



**A ATIVIDADE FÍSICA E DESPORTIVA NA
PROMOÇÃO DO DESENVOLVIMENTO POSITIVO
E CIDADANIA PARTICIPATÓRIA EM JOVENS DO
ENSINO PROFISSIONAL**

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PHYSICAL ACTIVITY AND SPORTS IN PROMOTING POSITIVE DEVELOPMENT AND PARTICIPATORY CITIZENSHIP IN YOUNG PEOPLE IN VOCATIONAL EDUCATION

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À minha família.

Às minhas alunas e aos meus alunos do Ensino Profissional.

.... Há uma chama que não se apaga...

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INDEX

DEDICATED TO..... V

ACKNOWLEDGMENTS..... VII

INDEX OF TABLES..... XIII

INDEX OF FIGURES..... XV

ABSTRACTXVII

RESUMO..... XIX

ABBREVIATIONS XXI

I. INTRODUCTION..... 1

 1.1. Introduction..... 3

 1.1.1. Participatory citizenship and its conceptualization as “citizenship contribution”..... 4

 1.2. Research problem framework..... 6

 1.3. Justification and relevance of the research..... 10

 1.4. Research problems and goals 11

 1.5. Thesis structure 14

II. THEORETICAL STUDY 23

 2.1. Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth..... 25

III. EMPIRICAL STUDIES..... 71

 3.1. Playing and competing inside, outside, or on both sides of the school walls: Possible pathways to positive youth development and citizenship contribution in secondary vocational students..... 73

 3.2. Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency and competitive experience..... 102

 3.3. Living, doing and learning in sport, civic and political activities: Possible paths for positive youth development..... 139

IV. FINAL CONSIDERATIONS..... 179

4.1. Final considerations	181
4.2. Limitations and proposals for the future	189
4.3. Implications for practice	191

INDEX OF TABLES

1.5. Thesis structure	14
Table 1. Summary of structure and contents included in the thesis.....	16
2.1. Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth.....	25
Table 1. Characteristics of the included studies.....	38
Table 2. Aspects pointed out as beneficial for more sustained PYD.....	43
3.1. Playing and competing inside, outside, or on both sides of the school walls: Possible pathways to positive youth development and citizenship contribution in secondary vocational students	73
Table 1. Sample characteristics.....	81
Table 2. Multivariate linear regressions	86
3.2. Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency and competitive experience	102
Table 1. Baseline sample characteristics.....	114
Table 2. MANOVA results for the “5Cs” and contribution.....	118
Table 3. MANCOVAs of the ‘5Cs’ and contribution by sport type adjusted for covariates by gender (details of significant covariate effects)	120
3.3. Living, doing and learning in sport, civic and political activities: Possible paths for positive youth development.....	139
Table 1. Baseline Sample Characteristics	149
Table 2. Cluster Solution: Discriminant Capacity for 5Cs and Responsibility	156

INDEX OF FIGURES

I. INTRODUCTION.....	1
II. THEORETICAL STUDY	25
2.1. Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth.....	25
Figure 1. Flow diagram.....	34
Figure 2. Chronological evolution of number of publications	37
Figure 3. Geographic location of the studies	37
Figure 4. Ecological approach of PYD – the quality of sport experiences .	62
III. EMPIRICAL STUDIES.....	71
3.1. Playing and competing inside, outside, or on both sides of the school walls: Possible pathways to positive youth development and citizenship contribution in secondary vocational students.....	73
3.2. Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency and competitive experience.....	102
3.3. Living, doing and learning in sport, civic and political activities: Possible paths for positive youth development.....	139
Figure 1. Variable distribution for each cluster	155

ABSTRACT

The purpose of this thesis was to study sports as a socio-educational space for positive youth development and participatory citizenship among young people in vocational education in Portugal. The thesis includes a systematic review of the literature and three cross-sectional quantitative empirical studies conducted with vocational secondary school students (aged 14-19). Questionnaires and linear regressions, cluster analysis, MANOVA, and MANCOVA were used. The first article summarized international empirical evidence on positive development in school-age youth. It was found that different activities provide different developmental outcomes, which are determined by the interaction between individual and contextual factors, as well as the quality of the experiences. A lack of studies focused on vocational education was found, reinforcing the relevance of this thesis. The second study, which explored the developmental outcomes of sports practice in different contexts - inside or outside school - highlighted that combined multi-contextual participation, especially when associated with competition, favours youth development, particularly in terms of civic development. Satisfaction with school and the absence of sports practice were also found to be significant predictors. The third study examined the relationship between the practice of different types of sports (individual, team, and dance) and youth developmental results. It was found that, although different sports provide different developmental outcomes, team sports, dance, and, above all, the simultaneous practice of more than one sport (their combination) most favour youth development and the exercise of citizenship. Girls showed different sports participation profiles and development outcomes from boys. Variables such as age, weekly frequency, years of practice, and competitive experience also emerged as relevant significant predictors. The fourth study examined students' participation profiles in sports, civic, and political activities, as well as their relationship with positive youth development. It was found that different participation profiles are associated with different developmental outcomes and that the combination of activities is linked to more favourable developmental outcomes, particularly in terms of character, connection, and personal and social responsibility. It is concluded that mere participation does not guarantee youth development but rather the quality of participation experiences, particularly at the pedagogical, relational, and normative levels. Combined practices, experienced in multiple contexts and linked to competitive experiences, when supported by clear pedagogical intentionality, enhance more constructive paths of psychosocial development and citizenship. Schools emerge as a strategic ecosystem in the coordination and transfer of these experiences, reinforcing their role in promoting active citizenship and the comprehensive education of young people.

KEYWORDS: POSITIVE YOUTH DEVELOPMENT; CITIZENSHIP; SPORT; SCHOOL; VOCATIONAL EDUCATION.

RESUMO

O propósito desta tese foi o de estudar o desporto enquanto espaço socioeducativo de desenvolvimento positivo jovem e de cidadania participatória em jovens do ensino profissional em Portugal. A tese integra uma revisão sistemática da literatura e três estudos empíricos transversais, realizados com estudantes do ensino secundário profissional (14-19 anos). Os dados foram recolhidos com questionários e analisados através de regressões lineares, análise de clusters, MANOVA e MANCOVA. O primeiro artigo sintetizou a evidência empírica internacional sobre desenvolvimento positivo em jovens em idade escolar. Sugeriu que diferentes atividades proporcionam resultados desenvolvimentais distintos, sendo estes determinados pela interação entre fatores individuais e contextuais e qualidade das experiências vividas. Constatou-se uma escassez de estudos focados no ensino profissional, reforçando-se a pertinência desta tese. O segundo estudo, ao explorar os resultados da prática desportiva em diferentes contextos – dentro e fora da escola - destacou que a participação combinada multicontextual, especialmente quando associada à competição, favorece o desenvolvimento jovem, especialmente ao nível do desenvolvimento cívico. A satisfação com a escola e a ausência de prática desportiva também se revelaram preditores significativos. O terceiro estudo analisou a relação entre a prática de diferentes tipos de desporto (individual, coletivo, dança) e os resultados desenvolvimentais. Verificou-se que, embora diferentes desportos proporcionem diferentes resultados de desenvolvimento, são os desportos coletivos, a dança e, acima de tudo, a prática simultânea de mais que um desporto (a sua combinação) que mais favorecem o desenvolvimento jovem e o exercício da cidadania. As raparigas revelaram perfis de participação desportiva e resultados diferentes dos rapazes. Variáveis como a idade, frequência semanal, anos de prática e experiência competitiva também emergiram como fatores explicativos relevantes. O quarto estudo explorou os perfis de participação de estudantes em atividades desportivas, cívicas e políticas e a sua relação com o desenvolvimento positivo jovem. Constatou-se que diferentes perfis de participação se associam a diferentes resultados de desenvolvimento e que a combinação de atividades se associa a resultados desenvolvimentais mais favoráveis, especialmente ao nível do carácter, conexão e responsabilidade pessoal e social. Conclui-se que não é a mera participação que garante o desenvolvimento jovem, mas sim a qualidade das experiências de participação, nomeadamente ao nível pedagógico, relacional e normativo. Práticas combinadas, vividas em múltiplos contextos e articuladas com experiências competitivas, quando sustentadas por uma intencionalidade pedagógica clara, potenciam percursos de desenvolvimento psicossocial e de cidadania mais construtivos. A escola surge como ecossistema estratégico na articulação e transferência dessas vivências, reforçando o seu papel na promoção da cidadania vivida e da formação integral de jovens.

PALAVRAS-CHAVE: DESENVOLVIMENTO POSITIVO JOVEM; CIDADANIA; DESPORTO; ESCOLA; ENSINO PROFISSIONAL.

ABBREVIATIONS

PE – Physical Education

PYD – Positive Youth Development

SS – School Sports

I. INTRODUCTION

1.1. Introduction

In recent decades, concerns regarding the development of young people, not only in the academic sphere but also on a personal, social, and civic level, have become a focal point of contemporary education. In this context, physical and sports activities have been recognized as important environments for promoting meaningful growth and learning experiences among young people (Bruner et al., 2021; Corte-Real et al., 2016; Hermens et al., 2017; Holt et al., 2017; Rigoni et al., 2017; Whitley et al., 2019). These environments have the potential to function as socio-educational spaces that provide opportunities for interpersonal interaction and role exploration, the adoption of responsibilities, the learning of values as well as the development of life, psychosocial, relational, moral, civic, and ethical skills (Camiré & Kendellen, 2016; Gould & Carson, 2008; Hellison, 2011).

The Positive Youth Development (PYD) perspective has emerged as a robust theoretical framework that recognizes young people as agents of their own development, possessing potential that can be promoted through interaction with ecologically rich contexts (Damon, 2004; Lerner et al., 2005). This perspective is based on an ecological and relational understanding of human development (Bronfenbrenner, 1977, 1995; Bronfenbrenner & Morris, 2006) according to which the quality of interactions between young people and their contexts, such as school, clubs, family, or community, can be decisive for developmental outcomes. In this context, sport has been identified as a promising setting for developing the various dimensions of PYD, provided that it is intentionally organized, structured, and goal-oriented (Bean & Forneris, 2016; Bean et al., 2018; Holt & Neely, 2011). However, it is important to note that the relationship between sports practice and PYD is neither linear nor guaranteed, since it depends on multiple individual, contextual, and relational factors (Bronfenbrenner & Morris, 2006; Coakley, 2011; Lerner et al., 2005).

This thesis is based on the idea that, when promoted with pedagogical intentionality, physical and sports activities can constitute a privileged socio-educational arena, not only for PYD - which includes the promotion of values,

responsibility, life skills, and psychosocial and moral development - but also for learning and participatory citizenship (Bean & Forneris, 2016; Bean et al., 2018; Ferreira et al., 2012; Hellison, 2011; Quintelier, 2008; Vieira et al., 2024). This argument is particularly relevant for vocational secondary education, a school path associated with educational, social, and economic vulnerabilities. It also has significant potential for educational and community intervention (Duarte, 2012; Esteves & Branco, 2018; Gregório, 2024; Pereira & Carvalho, 2021). Young people attending this type of school can benefit from integrative and transformative experiences that value technical knowledge and the human, social, and civic dimensions of education. This work is committed to a broader concept of sports education that is in line with the principles of education for active and participatory citizenship, promoted in both schools and out-of-school contexts (Commission et al., 2018; ENGSO, 2020).

This thesis is structured around a central question: To what extent, and under what conditions, does sports practice and the contexts in which it occurs favor the PYD and participatory citizenship of young people in vocational secondary education? The research mobilizes a multidimensional approach that examines different practices and contexts to answer this question, combining a systematic review of the literature with quantitative empirical studies, as described in section 1.5. The aim is to deepen knowledge about promoting PYD and citizenship through sport and provide helpful knowledge and recommendations for developing more effective and transformative policies and pedagogical practices.

1.1.1. Participatory citizenship and its conceptualization as “citizenship contribution”.

The growing appreciation of the social and democratic dimensions of education, particularly in the European context (Barrett, 2020; Commission et al., 2018; ENGSO, 2020; Menezes et al., 2022), has highlighted the notion of participatory citizenship as a fundamental skill that should be promoted from the earliest stages of schooling. This perspective breaks with a reductionist view of citizenship education as the mere transmission of institutional or political knowledge, favoring instead an approach geared toward action, critical

engagement, and social responsibility. Participatory citizenship thus presupposes concrete experiences of deliberation, cooperation, decision-making, and intervention in meaningful school and community contexts (Ferreira et al., 2012; Menezes & Ferreira, 2014; Ribeiro et al., 2014). It is inseparable from young people's personal, social, and moral development.

This understanding is in line with international guidelines, such as the National Strategy for Citizenship Education (ENEC, 2017) and the Eurydice Network report (Commission et al., 2018), which emphasize the importance of developing cross-cutting skills such as critical thinking, empathy, cooperation, and democratic participation, in the classroom and in extracurricular contexts. However, its conceptual operationalization in empirical research, especially in PYD, requires coherent articulation with international theoretical frameworks.

The PYD approach proposes an integrative model of positive skills and traits in young people, formalized in the well-known "5Cs" model: competence, confidence, connection, character, and caring (Lerner et al., 2005). A sixth dimension was later added to these – contribution - which reflects young people's active involvement in community life through volunteering, social participation, or civic engagement. This "contribution," referred to in this thesis as "citizenship contribution," has been progressively consolidated as an expression and culmination of the PYD (Sherrod, 2007), functioning simultaneously as a consequence and indicator of the successful integration of the other positive competencies.

The option for the designation "citizenship contribution" in the empirical part of this thesis aims to ensure conceptual and methodological consistency with the dimension of "contribution" or the "sixth C" that is internationally associated with the PYD approach, proposed by Lerner et al. (2005). This, in turn, allows for a more robust and comparable reading of the evidence collected. At the same time, a critical grounding in the national context is maintained, where participatory citizenship takes on specific contours and is marked with tensions inherent in educational policies, notably in vocational education (Esteves & Branco, 2018; Gregório, 2024; Pereira & Carvalho, 2021). The "citizenship contribution" concept does not imply a dilution of the realities and specificities of the Portuguese

circumstances and contexts, including vocational education, but rather, it implies their integration into a framework of analysis that allows for international comparability without losing contextual depth.

This thesis proposes to analyze the “citizenship contribution” as an empirical and analytical expression of participatory citizenship through the study of sports and educational practices. Such practices can promote the civic, social, and political involvement of young people in vocational education. Accordingly, this thesis recognizes sports and physical activities as privileged arenas for the construction of active and transformative civic skills (Ferreira et al., 2012; Hilliard et al., 2019; Quintelier, 2008; Rotolo et al., 2020; Zaff et al., 2008).

1.2. Research problem framework

Despite growing scientific attention to PYD in sport (Holt & Neely, 2011; Holt et al., 2017; Whitley et al., 2019), a considerable gap remains in empirical research conducted with specific school populations, such as vocational secondary school students. This group tends to be underrepresented in international literature and intervention programs. As a result, the generalization of scientific knowledge is limited as well as the formulation of pedagogical practices tailored to their educational and social realities.

The available evidence shows that sport can be a conducive context for promoting personal, social, and civic skills - such as a sense of responsibility, leadership, respect, resilience, empathy, or cooperation - provided that the experiences are intentionally structured and mediated by significant adults (Bean & Forneris, 2016; Bean et al., 2018; Camiré & Kendellen, 2016; Hellison, 2011). To reiterate, however, the relationship between sports practice and youth development is not linear nor guaranteed, since it depends on multiple contextual, relational, and individual factors (Bronfenbrenner & Morris, 2006; Coakley, 2011; Jones et al., 2017). The absence of conscious pedagogical mediation can even inadvertently foster exclusion, harmful competition, or the reproduction of inequalities (Agans & Geldhof, 2012; Bean & Forneris, 2016; Spaaij et al., 2015).

At the same time, the transfer of skills from the sporting context to other spheres of young people's lives, such as school, the community, or the exercise of citizenship, is an area that remains poorly systematized in the literature. Although PYD theory proposes the concept of contribution as the culmination of positive development, i.e., the ability of young people to contribute to the well-being of the community (Lerner et al., 2005), the empirical evidence in support of such a transfer, especially evidence about participatory citizenship, is limited and fragmented. This gap between theory and practice requires a critical analysis of the real-life contexts of youth participation coupled with a methodological approach that values the lived experiences of young people.

In Portugal, vocational education is a school path mostly attended by students who face social integration challenges in their daily lives and are often the target of stigmatizing and derogatory discourse (Duarte, 2012; Pereira & Carvalho, 2021). However, it has a strong transformative potential, as it integrates practical components, real-life learning contexts, and diverse socialization opportunities (Barbosa et al., 2019; Gregório, 2024). Therefore, this pathway is relevant to understanding how young people in vocational education experience sports contexts, and how these contexts can foster civic engagement, sense of belonging, and positive development.

As a place for socialization and formal education common among young people, the school emerges as the main microsystem integrating students' life experiences (Andersson, 2019; Commission et al., 2018; Malafaia et al., 2016). In the case of vocational secondary school students, the school represents more than just the place where academic learning takes place. It also represents a place where experiences that are acquired in school sports (SS) and extracurricular environments, such as sports clubs and civic associations, intersect. This centrality of the school justifies its role as an anchor for the present research, enabling an ecologically valid analysis between different domains of youth life and their developmental impacts.

The main objective of this research is to study the role of sport as a socio-educational context that is conducive to both PYD and participatory citizenship among vocational secondary school students. In this sense - but assuming an

approach based on developmental systems theory (Lerner et al., 2005) and an ecological view of youth development (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006) - the relationship between different sports practices and contexts, and the results of PYD and participatory citizenship will be explored. This framework involves describing and comparing different types of sports practices and experiences in different contexts, inside and outside school, relative to developmental outcomes. In addition, the framework brings into this research process individual and contextual variables such as gender, age, weekly frequency of practice, years of practice, competitive experience, non-practice, and satisfaction with school.

It should be noted that, although it is not a variable included in the empirical component of this thesis, Physical Education plays an important role in PYD through sport (Koh et al., 2017; Koh et al., 2016). Its exclusion as a variable in the empirical studies of this thesis stems from the fact that it is compulsory for all students in Portugal between the 5th and 12th grades, making comparisons between different groups impossible. Nevertheless, Physical Education is recognized as an essential component of the school ecosystem, since it is compulsory for all students. It ensures equitable access to physical and sports activities, and it serves as a structured, supervised learning environment that is conducive to the development of psychosocial skills that can be transferred to other areas of young people's lives.

Based on a bioecological approach (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006), it is essential to remember that young people do not develop in a single context but rather in multiple interconnected environments. In these environments, collaborative participation in various activities can enhance more prosperous and more integrated development trajectories. The literature has shown that collaborative participation in different types of organized activities, such as sports, volunteering, student associations, or political activism, can generate added benefits in the development of the "5Cs" of PYD and also "contribution" (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009). The simultaneous presence of sports and civic activities can create synergies, providing diverse contexts for socialization, decision-making, conflict resolution,

cooperation as well as critical skills for participatory citizenship and psychosocial well-being. However, despite the growing appreciation of these forms of youth engagement, most empirical studies consider the effects of sport or non-sport participation, such as civic participation, in isolation, therefore neglecting the combined potential of these contexts. This gap is salient in vocational education, as its students are underrepresented in international research and face more challenging social and educational conditions. By studying patterns of involvement that integrate sporting, civic, and political activities, this research aims to contribute to this scientific void by exploring whether - and how - the combined participation contexts favors more robust trajectories of personal, social, and civic development. Such an approach allows us to describe the contexts in which young people are involved and how such involvement translates into skills and dispositions for active and transformative citizenship.

