the study conducted by Goudas and Giannoudis (2008). This quantitative study [40], which examined the effectiveness of a life skills programme in PE, provides a detailed overview of the life skills, the sports and the lesson content for each of the 17 sessions in the programme.

Structuring concepts and themes

A variety of concepts related to personal and social development were measured in the 88 studies that were included in this review (see the online supplementary Table 4, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054>). The inductive method of grouping concepts resulted in the following 11 themes: work ethic; control and management; goal-setting; decision-making; problem-solving; responsibility; leadership; cooperation; meeting people and making friends; communication; and prosocial behaviour. The online supplementary Table 4, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054> displays the study designs used to investigate the different concepts and the 11 themes. Most studies used a cross-sectional design. For example, 19 out of 32 studies investigating work ethic used a cross-sectional design, whilst only four studies used a longitudinal-observational design. The picture was somewhat different for decision-making with only one out of five studies using a cross-sectional design. The other four studies used either a longitudinal-observational ($n = 2$) or mixed method design ($n = 2$).

Benefits of PE and sports

General concepts. Most of the studies reported positively on the relationship between PE and social skills [29, 44] or life skills [40, 41, 87], and between sports and personal development [10], personal skills [70], social development [19], social skills [14, 18, 19, 45, 53, 58, 70, 79], social competence [6, 7, 23, 32, 38, 47, 74, 77], psychosocial competence [48], or life skills [13, 17, 18, 20, 21, 51, 52, 64, 70, 85].

In what follows, the main findings for each of the 11 themes will be presented. We choose to order the 11 themes by starting with the ones related to personal development, and then continuing with the themes related to social development. After having presented the main findings for the 11 themes, the studies reporting on the transfer of outcomes to different contexts will be discussed.

Work ethic. A total of 32 studies, using a variety of study designs, reported on the relationship between PE or sports and work ethic (see the online supplementary Tables 4 and 5, available at: <https://journals.sagepub.com/doi/suppl/10.1177/1356336X19882054>). The umbrella term work ethic refers to concepts including discipline, initiative and assertiveness. Of the 32 studies, six studies were conducted in PE (three quantitative, two qualitative and one mixed method) and 23

studies were conducted in sports (eight quantitative, 12 qualitative and three mixed method). Three studies, all qualitative, included both PE and sports. The six PE studies found improvements in assertiveness [3, 36], effort [4], being tough and not giving up [4] and self-direction [37, 88] as a result of programme participation. One study [35] found no difference in effort between the pre-test and post-test conditions. The studies focusing on the benefits of sports were mainly positive. Sports are positively associated with: work ethic [25, 47]; (self-)discipline [15, 24, 25, 47, 53, 70, 85]; assertiveness [30, 33, 70]; initiative [45, 52, 70]; effort [10, 25, 49, 70, 75]; commitment [25, 32, 33, 48, 73]; being tough, not giving up [10]; perseverance [16, 17, 24, 33, 67, 82a, 85]; focus or concentration [48, 67, 85]; independence [33]; and self-direction [70]. The three studies combining PE and sports reported a positive effect on commitment [54, 55] and discipline [64].

Control and management. A total of 37 studies discuss the relationship between PE or sports and control and management. Control and management refer to concepts such as coping skills, time management and resilience. Eight studies were conducted in PE (five quantitative, one qualitative and two mixed method) and 27 studies were conducted in sports (nine quantitative, 12 qualitative and six mixed method). Two studies, both qualitative, combined PE and sports. In the PE studies, programme participation was associated with an increase in students' perception of self-control [27, 35, 37, 39], coping skills [56] and managerial skills [60], with one study [35] showing improvement in the control group as well. Programme participation was not related to positive changes in children's social control [3, 44] and emotional control [44]. The results of the studies focusing on sports were mainly positive. Sports were positively associated with assuming control [21], self-control [30], self-management [63], time management skills [18, 33, 52, 86], emotional control [21, 45, 47, 53, 86], resilience [33], and managing stress [33, 47, 85]. One study did not find an increase in students' self-control [7] as a result of programme participation. In another study, only some of the participants (i.e. 16.8%) mentioned stress management as a benefit of sports. Both studies combining PE and sports found a positive effect of programme participation on students' resilience [54, 55].

