

Character development through physical education: A systematic literature review

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ABSTRACT

The aim of this study was to provide an overview of the existing literature on the role of physical education towards character development. The research was conducted using a systematic literature review. Through this process, studies were identified by screening titles, abstracts, and full texts of articles published between 2005 and 2024. The 7 included studies employed various research designs, methods, and instruments to examine concepts related to character development specifically through physical activity. These concepts were grouped into the following 6 themes: problem solving; responsibility; discipline; mindfulness or respect; assertiveness; and confidence in positive behavior. The main findings for each of the 6 themes reported mostly positive associations between the role of physical education and character development. This review provides an overview of the research on the benefits of physical education on character development.

KEYWORDS

Sport; Physical Education; Character Development

1. INTRODUCTION

Moral degradation has also affected the world of education, especially among students who are mostly teenagers and young adults (Pring, 2021). Values in individual characters are not learned contextually like other learning materials. Although character education is very important, the learning process is different from other topics. Students are learning this. Therefore, teachers do not need to replace teaching materials, but provide students with opportunities to learn and internalize character education (Yufiarti., 2018). Participation in sports and physical education does not automatically make someone good or bad. Character does not emerge on its own; it must be taught in physical education and sport programs through systematic strategies that teach moral reasoning and sporting values (Brunsdon & Walker, 2022).

According to Weinberg & Gould (2023) stated that sports activities are generally considered to require character values such as honesty, sportsmanship, discipline and leadership. All these values are integrated through adherence to the rules of the game that emphasize fairness and honesty, which must be practiced by students while playing and the noble character of students is the cumulative result of various sources of education (Rihatno., 2019). Character education is not only the responsibility of religion and civics; other subjects, including physical education, also have significant contributions. All subjects work together to shape students' character. One of them is physical education, which aims to shape positive attitudes and behaviors (Coulter., 2020). A positive attitude towards physical education increases the likelihood of students engaging in physical activity. Overall, students have a positive attitude towards the physical education program at their school, learning to appreciate the fun in the program (affective component), as well as the importance of health and fitness, and discussions about team sports (Rihatno., 2019).

Menurut Goudas & Giannoudis (2008) stated that one of the reasons why physical education (PE) and sport are appropriate contexts for learning these skills is that they can be applied in other areas of life. For example, in PE and sport, children can learn how to solve problems, communicate and work together as a team under the right pedagogical conditions (Bailey et al., 2009). These skills are also important in everyday life, such as at home or at work. Over the years, several programs have been developed with the specific aim of teaching these skills in PE or sport, one of which is the Teaching Personal and Social Responsibility (TPSR) Model that includes character development (Hellison, 2010).

While there is growing interest in the role of physical education and sport in supporting personal character development, it is important to remember that participation in sport and physical education alone does not automatically guarantee positive outcomes (Cryan & Martinek, 2017; Fraser-Thomas & Côté, 2009). Sport coaches and teachers have a responsibility to create the pedagogical conditions that make such positive outcomes possible. Accordingly, Jessica (2014) suggests exploring different pathways for positive adolescent or school-age development through sport and physical education with more understanding of the training and psychosocial factors that lead to recreational sport participation. There is a need for an up-to-date review of research on the role of physical education on the development of a person's character. The purpose of this study is to provide an overview of the research on the role of physical education on students' character development.

2. METHODS

This study aimed to collect and review all empirical studies on the relationship of physical education to character development published between 2005 and 2024. Literature collection, reading, note-taking and management of research materials are the activities included in this literature study (Syafuddin & Suparman, 2023). In this study using the Systematic Literature Review Method (SLR) (Higgins dkk., 2011). Guided by Meta-Analyses with systematic review stages, including data search, data screening, data eligibility assessment, and processing of eligible data results.