It is important to highlight the lack of systematic studies that explore, in a detailed manner, the combined effects of multiple youth participation contexts and do so using robust quantitative methodologies and large samples. Research tends to focus on isolated analyses of sports or civic contexts (Agans & Geldhof, 2012; Marttinen et al., 2019), thus failing to sufficiently capture the complexity and interaction between different spheres of involvement. Studies integrating individual and contextual variables and multiple forms of participation (sports, civic, and political) into a comprehensive explanatory framework play a fundamental role, then, in building knowledge about different youth realities (Bronfenbrenner & Morris, 2006; Lee & Martinek, 2013; Zarrett et al., 2009). This research can be essential for generating solid, contextualized empirical evidence that can contribute to the development and enhancement of pedagogical practices that are appropriate for various school paths, as is the case with vocational education. This much is sometimes overlooked by researchers and policymakers, and sometimes it is even marginalized and socially stigmatized (Duarte, 2012; Esteves & Branco, 2018; Gregório, 2024; Pereira & Carvalho, 2021).

1.3. Justification and relevance of the research

This research is of scientific, educational, and social importance. It responds to pressing needs for theoretical and empirical deepening in the field of PYD through sport in conjunction with participatory citizenship practices. The value of this research lies in exploring a scientific field that is still being assembled and anchored in vocational education, a school context that is less present in research agendas but growing inside of schools.

First, this research aims to contribute to advancing scientific literature in the field of PYD by exploring its applicability in national and educational contexts that are still poorly represented. Most of the empirical work in this area has focused on English-speaking contexts, especially the United States and Canada (Hilliard et al., 2019; Marttinen et al., 2019; Whitley et al., 2019), and on general school populations. However, this limits the transferability and applicability of the results to different educational realities. By focusing on vocational secondary school students in Portugal, this thesis aims to counteract this trend in the research, giving higher scientific visibility to vocational education relative to educational policies and narratives of academic success.

Second, the research is socially and educationally relevant to addressing the potential of sports contexts - both in school (SS) and outside of school - as socio-educational spaces that promote the development of psychosocial and civic skills. The centrality attributed to participatory citizenship stems from the recognition of sport as a context par excellence for social interaction and the formation of transversal skills - such as responsibility, leadership, teamwork, and commitment to the common good - which are essential for the construction of active, critical, and inclusive citizenship (Ferreira et al., 2012; Hilliard et al., 2019; Rotolo et al., 2020; Vieira et al., 2024; Zaff et al., 2008). This approach takes on special significance when applied to young people in vocational education, whose relationship with school and social participation is often conditioned by factors of sociocultural and economic vulnerability (Barbosa et al., 2019; Gregório, 2024; Pereira & Carvalho, 2021).

Thirdly, research takes on practical and political contours, generating scientific evidence with direct applicability in teaching practices and public policies. The

aim is to promote best practices among educators, coaches, policy makers and professionals interested in providing transformative sports experiences for young people attending school. The goal is to promote more equitable, reflective and development-oriented sports environments, contributing to a sports culture based on social justice, inclusion and participatory democracy.

In short, this research is part of a critical agenda for sports education, which values sports as an educational and civic resource for students in compulsory education in Portugal, with a special focus on vocational education. The aim is to enrich the field of PYD in Portugal and interact with the international scientific community, contributing to a more diverse and plural understanding of the paths to PYD and youth citizenship.

1.4. Research problems and goals

This thesis combines two fields, PYD and participatory citizenship, as expressions of psychosocial development as well as civic and social engagement among young people in their educational and community contexts. The purpose of this thesis is to study how sports practiced inside and outside of school constitute a context that promotes PYD and participatory citizenship among young people in vocational secondary education in Portugal.

This central objective is divided into four specific but interrelated goals, each supported by an article of the thesis (Table 1):

1. To synthesize existing empirical evidence on PYD through sport, focusing on studies conducted with school-age youth (5th to 12th grade) through a systematic literature review.

The aim is to understand the empirical research on PYD in sports contexts inside and outside of school, systematizing the main contributions and guidelines identified in the international literature. Its implementation will provide theoretical support for the thesis, positioning it within the broader accumulated body of knowledge (Bruner et al., 2021; Hermens et al., 2017; Holt et al., 2017; Jones et al., 2017; Rigoni et al., 2017; Whitley et al., 2019). Based on this systematic review, we aim to prepare the theoretical groundwork for the exploration and

conceptualization of participatory citizenship as a citizenship contribution (“sixth C”), a new dimension and expression of PYD (a new “sixth C”). Moreover, we aim to prepare for the possibility of involving young people in more than one type of sporting activity, practice, or context, i.e., their combination.

2. Analyze and compare different contexts of sports practice (school, extracurricular, or combined) regarding PYD and citizenship contribution among vocational secondary school students.

The aim is to respond to the need to understand how different contexts of sports practice - within school (SS), outside school (e.g., clubs, gyms), or both - relate to PYD outcomes and participatory citizenship. This analysis aims to identify which environments are most conducive to promoting the dimensions of PYD and participatory citizenship (in the article “citizenship contribution”), as well as understanding how the combination of contexts can enhance or limit these effects.

3. Analyze the type of sport practiced as well as individual (gender, age, weekly frequency of practice, and years of practice) and contextual (competitive experience) variables to explain the variations observed in the results of PYD and citizenship contribution.

The literature has highlighted that the impact of sports practice is not linear nor uniform but is mediated by multiple individual and contextual factors (Bean & Forneris, 2016; Coakley, 2011; Holt & Neely, 2011; Jones et al., 2017). The distinction between different practices (types of sports, practice with or without competition) will allow for a more sustained understanding of the relational and developmental mechanisms associated with each reality. This will contribute to a differentiated analysis of the relationship between involvement profiles and respective PYD and participatory citizenship outcomes.

With these variables, the aim (and hope) is to contribute to the design of more effective, impactful, personalized, and equitable interventions that aid in the comprehensive development of young people in sports and educational contexts.

4. Explore the relationship between young students’ experiences in sports, civic, and political activities as well as PYD, including personal and social responsibility, to understand how these dynamics relate to their developmental processes.

This objective responds to the need to deepen understanding of how different forms of youth engagement - particularly in sports, civic, and political participation - can influence young people's developmental trajectories in an integrated manner. Despite growing recognition that multiple participation contexts can act synergistically in promoting personal, relational, and civic skills (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009), few studies have addressed the combined effects of these spheres of involvement. Based on this framework, we aim to explore the idea that young people getting involved in more than one type of activity, specifically the combination of sports, civic engagement, and politics, can lead to more positive development paths, not only from a personal standpoint but also in terms of contributing to the greater good. We'll also look at gender and age as moderating factors, we aim to capitalise on the study's sensitivity to these variables, looking for variations in participation profiles and their effects on development.

The inclusion of personal and social responsibility as an analytical dimension, as part of this objective, stems from the recognition of its structuring role in the positive development processes of young people (Baptista et al., 2020; Hellison, 2011) - especially when associated with participation in organized and meaningful contexts, such as sports and civic engagement. Conceived as the ability to commit to oneself and others, this responsibility translates into respect, effort, leadership, care for peers, and contribution to the common good (Hellison, 2011; Martins et al., 2015). Research has shown that structured sports practice can foster the development of these skills, in particular when guided by explicit pedagogical models and mediated by significant adults (Bean & Forneris, 2016). In addition, involvement in civic and political activities provides a privileged context for the mobilization and consolidation of these traits through active participation, joint deliberation, and the construction of a sense of agency (Coakley, 2011; Eccles et al., 2003; Quintelier, 2008; Rotolo et al., 2020; Sherrod, 2007). By considering personal and social responsibility, the aim is to deepen understanding of the mechanisms that link different forms of youth participation to development outcomes, broadening the analysis beyond the classic indicators

of the PYD's "5Cs" and contributing to a more holistic and ecologically situated model of active citizenship and human development.

1.5. Thesis structure

This thesis adopts the Scandinavian doctoral model and consists of a general introduction and four scientific articles (one theoretical and three empirical). Although written independently, by the editorial standards of their respective journals, all articles are linked by a coherent logic of knowledge development, centred on the PYD model and participatory citizenship in the contexts of sport, school and vocational education.

This thesis has five main parts:

I – Introduction

This chapter presents the conceptual and methodological foundations that support the thesis. The research problem and its scientific and social relevance are presented, along with the purpose and specific objectives. The general structure of the thesis is also presented and justified, including how the parts are organised and interconnected.

II – Theoretical Study

Includes a systematic review of the empirical literature on PYD through sport. This study provides the theoretical and empirical basis for the following empirical studies.

III – Empirical Studies

- The first empirical study analyzes the association between sports practice contexts - at school (school sports), outside school, or combined - and PYD outcomes, including the contribution to citizenship. Furthermore, it includes variables such as competitive experience, non-practice, gender, and satisfaction with school. The results allow for identifying different paths of sports involvement and their respective relationship with PYD.
- The second empirical study examines the relationship between the type of sport practiced (individual, team, dance, and combinations), and PYD outcomes, namely participatory citizenship (under the heading "citizenship contribution"). In

light of the ecological approach to development (Bronfenbrenner & Morris, 2006; Lerner et al., 2005) - development results from the action of individual and contextual variables and their interaction – the variables gender, age, years of practice, weekly frequency, and competitive experience were considered, thereby allowing for the exploration of significant differences in developmental outcomes based on individual characteristics and practice.

- The third empirical study explores the association between patterns of participation in sports, civic, and political activities and PYD outcomes, including personal and social responsibility. Besides that, it also considers the role of gender and age, seeking evidence on the relationship between multiple commitments and the comprehensive development of young people.

IV – General Discussion and Conclusions

This part systematizes and integrates the main results of the four articles, discussing them in light of the theoretical frameworks and the empirical evidence considered in this thesis. The implications of the results for PYD through sport, for pedagogical practice in sports and educational contexts, and for formulating public policies to promote youth citizenship through sport, inclusion, and youth participation are analysed. The section concludes by identifying the study's limitations and proposing future lines of research as well as a set of implications for practice.

Finally, although the dissertation has a uniform format, the studies are presented according to the standards and style of the journals in which they were published or submitted. Table 1 systematizes the chapters' information about their location in the body of the dissertation, title, publication (or submission) platform, and complete reference for citation.

Table 1. Summary of structure and contents included in the thesis.

THEORETICAL STUDY		
Theoretical study (pp. 27-54)	Almeida, L., Dias, T., Corte-Real, N., Menezes, I., & Fonseca, A. (2023). Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth. <i>Physical Education and Sport Pedagogy</i> , 1-27. DOI: 10.1080/17408989.2023.2230208	Published in a scientific journal with double peer-review: <i>Physical Education and Sport Pedagogy</i>
EMPIRICAL STUDIES		
Empirical Study 1 (pp. 59-86)	Almeida, L., Dias, T., Corte-Real, N., Menezes, I., & Fonseca, A. Playing and competing inside, outside, or on both sides of the school walls? Possible pathways to positive youth development and citizenship contribution in secondary vocational students.	Submitted to a scientific journal with double peer-review: <i>European Journal for Sport and Society</i>
Empirical Study 2 (pp. 87-114)	Almeida, L., Dias, T., Corte-Real, N., Menezes, I., & Fonseca, A. Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency and competitive experience.	Submitted to a scientific journal with double peer-review: <i>Journal of Sport & Social Issues</i>
Empirical Study 3 (pp. 115-153)	Almeida, L., Silva Dias, T., Corte-Real, N., Menezes, I., & Fonseca, A. (2024). Living, doing and learning in sport, civic and political activities: possible paths for positive youth development [Article]. <i>World Leisure Journal</i> . DOI: 10.1080/16078055.2024.2425779	Published in a scientific journal with double peer-review: <i>World Leisure Journal</i>

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II. THEORETICAL STUDY

2.1. Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth

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Positive youth development through sport and physical education: a systematic review of empirical research conducted with grade 5 to 12 children and youth

Abstract

Background: Over the two last decades, the interest in personal and psychosocial youth development has been growing due to its engagement in sport activities. Furthermore, participation in sport has been referenced as a favourable mechanism and context for positive youth development (PYD). However, some studies and researchers continue to question the linearity of this association. Considering the place and importance the practice of sports in and out of school in young people's lives, it is necessary to systematically gather empirical evidence about the relationship between sports involvement and the development of children and young people attending school. This knowledge is important not only for teachers, coaches and professionals who work at schools, clubs and associations, but also for policymakers.

Objective: to study the relationship between the practice of sport and the positive development of children and young people attending school. This purpose was guided by the following research question: What is the relation between the practice of sports and positive development of grade 5 to 12 children and youth attending school?

Method: Conduct a systematic search in EBSCO, Scopus and Web of Science databases. Search for relevant studies with a quantitative, qualitative and mixed design that met previously established eligibility criteria. Quality was assessed and data were extracted from a previously elaborated template.

Results: The systematic review followed the PRISMA protocol and included 30 studies with quantitative (n = 14), qualitative (n = 12) and mixed (n = 4) designs. A wide variety of sports and two fundamental settings – physical education (PE) and extracurricular activities – in and out of school – were found, most of them framed in structured activities or intervention programmes. Results suggest that the practice of sports, especially when combining different sports and contexts, or

including non-sport activities, seems to favour psychosocial development and the transfer of competences and values to other areas of life, “outside” sports. This evidence appears to depend on several individual and contextual factors, such as psychological and physical security, presence and action of adults and mentors, positive social interactions, having a voice and participation in decision-making, leadership roles, opportunities for skills built in a meaningful activity and deliberately structured activities, but also on the interaction between individual and contextual factors.

Conclusions: The results suggest the importance of sports practice as a mechanism and a favourable context for developmental outcomes of children and young people attending school. That relationship, however, seems contingent. Developmental outcomes might be related to multiple individual and contextual factors and to the interaction among them. Different activities afford different opportunities for children and young people to engage in adaptive relations with their ecology and positive development. The combination of different types of sports, in or out of school, especially when combined with non-sport activities, seems to bring greater benefits. Several factors were referenced as beneficial to PYD promotion in sport programmes, in and out of school.

Keywords: Youth Development; Youth Sport; School Sports; Physical Education; Students;

Introduction

Over the two last decades, the interest in psychological youth development has been growing due to the engagement in physical activity and sports (Bruner et al. 2021; Eime et al. 2013; Holt et al. 2017; Whitley et al. 2019). This engagement has been associated with a set of physical, psychosocial and educational benefits: physical well-being, self-discovery, self-esteem and self-confidence, communication skills, emotional regulation, problem-solving, goal attainment, initiative and identity development, teamwork, sense of empowerment, respect for self, for others and social norms, personal and social

responsibility, civic engagement, better school results, higher rates of school engagement and college attendance (Eccles et al. 2003; Hansen, Larson and Dworkin 2003; Hellison 2011; Holt and Neely 2011).

After emerging in the early 1990s and gaining visibility during the current century, the PYD approach is based on the assumption that all children and young people have the potential for a bright future (Damon 2004). That potential results from the mutually influential relationships between the developing individual and his biological, psychological, ecological and historical niche (Lerner et al. 2005). Based on ecological approaches to human development, the PYD framework assumes that the developing young person has a permanent relation (influencing and being influenced) with his or her ecology and with spaces and times which are continuously interconnected. The various activities in which young people engage can be seen as differing learning and experimental environments that provide different opportunities for developmental experiences and growth (Bronfenbrenner and Morris 2006).

Sports and physical activity are recognized as opportunities for social interaction, interpersonal communication, competition, conflict solving, decision-making and consequently, moral and psychosocial development (Hellison, 2011). Because they consistently attract and retain younger children in a domain that is not only often challenging, but also usually safe, structured, and supervised, it also seem to be conducive spaces for intervention and positive changes (Bean and Forneris 2016; Holt and Neely 2011). Some authors refer to them as having potential as favourable contexts to transfer and deliver the acquired and developed values and skills to young people's other life domains (Lee and Martinek, 2013; Pierce, Gould, and Camiré 2017).

The way in which positive development relates to children and young people's sports practice is still unclear and needs reflection and discussion. Some researchers call attention to the risk of thinking that sports participation is always beneficial or promotes development (Coakley 2011; Holt and Neely 2011). Others state that this is not a linear or inherent association, but rather depends on a huge diversity of factors (Bean and Forneris 2016; Jones et al. 2017). Coakley (2011) argues that this relationship is contingent. Sports practice alone seems not to show evidence of regularly noticeable development and the results among them are related to and depend on the combination of multiple individual and context factors: gender and age (Agans and Geldhof 2012; Raimundi, Schmidt, and Hernández-Mendo 2018), individual perceptions (Fuller et al. 2013), type of sport or activity played (Zarret et al. 2009), coaching, teaching style and structure (Bean and Forneris 2016), atmosphere, safety, relationship with peers and adults (Allen, Rhind, and Koshy 2015; Holt et al. 2012), and the norms and culture associated with particular intervention programmes (Hellison 2011), among others. Based on the best practices identified by youth development experts, Petipas et al. (2005) proposed that positive psychosocial development is more likely to occur when young people engage in activities they enjoy within an appropriate environment (context), are surrounded or supervised by caring adult mentors and a group or community (external assets), learn or develop skills (internal assets) that are important and useful for managing life situations, and benefit from the outcomes of an effective system of evaluation and research.

There are several empirical studies with quantitative, qualitative and mixed methodologies on the association between sports participation and young people's positive development at school (Allen, Rhind and Koshy 2015; Camiré, Trudel, and Forneris 2009), including PE (Koh et al. 2017; Pozo, Perez-Ordas and Grao-Cruces

2019), out of school (Reverdito et al. 2017a; Zarrett et al. 2009), and in competition (Ettekal et al. 2017; Raimundi, Schmidt, and Hernández-Mendo 2018). Other authors carried out both simultaneously (Agans and Geldhof 2012; Holt et al. 2012). With different purposes and approaches, several systematic reviews investigated the relationship between sport participation and the outcomes associated with the positive development of children and young people (Bruner et al. 2021; Eime et al. 2013; Hermens et al. 2017; Holt et al. 2017; Whitley et al. 2019). In general, the conclusions are aligned with the idea that youth sport participation is associated with positive developmental outcomes. However, this is not always the case for all children and young people nor in all situations.

Our study

Sport's potential to promote youth development is well known (Holt and Neely 2011) and its place in school is recognized, especially through PE, a formal space where many children and young people have access, some for the first time, to the regular and supervised practice of sport. In some countries, PE is a mandatory curricular subject between the 5th and 12th grade and is thus a space that, as well as promoting and extending the practice of sports to all children and young people in educational process, provides access to this activity to those who have not yet had the opportunity to be involved in it in a structured, organized way.

The growing involvement of the scientific community in research and discussion of developmental outcomes associated with youth sports practice is also recognized through some systematic reviews (Bruner et al. 2021; Eime et al. 2013; Hermens et al. 2017; Holt et al. 2017; Whitley et al. 2019). Sport holds an important place in young people's lives, in and out of school, and provides interaction and possible complementarity of sports practice and experiences in different contexts. However, no systematic report was found

of the evidence which has emerged from the empirical research realized about the relationship between sports practice and positive development, specifically with children and youth who are attending school, that is, in a schooling process. On the other hand, remembering that scientific evidence about the relation between sports practice and youth development is still inconclusive (Bruner et al. 2021; Coakley 2011; Eime et al. 2013; Ferreira, Azevedo, and Menezes 2012; Holt and Neely 2011; Jones et al. 2017; Whitley et al. 2019) it is important to provide information to assist professionals in their interventions and to contribute to a more effective decisions by policymakers.