Goal-setting. A total of 14 studies reported on goal-setting. Goal-setting refers to setting and achieving goals for individual and/or team improvement. Two studies were conducted in PE (one quantitative and one qualitative) and 12 studies were conducted in sports (one quantitative, seven qualitative and four mixed method). One PE study did not find a significant change in goal-setting as a result of the programme [40]. The other PE study did find a change in terms of focusing on team and individual improvement [76]. Sports, on the other hand, were positively associated with goal-setting [11, 15, 25, 47, 51, 52, 85], focusing on improvement [10] or common goals [47, 75] and setting and achieving goals [10, 24]. Three studies [46, 75, 86] showed mixed results indicating that goal-setting was not or was only partly related to sports participation.

Decision-making. The relationship between PE or sports and decision-making was investigated in five studies. Decision-making refers to students making decisions and creating or having opportunities to make decisions for themselves. Two studies, both qualitative, were conducted in PE and three studies were conducted in sports (two qualitative and one mixed method). All five studies [25, 37, 38, 47, 87] reported a positive relationship between PE and sports and decision-making. As an example, secondary school students receiving PE following the Responsibility Model, were generally positive about making decisions for themselves, whereas students in the comparison classes were not [37].

Problem-solving. Eight studies reported on the relationship between PE or sports and problem-solving. Problem-solving includes reflecting on potential solutions and solving problems with relevant skills. Four studies were conducted in PE (two quantitative, one qualitative and one mixed method) and four were conducted in sports (two qualitative and two mixed method). All PE programmes [27, 29, 39] except for one [40] contributed positively to participants' problem-solving abilities. The four sports studies showed mixed results. In two studies, sports were positively associated with problem-solving skills [10] and reflecting on potential solutions and solving problems [67], whereas in two other studies, sports were not related, or only partly related, to problem-solving skills [21, 86].

Responsibility. In total, 21 studies reported on the relationship between PE or sports and responsibility. Responsibility includes personal responsibility, social responsibility and accountability. Five studies were conducted in PE (one quantitative, three qualitative and one mixed method) and 15 studies were conducted in sports (five quantitative, six qualitative and four mixed method). One qualitative study combined PE and sports. The five PE studies all showed positive effects of programme participation on responsibility [8, 27, 87], personal responsibility [37], social responsibility [37] and accountability [78]. The studies in sports showed a positive relationship with responsibility [25, 74, 82a, 85], personal responsibility [50, 66, 70], social responsibility [7, 12, 22, 50, 61] and accountability [25, 49]. Two sports studies found mixed results [13, 22]. In one of these studies [13], parents had different perspectives on responsibility and accountability than the participants. Three sports studies did not show a positive relationship with responsibility [30, 86] and personal responsibility [22]. Finally, in the study combining PE and sports, interviews with parents showed they were positive regarding the contributions of PE and sports to social responsibility [64].

Leadership. A total of 19 studies reported on the relationship between PE or sports and leadership. Leadership includes concepts such as being a leader or role model, coaching others and setting an example. Three studies were conducted in PE (two qualitative and one mixed method) and 16 studies were conducted in sports (one quantitative, 12 qualitative and three mixed method). All three PE studies reported a positive impact of PE on leadership [88], being a leader [76, 87, 88] and taking on new roles [87]. Sports were positively related to leadership [15, 33, 85], being a leader [10, 24, 49, 70], being a role model [10, 24, 33, 49], coaching others [10], leadership skills [10, 25, 79] and use of voice [62]. Six studies showed mixed results with only some students having developed leadership [17, 18, 51, 73, 86] or leadership skills [17], or having learned to set an example [62], whilst another study indicated that older children in particular improved their leadership skills [74].