The data used for this study was obtained from the google scholar database. Keywords were used to search for information on the subject being searched. After the search, 100 documents were found. The researcher used the PICO technique (Population, Intervention, Comparison, and Outcome) with the following explanation:

Table 1. Structure of PICO research

Criteria	Description
Population	Children, adolescents, children, minors, teenagers, young people, youth, students, elementary school, junior high school, high school
Intervention	Personal character
Comparison	No specific comparison group was added in the search strategy
Results	Personal character development through physical education

The next step involves using the Boolean Logic technique developed by George Boole, with operators such as AND, OR, and NOT for keyword searches (Yulianti., 2023). The keywords used were “Physical Education” AND “Personal Development”. This research used the Google Scholar database due to its wide coverage of global scientific publications and ease of access, which made it easier for researchers to search for literature related to the role of physical activity in a person's personal development.

The next stage was screening. At this stage, a number of documents were excluded as they were not relevant to the scope of the study. Therefore, only articles that met the criteria could proceed to the next stage. The third stage is the eligibility assessment stage. At this stage, a manual inclusion and exclusion process was carried out based on the predetermined criteria requirements. Scientific papers included at this stage then enter the final stage of the review or systematic review process. In this stage, there was a reduction of 40 papers that fit the scope but were excluded due to the following criteria: 4 documents used the literature review method, 2 documents were conference

proceedings, 20 documents were books, and 7 documents were inaccessible. There were inclusion and exclusion criteria as presented in table 2:

Table 2. Inclusion and exclusion criteria

Inclusion	Exclusion
Scientific work must be written in the form of articles	All scientific papers not in the form of articles (books, texts of conferences, etc.)
All papers must be written in English	Any paper that is not in English
All papers centered on the subject of research	Any scientific work that contains topics unrelated to the research topic
All academic publications from 2005 to 2024	All scientific publications published before 2005
Scientific papers must be free access	