The current work aims to systematically review the empirical evidence available to study the role and the importance of sports and PE as socio-educational contexts in PYD. Therefore, a question must be asked: Which is the relation between sports practice and positive development of 5 to 12 grade children and youth attending school? Considering the lack of reviews that study the advancement of non-English speaking literature within the thematic context of the present review, the objective of extending the research question to articles published in Portuguese and Spanish was also established.

After this introduction, this paper will include the sections referring to the material and methods used, in which the search and selection strategies, the quality assessment process and the characteristics of the studies included in the synthesis are described. This will be followed by the presentation of the results of those steps, their discussion through the view of the theoretical framework presented in introduction and the main conclusions of the review. Finally, the limitations of the study and future research, intervention and action proposals for educational and policymakers and sport and educational professionals will be presented.

Materials and methods

The protocol was registered in the International Prospective Register of Systematic Reviews (PROSPERO; CRD42020223101) and developed based on Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) 2015 Statement (Moher et al. 2015).

Search strategy

The study research was conducted on the electronic databases Scopus, Web of Science and EBSCOhost. Keywords were used in three languages: “Positive Youth Development” OR “Positive Development” AND sport* OR "physical activity" OR "physical education" (for English), “desenvolvimento positivo” AND desporto* OR “atividade física” OR “educação física” (for Portuguese), and “desarrollo positivo” AND deporte* OR “actividad física” OR “educación física” (for Spanish). This research comprised titles and abstracts of studies published in peer-reviewed magazines, written in Portuguese, Spanish and English, until 31st December 2019.

Selection strategy

The selection process was carried out following the indications of the PRISMA declaration (Moher et al. 2015). The selected studies were exported to the EndNote software package. After removing the duplicates, the titles and abstracts were assessed and redundant studies were removed to meet the pre-defined criteria.

Inclusion criteria: (1) empirical studies conducted within a PYD theoretical framework in the sports context, in and out of school and PE; (2) with quantitative, qualitative or mixed methodology; (3) published as a scientific article; (4) in full-text format; (5) children or young participants at school. Exclusion criteria: (1) studies without sports or PE as the main study context; (2) children or young people aged under nine or

over 21 and at school but below the fifth grade and higher than the twelfth grade, including university students; (3) works published in theses and dissertations, literature review, conceptual frameworks, conference proceedings, books or book chapters, reports, governmental and non-governmental documents and reports of non-governmental organizations; (4) articles of adaptation and validation of instruments. According to the criteria, the full texts were assessed and the final decisions were made to select studies for data extraction. Most studies do not allow verification of the baseline condition that the participants are attending school through their titles and abstracts. Thus, a careful analysis was made of the methodology used, specifically to participant recruitment process, to ensure that criterion.

Figure 1 presents a PRISMA flow diagram of our study review. Search and selection strategy, and quality assessment were conducted by two independent investigators (the first two authors, LA and TD). Disagreements were discussed and solved by consensus, with the help of a third researcher (NC), if necessary. Inter-judge reliability was calculated using Cohen's kappa.

Quality assessment

The selected studies were submitted to quality assessment through an adapted version of the quality assessment tool for studies with diverse designs (QATSDD; Sirriyeh et al. 2012). This tool was developed to use with published papers which include qualitative and quantitative work. Following Smith and McGannon's (2018) recommendations, inter-rater reliability measure of qualitative studies was not considered. Each article had to have positive evaluation (at least 2 = moderately) in more than 50% of the items considered to be included. This process was recorded in a separate coding spreadsheet.

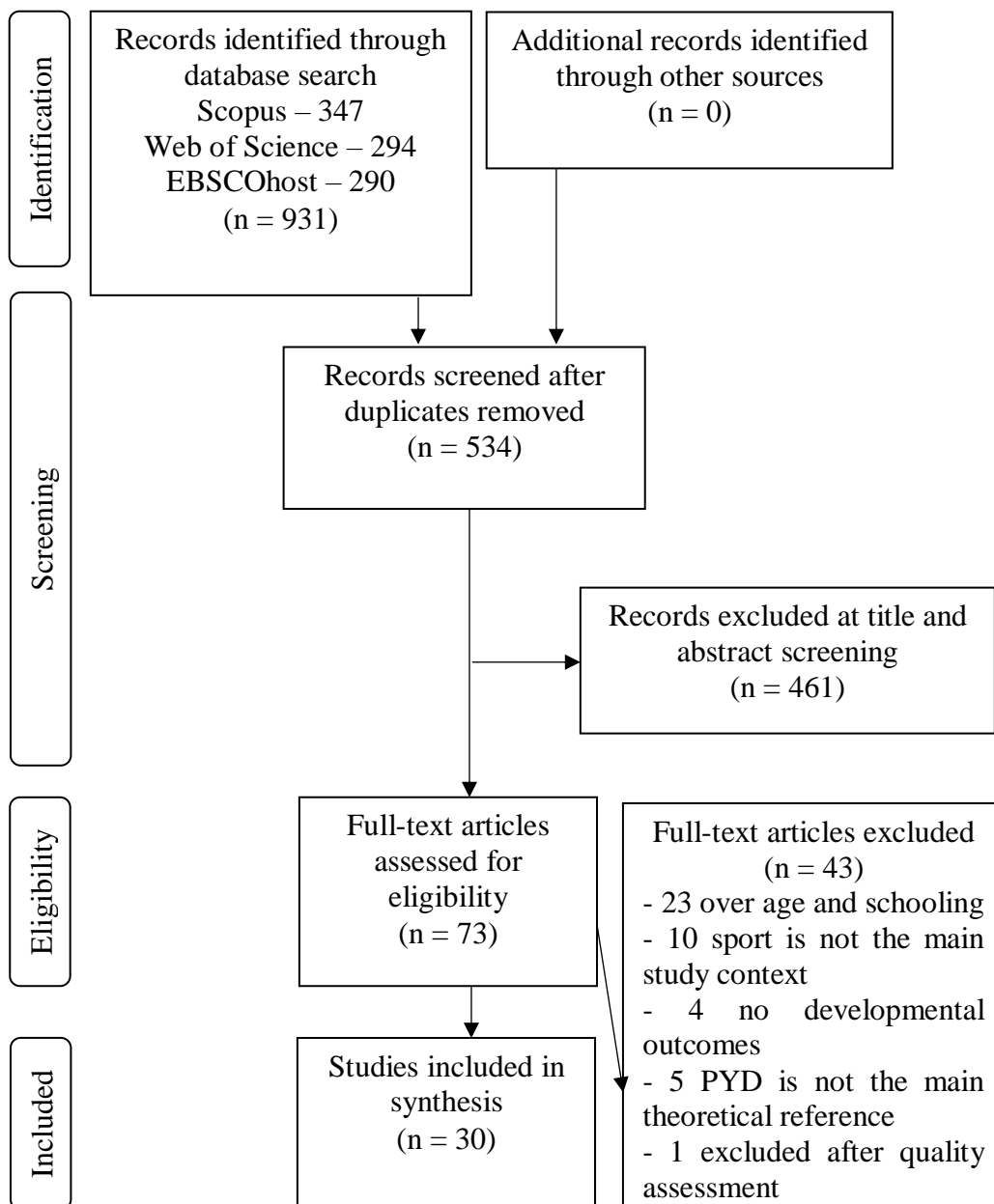


Figure 1. Flow diagram

Data extraction and analyses

Data extraction to an Excel sheet and the study quality assessment were independently conducted by two reviewers (LA and TD). Disagreements were solved by consensus, with the involvement of a third researcher, when necessary (NC). Data extracted were: authors, year of publication, country, objectives, contexts, sports activities, study type, sample

characterization, methodology and main findings. A narrative synthesis was conducted due to the heterogeneity of the population studied, and to the methodologies and contexts of the selected studies. The first author wrote this article, under the consulting of all authors and scientific supervision of the last two (IM and AF), who were also responsible for the final review.

Results

The electronic database search yielded 931 articles (Figure 1). After removal of duplicates, 534 articles remained. Based on title and abstract, 461 articles were excluded, which reduced the number to 73. After full-text screening, 42 articles were excluded due to age or schooling, sport not being the main context, it being a book chapter, not having any developmental outcomes or PYD not being the main theoretical reference. The remaining 31 articles met all inclusion criteria and were considered for quality assessment. At this stage, the degree of agreement between reviewers was 0.827 ($p < 0.001$), almost perfect agreement.

After quality assessment, one study was eliminated because it did not reach the predefined cut-off point. Thus, 30 articles were included in the narrative synthesis (Figure 1).

Characteristics of the studies included in the synthesis

All the articles (Table 1) were published in the current century, the first in 2003, 86.7% (26) during the second decade (Figure 2), and 11 are from countries of three continents (Figure 3): America ($n = 18$; 60.0%), Europe ($n = 7$; 23.3%) and Asia ($n = 5$; 16.7%). Nine articles were published in the United States of America (30.0%) and six in Canada (20.0%). That is, 50.0% ($n = 15$) of the final selected studies were published only in North America. Only one article (3.3%) was published in a language other than English, specifically in Spanish. Fourteen (46.7%) were quantitative studies, 14 (46.7%)

qualitative and two (6.7%) mixed. The majority 17 (56.7%) were cross-sectional, 12 (40.0%) longitudinal and one was classified as “non-longitudinal” by the authors.

Regarding sports, a large variety was found. However, in 12 of the 30 studies (40.0%), some type, classification, differentiation or grouping was assumed (e.g., individual, team, dance-type, traditional, recreational activities less common in PE, school sports, outdoor / adventurous activities, culturally non-traditional sports and others), including “non-sport activities” (e.g., boys/girls clubs, scouts, student government, performing arts, school clubs, volunteering, religious activities, paid work and others). Using Agans and Geldhof (2012) typology, “team sport” was found to be the most frequent type of sport in all papers (76.6%). Four studies do not refer to any sport.

Research contexts encompassed 13 studies (43.3%) in school, 13 (43.3%) out of school and four (13.3%) comprised both. In school, besides PE and “school sport”, denominations like “extracurricular” and “programmes” were found. These also appeared outside school, as well as expressions like “after-school”, “community”, “local” and others. It is important to note that almost all these designations were used without any specific or additional explanation or conceptualization about the reason for using them. In 21 studies (70.0%), in and out of school activities were conducted through “programmes”. This denomination (“programme”) was used when there was an intervention supervised and organized by someone (individual or organization) during a certain period of time for a specific purpose, context (e.g., inner city school) or population (e.g., at-risk and underserved youth).

Eleven (36.7%) were carried out in communities, specific populations or geographical and social contexts and some were corporate-sponsored or supported by non-profit organizations or municipalities. Sports programmes are varied in nature (e.g.,

leisure, competition), context (in and out of school, sometimes in the community, during PE classes or in extracurricular activities), and mostly directed to the promotion of psychosocial development, life skills, values, transfer of this competences to other life contexts, e.g., classroom, community, and social inclusion. Some common aspects were found which were pointed out as being beneficial for more sustained PYD (Table 2).

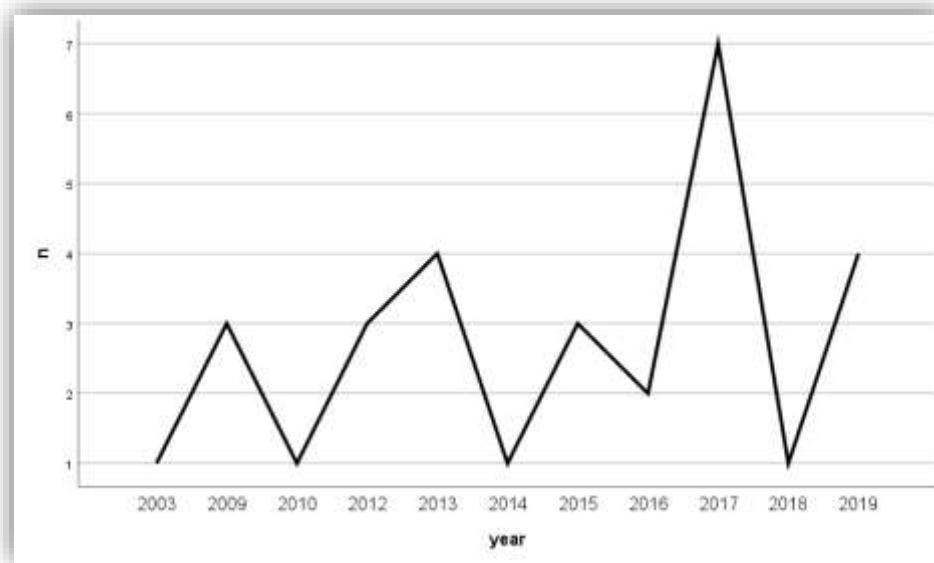


Figure 2. Chronological evolution of number of publications

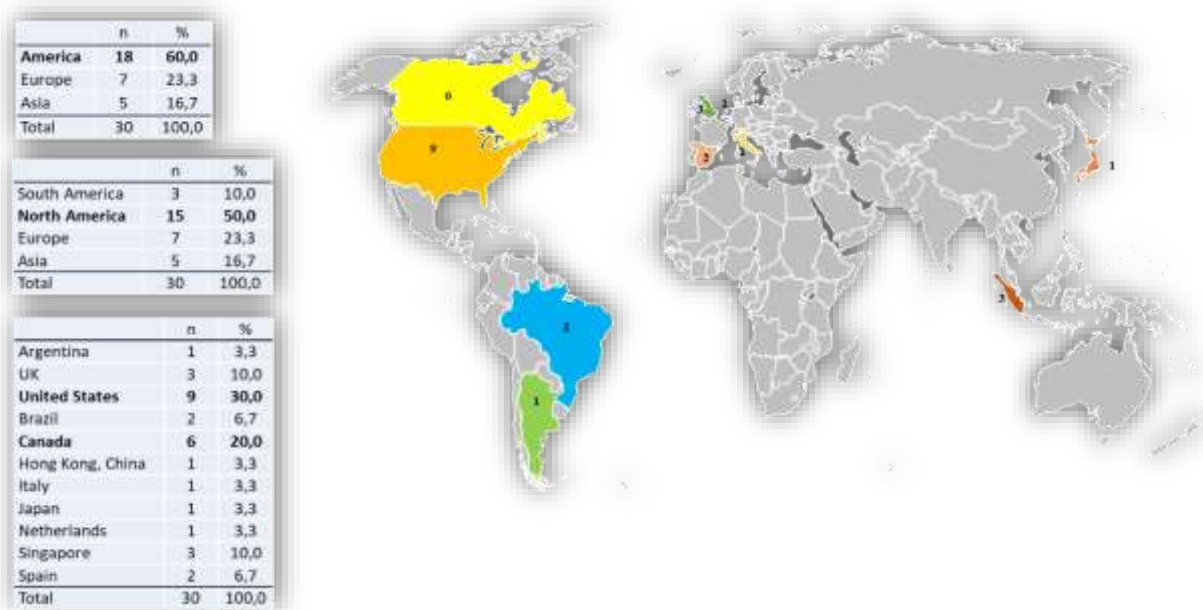


Figure 3. Geographic location of the studies

Table 1. Characteristics of the included studies

Authors	Aim	Main results	Context	Activities	Study type	Sample
Agans and Geldhof (2012) USA	Investigate the association between developmental outcomes with types and patterns of sport participation throughout high school years.	Female sports participation and combined sports participation showed better developmental outcomes when compared to non-participation.	In/Out of school Community, diverse in and out of school	Individual, team and dance-type sports Dance, gymnastics, martial arts, skating, school sport teams and other sports.	Qt, Lg	710 (♀♂) ≤ 12 (8.73%), 13-15 (33.5%), 16 (16.5%), > 16 (7.4%) years* 10th–12th grades
Agans, Johnson, and Lerner (2017) USA	Assess associations between patterns of adolescent athletic participation with self-perceived athletic competence and young adult physical activity, and between changes in participation throughout adolescence and young adult outcomes.	- Higher sport participation was associated with best competence self-perceptions; - More active adolescents had higher rates of adult athletic activity and better health.	In/Out of school Community, diverse in and out of school	Dance, gymnastics, martial arts, skating, school sport teams and other sports.	Qt, Lg	5,961 (♀♂) 13.1–17.6 years 7th–12th grades
Allen, Rhind, and Koshy (2015) UK	Examine enablers and barriers to life skill transfer from sports hall to classroom.	- Support from peers, pride, opportunities, rewards and transfer experience are recognized as important enablers in promoting life skills transfer from sports hall to classroom and future life; - The lack of opportunities to use learned skills outside of sports hall, boring lessons and negative teacher attitudes were seen as barriers to the transfer.	In school Underachieving students Transfer-ability programme	Football, rock climbing, goalball, American football, martial arts, , rock climbing and sprint hurdling, frisbee, boxing.	QI, T, CSt	18 (♂) 12–13 years 8th grade
Aoyagi et al. (2016) Japan	Investigate impact of external coaches and teachers on students' experiences in school-based extracurricular sport activities.	Students perceived both overlapping benefits (general coaching, human network and improved atmosphere) and specifics (external coaches: support teacher and equipment supply; teachers: management and office work, participation and connection with school life).	In school (School-based) Extracurricular sports activities	Badminton, basketball, Japanese archery, football, swimming, table tennis, track and field and volleyball.	QI, T	23 (♀♂) 12–17 (M = 15) years High schools
Armour and Sandford (2013) UK	Study physical activity, sport and PE on promoting positive development for disaffected youth.	- Sport participation promoted self-confidence, communication, teamwork, trust, willingness to try, empathy, social responsibility, overcoming fears, facing challenges, perseverance, leadership, problem solving, transfer; - Longer participation showed more sustained improvements.	In/Out of school Disaffected youth Corporate-sponsored physical activities (programme)	Structured outdoor activities (rock climbing, gorge walking, high ropes courses, caving, sailing, hiking and rafting).	QI, Lg	600 (♀♂) ≥ 13–14 years ≥ 9th grade
Armour, Sandford, and Duncombe (2013) UK	Identify sport/physical activity interventions key features to sustained positive impact on youth.	Key features: matching pupils' specific needs with programme objectives; activities outside 'normal' school context; working closely, setting targets and review progress; positive relationships; opportunity to work with and for other youth; available structured pathways to sustained involvement in further project or complementary activities.	In/Out school Disaffected youth Corporate-sponsored physical activities (programme)	Traditional sports (e.g., football, basketball, badminton, swimming and hockey), recreational activities less common in PE (e.g., yoga, ultimate frisbee, street dance, free running and skateboarding), and	QI, Lg	5240 ≥ 13–14 years ≥ 9th grade