Cooperation. A total of 35 studies discuss cooperation in relation to PE or sports. Cooperation refers to concepts such as teamwork, interpersonal skills and working together. Nine studies were conducted in PE (three quantitative, five qualitative and one mixed method) and 25 studies were conducted in sports (eight quantitative, 13 qualitative and four mixed method). One qualitative study combined PE and sports. Eight out of nine PE studies found a positive association with team work [60], cooperation [3, 42], helping each other [4, 29, 37, 76, 78], working cooperatively sharing resources [29] and working together [29]. One study did not find a positive effect of PE on cooperation [35]. Sports were positively related to cooperation [48, 66], teamwork [10, 15, 16, 52, 53, 66, 70, 79, 85], cooperation skills [72], helping each other [48, 61], recognizing the importance of working with others [18, 57], interpersonal skills [85], playing better together as a team [75], team bonding and team spirit [49, 67], team effort [10] and working together [47, 67]. Three sports

studies did not find a positive relationship with teamwork [7] and cooperation [30, 35], whilst six other studies only partly supported the positive effect of sports on cooperation [21, 73], team work [14, 21, 45, 73], working together [75] and working with people you do not necessarily like [18]. No positive relationship was found for group process skills [86]. Finally, one study examined parents' perceptions of their children's experiences in both PE and sports [64]. When asked which life skills they thought their children learned, teamwork was one of the most frequently mentioned.

Meeting people and making friends. A total of 27 studies reported on meeting people and making friends. Meeting people and making friends refers to concepts such as interacting with others and creating meaningful relationships. Three studies were conducted in PE (one quantitative and two mixed method) and 23 studies were conducted in sports (four quantitative, 15 qualitative and four mixed method). One qualitative study combined PE and sports. All three PE studies were positive with regard to its contribution to creating meaningful relationships [8], interacting with others [31] and having relationships with teammates or peers [60]. Sports were positively associated with interacting with others [10, 17, 18, 19, 38, 47, 53, 66, 70, 74, 84], relationships with teammates or peers [33, 47, 50, 80, 84], creating meaningful relationships [18] and making friends [9, 11, 18, 24, 33, 38, 53, 58, 65, 66, 70, 74, 79]. Youth involved in sports reported better peer relationships compared to youth not involved in sports [63]. In addition, the same study concluded that boys involved in sports had, according to their parents, fewer peer problems. The latter, however, was not reported by their teachers. Mixed results were also found for adult network and social capital. One study [14] did not find a relationship between sports and adult network and social capital, whereas the other study showed that team sports athletes scored significantly higher in terms of adult network and social capital compared to individual sports athletes [45]. The study [64] combining PE and sports showed parents were positive with regard to the impact on interacting with others and making friends.

Communication. A total of 16 studies discuss communication as a benefit of PE or sports. Communication includes communication skills, positive communication and becoming more vocal. Three studies were conducted in PE (one quantitative and two mixed method) and 13 were conducted in sports (three quantitative, six qualitative and four mixed method). All three PE studies were positive regarding its impact on communication skills [3, 60] and maintaining a dialogue [26]. As an example, when asked about the effect of implementing the TPSR model in a primary school PE class, the teacher mentioned that "... the children are learning to be more open individuals, are more willing to enter into a dialogue..." (Escartí et al., 2010a: 396). Sports were positively associated with communication skills [1, 25, 33, 47, 48, 50, 57, 70], becoming more vocal [70] and overcoming challenges when communicating with others [24]. Four sports studies only found a moderate impact on children's positive communication [49], interpersonal communication [21] and communication skills [73, 75].

Prosocial behaviour. As for the final theme, 54 studies discuss prosocial behaviour as an outcome of PE or sports. Prosocial behaviour includes respect, empathy and sympathy. A total of 16 studies were conducted in PE (seven quantitative, five qualitative and four mixed method) and 35 studies were conducted in sports (13 quantitative, 15 qualitative and seven mixed method). Three studies, all qualitative, combined PE and sports. PE was positively related to prosocial behaviour [69], such as: taking turns [29]; raising hands, asking for permission to speak, and listening [4]; congratulating others [4]; relating to others [26]; following rules [4]; handling or dealing with conflicts [26, 27, 41];