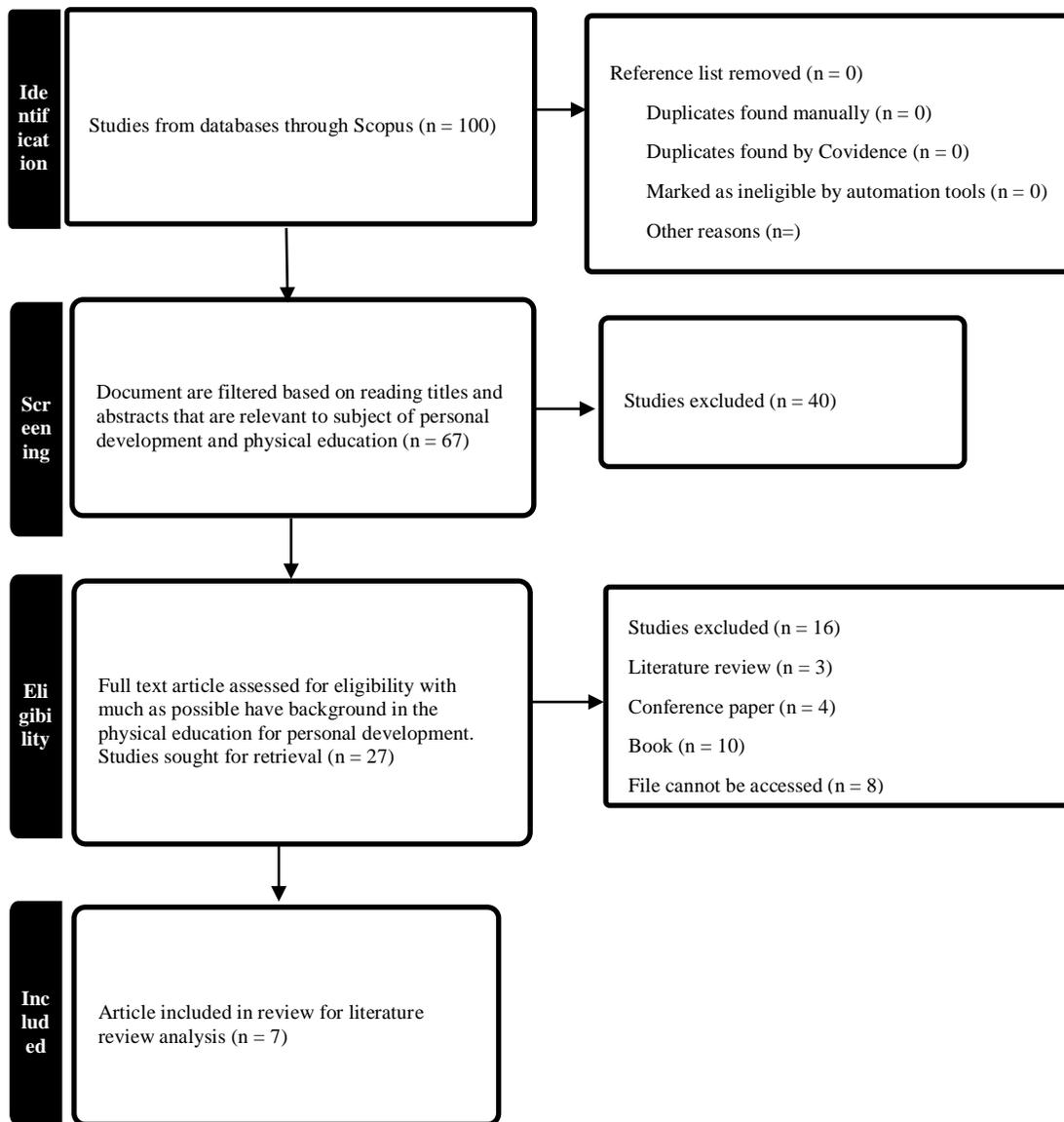


Figure 1. PRISMA flow chart

Figure 1 presented a PRISMA flow chart that guided this research. After the screening stage, 27 documents were obtained. Furthermore, in the eligibility assessment stage, 17 documents were removed. From this eligibility assessment stage, there were 7 articles that met the inclusion criteria set by the author.

3. RESULTS

Table 3 presents an overview of the primary studies included in this review, detailing each study's identification code, title, authors, year of publication, and source. This summary allows for a clear understanding of the scope, focus, and origins of the research analyzed.

Table 3. Overview of primary studies included in the review

Paper ID	Title	Author and year	Source
M1	A team sport-based life skill program in a physical education context	Goudas & Giannoudis (2008)	Learning and Instruction
M2	Physical education, school physical activity, school sport and academic performance	Trudeau & Shephard (2008)	International Journal of Behavioral Nutrition and Physical Activity
M3	Strengthening of character education through physical education in the secondary schools	Rihatno et al. (2019)	International Journal of Physical Education, Sports and Health
M4	Is Life Skill Development a By-Product of Sport Participation? Perceptions of Youth Sport Coaches	Bean & Forneris	Journal of Applied Sport Psychology
M5	Youth sport programs: an avenue to foster positive youth development	Fraser-Thomas et al. (2005)	Physical Education and Sport Pedagogy
M6	Application of Hellisons' Teaching Personal and Social Responsibility Model in Physical Education to Improve Self-Efficacy for Adolescents at Risk of Dropping-out of School	Escartí et al. (2010)	The Spanish Journal of Psychology
M7	Implementation & outcomes of a responsibility based continuing professional development protocol in PA	Hemphill & Wright (2024)	Sport, Education and Society

Physical Education on Individual Character Development

Most studies show positive results regarding the relationship between physical education and individual character. Next, the main findings from each of the six themes will be presented. We have

chosen to order these themes by starting with those related to personal development. After presenting the main findings for the six themes, studies that report the transfer of results to different contexts will be discussed.

Problem Solving

A total of one study, using various research designs, reported a relationship between physical education and problem solving. The results of the first article by (Goudas & Giannoudis, 2008). Such programs can assist students in improving their sports skills and incorporating life skills training into practice can serve as a good model for learning actual life skills. Physical education teachers can facilitate student learning if they put it in the context of setting goals for specific measurable learning objectives and solving problems with respect to achieving these goals. In addition, life skills programs provide students with the knowledge and skills needed to handle complex life situations.