				outdoor/adventurous activities (e.g., rock-climbing, orienteering, canoeing, sailing and rope courses).		
Bruner et al. (2014) Canada	Study group cohesion and perceptions of PYD in team sport athletes.	- Individual level: higher perceptions of task and social cohesion predicted greater PYD (personal and social skills, goal setting, and less negative experiences); - Group level: team means predicted negative experiences. Higher perceptions of team task cohesion predicted less negative experiences, while higher perceptions of team social cohesion predicted more negative experiences. - Cohesion accounted for variance at both levels.	In school School sport teams	Basketball, volleyball, football, ice hockey, American football, rugby, lacrosse.	Qt, T	424 (♀♂) M = 15.74 years High school
Camiré and Trudel (2013) Canada	Explore coaches and students' perspectives on student development through high school football participation.	High school football promotes PYD, life skills, school connectedness, and academic engagement.	In school School football	Football.	QI, Lg	18 (♂) 14<-16 years (M = 15) 9 coaches High school
Camiré, Trudel, and Forneris (2009) Canada	Document high school athletes' perspectives on support, communication, negotiation and life skill development.	Athletes believed to be able to negotiate aspects of their sport participation with parents and coaches, received adequate support from parents and were able to communicate with coaches. Their school sport participation developed life skills transferable to other life domains.	In school School-based sport programmes	Basketball, volleyball, football and badminton.	QI, T	20 (♀♂) 13-17 years (M = 15.05) High school
Carreres-Ponsoda et al. (2012) Spain	Examine influences of participation in physical activity, sport programmes and other activities on self-efficacy, pro-social behaviour and responsibility.	Participating in out-of-school sport programmes promoted higher self-efficacy, prosocial behaviour and responsibility compared with the participation in other activities or non-participation in any kind of activity.	Out of school Sports and other activities (sport not included) (programme)	n/r	Qt, T, Qe	363 (♀♂) 12-19 years (M = 14.41) Public schools
Ettekal et al. (2017) USA	Explore links among sport participation, cognitive orientations and PYD.	Athletes' mastery orientation grew across the season, although that tendency diminished after it ended. Some believed mastery focus was more important after being involved in programme. Positive experiences within programme increased beliefs about mastery focus, but did not matter for behaviour.	Out of school Sport-based youth development programme	Football, volleyball, football, basketball, indoor track, baseball, softball, tennis.	Mix, T	77 (♀♂) M = 16.38 years 9th-12th grades
Forneris, Camiré, and Williamson (2015) Canada	Examine how participation in a single activity or combination of extracurricular school (sport and non-sport) activities impacts on developmental outcomes and school engagement.	- Participation in various extracurricular activities, including sports, is perceived as associated with more positive outcomes compared to involvement in only one or not being involved in any; - Engagement in a variety of sport and non-sport activities was perceived as valued by adults, as they have useful roles in the community, and feel safe in school, at home and/or in their community.	In school Extracurricular activities	Sport (n/r) and non-sport activities.	Qt, T	239 (♀♂) 9th-12th grades
Fuller et al. (2013) USA	Explore the reasons of minority boys' to participate in sport-based youth development	- Initial reasons: emphasis on sport and physical activity and peers participating in the activities; - Continued participation is related to perception of programme as a safe place, out of trouble and involvement in "at-risk"	Out of school Minority of boys	Traditional sports (e.g., basketball and football), culturally non-traditional sports (e.g., floor hockey and football)	QI, Not Lg	8 (♂) 10-14 years 5th-8th grades Parents

	programmes and their relation with developmental outcomes.	behaviours, and experiences favourable to positive personal development; - Participation in the programme facilitated PYD (“6Cs”).	Sport-based afterschool programme	and other physical activities (e.g., capture the flag).		
Hellison and Wright (2003) USA	Examine the link between retention and youth development principles and process in two sequential urban extended day programmes.	- Withdrawal occurs when moving to another programme ; - Coaching club contributes to technical development, attitude, responsibility, even outside gym, personal development and behaviour in classroom; - Leadership programme participation improves attitudes, behaviours, maturity, empathy and retribution to community, feelings of compassion and community; - The youngest reacted positively to leaders (older), respecting them, feeling gratitude and personal relationship towards them.	Out of school At-risk and underserved youth After-school programmes (mentorship, coaching club and apprentice teacher)	Basketball.	Mix, T	78 10–21 years
Ho at al. (2017) Hong Kong, China	Assess effectiveness of a PYD-based sports mentorship programme on adolescents’ well-being.	- Intervention improved significantly mental well-being, self-efficacy, resilience, physical fitness, and physical activity levels; - No significant improvements on physical well-being, family and school connectedness.	Out of school Community setting (after-school) PYD sports mentorship programme	Basketball, volleyball, kickboxing.	Qt, Lg	664 (♀♂) M = 12.3 years Secondary schools
Holt et al. (2012) Canada	Explore school staff and pupils’ perceptions about factors that influence PYD at PE, intramural sports and sport teams.	- In PE, existence of a specialist teacher and the set of clear boundaries, while providing children with perceptions of choice, when important; - Pupils enjoyed intramural sports; however few attempts to create an appropriate developmental atmosphere contributed to the association with negative student interactions; - Teams’ coaches promoted social interactions and respect. - PYD outcomes were related to fostering empathy and social connections.	In school Inner-city school Low-income neighbourhoods PE and (extra-curricular) sport programmes	PE, intramural sports (indoor football, floor hockey, and basketball) and school sport teams (e.g., volleyball, basketball, football, badminton, softball and rugby).	QI, T, CSt	59 (♀♂) M = 12.4 years 5th–9th grades Teachers, school principal, school nurse, coaches
Koh, Ong, and Camiré (2016) Singapore	Investigate the perspectives of PE teachers, sport coaches, students and athletes on the impact of a PE and sport-based values training programme and teaching strategies on youth development and transfer of values.	- Teachers and coaches believed that the training programme helped to acquire strategies and increased motivation of teaching values; - Students and athletes believed that they were able to apply values learnt in non-sport settings; - Purposefully designed activities facilitated transfer of values; - Time constraints hindered the learning and the transfer of values.	In school PE and sport (programme)	Floorball and football.	QI, Lg	16 students, 16 athletes 10–12 years (M = 11.7) PE teachers, sport coaches Primary school
Koh et al. (2017) Singapore	Follow-up assesses the impact of a PE and sport-based values training programme and teaching strategies on students and athlete’s development and transfer of values.	- The most influential long-term outcome of the programme was collective (e.g., deliberate planning via the scheme of work) and individual (e.g., use of questioning, eliciting responses) - strategies teacher and coaches have implemented to teach values; - Students and athletes stated that they learned values by interacting with teachers and coaches and their ways of teaching resilience, commitment, and respect and that were able to apply these values in life and in other contexts.	In school PE and sport (programme)	Floorball and football.	QI, T	12 students / athletes (♀♂) 12 years 6th grade Parents, teacher, coaches

Lim, Koh, and Chan (2019) Singapore	Examine roles and contributions of supporting staff to PYD in high school sports.	Supporting staff, including school educators, complement coaches in promoting PYD and maybe in more advantageous positions to impact some areas of it.	In school School sports teams	Badminton, basketball, hockey netball, rugby.	QI, T	48 (♀♂) M = 14.60 years Coaches, teachers High school
Martinen et al. (2019) USA	Explore influence of boys' experiences in a basketball-based after-school programme on their empowerment.	- Violence is a barrier to playing sports. - NBA dream (future plans) operated as a perceived pathway to a safer future and higher education. - Having and being role models helped youth to alleviate barriers to play sports. - Participation enabled engagement in interest-based physical activity and academic learning tasks, thus creating a peaceful space to develop positive associations among school, physical activity, and community.	Out of school Under-resourced urban communities After-school (PYD sport) programme	Basketball.	QI, T, CSt	7 (♂) 10–14 years Coaches, teachers
Parise et al. (2015) Italy	Examine the effectiveness of school-based rugby introductory training course in self-esteem, self-efficacy and prosocial behaviour of adolescent students.	Participation improved self-perception of perceived self-efficacy in dealing with negative emotions and in expressing positive emotions, social and empathic self-efficacy, and pro-social behaviour.	In school School-based rugby introductory training course (programme)	Rugby.	Qt, Lg, Qe	103 (♀♂) 11–15 years (M = 13.50) Secondary schools
Pozo, Perez-Ordas, and Grao-Cruces (2019) Spain	Investigate the effects of a teaching programme within PE on personal and social responsibility and on PYD values in schools of different socioeconomic contexts.	- Positive effect on values; - Improvements in personal and social responsibility and PYD values in lower-middle socioeconomic group.	In school PE (based-TPSR) programme	n/r	Qt, Lg, Qe	210 (♀♂) 10–12 years (M = 11.04) Primary schools
Raimundi, Schmidt, and Hernández-Mendo (2018) Argentina	Study the influence of elite sport participation in promoting adolescents character strengthens development.	Differences as a function of sex (higher in girls), age (youngest), sport type (team or individual sports), and competitive level (elite or non-practitioners).	Out of school Elite and extracurricular recreational sports	Team or individual sports (basketball, handball, volleyball, taekwondo, artistic gymnastics, athletics, wrestling, judo, rhythmic gymnastics, boxing and shooting).	Qt, T, Qe	721 (♀♂) 11–19 years (M = 15.27) Secondary schools
Reverdito et al. (2017a) Brazil	Examine the relationship between extracurricular sport participation and developmental context with adolescents' perceived self-efficacy.	- Positive experience alone and in interaction with length of participation fostered perceived self-efficacy; - Longer remaining improvement in human development indicators.	Out of school Underserved adolescents Extracurricular sport programmes (municipalities)	n/r	Qt, T	821 students (♀♂) M = 13.6 years
Reverdito et al. (2017b) Brazil	Study the effects of participation in extracurricular sport programmes on adolescents' developmental assets.	- Duration and quality of programme exposure had positive effects; - Support network quality and duration participation positively influenced sport participation, which was associated with willingness to learn; - Strong association between sport participation and development;	Out of school Socially disadvantaged youth Extracurricular sport programmes (municipalities)	One individual and two collective sports.	Qt, T	614 (♀♂) 12–15 years (M = 13.1)

		- Sport participation of female adolescents from a lower HDI context seems conducive to positive identity development.				
Shaikh, Bean, and Forneris (2019) Canada	Understand youth leaders' developmental experiences in a physical-activity-based PYD programme.	- Developmental experiences reported: awareness of the potentiality of learning and develop leadership skills through role models, interaction and mastery; - Not all had positive developmental experiences because of individual, process and contextual aspects.	Out of school Physical-activity-based PYD programme	Running.	QI, T, CSt	16 (♀♂) 12–17 years (M = 13.37) 7th–12th grades
Super et al. (2017) Netherlands	Study the role of sport in improving life prospects of socially vulnerable youth.	- Reference to diverse motives for sport participation (e.g., having fun) and three positive and negative experiences types, interconnected (seeing own skills, being confident in one's sport, sport as a nice challenge), but each weakly balanced. - Coach often identified as key player in tipping the balance towards positive sports experiences.	Out of school Socially vulnerable youth Local sports clubs or fitness clubs	Hockey, gymnastics, horse riding, dancing, hockey, mountain biking, fitness, football, taekwondo, American football, basketball, badminton, walking and Thai boxing.	QI, T	22 (♀♂) 11–17 years Secondary special education schools
Wilson et al. (2010) USA	Examine relationship among individual characteristics, participation in sport and non-sport activity, developmental experiences and outcomes.	Participation in basketball and football is associated with worse experiences and results than other sports or non-sports activities, but differences reflect the selection of youth at greatest risk for these activities.	Out of school After-school leisure (sport and non-sport) activities (programme)	Basketball and football, other sports (swimming, football, track, wrestling, volleyball, gymnastics, golf, exercising, weightlifting, bike riding, other sports) and non-sports activities (e.g., boys/girls clubs, scouts, student government, dance, art club, and others).	Qt, Lg, Exp.	314 (♀♂) M = 12.14 years Middle school (45.5% in 6th grade)
Wright and Li (2009) USA	Examine relationships between youth development outcomes and perceived effort, enjoyment, and usefulness in urban physical education context.	Positive correlations among effort, youth as resources, teachers support, belonging, usefulness, enjoyment, and affective context.	In school PE Inner-city neighbourhood Urban youth (programme)	Physical fitness (calisthenics, resistance training and running/jogging).	Qt, T	87 (♀♂) M = 14.8 years High school
Zarrett et al. (2009) USA	Assess relations among sports participation, other out-of-school-time activities, and youth development indicators.	- Combination of sports and youth development programmes was related to PYD and contribution. - Perceived effort, enjoyment, and usefulness were predicted by diverse combinations of the youth development scales.	Out-of-school-time (extracurricular sport and non-sport) activities and programmes	Team sports (e.g., football), individual sports (e.g., martial arts) and non-sport activities (performing arts like dance, arts and crafts, school clubs, volunteering, religious activities, paid work)	Qt, Lg, Qe	1,357 (♀♂) M = 11.00 years (wave 1) 5th–7th grades

Legends: * Reported ages; n/r - Not referred; PE – Physical Education; M – Mean age (years); PYD – Positive Youth Development; TPSR - Teaching Personal and Social Responsibility; Qt – Quantitative, QI – Qualitative, Mix – Mixed; Lg – Longitudinal, Cs – Cross-sectional; Exp. – Experimental, Qe – Quasi-experimental; CSt – Case study; ♀ – Female; ♂ – Male.

Diverse associations were found among sports practice, type of experiences (negative, positive and both) and developmental outcomes. Some individual (personal characteristics of the person such as gender, age, skills, experience, motivation, self-perceptions, needs), contextual (characteristics or variables of the environment, e.g., family, school, sport teams, sport activities or programmes, structured activities) and process factors (interaction between the individual and elements of his or her environment, e.g., playing sports, relation with peers and adults, leadership or mentoring roles, learning new skills or values, transfer of experiences) were associated with those relations. The importance of feeling physically and psychologically safe was also referenced by the students, in and out of programmes, as important for promoting PYD.

Table 2. Aspects pointed out as beneficial for more sustained PYD

Characteristics and factors	References
Matching pupils' specific needs with programme objectives	Armour, Sandford, and Duncombe (2013)
Clear boundaries	Holt et al. (2012)
Presence or support of peers and adults	Allen, Rhind, and Koshy (2015), Camiré, Trudel, and Forneris (2009), Holt et al. (2012), Reverdito et al. (2017b)
Promotion of social interaction and positive relationships	Armour, Sandford, and Duncombe (2013), Holt et al. (2012)
Opportunities for negotiation and teamwork with adults and peers to choose activities, set targets and review progress;	Armour, Sandford, and Duncombe (2013), Camiré, Trudel, and Forneris (2009), Holt et al. (2012)
Opportunities to work with and for other young people	Armour, Sandford, and Duncombe (2013)
Leadership, mentorship, coaching and teaching roles	Armour and Sandford (2013), Hellison and Wright (2003), Ho at al. (2017), Marttinen et al. (2019), Shaikh, Bean, and Forneris (2019)
Locating project activities outside of the 'normal' school context	Armour, Sandford, and Duncombe (2013), Carreres-Ponsoda et al. (2012)
Transfer experiences	Allen, Rhind, and Koshy (2015), Armour and Sandford (2013), Camiré, Trudel, and Forneris (2009), Hellison and Wright (2003), Koh, Ong, and Camiré (2016), Koh et al. (2017)
Deliberate planning and purposefully designed and structured strategies and activities	Armour, Sandford, and Duncombe (2013), Fuller et al. (2013), Koh, Ong, and Camiré (2016), Koh et al. (2017)
Combination of activities	Armour, Sandford, and Duncombe, (2013), Zarrett et al. (2009)

Sport was recognized as a mechanism and context which is favourable to processes of transferring acquired skills to other contexts of young people's lives (e.g., classroom, family, community and future). However, both facilitating factors (e.g., interaction with and support from peers and adults, pride, opportunities, rewards, transfer of experience, participation and combination of sports and non-sport activities, programme designs, leadership and mentoring roles, safe spaces and atmospheres, integration into school or community) and barriers (e.g., lack of opportunities to use skills learned outside of the sports hall, boring lessons and negative teacher attitudes, time constraints, violence) to transfer were identified. Because of the significant amount of intramural time spent and the access to safe, structured and supervised sport activities, school was indicated as a particularly favourable context for the transfer process through sport.

Peers, PE teachers and coaches were referred to regarding the relations between their key roles and interventions and the quality of pupils sports experiences and developmental outcomes (positive and negative). Benefits were also perceived from teamwork between external coaches and PE teachers in the school sport context. The supporting staff, including school educators, was seen as a complement to the coaches' action.

Individual factors, like gender and age, competence self-perceptions, motivational processes and perceptions of social cohesion and sport practice patterns were referenced as predictors or determinants of perceptions of sport experiences and developmental outcomes (PYD and contribution).

The majority of the selected articles studied a wide variety of sports, some comparing different typologies and sometimes including non-sport activities. It was seen

that different patterns and types of activities and combinations of different activity types were found associated with different outcomes (positive, negative and both).

Discussion

The current systematic review aimed to systematically collect empirical evidence that enabled the importance and role of sports and PE as socio-educative contexts in PYD to be studied. A question was asked: Which is the relation between sports practice and positive development of 5 to 12 grade children and youth attending school? – to be debated after some considerations.

The findings underline the growth of research into the psychosocial development of young people as a result of their involvement in sporting activities since the beginning of the 21st century (Holt & Neely 2011), and especially over the course of the 2010s. The empirical evidence that emerged from that phenomenon and highlighted the role of sports and PE in promoting PYD has been adopted by many researchers (Lee & Martinek, 2013; Pierce, Gould, & Camiré, 2017) and professionals who deal or work directly with youth (Eccles et al. 2003; Fredricks & Eccles, 2006). The fact that PYD emerged in the 1990s in the USA may have contributed to the dominance of North America, specifically USA and Canada, in scientific production of this field. However, promotion of PYD through sports has been investigated in other countries, like the United Kingdom, Singapore, Brazil and Spain (Figure 3). This suggests a growing interest in promoting PYD by these means.

PYD: contexts and practice

Selected studies show the main contexts where children and young people undertake the practice of sports. In school, PE is a curricular subject and a formal place where the practice of sport is structured and supervised by adults. In some countries, it is

compulsory during the school years preceding university attendance, thus giving some children and young people access to regular sports practice, some for the first time. In other countries, PE is not a required subject or its compulsory attendance changes depending on the grade. However, regardless of this variability, possibly reflecting the sociocultural realities and sports and education policies of each country, PE undoubtedly has an important and recognized formal place within school, and as such, a place in young people's lives and development.

Sports participation in PE classes provides the experience of challenging situations, teamwork, leadership and problem-solving, promoting the overcoming of fears and building self-confidence, communication skills, empathy, personal and social responsibility and perseverance (Armour and Sandford 2013; Pozo, Perez-Ordas, and Grao-Cruces 2019). Furthermore, given the ecology of the different sport contexts of young people's experiences and lives, it is conducive to the transfer of skills to other settings (Koh, Ong, and Camiré 2016; Koh et al. 2017). Having a formal place at school, and consequently allowing regular and prolonged participation over time, PE also seems to contribute to more sustained developmental outcomes (Armour and Sandford 2013). As it is conducted in a safe environment, where activities take place which are structured and supervised by adults, including specialist teachers (Holt et al. 2012), it is a favourable context to purposefully and deliberately promote PYD (Koh, Ong, and Camiré 2016; Koh et al. 2017), as Bean and Forneris (2016), Holt et al. (2017) and Jones et al. (2017) also argue. All this structuring, supervision and framing allows the relationship to be tailored between the specific needs of young students and the objectives of the subject programme, as well as facilitating the analysis of individual progress and the promotion

of structured pathways for sustained engagement in further projects or complementary activities (Armour, Sandford, and Duncombe 2013).

Intramurally, “school sport”, an extracurricular activity, plays an important role and “team sports” prevail. Also structured and supervised by adults, this is a context that facilitates competitive intramural and interscholastic experiences, which are attractive and challenging. School sport implies interaction between individual (e.g., motivation, skills repertoire) and contextual factors (e.g., support from peers, coaches and parents, rewards, PE and sport programmes) under public exposure (competition), sometimes in different geographical or school spaces. It promotes developmental experiences (e.g., sports participation, cooperation and opposition, interaction and negotiation with coaches, teachers and parents, leadership roles) that sometimes can be not only favourable to youth development but also for the transfer of life skills acquired in the sporting context (e.g., goal setting, emotional control, self-efficacy, self-esteem, teamwork, time management, leadership, problem-solving, negotiation and communication) (Allen, Rhind, and Koshy 2015; Armour and Sandford 2013; Camiré, Trudel, and Forneris 2009; Koh, Ong, and Camiré 2016).