appreciation [4]; expressing opinions [87]; caring [88]; empathy [4, 26, 42]; trust [87]; respect [4, 27, 31, 87, 88]; obeying or respecting authority [4]; social adaptation [3]; and social and peer acceptance [31]. Five PE studies did not support or only partly supported PE's or sports' positive effects on respect [35], empathy [36], tolerance [35], emotional sensitivity [44] and social sensitivity [44], supporting and encouraging each other [78], fair play [78] and peer acceptance [83]. To illustrate handling or dealing with conflicts, in a comment made by a student who was involved in a study [27] implementing the TPSR model in PE, the student refers to the use of dialogue for the resolution of conflicts: "I think I have learned to behave better towards others, to control myself, to not start the activity without the rest . . . , whenever there is a fight to always talk to them, to whoever is annoying me" (Escartí et al., 2010b: 672). Sports were positively associated with, among other things, supporting or encouraging others [10, 48], relating to others [70], following rules [10], handling or dealing with conflicts [47, 70], honesty [15, 16], loyalty [16], fair play [66, 79], dealing with winning or losing [57], empathy [25], trust [24, 49, 73], respect [10, 15, 16, 25, 33, 47, 49, 50, 52, 61, 79], respecting authority [66], and social awareness [38]. All three studies combining PE and sports underline their positive impacts on respect [54, 55, 64] (perceptions of parents [64]).

Transfer to other contexts

Additionally, 23 studies discuss the transfer of skills learned through PE ($n = 4$), sports ($n = 17$) or PE and sports ($n = 2$) to different contexts (e.g. the playground or home). In two PE studies [27, 41], students reported that they employed some of the skills in settings other than the programme. Take the following excerpt of a student interview as an example: "You know . . . if they say to you on the street . . . that . . . you are on a bike for example, and they are playing football . . . well you don't cycle through them but go around them so that you don't disturb them, your classmates" (Escartí et al., 2010b: 672). In another study [88], students were questioned about whether they thought of ways to transfer TPSR goals to other settings. The majority of students (93.6%) affirmed that they indeed thought of ways to do so. Whether they actually applied these goals outside the gymnasium was not investigated. In the fourth PE study [26], the PE teacher was asked to comment on the transfer of the skills learned through the TPSR model that was implemented in this class: "But then they leave class and I am not sure that they are doing it well . . . the first level of the program, that of respect, has been reached in my class pretty well, although I have not seen that this has been transmitted outside my class. Speaking to the form tutor (classroom teacher) and seeing behaviour in other sessions, I know that they have not taken it on board completely" (Escartí et al., 2010a: 396). Six sports studies [17, 18, 19, 24, 25, 48] showed that some skills *can* or *could* be transferred. In nine studies [10, 22, 38, 52, 53, 57, 81, 82a, 82b, 85], this transfer was actually reported or observed by parents, teachers or the children themselves. In one study, coaches had mixed opinions about the transfer of skills between settings [67]. Another study [5] showed that peer support, pride, opportunities (for transfer), rewards, and transfer experience were deemed important enablers of transfer. The two studies combining PE and sports showed that students and athletes were able to apply the skills acquired in a non-sports setting [54, 55] and that parents observed the transfer of skills to the home setting [54].

Discussion

It is generally suggested that youngsters can develop personal and social skills through their participation in PE (Weiss, 2011) and sports (Holt et al., 2011). Overall, our review confirms this

premise as most of the included studies indeed reported a positive relationship between youngsters' participation in PE or sports and a range of personal and social skills. This supports the increasing interest in preparing children for the future by teaching them personal and social skills. The most widely examined outcome across all studies was prosocial behaviour. Prosocial behaviour refers to concepts such as respect, empathy and sympathy. Cooperation and work ethic received considerable attention as well, particularly in the context of sports with studies showing a positive relationship with helping peers and teamwork. The least examined outcomes were decision-making and problem-solving. Apart from these five categories, we also identified six other categories of personal and social outcomes that were addressed to a moderate degree. These were control and management, goal-setting, responsibility, leadership, meeting people and making friends, and communication. Our results furthermore revealed that more than half of the studies were conducted in North America, and a quarter of the studies took place in Europe. As PE and sports are contingent upon a range of historical, social and political contextual factors and thus socially constructed (Armour, 2011; Kirk, 2010), more studies are needed involving a wider range of continents, countries and cultures.