Responsibility

A total of 2 studies using various research designs explained their findings that there is a relationship between physical education and responsibility. Quantitative results showed a significant increase in students' self-efficacy for using social resources and in self-efficacy for self-regulated learning. Qualitative results showed an increase in the responsibility behavior of participants in the intervention group. This suggests that this model can be effective for enhancing psychological and social development in at-risk adolescents, and that physical education classes may be an appropriate arena for working with these young people. Results of the second article by (Escartí et al., 2010). Research in education and physical education has emphasized the need for continuing professional development (CPD) programs aligned with best practices. Findings indicated that physical educators increased their awareness of responsibility-based teaching strategies, perceived them to have a positive impact on students and integrated such strategies into their teaching. In addition, descriptive statistics illustrated frequent use of the teaching strategies and confirmed the reliability of the observation instrument. The findings suggest that systematic observation can support responsibility-based CPD for research purposes, peer evaluation, or as a reflection tool. The long-term approach increases the potential for sustainability.

Discipline

A total of 1 study using various research designs, explained its findings that there is a relationship between physical education and discipline. Results of the first article by (Rihatno et al., 2019). In the national education system, health education must be integrated with physical education to foster and improve neuromuscular, organic, perceptive, cognitive, social and emotional

individuals. In physical education there are points that are positively connected in instilling positive attitudes, namely discipline that physical activities can improve student performance. Therefore, it is an integral function of physical education to provide students with opportunities to directly engage in a variety of learning experiences through physical activity, play and sports that are carried out systematically.

Paying Attention to Someone/Appreciating

A total of 1 study using various research designs explained its findings that there is a relationship between physical education and attention or respect. The first article results by (Trudeau & Shephard, 2008). Cross-sectional observations showed a positive association between academic performance and physical education, but physical activity did not appear to show such an association. Physical education has a positive influence on concentration, memory and classroom behavior. Data from quasi-experimental studies found support in mechanistic experiments on cognitive functioning, showing a positive association between physical education and intellectual performance in concentration respecting interlocutors.

Assertiveness

A total of one study, using various research designs, explained that there is a relationship between physical education and assertiveness. The first article results by Bean & Forneris (2016). The purpose of this study was to understand young sports coaches' perceptions of life skills development. Semi-structured interviews were conducted with 23 youth sport coaches across five organizations. Analysis revealed four themes in the coaches' perceptions: (a) life skills are an outcome of sport engagement and transfer; (b) when done intentionally, it is reactive; (c) coaches recognize the importance of teaching life skills intentionally; and (d) difficulties associated with using an explicit approach to teaching the skills. Results provide evidence for the current state of the context of physical education and sport and highlight areas for coach education related to the integration of life skills in aspects of a person's resilience.

Positive Behavioral Self-Confidence

A total of 2 studies using various research designs, explained their findings that there was a relationship between physical education and self-confidence in positive behavior. The first article results by (Trudeau & Shephard, 2008). Cross-sectional observations showed a positive association between academic performance and physical education, but physical activity did not appear to show such an association. Physical education has a positive influence on concentration, memory and classroom behavior. Data from quasi-experimental studies found support in mechanistic experiments

on cognitive function, suggesting a positive association between physical education and intellectual performance. Results of the second article by (Escartí et al., 2010). The results showed that the psychological indicators of the subjects tended to increase. The control group showed an increase of 1.0 points, the experimental group showed an increase of 2.5 points in tests on character traits and temperament. Children's academic performance improved in both groups at the end of the school year: 0.5 points in the control group, 0.75 points in the experimental group. They found that learning the basics of football in physical education and organizing art and cultural events for orphans played a significant role in their harmonious development. The results were obtained thanks to a special set of teaching and educational activities, aimed at the harmonious development of orphans.