Life skills are internal personal assets, characteristics and skills such as those mentioned in the previous paragraph, and that can be facilitated or developed in a particular context (e.g., sport) and transferred for use in other environments (non-sport settings, e.g., family, school, and community) (Pierce, Gould, and Camiré 2017). Involvement in sports allows life experiences to be widened to other practices and domains, like classroom and school life, home, community and future life (Allen, Rhind, and Koshy 2015; Armour and Sandford 2013; Armour, Sandford, and Duncombe 2013; Camiré and Trudel 2013; Forneris, Camiré, and Williamson 2015; Marttinen et al.

2019). The transfer process can occur when young students develop or learn and internalize personal assets in sport and then experience personal change through its application in a meaningful way for them in other contexts of their life (Pierce, Gould, and Camiré 2017). However, beyond sport, other activities, like art and drama clubs, music, yearbooks, Amnesty International, student councils, community fundraising clubs, book or reading clubs and outdoor education clubs were also mentioned as favourable for transferring experiences (Forneris, Camiré, and Williamson 2015). These results reinforce the importance of the ecological approach (Bronfenbrenner and Morris 2006; Lerner et al. 2005) in PYD research, as young students participate in sports and non-sports activities in and outside school walls, thus interacting socially in dynamic and interconnected contexts.

Out-of-school studies highlight the diversity of formal names or frameworks (e.g., individual, team and dance-type sports, outdoor activities, traditional and non-traditional sports, sport and non-sport activities), mainly under the “umbrella” of “extracurricular” and “afterschool”. However, there is some variability and a lack of standardization in the naming and classification of the activities, which may limit the psychosocial analysis of the contexts which they are part of and consequently the individual–environment interaction. For example, dance is referred to as sport (Agans and Geldhof 2012) and a non-sport activity (Wilson et al. 2010; Zarrett et al. 2009), as well as a recreational activity in PE classes (Armour, Sandford, and Duncombe 2013). In addition to this contextualization, it is important to mention that extracurricular sport activities, besides depending on voluntary participation, and therefore encompassing intrinsic motivational processes, concentrated effort and engagement (Hellison 2011; Shernoff and Vandell 2007), allow interaction with peers and friends and the satisfaction of desires of social

acceptance, peer social approval and sense of belonging to a group (Fuller et al. 2013; Hansen, Larson and Dworkin 2003; Hellison and Wright 2003; Petitpas et al. 2005; Zarrett et al. 2009).

A significant number of studies with sports programmes (in and out of school) was highlighted. These “programmes” suggest activities organized and supervised by adults and promoted in a safe environment. When intentionally structured and accessible, sports settings provide activities with pre-defined goals. In this context and due to its social nature, participation in sport has psychological benefits beyond those of physical activity: meaningful access to physical activity, opportunities for self-discovery, building of personal, psychosocial and life skills, positive interactions with adults and peers, and the transfer of learned skills to other settings (Holt and Neely 2016; Holt et al. 2017; Lee and Martinek 2013; Whitley et al. 2019). At social and community levels, youth sport programmes can contribute to buffer social risks and provide settings that help to build protective factors and promote inclusion (Hellison 2011; Hermens et al. 2017).

A great variety of sports activities was found, but also other types of classification, including “non-sport”. Some authors (Hansen, Skorupski, and Arrington 2010; Larson, Hansen, and Moneta 2006) argue that the practice of different sports seems to be related to different developmental results. However, few of the selected studies conducted a comparative approach. On the other hand, except for the differences based on the team structure (“team” and “individual” sports), the characteristics most often referred to in the literature (Larson, Hansen, and Moneta 2006), have not shown another standard approach concerning the classification or categorization of sports, not even a concern with marking this difference. Hansen, Skorupski, and Arrington (2010) defended that the nature or

particular dynamic properties of different youth activity settings could account for the observed patterns of young people's reported learning experiences.

Relationship between the practice of sports and the positive development of school children and young people from the 5th to 12th grade

The majority of the selected studies associated students' sport practice to positive developmental outcomes, namely personal and psychosocial development, life skills, prosocial behaviour, empathy, increments in values, self-perceptions of competence and self-efficacy, transfer of skills and values to other settings, engagement and contribution to community and school. These results are consistent with former research, which highlighted sport as a favourable vehicle to promote PYD (Bruner et al. 2021; Eime et al. 2013; Holt et al. 2017; Jones et al. 2017; Whitey et al. 2019) and transfer learned competences and values out of the sports hall (Lee and Martinek 2013; Pierce, Erickson, and Dinu 2019; Pierce, Gould, and Camiré 2017).

Some common aspects were found in the sports programmes in the selected studies (Table 2), which are in line with the proposals of other researchers (Bean and Forneris 2016; Holt and Neely 2011; Petitpas et al. 2005), specifically with regard to strategies and pedagogical, teaching and coaching processes, which were pointed out as being beneficial for more sustained PYD. Bean and Forneris (2016) argue that a clearly and deliberately structured design of the activities and dynamics, conducted and supervised by expert adults who act in line with the goals of predefined programmes or interventions is a favourable context for intentional promotion of PYD.

A number of aspects are worthy of mention, which together suggest the emergence of an innovative strategy for recognizing and giving a central role to pupils not only in the dynamics of the programmes in which they participate, but also in their

decision-making processes: attention to their specific needs, leadership roles (mentorship, coaching and apprentice teaching), and mostly, the significance given to their opinion (“voice”) in decision-making (Armour, Sandford, and Duncombe 2013; Hellison and Wright 2003; Holt et al. 2012; Marttinen et al. 2019). This strategy implies interaction with peers and adults, which is an opportunity to develop psychosocial and life skills (Petitpas et al. 2005). On the other hand, opportunities to create or control the own destiny and influence the decisions that affect own lives are youth empowering experiences (Hellison 2011).

Individual aspects (e.g., perceptions of task and social cohesion, the development phase of cognitive capacities, feelings of enjoyment and fun, confidence in one’s own sport skills, sport as a challenge), contextual (e. g., opportunities to develop skills and to use them out of the sports hall, type of sport activity, group cohesion, boring lessons, teachers and coaches’ attitudes, developmental atmosphere) and some procedural aspects (e.g., time in practice, participants’ social origin) were flagged (Allen, Rhind, and Koshy 2015; Bruner et al. 2014; Holt et al. 2012; Shaikh, Bean, and Forneris 2019; Super et al. 2017; Wilson et al. 2010) as important for sport experiences and their relation to PYD. For example, general coaching, human network and improved atmosphere and the specific action of teachers (management and office work, participation and connection with school life) and external coaches (teacher support and equipment supply; teachers: management and office work, participation and connection with school life) were perceived by students as enriching their own sports experiences (Aoyagi et al. 2016). The perception of sport-based youth development programmes as safe places, out of trouble and involvement in “at-risk” behaviours was associated with continued participation and experiences favourable to positive personal development (Fuller et al. 2013). Having fun,

seeing one's skills grow, being confident in one's sport, facing it as a positive challenge and the support action of coaches were also related to positive sports experiences (Super et al. 2017). In some cases, positive experiences within sport programmes increased student's beliefs about the importance of mastering focus (Ettetal et al. 2017), an aspect that is beneficial to developmental experiences (Shaikh, Bean, and Forneris 2019).

Other investigations found innovative outcomes as result of interactions between positive and negative experiences. It is relevant to highlight that some negative experiences became developmental ones because they provided opportunities for young people to flourish. For example, by trying to overcome negative experiences because of barriers to the practice of sport (e.g., violence), some young people had positive and empowering developmental experiences by not abandoning the sport and having and being role models for their youngsters (Marttinen et al. 2019). That is, they have gained decision power over an issue that concerns them in the opportunity to play sport. Other barriers to developmental experiences were also found: the lack of opportunities to use skills learned outside the sports hall, boring lessons and negative teacher attitudes were seen as barriers to life skill transfer from sports hall to classroom (Allen, Rhind, and Koshy 2015). In sum, the large range of results presented reinforce the idea (Coakley 2011) that participation in sport is not always associated with positive developmental outcomes. These seem to depend on the interaction between multiple individual and contextual factors, in an appropriate context (Bronfenbrenner and Morris 2006; Lerner et al. 2005; Petitpas et al. 2005). Sport-based PYD programmes can lead young people to empowerment. These programmes can provide a space where empowerment can be achieved by youth through positive experiences and interactions. Opportunities are

promoted for young people to create or control their own lives and to influence decisions that affect their future.

One other important aspect, also defended by some authors (Bean and Forneris 2016; Hellison 2011, Petitpas et al. 2005), is the need of young people to feel that the activities (in and out of school, and programmes) are safe physical and psychological domains for participation (Forneris, Camiré, and Williamson 2015; Fuller et al. 2013). Within a school context, an inappropriate atmosphere (negative behaviours during games, e.g., not coping well with losing, damaging equipment, not listening to the referee, swearing at the referee and at each other, pushing, and occasional aggressive behaviour) was associated with negative interactions among students (Holt et al. 2012). Outside school walls, peaceful spaces (safe spaces where youth can learn and be physically active without fear of violence that surrounds them in communities and have positive and empathetic relationships with supportive adults and peers) seems to contribute to developing positive associations between school, sporting activity and community (Marttinen et al. 2019). This need and the referred relations between sports practice, experiences lived in it and PYD outcomes lead us to suggest that it is the quality of the sport experiences, more than other singular or quantitative factors, that determines youth development.

Sport activities were highlighted (Allen, Rhind, and Koshy 2015; Armour and Sandford, 2013; Camiré, Trudel, and Forneris 2009; Forneris, Camiré, and Williamson 2015; Hellison and Wright 2003; Koh, Ong and Camiré, 2016; Koh et al. 2017) as a favourable mechanism and context for the transfer of the skills and values learned to other areas of young people's lives (e.g., classroom, family, community and future). Some factors (support and interaction with peers, parents, coaches; purposefully designed

activities and deliberate planning; teachers' and coaches' attitudes and strategies; pride, opportunities, rewards and transfer of experiences; leadership opportunities) emerged as promoters or facilitators of that process (Allen, Rhind, and Koshy 2015; Camiré, Trudel, and Forneris 2009; Hellison and Wright 2003; Koh, Ong, and Camiré 2016; Koh et al. 2017). For example, leadership roles (coaching, teaching, and peer-mentoring) provide opportunities to build and use transferable skills and also to learn about themselves (Hellison and Wright 2003). However, others (lack of sport participation opportunities, boring lessons, negative teacher attitudes, time constraints) limit this (Allen, Rhind, and Koshy 2015; Koh, Ong, and Camiré 2016). Depending on the interaction between individual and context, in sport activities young people can learn to interact with peers and adults and gain confidence in their own abilities to be successful outside the sport environment (Petitpas et al. 2005).

From the confluence of results of some of the reviewed studies (Allen, Rhind, and Koshy 2015; Armour and Sandford 2013; Camiré, Trudel, and Forneris 2009; Forneris, Camiré, and Williamson 2015; Koh, Ong, and Camiré 2016; Koh et al. 2017) the idea emerged of the school as a context conducive to the transfer process. In fact, in addition to the recognized enormous amount of intramural time spent, formal and informal organized and safe dynamics and spaces are available, where students can participate in sport activities (PE, school sport). In fact, school is a common interactive social space which allows young people to apply the skills learned in sports (PE and sports in and out-of-school) outside sports halls, but still inside school walls, particularly in classroom and other school non-sport situations, dynamics and activities (e.g., common spaces, clubs, extracurricular activities, interactions with peers and adults). Camiré and Trudel (2013) found that school football can contribute to school connectedness. It seems that teacher-

coaches' action in school football, by the very nature of their role – accumulation of teaching and coaching activities – can place them in an advantageous position to positively influence and evaluate pupils' development, promoting a "bridge" between school football and school. Similar results were obtained by the cooperation network between external coaches and teachers (Aoyagi et al. 2016). Using external coaches seems to be an effective solution not only to reduce teachers' workload, but also to improve teachers' and students' knowledge, skills and interaction between both (Aoyagi et al. 2016). The work of Forneris, Camiré, and Williamson (2015) reinforces this conclusion that school sport appears to contribute to integration, engagement and connectedness of young students with school and they argue that the school environment provides opportunities for sports participation. Beyond that, structured activities seem potentially favourable to transfer when the process is intentionally design in that direction (Bean & Forneris, 2016). Transfer is an ongoing process that does not happen in a void. Individuals are continuously influencing and being influenced by multiple ecological systems (Bronfenbrenner and Morris 2006; Lee and Martinek 2013; Pierce, Gould, and Camiré 2017).

Some active elements were referred to for their roles or actions. Peers were indicated as the initial reasons for the adherence to participation in sports and as the supporting enablers to promote life skills transfer from the sports hall to contexts outside the gym (Allen, Rhind, and Koshy 2015; Fuller et al. 2013). It was also concluded that young people's experiences of acting as leaders, mentors and apprentice teachers of youngsters or as role models seem to contribute to better personal relationships and atmosphere, and promote empowerment and values, such as respect (Hellison and Wright 2003; Marttinen et al. 2019; Shaikh, Bean, and Forneris 2019).

Concerning PE teachers, their interaction with students and teaching strategies are referenced as important in learning values and their transfer to life and other contexts (Allen, Rhind, and Koshy 2015; Koh, Ong, and Camiré 2016; Koh et al. 2017). Pupils who felt supported by teachers, as well as treating them as resources, were more likely to exert effort, experience more enjoyment, and value physical activity (Wright and Li 2009). However, some works highlighted teachers' negative attitudes and boring lessons as barriers to that process (Allen, Rhind, and Koshy 2015). Coaches were identified as key players in promoting positive sports experiences (Super et al. 2017). They are recognized as important elements not only in supporting but also promoting the development of communication, negotiation and life skills, social interactions, empathy and respect, resilience, commitment, values and their transfer to life and other contexts (Camiré, Trudel, and Forneris 2009; Holt et al. 2012; Koh, Ong, and Camiré 2016; Koh et al. 2017).

In some extracurricular school sports, students perceived benefits in their own experiences, general coaching, human network, atmosphere, participation and connection with school life because of the teamwork between external coaches and PE teachers (Aoyagi et al. 2016). The supporting staff, including school educators, was seen as a complement to the coaches' actions, possibly due to their more favourable position to impact in some school areas (Lim, Koh, and Chan 2019). Finally, parents have been key elements in promoting PYD through sport, not only for their support, but also as elements that provide opportunities for negotiation and communication, important life skills for the development of young people and transfer process (Camiré, Trudel, and Forneris 2009). These results, in general, point to the critical importance of an appropriate social environment (based primarily on relationships with peers and adults, including teachers,

coaches and parents) in sport activities for promoting PYD, as Petitpas et al. (2005), Holt and Neely (2011) and Holt et al. (2017) argue.

There are results that support the hypothesis that the differences in the association between sports practice and developmental outcomes (PYD, contribution) might be determined by individual factors (e.g., gender, age, motivational processes associated with practice, perceptions and personal experiences, practice patterns). For example, girls seem to gain higher benefits in PYD and contribution (Agans and Geldhof 2012). It is possible that these findings could be justified by the traditionally sex-segregated environment of organized sports which offer different opportunities due to a wide range of factors (e.g., team culture, coaching style). Age also seems an important variable because it is positively correlated with developmental outcomes (Raimundi, Schmidt, and Hernández-Mendo 2018). The youngest tend to react positively to (older) leaders, respecting them, feeling gratitude and developing a personal relationship with them (Hellison and Wright 2003).

Longer or continued youth sport participation, in and out of school, was associated with more sustainable and positive developmental outcomes, higher levels and continuity of sport participation, including in adulthood. Time constraints were identified as the key challenge and the main constraint for learning and generating positive results, and also a longer duration would have allowed for more effective value transfer. It seems to be a case of the longer the better. More exposure and practice time usually mean more opportunities. But this may not always be the case for all individuals in all circumstances, as stated by Zarrett et al. (2009). Benefits can also be associated to issues of participation time or increased opportunities for positive movement experiences across contexts for young people who participate in a wider variety of athletic activities (Agans and Geldhof

2012). This leads us to point again to the hypothesis that it may be above all the quality of developmental experiences that most determines PYD.

Most of the selected studies carried out their work encompassing several different sports, with some including non-sport activities. There were studies suggesting that sport participation promoted higher PYD outcomes compared to participation in non-sport activities and non-participation in any kind of activity (Carreres-Ponsoda et al. 2012). Also, the young people that participated simultaneously in individual and team sports had the most favourable developmental outcomes compared to non-participation (Agans and Geldhof 2012). Others hold that sports participation is a positive and a substantive experience to promote PYD contribution, but especially effective when combined with non-sport programmes, particularly with the inclusion of performing arts (e.g., school band, drama, dance, music), arts and crafts (e.g., drawing), school clubs (academic clubs, e.g., maths club; school government; school newspaper), volunteering, religious activities (religious education, religious youth group) and paid work (Zarrett et al. 2009). Additionally, those who participated in various extracurricular activities, including sports, scored higher on developmental outcomes when compared to those engaging in only one sport or not involved at all (Forneris, Camiré, and Williamson 2015). But it seems that youth participation in some specific sports (e.g., basketball and football) was related to lower results than other sports or non-sports activities, although that trend could be influenced by the selection process (Wilson et al. 2010). Other authors (Raimundi, Schmidt, and Hernández-Mendo 2018) highlight that team sports and individual sports promote different developmental outcomes. In general, in line with prior proposals (Fredricks and Eccles 2006a), the results suggest that different types of sports (e.g., team and individual) or activities (sport and non-sport) and combinations of them promote

different opportunities for young people to get involved in adaptive relations with their ecology and boost positive development. From this contextualization emerges the idea that different sporting experiences are associated with different developmental outcomes.

Some of the sports programme features identified in the selected studies that are recognized (Bean and Forneris 2016; Holt and Neely 2011) as beneficial for PYD include safe spaces and environments, appropriate structures and goals, supportive and caring adults and mentors, integration in a positive group, positive social norms, opportunities to build skills in a desired and meaningful activity and integration in school and community efforts. However, although the majority of the selected studies of this systematic review showed that sport participation is beneficial to youth development, research was also found indicating that PYD may not be facilitated through mere participation in sport. Some factors or variables were found: lack of opportunities to use the skills learned outside the sports hall, boring lessons and negative teacher attitudes (Allen, Rhind, and Koshy 2015), due to poor attempts by staff (teachers, school principal, school nurse, coaches) to create an appropriate atmosphere for development (Holt et al. 2012), time constraints (Koh, Ong, and Camiré 2016), barriers to playing sports (e.g., violence) (Marttinen et al. 2019), negative sports experiences (perceived lack of perseverance of teammates, group pressure for better performance, perceptions of incompetence and feelings of rejection and isolation, criticism or negative attitudes of the coach) (Super et al. 2017) and other individual, process and contextual aspects (see Shaikh, Bean, and Forneris 2019). Within this frame, it is possible to point out some elements and factors that were beneficial to youth development in some studies and in others did not contribute to PYD at all, particularly the actions and attitudes of teachers, coaches and peers. This seems to be related to the quality of social interaction and the

consequent impact on the environment and the emergence of opportunities for acquisition and development of skills. As some authors argue (Bronfenbrenner and Morris 2006; Lerner et al. 2005; Petitpas et al. 2005), the developmental experiences of young people depend on and can be influenced by the interaction between multiple individual and contextual factors in a certain context. That is, more than just participation, it seems above all that it is the quality of sport participation and the developmental experiences that are inherent to it that determine young people's development (Ferreira, Azevedo, and Menezes 2012; Shernoff and Vandell 2007).