In relation to the specific context of PE, our review revealed that in a period of 10 years only 26 studies focused on youngsters' personal and social development through PE. This is surprising as Hardman et al. (2014) noted that personal and social development constitutes one of the main and most frequently cited goals of European PE programmes. These findings suggest that there is room to further develop and expand the programme of research in relation to youngsters' personal and social development through PE. In line with the general findings of the current review, prosocial behaviour was the most frequently examined outcome in relation to youngsters' participation in PE with studies revealing that through PE children learn to take turns, to display empathy and respect, and to handle or deal with conflicts. Next, cooperation and control and management received considerable attention. For some of these outcomes results were still inconclusive. For instance, in relation to self-control, a subcomponent of management and control, some studies found positive relationships, while others did not. Many of the other listed outcomes, although being central aims of PE, received only limited attention in relation to youngsters' participation in PE. This holds true for work ethic, problem-solving, communication, meeting people and friends, leadership, decision-making and goal-setting. As such, stronger evidence is needed to support claims about these potential benefits of PE.

Most studies had a cross-sectional design, precluding us from drawing conclusions in relation to children's personal and social development over time. Building on the increasing interest in and relevance of pursuing personal and social goals (see for example Hardman et al., 2014), researchers and practitioners are encouraged to consider the longitudinal aspect of development in their work. Additionally, more randomized controlled trials, in which the effects of PE or sports programmes are examined, are needed (Cohen et al., 2007). Currently, few of these studies were found, and these studies showed that PE had a positive effect on assertiveness, cooperation, communication, self-control, coping skills and problem-solving skills.

Looking at the subsample of studies investigating a PE or sports programme, many lack information regarding the programme characteristics. This makes it difficult for researchers to compare results across programmes so as to conclude which programmes result in the greatest benefits. This lack of information also hampers the implementation of effective programmes by practitioners. As Petitpas et al. (2005) stated, programmes that promote psychosocial development should have clearly defined goals and strategies to enhance the generalizability and transfer of life skills to other important life domains. Most programmes included in this review have clearly

defined goals but the strategies to achieve those goals are not always clearly described. In addition, Petitpas et al. (2005) and Richards et al. (2019) underline the importance of teaching skills in an intentional and systematic manner. As some studies do not provide full information on the amount and frequency of sessions, we could not draw conclusions about the systematic manner of teaching skills in the programme. In order to allow researchers and practitioners to build on or use programme information, future research should provide a concise though complete description of the programme under investigation.

Limitations and future directions

First, since we aimed to provide a complete overview of the last decade of research, rather than an analysis of the results, we included all studies that met the inclusion criteria, regardless of the quality of the study. By indicating when a study lacked specific information we tried to be as transparent as possible. Second, the current review included studies focusing on the benefits of PE and sports for youngsters' personal and social development. Yet, participation in PE and sports may lead to negative experiences as well (e.g. jealousy or exclusion). In some of the included studies, negative outcomes were reported, mostly because parents or teachers were openly questioned about the effect that PE or sports has on children's development. However, these results were not reviewed, and studies that specifically aimed at examining negative outcomes were not included in the current review. In future studies, these negative outcomes may receive attention as well. Third, positive outcomes are not an automatic response of children's and adolescents' participation in PE or sports (Bailey et al., 2009; Cryan and Martinek, 2017; Fraser-Thomas and Côté, 2009). The teacher and coach play an important role in structuring the pedagogical circumstances under which positive outcomes can be achieved. This also applies to the transfer of skills, which is not considered a fast process (Martinek and Lee, 2012). Whether using an explicit or implicit approach, programme leaders still need to create an appropriate environment and supportive interpersonal relationships for skills to be transferred (Turnnidge et al., 2014).

Conclusion

With these limitations and implications in mind, this review provides an overview of research on the benefits of PE and sports for children's personal and social development. Available qualitative and quantitative evidence shows that participation in PE and sports yields benefits in terms of personal and social development. Yet, the quantitative evidence is predominantly cross-sectional in nature, and mainly focuses on prosocial behaviour, cooperation and work ethic at the expense of other important outcomes such as decision-making and problem-solving. Moreover, studies in PE are much scarcer when compared to studies in sports. Given that personal and social development is a central aim of PE worldwide, there is a strong need to develop this area of research.

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