4. DISCUSSION

The study showed that physical education contributes to individual character development through various psychological and social dimensions. The six main themes-problem solving, responsibility, discipline, consideration for others, assertiveness, and confidence in positive behavior demonstrate a close link between participation in physical education and the growth of positive character values in learners. For example, a study by Goudas & Giannoudis (2008) emphasized that physical education not only helps students hone sporting skills, but also becomes a medium for learning life skills through problem solving and specific goal setting. This reinforces the view that physical experiences accompanied by reflection and planning can train students' ability to adaptively deal with real life situations. Through various physical education, students are invited to face challenges that require critical thinking (Arufe-Giráldez et al., 2023) and quick decision making (Casey & Goodyear, 2015). Problem solving involves analyzing the situation, identifying alternative solutions, and selecting the most effective strategy to achieve the desired outcome (Ince, 2018). This process strengthens logical and adaptive thinking skills, which are essential in addressing everyday life problems (Nilimaa, 2023). Specific goal setting in the context of physical education provides opportunities for students to practice planning the steps necessary to achieve a specific goal, such as improvement in physical skills or achievement in competition (Bao et al., 2024). By setting measurable and realistic goals, students learn to manage time, track progress and adjust strategies if necessary (Martin & Hultman, 2022). This process also involves self-reflection which is important for evaluating success or failure, and how to improve in the future. This shows that physical education not only develops physical skills, but also equips students with life skills that are very useful in many aspects of their lives.

Responsibility as an aspect of character has also been shown to be enhanced through appropriate physical education approaches. A study by Escartí et al. (2010) showed that the use of responsibility-based teaching strategies in physical education led to an increase in students' self efficacy as well as socially responsible behaviors, especially in at-risk adolescents. Teachers who attended ongoing professional training also showed increased awareness and integration of responsibility based teaching strategies in their teaching practices, reinforcing the sustainability of the impact (Pozo et al., 2018). This directly contributes to increased self-confidence and positive perceptions of personal abilities (He et al., 2023). People are taught to focus not only on individual achievement, but also on recognizing and valuing the team's contribution and the well-being of others (Lubans et al., 2017). In responsibility based physical education activities, students are given space to interact, cooperate and support their peers, which helps to strengthen the understanding of social responsibility and ethics in a group setting (Hemphill & Wright, 2024). The importance of professional training for teachers in integrating responsibility based teaching strategies was also emphasized in this study (Baptista et al., 2020). Well trained teachers will be better able to create a learning environment that supports this character development, which will have a long-term impact in students' lives, particularly in shaping their responsible attitudes and improving their social skills outside the physical education context.

In terms of discipline, the results of a study by Rihatno et al. (2019) confirmed that the integration of health education in physical education plays a role in shaping disciplinary attitudes through regular and systematic physical activities. Through engagement in various physical activities, students are invited to obey rules, respect time, and develop self control, all of which are the foundations of self discipline (Mart'in-Rodr'iguez et al., 2024). Physical activities that are done regularly and systematically not only involve physical skills, but also teach students to appreciate the process, follow established rules, and adhere to a planned schedule (Cheval et al., 2018; Suyato et al., 2024). Through these routines, students learn to manage time and prioritize well, which is crucial in creating discipline in various aspects of life (Solmon, 2021). Involvement in structured physical activities also gives students hands-on experience in controlling their behavior (Jerebine et al., 2024), both in terms of adherence to instructions and in maintaining consistency in the pursuit of specific goals (Chen & Solmon, 2024). For example, in sports training or games, students are taught to follow certain procedures, train themselves consistently and maintain motivation in the face of adversity. These are all elements that make up a strong disciplined character. Thus, through well-organized

physical education, students not only develop physical abilities, but also the ability to take responsibility for their actions, maintain focus, and act in a disciplined manner in daily life.