In short, more than the sports or activities themselves, it seems to be the way they are organized, conducted, and supervised that determines the way they are experienced and perceived by young people and, consequently, the developmental outcomes of programmes and interventions. In other words, it is their structure, not mere participation or chance, which promotes the positive and harmonious development of young people. As Mahoney and Stattin (2000) found, rather than the type of activity, is the structure that determines whether developmental outcomes from sport participation are positive or negative. Moreover, when we talk about programmes targeted to specific populations and objectives, as is the case with most of the selected studies, in addition to necessarily talking about structured activities, it is also necessary to talk about decisions and strategies which are deliberately directed to create opportunities that maximize the results of the programmes and interventions. That is, an intentionality that supports their philosophy, action, and reflection. Bean and Forneris (2016) argue that youth participation in intentionally structured sport programmes, in addition to the higher benefits compared to those non-intentionally structured, provide more opportunities for a supportive environment (e.g., active engagement, skill building), interaction (e.g.,

collaboration, leadership), engagement (e.g., planning, reflection) and better PYD outcomes. This framework and contextualization should be considered by both education and sport professionals and policymakers in structuring, planning, and delivering intervention programmes through sport.

Conclusions

The following conclusions can be drawn:

- The practice of sports seems to contribute to PYD and to the transfer of learned skills and values to other areas and spaces of life, in and out of school. However, this relationship does not seem linear. By itself, participating in sport does not lead to positive developmental outcomes.
- Developmental outcomes appear to be related to multiple individual (gender, age, perceptions, specific needs and sport experience) and contextual factors (safe dynamics and environment, deliberately structured activities, the cross of boundaries and clear norms, supportive and caring adults and mentors, integration in a positive group, having voice and possibility of participation in decision-making processes, leadership roles, opportunities for building skills in a desired and meaningful activity and the integration of the community or school on sport programmes) and to the interaction between them.
- Participation in different activities afford different opportunities for children and young people to engage in adaptive relations with their ecology and positive development. The combination of different types of sports, in or out of school, especially when combined with non-sport activities, seems to bring greater benefits.

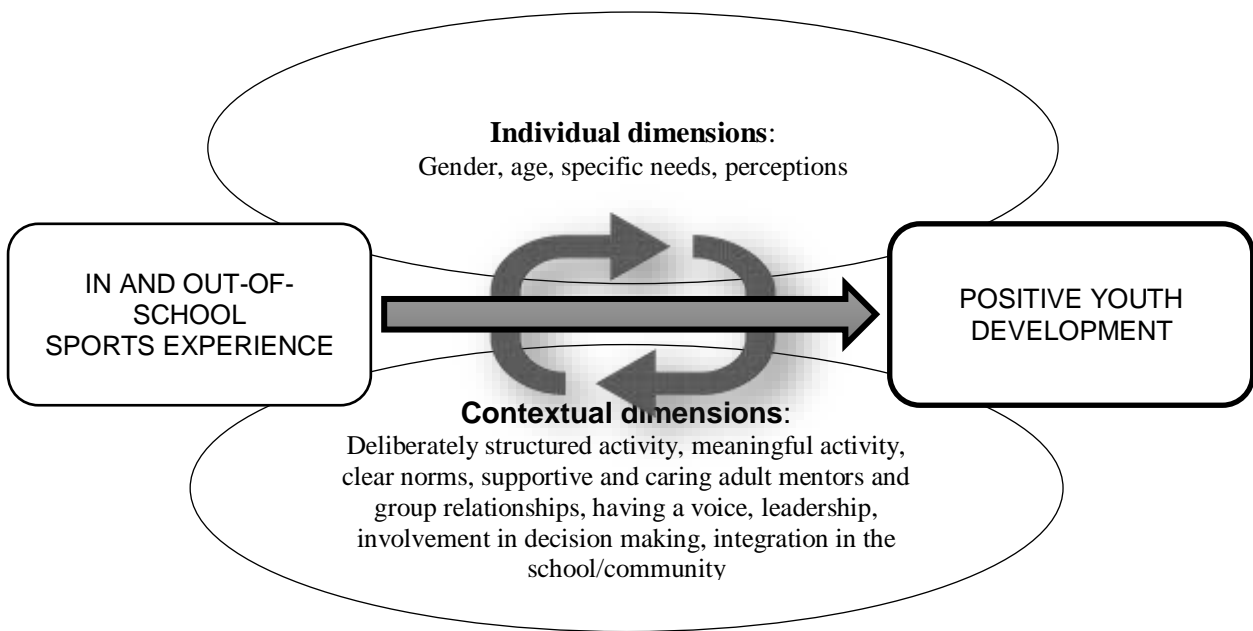


Figure 4. Ecological approach of PYD – the quality of sport experiences

These conclusions lead us to recognize and highlight the role and importance of sport and physical education as contexts (in and out of school) in the positive development of children and young people attending school. However, the results also allow us to continue questioning the rhetoric that "sport participation is always good" (Ferreira, Azevedo and Menezes 2012). In face of the evidence found, supported by relational developmental system theories (Lerner et al. 2005) and the ecological approach (Bronfenbrenner and Morris 2006), which emphasize the role of mutually influential relations among individuals and context in an appropriate environment, it is argued that it is above all the quality of sport experiences that determines PYD outcomes (Figure 4). In fact, as in other areas of youth development, everyday sport experiences can provide "the elements of challenge and support, of action and reflection" (Ferreira, Azevedo & Menezes, 2012, p. 601) that have a higher transformative potential.

From this review also emerges the idea of intentionality. This needs to be associated with the decisions and strategies which are deliberately used not only in the

planning, structuring and dynamics that support programmes but also in the philosophy that guides teachers' and coaches' interventions. These are part of the structure of the programmes and work on them, aiming to create and maximize the developmental opportunities that allow the pre-established objectives to be reached in each programme, intervention or activity.

Limitations and proposals for the future

The present systematic review has the innovative particularity of being carried out from a baseline criterion, specifically studies carried out with participants who were children and young people attending school. However, the results did not allow that objective to be reached given the absence of comparative studies of the developmental outcomes of the practice of sports inside and outside school. Considering the ecological view that supports the PYD approach, an investigation is proposed of the relation between the development of young people and their sports practices inside and outside the school walls. A lack of uniformity in the terminology used in the naming and classification of some activities or contexts of practice was also found. Still, the high quality of the selected studies and the fact that 86.7% are very recent (published during the last decade) are strengths of this work.

A thematic analysis of the results of the selected studies is suggested in order to explore developmental differences between in-school, including PE, and out-of-school participation in sports. It is important to remember the specific status of PE as curricular space in school and the mandatory frequency that is inherent to it in some countries. On the other hand, extracurricular sport is usually available inside and outside school walls and is voluntary.

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III. EMPIRICAL STUDIES

3.1. Playing and competing inside, outside, or on both sides of the school walls: Possible pathways to positive youth development and citizenship contribution in secondary vocational students

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Playing and competing inside, outside, or on both sides of the school walls: Possible pathways to positive youth development and citizenship contribution in secondary vocational students

Abstract

This study analyses the association between sports practice in different contexts - inside school, specifically in school sports (SS), outside school, or combined - and positive youth development (PYD) outcomes, including citizenship contribution. The sample included 1,204 Portuguese secondary vocational school students (58.6% female) aged between 14 and 19. Validated questionnaires were used to assess the 5Cs (character, caring, connection, confidence, and competence), the sixth C (citizenship contribution, measured through civic and political participation), as well as competitive experience, non-practice of sport, satisfaction with school, and gender. The results of linear regressions indicate that combined practice, exceptionally when competitive, is positively associated with citizenship contribution in and out of school. Differential effects of gender and non-practice were also identified, the latter being associated with lower levels of interpersonal bonding and civic participation. School satisfaction proved to be a consistent predictor of the 5Cs. The findings reinforce the relevance of bioecological and intersectional approaches in the analysis of PYD, showing that, more than quantity, it is the pedagogical, relational, and normative quality of sporting experiences - and their ecological coherence with other socialization contexts - that plays a decisive role in the personal social and citizenship formation of young students.

Keywords: positive youth development; citizenship contribution; youth sport contexts; school; competition

Introduction

Adolescence is a critical period of human development in which young people face multiple biological, emotional, and social-cognitive transitions (Lerner et al., 2005; Zaff et al., 2008). During this period, the quality of interactions with the different ecological contexts - family, school, peer groups, and extracurricular activities - is fundamental to promoting positive developmental trajectories (Bronfenbrenner & Morris, 2006). Within this framework, sport has emerged as a privileged arena for PYD, offering unique opportunities for personal, psychosocial, and civic growth both inside and outside school (Almeida et al., 2023).

The PYD model offers a developmental vision based on young people's potential and plasticity (Lerner et al., 2005). Following a systemic perspective, it integrates five psychosocial skills - character, caring, connection, confidence, and competence - known as the 5Cs, which, when simultaneously promoted, enhance a sixth dimension, contribution (the sixth C). Contribution translates into young people's ability to contribute actively to themselves, their families, the community, and civil society through behaviors with civic and ethical values based on a sense of moral duty. It integrates a behavioral component (action) and an identity component (sense of moral and civic duty), reflecting a positive adjustment in the individual-context relationship and promoting the thriving and health of the social fabric.

Sport as a context for PYD: What we know and want to know

Sport has been pointed out as a context conducive to PYD (Almeida et al., 2023). However, research tends to treat it as a homogeneous category without considering the structural or contextual diversity, variability and specificity in which it occurs (Agans & Geldhof, 2012). This limits understanding of the specific development processes associated with different practice environments. The SS and out-of-school contexts differ

significantly in terms of objectives, actors involved, and values promoted. While SS is oriented toward inclusion and integral training, allowing everyone to participate regardless of their skills, out-of-school sport tends to performance, early specialization, selection, and competitive logic (Almeida et al., 2023; Camiré & Kendellen, 2016). However, these two contexts have one common aspect: it is a voluntary practice. Physical Education is a compulsory subject in Portugal. The motivational processes that support sport adhesion can be different.

A latent approach in research is the study of involvement in more than one type of activity. Sports' impact can be enhanced when combining different types of activity or sports, allowing a greater variety of experiences, norms, and relational models (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009), as long as there is ecological coherence and intentional articulation between the contexts (Bean & Forneris, 2016; Bronfenbrenner & Morris, 2006). Young people participating in diverse and articulated sports environments tend to develop higher levels of perceived competence, social connection, and contribution (Forneris et al., 2015; Zarrett et al., 2009). This link becomes particularly relevant for contribution, which implies mobilizing learning in different spheres of life and applying it in the community through citizenship actions (Ferreira et al., 2012).

Few empirical studies specifically examine the relationship of involvement in SS, sports outside school, and their combination with PYD outcomes. Likewise, despite being recognized as relevant, the way in which some contextual and relational variables—such as competitive experience (Camiré, 2015; Raimundi et al., 2024; Reverdito et al., 2023; van Mierlo & van Hooft, 2024), satisfaction with school (Carvalho et al., 2024; Sun, 2016; Zhou et al., 2021) or gender (Agans & Geldhof, 2012; Bebetos et al., 2017; Gomez-Baya

et al., 2019; Raimundi et al., 2024)—modulate these associations remains little explored, particularly where citizenship development is concerned. Non-practice is equally relevant, not only because of the known potential adverse effects (Agans & Geldhof, 2012; Marttinen et al., 2019) and increment among young people (Commission, 2017), but also because of what it can represent (exclusion, discrimination, inequality, barriers to practice, and poverty) (Knoppers et al., 2024; Spaaij et al., 2015). This reality may limit the design of public policies and sports education programs.

This study aims to contribute to a more contextualized understanding of the relationship between sports practice in different contexts and PYD. It takes a bioecological approach (Bronfenbrenner & Morris, 2006; Lerner et al., 2005) to youth development through sport, complemented by an exploration of citizenship contribution as a component of PYD, a new approach to the “sixth C”. Through a multi-contextual analysis, the aim is to investigate the effects of practicing sport in different contexts - SS only, outside school only, or combined - on the 5Cs and citizenship contribution. The role of moderating and mediating factors such as gender, non-practice, competitive experience, and satisfaction with school is also examined.

The current research

Although widely recognized as a promoter of PYD (Almeida et al., 2023), sport is often treated homogeneously in the literature as "sports" or "sports activities", devaluing the structural and functional variability of the contexts in which it occurs (Agans & Geldhof, 2012). This can hide critical dimensions, including the type of adhesion (voluntary or compulsory), the developmental objectives of each social context that supports and promotes the practice of sport, the underlying organizational models, adult supervision, peer relations, and the presence or not of parents.

In Portugal, Physical Education guarantees universal access to regular and supervised sports practice up to the 12th grade and is compulsorily integrated into the curriculum (Almeida et al., 2023). However, outside of this, participation in sports is usually voluntary. It occurs in two distinct environments: (1) SS (inside the school context), which is extracurricular and inclusive; and (2) out-of-school sports, which are often competitive, specialized, and financially costly. These contexts differ structurally and functionally, with different developmental implications (Almeida et al., 2023). The voluntary nature of extracurricular practice gives can add value in terms of self-determination and involvement. However, it remains to be seen how exclusive SS, exclusive out-of-school or combined practice is associated with PYD outcomes. This gap requires differentiated research, considering ecological variables.

Combined participation in activities with different functional and relational logics - sports and non-sports - has been associated with better PYD outcomes (Agans & Geldhof, 2012; Forneris et al., 2015), including contribution (Zarrett et al., 2009). This experiential diversity promotes self-regulation, empathy, critical thinking, and ethical decision-making skills that are more easily transferred when experienced in multiple contexts (Almeida et al., 2023; Bronfenbrenner & Morris, 2006; Lee & Martinek, 2013; Quintelier, 2008; Zarrett et al., 2009). Particular emphasis should be placed on civic engagement, an expression of PYD (Sherrod, 2007). Although multi-contextual practices seem to strengthen this citizen engagement, research in this area remains scarce, justifying new scientific approaches in the face of young people's growing interest in emerging forms of civic and political participation (Commission et al., 2018; Ferreira et al., 2012; Hilliard et al., 2019).

Based on the bioecological perspective of human development (Bronfenbrenner & Morris, 2006) and the PYD model (Lerner et al., 2005), this study explores the association between practicing sport in different contexts - exclusively in SS, exclusively outside school, and both - and PYD outcomes, including contribution (the sixth C), assumed in this study as citizenship contribution. Aligned with an ecological approach, the moderating and mediating role of some contextual and relational variables was investigated.

Competition has been widely analyzed in the context of PYD (Marta et al., 2024; Raimundi et al., 2024; Reverdito et al., 2023; van Mierlo & van Hooft, 2024). Its effects are controversial: it has a role in skills development and goal orientation; conversely, there is the risk of reinforcing perceptions of failure and undermining self-confidence (Camiré, 2015). The impact depends on the pedagogical framework and the meaning attributed to the context. Considering that it will continue to be present in youth sports, this study analyses competitive experience as a critical mediating variable, seeking evidence to present suggestions to policymakers, educators, teachers, and coaches to optimize sports as a favorable context for PYD.

Sports non-practice has been associated with negative developmental outcomes and is on the rise among young people (Commission, 2017). This absence may reflect not only a choice, but also structural barriers, socioeconomic inequality, gender stereotypes, or exclusion (Agans & Geldhof, 2012; Marttinen et al., 2019; Parker et al., 2019; Spaaij et al., 2015; Vaquero-Cristóbal et al., 2024). This phenomenon can result in institutional invisibility and deprivation of social and civic capital, so understanding it is crucial for defining equitable and inclusive policies.

School is a common, structured, inclusive socio-educational microsystem that integrates developmental experiences from different contexts (Almeida et al., 2023). As a formal and educational-pedagogical space, SS offers opportunities to complement learning acquired in out-of-school environments (e.g., clubs), promoting convergence between recreational, competitive, and educational experiences (Camiré & Kendellen, 2016). This articulation can reinforce social connection, community commitment, and sensitivity to diversity (Sun, 2016; Zhou et al., 2021). In this context, satisfaction with school emerges as a particularly relevant relational variable, positively associated with emotional well-being, academic engagement, and quality of interpersonal relationships (Sun, 2016; Zhou et al., 2021). As a common space of developmental experiences, school can amplify the effects of sports practice, especially when it offers opportunities to apply skills developed in other contexts (Almeida et al., 2023; Andersson, 2019; Commission et al., 2018).

Gender has been a central analytical axis in PYD research. For example, male and female teams, although in the same sport, often operate in different cultures, with different training styles, expectations, and social norms (Agans & Geldhof, 2012). Studies show that girls display higher levels of character, caring, connectedness, and civic engagement, while boys tend to excel in confidence and competence, reflecting asymmetrical socialization trajectories (Bebetsos et al., 2017; Gomez-Baya et al., 2019; Knoppers et al., 2024; Raimundi et al., 2024; Sherrod, 2007; Vaquero-Cristóbal et al., 2024). These differences, besides dispositional, may be structural, aggravated by persistent inequalities in access to sport (Spaaij et al., 2015; Vaquero-Cristóbal et al., 2024). Thus, this study adopts an intersectional and critical approach, seeking to generate empirical evidence to support more inclusive and gender-sensitive practices.

This study poses the following research questions. 1) What is the relationship of exclusive sports practice in SS, exclusive sports practice outside school, and combining both, with PYD results, including citizenship contribution? 2) How do competitive experience, non-practice, satisfaction with school, and gender influence PYD results?

Materials and methods

Sample

In a cross-sectional quantitative study, a sample of 1,204 Portuguese vocational school students (58.6% female) from 18 schools between 10th and 12th grades, aged between 14 and 19 ($M = 16.99$, $SD = 1.43$), answered an online survey. Characteristics are detailed in Table 1.

Table 1. Sample characteristics

<i>Variable</i>	<i>Descriptive statistics</i>
10th grade, n (%)	379 (31.5%)
11th grade, n (%)	398 (33.0%)
12th grade, n (%)	427 (35.5%)
School sport (SS), n (%) ^{a)}	60 (05.0%)
Sports outside school, n (%) ^{a)}	353 (29.3%)
Sports both inside (SS) and outside school, n (%) ^{b)}	677 (56.2%)
Non-practicing, n (%)	114 (09.5%)
Competitive experience in school sport, n (%)	151 (12.5%)
Competitive experience in sports outside school, n (%)	237 (19.7%)
Competitive experience both in SS and sports outside school, n (%)	440 (36.5%)
Satisfaction with school [min–max], M (SD)	[1–5]; 4.00 (0.90)

Procedures

This study was approved by the Ethics Committee of the first author's faculty. After authorization by the schools' directors and parental consent, the questionnaires were administered online in computer rooms under the supervision of previously trained teachers. A standardized protocol was used to ensure uniformity in data collection. Before administration, the first author conducted a pilot test with two classes (10th and 12th grades).

Measures

Participants answered a questionnaire gathering socio-demographic and school data, involvement in sports inside school, specifically in SS, and outside school, sport competition experience, and PYD indicators, including contribution (in this study, civic and political participation) inside and outside school.

To assess participants' PYD (5Cs), the PYDp/red was used (Esperança et al., 2017), a reduced version of the Portuguese version of the PYD measure, the PYDp (Lerner et al., 2005). It consists of 30 items divided equally into five subscales, known as the “5Cs”: character, caring, connection, confidence and competence. The items are assessed on a Likert scale, through which participants specify their level of agreement with how each statement applies to them; the response options offer four possibilities ranging between 1 (not at all important) and 4 (very important), or similar options, always between 1 and 4, according to the adaptation of the answer to the question (e.g., 1: I am completely different, or 4: I am exactly like this). Past research has evidenced the validity and reliability of PYDp/red (Esperança et al., 2018).

Contribution, a sixth C, emerges when all the Cs are present in youths across time (i.e., when they are thriving) (Lerner et al., 2005). It represents the positive contribution of young people to self, family, community, and institutions of civil society. In this study, contribution corresponds to civic and political participation. Civic participation, supported by the concept of civic engagement (Ekman & Amnå, 2012), refers to actions taken by ordinary citizens, individually or collectively, to influence circumstances in society relevant to others outside their family and close circle of friends. Political participation concerns all actions directed toward influencing governmental decisions and political outcomes. Therefore, the sixth C emerges in this study under the denomination of citizen contribution. It was accessed via the Participation Experiences Questionnaire

(Ferreira & Menezes, 2001), designed to collect information about adolescents' and adults' civic and political participation experiences. It has two parts, but only the first was used, in which participants state whether or not they have participated in a variety of civic and political experiences (participation in groups, associations, and movements). The 14 items were divided into contribution in school (e.g., “There are many ways for students to get involved in their school. During the last year, did you get involved in a school group or club - e.g., theatre, school newspaper, other? Voted for the student or school councils, parliaments, or assemblies?”) and contribution outside school (e.g., “Have you ever collaborated with or been involved in, for example, volunteering, charity, or social solidarity groups? Political parties, youth organizations?”), corresponding to the sum of the results of two sub-groups, civic and political participation (yes/no; corresponding values 1/0). The contribution dimension therefore varied between 0 and 2.

Information regarding competitive experience in SS and sports outside school was collected by answering yes or no to the question “Do you participate (or have you participated) in competitions in school sports/sports outside of school?” (no/yes; 0/1). The index of satisfaction with school was obtained by answering the question “From 1 to 5, how satisfied do you feel with your current school?” (1 = very dissatisfied, 5 = very satisfied).

Statistical analysis

Data were analyzed with SPSS, version 26. Descriptive statistics were means (M) and standard deviations (SD) for continuous normally distributed variables, frequencies (n), and percentages (%) for categorical variables. Internal consistency analysis of the 5Cs and contribution (inside school and outside school) was performed using Cronbach's alpha. Factors' associations with the 5Cs and the contribution variables were measured with linear regression models. Considering the necessary exploratory approach of the

initial phase of this study, univariate linear models were first implemented to filter out the relevant variables to be considered later in the multivariate linear models. The aim was to combine efficiency (screening with univariate models) and robustness (more detailed analysis with multivariate models). On univariate linear regressions, statistical significance was considered at $p < 0.10$ to filter out variables that, although not significantly associated at the $p < 0.05$ level, may have practical or scientific relevance in the multivariate model of the second phase of this study. On multivariate linear regressions, it was considered $p < 0.05$. Assumptions for linear regression models included normality of residuals (Kolmogorov-Smirnov and QQ plots), homoscedasticity of variance (random pattern of standardized residuals vs. fitted values), and the absence of multicollinearity (VIP).

Results

Sample descriptive statistics are in Table 1. Cronbach's alpha results were calculated at 0.76 for character, 0.82 for caring, 0.77 for connection, 0.82 for confidence, 0.84 for competence, and 0.76 for both dimensions of contribution. Only significant ($p < 0.05$) or marginally significant ($p < 0.10$) results will be referred to in univariate and multivariate models.

This study employed a two-step regression analysis to investigate the relationship between participation in SS and sports outside school, including competitive and non-competitive experience, and PYD outcomes, focusing on the 5Cs (Lerner et al., 2005) and the sixth C, citizenship contribution (civic and political participation) (Ferreira & Menezes, 2001) inside and outside school. In the first phase, exploratory univariate linear regressions aimed to identify the significant predictors to be included in the fundamental second phase of the study, which will be carried out with multivariate regressions.

Exploratory univariate regressions

For character and caring, only satisfaction with school and gender emerged as significant predictors: satisfaction with school showed positive associations for character ($B = 0.11$, $p < .001$) and caring ($B = 0.10$, $p < .001$); gender also revealed positive correlations for character ($B = 0.17$, $p < .001$) and caring ($B = 0.23$, $p < .001$), with higher levels for females. Regarding connection, competition in SS showed a negative association ($B = -0.12$, $p = .031$), while competition outside school had a positive association ($B = 0.13$, $p = .008$). Non-practice was negatively correlated with connection ($B = -0.13$, $p = .040$), sports practitioners reporting higher levels. Satisfaction with school revealed a positive association with connection ($B = 0.16$, $p < .001$).

Concerning confidence, competition in SS had a significant negative association ($B = -0.12$, $p = .027$), while competition outside school ($B = 0.09$, $p = .043$) and satisfaction with school were positively correlated ($B = 0.12$, $p < .001$). Gender showed a negative association ($B = -0.14$, $p < .001$), with males reporting higher levels. For competence, competition both in SS and outside school ($B = 0.08$, $p = .030$) and satisfaction with school ($B = 0.10$, $p < .001$) both showed a positive association. Gender was also significant, having a negative association with confidence ($B = -0.11$, $p = .004$), males reporting higher levels.

For contribution inside school, sports practice outside school had a negative association ($B = -0.25$, $p < .001$). In contrast, involvement in both in-school (SS) and out-of-school sports showed a positive association ($B = 0.35$, $p < .001$). Competition in SS had a negative association ($B = -0.13$, $p = .046$), while competition both inside (SS) and outside school positively predicted contribution ($B = 0.36$, $p < .001$). Non-practice had a significant negative correlation with contribution inside school ($B = -0.34$, $p < .001$),

sports practitioners reporting higher levels. Gender was positively associated with contribution inside school ($B = 0.14$, $p = .003$), females exhibiting higher scores.

Regarding contribution outside school, sports practice outside school had a negative association ($B = -0.10$, $p = .009$), while participation in both SS and outside sports showed a positive correlation ($B = 0.20$, $p < .001$). Competition outside school exhibited only a marginally significant positive association ($B = 0.08$, $p = .085$). Competition both in SS and outside school had a significant positive association ($B = 0.17$, $p < .001$). Non-practice was negatively correlated ($B = -0.28$, $p < .001$), sports practitioners reporting higher levels. Gender was positively associated with contribution outside school ($B = 0.08$, $p = .023$), females scoring higher.

Multivariate regressions

In the second stage, only significant factors from the exploratory univariate analysis were included in multivariate models to identify robust predictors for each outcome variable. Significant results ($p < 0.05$) for multivariate linear regressions are presented in Table 2.

Table 2. Multivariate linear regressions

Outcome	Factor(s)	B	p-value
“5Cs”			
Character	Satisfaction with school	0.11	<.001
	Gender	0.17	<.001
Caring	Satisfaction with school	0.10	<.001
	Gender	0.23	<.001
Connection	Competition in SS	-0.12	.034
	Satisfaction with school	0.16	<.001
Confidence	Satisfaction with school	0.12	<.001
	Gender	-0.14	<.001
Competence	Satisfaction with school	0.11	<.001
	Gender	-0.09	.016
Contribution			
Contribution inside school	Sports outside school	-0.24	.049
	Competition in SS	0.23	.009
	Competition both in SS and outside	0.18	.013
	Non-practice	-0.41	.002
	Gender	0.25	<.001
Contribution outside school	Competition outside school	0.18	<.001
	Competition both in SS and outside	0.16	.002
	Non-practice	-0.22	.021
	Gender	0.15	<.001

Specifically about gender, females stood out with significantly higher rates of character, caring, and contribution inside and outside school than males, while males were stronger in confidence and competence. Non-practice was also highlighted by the significantly lower values for contribution inside and outside school than practice.

Discussion

This work study the relationship between sports practice in different contexts - in school, specifically in SS, out of school, and both (combined practice) - and PYD results, including citizenship contribution. In addition, the effects of competitive experience, non-practice, satisfaction with school, and gender were examined. The evidence corroborate the relevance of the ecological perspective of human development (Bronfenbrenner & Morris, 2006) and the PYD framework (Lerner et al., 2005). School sports, sports outside school, and the combination of both provide different developmental experiences. Also, developmental outcomes seem to be related to the interaction between multiple individual (gender) and contextual factors (competitive experience, non-practice, and satisfaction with school). However, there are some particularities and caveats to be considered.

Relationships between the context of practice, competitive experience, and non-practice and PYD outcomes and citizenship contribution

Despite the benefits of sport for PYD, the results of this study question the relevance of the context of practice as an isolated factor in the PYD outcomes. Agans and Geldhof (2012) warn of the risks of generalizing categories that hide structural diversity. Research (Almeida et al., 2023) has been pointing to the role of mediating variables such as gender, motivational climate, the quality of relationships, the presence of significant adults, group norms, leadership opportunities, and participation in decision-making, highlighting the

need for an ecological reading of PYD and the importance of the quality of sports participation.

The negative association between sports outside school and citizenship contribution inside school suggests a lack of connection and pedagogical coordination between institutions, which could limit transfer processes. Ecological cohesion, essential to the construction of an integrated civic identity, requires structured mediation, educational intentionality, and reinforcement by significant adults (Bean et al., 2018; Camiré & Kendellen, 2016; Ferreira et al., 2012; Hilliard et al., 2019; Lee & Martinek, 2013). Without these elements, civic values and skills acquired in sports environments may not be meaningful and applicable in other contexts, limiting the mobilization of pro-social skills and civic participation among youth.

Competitive experience in SS was found negatively related with connection. Contrary to SS's pedagogical principles, this could be due to approaches focused on performance and selecting the most skilled, compromising inclusion and the quality of relationships (Camiré & Kendellen, 2016). No clear educational objectives can marginalize less skilled students and weaken interpersonal bonds and the sense of belonging to the school, reinforcing the need for task-oriented motivational climates and valuing all students (Hellison, 2011). Teacher-coaches can influence the experience of competition and relational dynamics (Aoyagi et al., 2016; Camiré & Kendellen, 2016). Authoritarianism, selective models, and a lack of relational goals can reduce inclusion and identification with the school group (Andersson, 2019). Educational styles based on support, recognition, and active participation can be crucial for inclusive sports environments that promote connection.

Competitive experience in SS was found to be positively associated with citizenship contribution at school, highlighting the formative potential of sports contexts with clear pedagogical guidance. Unlike out-of-school sports, which usually focus more on performance, SS institutionalizes values such as belonging, responsibility, and participation (Camiré & Kendellen, 2016). Leadership style and teacher-coaches' knowledge of students facilitates educational coherence between sport and school, reinforcing the transfer of learning and promoting a consistent message between contexts (Aoyagi et al., 2016; Forneris et al., 2015; Fraser-Thomas & Côté, 2009). This alignment seems to foster meaningful relationships and educational sports practice intentionally, making SS a privileged space to promote active citizenship among young students.

The positive association between competitive experience outside school and contribution outside school reinforces the potential of sports to construct active citizenship. When ethics and community commitment are valued, even in a competitive environment, well-structured contexts, such as clubs and associations, favour the development of relational skills, leadership, social responsibility, feelings of belonging, and social involvement (Ferreira et al., 2012; Galindo-Ubaque et al., 2024; Hilliard et al., 2019; Parker et al., 2019; Quintelier, 2008). Thus, when intentionally pedagogically structured, extracurricular competitive sports environments out of school could emerge as promising contexts for promoting active citizenship.

The significant associations between competitive experience and citizenship contribution in the same context (inside school, outside school) indicate mechanisms of intra-contextual transfer (Lee & Martinek, 2013; Martin et al., 2022). This can be facilitated by structural, symbolic, and contextual similarities, such as pedagogical objectives, institutional norms, and adult role models (Fraser-Thomas & Côté, 2009;

Pierce et al., 2017). When competition occurs in contexts with explicit opportunities for civic participation, such as schools or community clubs, young people benefit from safe relational climates that reinforce civic agency and social responsibility (Bean et al., 2018).

In SS, the dual role of the teacher-coach facilitates the articulation between competitive practice and citizenship participation, reinforcing the formative intent and students' awareness of the applicability of learning (Camiré & Kendellen, 2016; Martin et al., 2022). Outside school, sports contexts anchored in ethical values and social responsibility can promote civic identity, especially when they integrate reflection, intergenerational dialogue (athletes and coaches), and recognition of learning (Ferreira et al., 2012; Fraser-Thomas & Côté, 2009; Newman, 2020). These conditions favor transformative experiences in which young people recognize the value of their acquired skills and choose to apply them in new domains (Allen et al., 2015; Jacobs & Wright, 2018). Competitive pedagogical and intentionally structured contexts can be reinforced by validation and relational consistency and enhance civic engagement (Bean & Forneris, 2016; Bean et al., 2021; Bean et al., 2018; Camiré, 2015; Ferreira et al., 2012).

Combined competitive practice was associated with higher citizenship contribution levels in SS and sports outside of school. The multiplicity of experiences integrated into structured environments favors feelings of belonging and social responsibility (Almeida et al., 2023; Hellison, 2011), exposing young people to diverse norms and encouraging active participation (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009). This diversity of experiences broadens young people's understanding of social structures and enhances civic engagement. This corroborates previous research on the transformative role of sport as a tool for citizenship education (Camiré & Kendellen, 2016; Ferreira et al., 2012; Galindo-Ubaque et al., 2024; Hilliard

et al., 2019; Zaff et al., 2008). Young people not involved in organized sports tend to have fewer meaningful interactions, less exposure to positive social norms, and few opportunities for cooperation, which is fundamental to social connection and the exercise of citizenship (Almeida et al., 2023; Holt et al., 2017; Lee & Martinek, 2013; Martin et al., 2022).

The negative association between non-practice and levels of connection and contribution raises relevant concerns considering the ecological model (Bronfenbrenner & Morris, 2006) and the PYD paradigm (Lerner et al., 2005). The quality of sports experiences can help determine connection and citizenship development (Sherrod, 2007). No structured contexts can limit psychosocial well-being and civic engagement, reducing active participation in integration microsystems (Quintelier, 2008; Zaff et al., 2008). These results underscore the importance of structured sports for promoting citizenship. Non-participation may reflect barriers or inequalities in access and social exclusion, limiting personal and relational development (Knoppers et al., 2024; Marttinen et al., 2019; Parker et al., 2019; Spaaij et al., 2015; Vaquero-Cristóbal et al., 2024). It is not just a matter of lack of practice but of an increased risk of social exclusion and impoverishment of social capital. The literature suggests that participation quality, not formal membership, determines development (Knoppers et al., 2024; Parker et al., 2019; Spaaij et al., 2015; Vaquero-Cristóbal et al., 2024). This evidence highlights the need for inclusive policies that guarantee accessible, educational sports experiences that empower young people as citizens.

The role of satisfaction with school and gender

Satisfaction with school emerged as a statistically significant predictor of all “5Cs”. This highlights school as a privileged microsystem for youth development (Almeida et al., 2023; Andersson, 2019; Bronfenbrenner & Morris, 2006; Lee & Martinek, 2013),

highlighting the importance of responsive school environments, where basic needs for autonomy, competence, and relationships are met, boosting self-efficacy, well-being, and development (Sun, 2016; Zhou et al., 2021).

Portuguese studies found that higher school satisfaction is related to better socioemotional adjustment (Carvalho et al., 2024), reflecting that educational contexts favour meaningful interactions and a sense of belonging. As an interactive common socio-educational space, the school allows the application of skills developed in other spheres, such as sports, in multiple school dynamics (Almeida et al., 2023). However, no significant association between satisfaction with school and citizenship contribution suggests that academic well-being alone is insufficient to mobilize civic engagement. This may reflect the lack of real opportunities for participation or a weak pedagogical intentionality in promoting young people's citizenship (Bean & Forneris, 2016; Coakley, 2011; Ferreira et al., 2012; Sherrod, 2007; Zaff et al., 2008). In this sense, including deliberately democratic practices in school contexts becomes essential to sustain active citizenship trajectories.

Females showed higher levels of character, caring, and citizenship contributions, while males scored higher on confidence and competence. These results replicate the argument (Gomez-Baya et al., 2019; Quintelier, 2008; Raimundi et al., 2024; Sherrod, 2007) that females tend to have higher levels of empathy, relational sensitivity, and prosocial orientation. Males are often involved in performance-oriented sports cultures favouring self-confidence and the perception of competence. The differences reflect individual dispositions, different socialization trajectories, and persistent inequalities. Structural barriers that limit gender equity in sports can also persist, requiring transformative policies (Bebetsos et al., 2017; Gomez-Baya et al., 2019; Knoppers et al.,

2024; Vaquero-Cristóbal et al., 2024). It is, therefore, necessary to adopt an ecological and critical perspective that values the quality of experiences and the pedagogical intentionality of contexts rather than explanations centered on gender as an isolated variable.

Conclusions

The results suggest that practicing sports, especially when combining SS with sports outside school, associated with competitive experiences can contribute to PYD, especially in citizenship contribution. The finding that each sporting context influences the various domains of the PYD model (Lerner et al., 2005) differently reinforces the importance of considering the ecological and relational specificities of the environment in which young people develop (Bronfenbrenner & Morris, 2006).

More than simple participation, the data suggest that the quality of the practice context, in its pedagogical, relational, and normative dimensions, enhances the development of personal, social, and citizenship competencies. The ecological consistency between the practice environment and the space where the skills are expected to be applied (for example, between the SS and the school, or between clubs and the community) has proved to be decisive for the effective transfer of learning. In this context, school plays a strategic role as a mediating space between different spheres of youth socialization. Its centrality reinforces its potential as an ecological bridge between sports practice and citizenship experiences, as long as there are concrete opportunities, coherent rules, and pedagogical intent. Therefore, human development objectives and citizenship contribution should be prioritized over performance when organizing and structuring sports programs or interventions.

Limitations and future directions

This cross-sectional study does not allow causal inferences. Longitudinal studies exploring the evolution of PYD as a function of continuity of practice and competitive experiences are recommended. The reliance on self-reported measures may have introduced social desirability bias. Future investigations should use triangulation with qualitative, observational, or teacher, coach, and parent data. Additionally, it would be relevant to include mediating and moderating variables not yet considered, such as the type of sport practiced, the motivational climate, and the quality of interactions with significant adults and peers. Replicating the study in other regions of Portugal would allow an understanding of cultural and institutional specificities. It is also important to include physical education, a compulsory component of the national curriculum, distinguishing it from the voluntary extracurricular contexts analyzed here.

Implications for practice

The results support the need for public policies and educational programs that promote intentionally structured sports experiences articulated between contexts, enhancing thriving paths. They also reinforce the importance of investing in training teachers and coaches as mediators of youth development, creating supportive, motivational climates, leadership opportunities, and meaningful participation experiences. Promoting equity in access, with attention to gender inequalities and socio-economic context, must be a priority, ensuring that sport is a resource for the inclusion and development for all young people.

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3.2. Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency, and competitive experience

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Positive youth development and citizenship contribution among secondary school students: Exploring the role of sport type, gender, age, years of practice, frequency, and competitive experience

Abstract

This study explores, by gender, the relationship between participation in different types of sports and their combinations with positive youth development (PYD) outcomes, including citizenship contribution. The sample included 1.162 secondary vocational students, aged between 14 and 19 years. The PYDp/red (Esperança et al., 2017) and Participation Experiences Questionnaire (Ferreira & Menezes, 2001) were used to assess PYD results - “5Cs”(character, caring, connection, confidence, and competence) and the “sixth C” (citizenship contribution, measured through civic and political participation). Covariate effects of age, duration, weekly frequency, and competition experience were also considered. Following MANOVA and MANCOVA, the results suggest that different types of sports promote distinct developmental outcomes, and their combination favors developmental experiences, particularly in terms of confidence and citizenship contributions, both inside and outside school. Females and males attending school tend to develop different profiles of sport participation and interpret them in different ways. All covariates emerged as significantly related to PYD results, underlying the complexity and multidimensionality of youth development through sports. The citizenship contribution emerged associated with participation in team sports and more than one type of sport. Combining sports appears to offer broader, multi-contextual, and developmental experiences that benefit the development of young people, especially females.