Meanwhile, concern and respect for others are also important aspects gained from physical education. A study by Trudeau & Shephard (2008) found that physical education not only had a positive impact on concentration and classroom behavior, but also on students' ability to listen to and respect others. This suggests that social interaction in physical activity can reinforce the values of empathy and respect. Physical activities that involve social interaction, such as team sports or group exercises, create opportunities for students to work together, communicate effectively and learn to value the opinions and contributions of others (Gholami & Chime, 2024; Habyarimana et al., 2022). In this context, students are trained to understand the importance of cooperation, tolerance and mutual respect in achieving a common goal. In addition, the experience of interacting with others in more informal settings provides opportunities for students to develop empathy (Dalwood et al., 2020) and understanding of others' feelings and perspectives (Sliwinski et al., 2017). Therefore, physical education not only improves physical skills, but also helps students develop respectful attitudes that are important in social interaction and learning outside the classroom.

In terms of assertiveness, Bean & Forneris (2016) explain that sports coaches recognize the importance of developing life skills through physical education, including the courage to voice opinions and healthy self-confidence. Although there are challenges in implementing explicit approaches to teach these skills, their findings suggest that sport can be an effective context for shaping learners' resilience and self-confidence. While there are challenges in explicitly teaching these skills, their findings suggest that sport can be an effective platform to support the development of these traits. In the context of sport, students are often faced with situations that require quick decisions, clear communication, and decision-making that involves the courage to speak or act, both in games and interactions with teammates. In addition, physical education provides opportunities for students to overcome physical and mental challenges, which contributes to their increased resilience (Ma et al., 2021). Moreover, Bessa et al. (2021) discusses the relationship between physical education participation and the development of students' empowerment and self-confidence, highlighting its potential as an effective mechanism for enhancing fundamental motor skills alongside self-confidence. Additionally, Buns & LaValle (2020) underscores the role of physical education programs in increasing both fundamental motor skills and self-confidence among students. Muqimov & Miraxmedov (2020) complements this by noting that despite initial challenges, young people involved in physical education or sports can develop physical capabilities and self-confidence

through dedicated practice and engagement. This means that physical education plays a strategic role in fostering the courage to express opinions and building healthy self-confidence in students.

Finally, several studies have also confirmed that physical education can increase self-confidence in positive behaviors. Research by Trudeau & Shephard (2008), as well as Escartí et al. (2010), showed that participation in physical education contributed to improvements in students' psychological indicators and academic achievement. Even in groups of orphans, physical education integrated with arts and cultural activities can promote harmonious character development. Regular physical activity can improve students' mental health by reducing stress (Herbert, 2022), boosting mood (Nakagawa et al., 2020), and improving concentration (Bajramovic et al., 2022), which ultimately contributes to improved academic performance. When students feel more psychologically confident, they are better able to cope with academic and social challenges, resulting in better performance in the classroom (Akbari & Sahibzada, 2020). Through a combination of physical, artistic and cultural activities, students can develop important social skills, build a sense of community and improve their self-esteem. These activities provide space for self-expression and give them a sense of belonging, which can strengthen their overall character development. This proves that physical education serves not only to improve physical fitness, but also to support students' emotional and social development, especially for those who come from more difficult backgrounds.

Physical education contributes to the development of students' character through various psychological and social dimensions, such as problem-solving, responsibility, discipline, concern for others, courage in expressing opinions, and confidence in positive behavior. Physical education not only serves as a means to enhance motor skills but also functions as a medium for learning important life skills, such as critical thinking, decision-making, cooperation, and emotional management. Through involvement in structured physical activities, students are trained to adhere to rules, plan goal achievements, build self-confidence, and demonstrate empathy and social responsibility. Overall, physical education not only strengthens physical capacity but also shapes a resilient, disciplined, and adaptive character in facing the challenges of daily life.

5. CONCLUSIONS

This research provides a comprehensive overview of the existing literature on the role of physical activity in character development. Through a systematic literature review of research conducted between 2005 and 2024, 10 studies were found that examined various concepts related to character development through physical activity. The studies used a variety of designs, methods and instruments to investigate six main themes: problem solving, responsibility, discipline, respect,

assertiveness and confidence in positive behavior. The main findings suggest that physical education has a positive role in the development of individual character. This review provides a general insight into the benefits of physical education in molding one's character.

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The authors declare no conflict of interest.

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