Keywords: positive youth development; citizenship; sport; school; students.

Introduction

Although young people participate in a wide variety of sports, many studies categorize them under a single "umbrella" – sport – without any particular differentiation. The fundamental specificities of sporting activities, such as differences in team structure (e.g., team sports versus individual sports), have been largely overlooked (Agans & Geldhof, 2012). Some research suggested that different activities offer distinct opportunities for developmental experiences and promote different PYD outcomes (Bronfenbrenner & Morris, 2006; Freire et al., 2023; Hansen et al., 2010; Kilic & Ince, 2021; Larson et al., 2006). Also relevant is that, during the first two decades of the XXI century, some studies found that participation in more than one different activity (i.e., their combination) seems to benefit youths' psychosocial development (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009). In this context, it is undoubtedly pertinent to consider this multi-sport context approach in studying youth development through sports. Therefore, the primary purpose of this work was to explore the relationship (i.e., identifying differences and making comparisons) between the practice of different types of sports, including participation in more than one (in combination), and the PYD outcomes of students attending school.

Positive youth development approach

Since the beginning of the current century, the study of PYD has grown consistently, highlighting sports as a context conducive to the psychosocial, moral, and civic development of young people (Almeida et al., 2023; Bruner et al., 2023; Bruner et al., 2024; Whitley et al., 2019). As an alternative to problem-focused approaches, which view young people as social problems to be managed, the PYD framework is based on strength-based conceptions of development, viewing young people as valuable resources within their communities and broader society. It is based on the assumption that all children and

young people have the potential for a bright future. This potential result from interactions between the individual and their biological, psychological, ecological, and historical environment (Lerner et al., 2005).

Based on the ecological approach to human development (Bronfenbrenner & Morris, 2006), the PYD framework posits that young people continually interact with their context, being influenced by and influencing the environments in which they find themselves, as well as the spaces and times that are continuously interconnected. In this context, sports can function as learning environments that can provide development opportunities (Hellison, 2011; Lee & Martinek, 2013).

The PYD approach has been the subject of some criticism and questioning. It is argued (Bruner et al., 2024; Camire et al., 2023) that there is not only some conceptual confusion in the field, namely concerning conceptual models, definitions, constructs and measures to operationalize PYD, but above of all that researchers should recognise the coexistence of multiple realities involving youth development. Holt (2025) argues that some conceptual and methodological issues remain relevant, specifically regarding the study of contextual conditions and the role of variability and individual importance: "What works, in what circumstances, for whom?" (p. 1). The relationship between participation in sport and PYD is neither guaranteed nor universal, depending heavily on the quality of social interaction, program and intervention implementation, the involvement of significant adults (such as coaches), and the relational climate created (Holt, 2025).

Improving the quality of young people's developmental experiences in sport requires a study of the developmental processes that result from the interaction between the developing individual and each context in which he or she is involved, taking into

account not only the specificities of that environment, but also the fact that each context is not a closed and static environment, much less the only one in which they are involved (Bronfenbrenner & Morris, 2006; Ferreira et al., 2012). The activities and contexts in which young people participate can be interactive because they are diverse, multiple, and can be combined. This is the liquid world of a multidimensional and multicontextual nature, the next step in which this study is engaged.

Moving beyond the "black box" of participation in sports

Differentiating contexts is fundamental in research that aligns with the relational development systems model and the ecological perspective. Agans and Geldhof (2012) criticized traditional approaches that conceptualize sports as broad categories (e.g., "athletics") without considering the contextual and individual interactions that promote PYD. Aggregating sports into broad categories can result in fallible generalisations about their potential for PYD by ignoring how the specificities of each sporting context influence developmental outcomes. Taking into account these concerns and observations, Agans and Geldhof (2012) proposed different categories based on team structure to explore the relationship between participation in different types of sports and developmental outcomes: individual sports, team sports, and dance-type sports. The authors considered the study a necessary first step in better understanding the lived experiences of individuals' participation in sport contexts.

To explore, respectively, the athletes' perceived developmental outcomes of competence, confidence, connection and character in competitive context concerning age and sport type, and young people's relationships with coaches and peers in various types of sports and the perceived influence of these dynamics on their developmental experiences and participation decisions, Kilic et al. (2021) and Bataglia et al. (2024)

assumed the a simpler typology: team vs individual sports. Aiming to study the relation between the satisfaction of basic psychological needs and the development of life skills among young participants, according to gender and type of sport, Freire et al. (2023) used the same categorization.

Collaborative dynamics and social interaction sustain team sports (Battaglia & Kerr, 2024; Hansen et al., 2010), being also associated with higher levels of social connection and civic participation compared to individual sports, since the need for interdependence among team members can foster group cohesion and mutual commitment (Almeida et al., 2018; Reverdito et al., 2023). Additionally, the support of peers and coaches can enhance confidence and perceptions of competence (Kilic & Ince, 2021). Individual sports foster autonomy and self-regulation (Zarrett et al., 2009), but can also contribute to some isolation, especially in demanding competitive contexts, due to the emphasis on individual responsibility and less socialization (Raimundi et al., 2018). The lack of continuous interpersonal support can lead to less perseverance in sports when compared to team sports, where social ties play a significant motivational role (Reverdito et al., 2017). However, it must carefully consider all this evidence. The practice of individual sports, although it may be associated with a greater appeal for autonomy and solitary practice, often involves integration into teams and working groups that require strong social interaction, group commitment, and the existence of a leader, being a favourable context to the development and transfer of interpersonal life skills (Lee & Martinek, 2013; Pierce et al., 2017).

Dance has always held a special place in the imagination and activities of children and young people. In school and performing arts contexts, it has been gaining increasing space and recognition, not only as a youth activity, but also as a practice conducive to the

positive development of young people (Agans & Geldhof, 2012; Anggraeni et al., 2024; Borowski, 2023; Narikbayeva et al., 2025). Because it combines technical motor elements with individual or group artistic expression, dance can uniquely impact young people's development by merging physical, social, and artistic development. Although different from team sports, which emphasise interdependence, and individual sports, which prioritise autonomy, its performative, artistic, collaborative, and choreographical practices, besides fostering inclusion and developing social and emotional skills, promote creativity, empathy, and emotional expression (Anggraeni et al., 2024; Borowski, 2023; Narikbayeva et al., 2025). In addition, the artistic expression that distinguishes it, combined with the movement that supports it, contributes to emotional control and self-efficacy, promoting confidence and competence (Agans & Geldhof, 2012).

Dance's social dynamics favour intellectual, intrapersonal, and interpersonal youth development (Borowski, 2023). Through dance, students learn to express their feelings through movement, become more aware of themselves, and develop self-control and self-awareness. Dance is, by its very nature, a social and community experience where, through choreographed performances on different 'stages' and in multiple contexts, individuals develop confidence, sense of and self-efficacy, social skills, emotional intelligence, empathy, prosocial attitudes and social awareness (Anggraeni et al., 2024; Borowski, 2023; Lai et al., 2021; Narikbayeva et al., 2025). As such, it is a social space where young people have opportunities to perform, experiment, and participate in multiple contexts that are favourable to the development of communication skills, collaboration, creative problem-solving, and critical thinking, skills conducive to and necessary for the development and exercise of citizenship (Ferreira et al., 2012).

Given this framework, dance is conceptualized in this study as a differentiated, unique, and specific typology—dance-type sports—distinct from individual or collective sports.

Research has highlighted the benefits for young people's development through participation in various extracurricular activities (Forneris et al., 2015; Zarrett et al., 2009). However, few studies (Agans & Geldhof, 2012) have analysed the relationship between the combination of different types of sport beyond the traditional 'individual sports vs team sports' dichotomy, considering other categories (e.g., dance), and PYD outcomes, and none is known that have explored the relation of that combination with young people's citizenship development, specifically civic and political participation. These topics are particularly relevant considering the potential of sports to promote transfer processes (Lee & Martinek, 2013; Pierce et al., 2017). Some authors have found that combining team and individual sports favors a more comprehensive development, balancing individual competence and social interaction, and facilitating adaptation to different contexts (Agans & Geldhof, 2012; Zarrett et al., 2009). Diversifying sport practice strengthens the sense of belonging (Fredricks & Eccles, 2006) and is associated with better developmental results than specialisation in a single sport or non-participation (Agans & Geldhof, 2012; Forneris et al., 2015). In addition, it promotes better interpersonal relationships and more significant social contributions (Fredricks & Eccles, 2006; Zarrett et al., 2009), fostering psychosocial skills that might be essential for active citizenship (Ferreira et al., 2012) and its significance and applicability in different contexts (Lee & Martinek, 2013). In this context, adding previous evidence (Agans & Geldhof, 2012; Anggraeni et al., 2024; Borowski, 2023) about its potential to promote psychosocial and citizenship competences, dance will be considered in this study, not

only as a specific and differentiated sport type but also as a space and activity in combined developmental experiences.

The current research

The purpose of this work is to study the relationship between the practice of different types of sports, emphasising their combination (more than one) and the PYD outcomes, including civic and political involvement. This endeavour is based on the theoretical framework of relational development systems developed by Lerner et al. (2005) and supported by the ecological view of human development (Bronfenbrenner & Morris, 2006). This conceptual framework posits not only that development is a function of the interaction between the individual and their environment, but also that different activities offer different opportunities for developmental experiences and adaptive relationships with their respective participation and living contexts.

Analysing young people's social interactions and their relationship with PYD requires an approach that considers the variability and specificities of the context activities in which they participate. In this context, the Agans and Geldhof (2012) proposal, which considers team structures (i.e., individual sports, team sports, and dance-type sports), is considered appropriate to the present study. Still, since the beginning of the 21st century, there has been an increase in youth involvement in civic and political initiatives – a phenomenon that has aroused interest in educational, academic, and political communities due to its importance for democratic health and social well-being (Eccles et al., 2003; Freire et al., 2023; Sherrod, 2007). Organized activities, such as sports, have been linked to youth development and the strengthening of civic and political engagement (Ferreira et al., 2012). Thus, exploring the relationship between youth sports and citizenship development assumes relevance not only because of the scarcity of research associating it with different sports and their combination but also because

citizenship engagement is recognised as a central dimension of PYD (Coakley, 2011; Sherrod, 2007).

In this study, the type of sport will be classified according to the categorisation proposed by Agans and Geldolf (2012): individual sports, team sports, and dance-type sports. Individual sports will be considered those in which an athlete competes alone at the time of the competition. However, scores may be aggregated among team members to determine the winners, as is the case, for example, in athletics, gymnastics, martial arts, combat sports, and swimming. Team sports are sports that involve several athletes working together during competition, with both teams on the field at the same time (e.g., basketball, football, volleyball, tennis, or badminton played in pairs, or hockey). For sports that have both types, this possibility will be asked in the questionnaire (examples: tennis and badminton can be played in pairs), and athletes will be classified according to their response. Dance will be considered a specific type, neither individual nor collective. It includes participation in dance classes or teams, or participation in an activity involving teams competing individually or collectively through a choreographed sequence (e.g., ballet, contemporary dance, urban dance, jazz dance, Latin American or African dance, Zumba, dance classes or teams, similar). This approach to categorizing sports is just one of many forms to examine the potential differences between sports. For example, some sports can work as both individual and team sports through relays (like track and field, swimming, and diving). Others use individual and team scoring (like wrestling, cross country, and gymnastics). Athletes who compete in individual sports may also practice, train, and study with teammates. The option chosen in this study, differentiation based on team structure, is due to the idea that it is not only the moment of competition or performance that differentiates the type of sport, but also that this same characteristic can

influence the social interactions that athletes experience during training and preparation for competition. Different social contexts promote different developmental experiences (Agans & Geldhof, 2012; Almeida et al., 2023; Hansen et al., 2010; Larson et al., 2006).

Given the benefits of engaging in more than one type of activity (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009), the category ‘combination’ was included to deepen the understanding of the role of young people's participation in multiple specific sport contexts in their development. It was hypothesized that participation in different types of sports promotes different developmental outcomes, and that combining them is more favorable to PYD than practicing just one sport.

Considering the aim of this study and its theoretical framework (Bronfenbrenner & Morris, 2006; Lerner et al., 2005), it was essential to integrate variables recognised as determinants for PYD through sport. Gender and age have been widely studied (Almeida et al., 2023; Morano et al., 2022), but are essential for this research. Other factors (e.g., duration of practice) have shown contradictory results (Armour & Sandford, 2013; Fredricks & Eccles, 2006; Reverdito et al., 2017; Zarrett et al., 2009). Weekly frequency and competitive experience have been little explored. Moreover, some authors have suggested that “more” is not always “better” (Almeida et al., 2023; Ferreira et al., 2012). Although intrinsic to sport, competition is rarely analysed in the context of PYD and student-athlete status. Its effects are debated (Camiré, 2015) because it can boost the development of skills and goals, but also reinforce the perception of failure and jeopardise self-confidence in traditional competition formats.

This study was divided into two investigations conducted separately by gender, given the relevance of this variable in youth development through sports (Almeida et al., 2023; Morano et al., 2022). Organised sports still occur in predominantly gender-

segregated environments, reflecting differences in team culture, training styles, and socialisation processes (Agans & Geldhof, 2012). Furthermore, in addition to most sports being played separately by gender, identity related to gender influences participation. Sports differ in the degree to which they allow for the exploration of masculine or feminine identities (Eccles et al., 2003).

Considering the purpose of the current study, the following questions were established:

- 1 - What differences are there in the practice of different types of sports (individual, team, and dance), including their combination (participation in more than one), in terms of PYD outcomes ('5Cs'), including citizenship contribution (i.e., civic and political participation – the 'sixth C')?
- 2 - Does the combined practice of different types of sports favour PYD results compared to the practice of just one type of sport?
- 3 - How do age, duration (years of practice), weekly frequency, and competitive experience relate to PYD results?

Materials and methods

Participants

In a quantitative cross-sectional study, 1.162 Portuguese secondary vocational students (57.7% female) aged 14 to 19 years ($M=16.97$, $SD=1.44$), attending between the 10th (32.7%) and 12th (33.6%) grades, completed an online survey. A simple random sampling process was used. A total of 18 Portuguese public and private schools offering vocational education participated in the study. All schools received a request to participate, along with the questionnaire to use.

Table 1. Baseline sample characteristics and dependent variables descriptive statistics.

Gender, n (%)			
	Male,		492 (42.3%)
	Female		670 (57.7%)
Sport outsider school, n (%)			
	No		195 (16.8%)
	Yes		967 (83.2%)
	Male	No	52 (10.6%)
		Yes	440 (89.4%)
	Female	No	143 (21.3%)
		Yes	527 (78.7%)
Duration, [min-max], <i>M</i> (<i>SD</i>)			
	Male		[0-16]; 3.93 (3.79)
	Female		[0-16]; 3.19 (3.31)
Weekly frequency, [min-max], <i>M</i> (<i>SD</i>)			
	Male		[0-10.5]; 2.80 (1.94)
	Female		[0-10.5]; 3.50 (1.98)
Competitive experience, n (%)			
	No		514 (44.2%)
	Yes		648 (55.8%)
	Male	No	141 (28.7%)
		Yes	351 (71.3%)
	Female	No	373 (55.7%)
		Yes	297 (44.3%)
“5Cs”, <i>M</i> (<i>SD</i>)			
	Sample	Males	Females
	Character	3.44 (.47)	3.33 (.52)
	Caring	3.30 (.61)	3.53 (.42)
	Connection	3.30 (.61)	3.16 (.69)
	Confidence	2.94 (.66)	2.95 (.66)
	Competence	3.13 (.62)	2.93 (.66)
		3.03 (.62)	3.21 (.61)
		3.09 (.62)	3.07 (.61)
			2.98 (.63)
Contribution” (“sixth C), <i>M</i> (<i>SD</i>)			
	Contribution in	.95 (.84)	.79 (.82)
	Contribution out	.60 (.61)	.54 (.63)
			1.07 (.83)
			.65 (.60)

Notes: *M* – mean; *SD* - standard deviation.

Measures

Participants completed an online questionnaire to collect sociodemographic data, variables related to sports school and practice, and PYD indicators, including citizenship contribution, conceptualized in this study as civic and political participation. Data on sports participation outside of school were collected with questions on sport type, duration (total years of practice), weekly frequency, and competitive experience (“*What*

sport(s) or dance(s) do you play (or did you play)?", "In total, how many years have you been playing (or did you play)?", "How many times a week do you play (or did you play)?" and *"Do you participate (or did you participate) in competitions?"*. Authors used the typology proposed by Agans and Geldhof (2012) – individual, team, or dance – and employed the category ‘combination’ when participants reported participating in more than one sport.

PYD was assessed with the PYDp/red (Esperança et al., 2017), a shortened version of the Portuguese adaptation of the PYD Measure (Lerner et al., 2005). It consists of 30 items, equally divided into five subscales, known as the “5Cs”: character (respect for social and cultural norms, standards of correct behaviour, morality and integrity); caring (a sentiment of sympathy and empathy for others.); connection (positive links with people and institutions reflected in two-way exchanges between the individual and their peers, family, school and community, with both parties contributing to the relationship); confidence (internal sense of self-esteem and overall positive self-efficacy); and competence (positive view of own actions in specific areas, including the social, academic, cognitive and professional domains). Each was assessed on a 4-point Likert scale through six rated items, with higher scores corresponding to more positive development in each area. The PYDp/red demonstrated validity and reliability in prior studies (Esperança et al., 2018).

Contribution (the ‘sixth C’) represents the positive contribution of young people to self, family, community, and institutions of civil society (Lerner et al., 2005). It emerges when all the Cs are present in youths across time. In this study, the "sixth C" was assumed to be ‘citizenship contribution’ through civic and political participation. Civic participation, supported by the concept of "civic engagement”, refers to actions taken by

ordinary citizens, individually or collectively, to influence circumstances in society relevant to others outside their family and close circle of friends. Political participation encompasses all actions aimed at influencing governmental decisions and shaping political outcomes (Ekman & Amnå, 2012; Ferreira et al., 2012). The sixth C was assessed using the Participation Experiences Questionnaire (Ferreira & Menezes, 2001), in which participants reported their involvement (Yes/No, i.e., 1/0) in various civic and political activities both inside and outside school. From this tool emerged the variables ‘contribution inside school’ (the sum of the values of civic and political participation within the school) and ‘contribution outside school’ (the sum of the values of civic and political participation outside the school). Therefore, the contribution variables, which emerged from the mean of the two contributions, ranged from 0 to 2. Examples for items outside of school included: *“Have you ever collaborated with or been involved in, for example, volunteering, charity, or social solidarity groups? Political parties, youth organisations?”* For inside school: *“There are many ways for students to get involved in their school. During the last year, have you taken part in any club or group? Did you vote?”* The scale revealed good psychometric properties in terms of validity and reliability in previous studies (Ferreira et al., 2012).

Procedures

This study was approved by the ethics committee of the first author's institution (see reference at the end). Emails were sent to the school directors to request their collaboration in the research. Participating students received an informed consent form to be signed in advance by their parents or by themselves if they were 18 years old. Written consent was also obtained from all participants. All questionnaires were completed in the presence of teachers, who had received specific training prior to administering the survey. A protocol was used to ensure that data collection was administered uniformly and that

all study materials were returned. The online survey was administered in classrooms equipped with computers. The process was preceded by a pilot application by the first author involving two classes (one in Year 10 and one in Year 12, each with 24 students).

Statistical analysis

Internal consistency analysis of the 5Cs and contribution was performed, using Cronbach's alpha. MANOVA was conducted to examine relationships between sport types (individual, team, dance, and combined) and PYD outcomes. MANCOVA was used to assess the impact of the covariates age, duration, weekly frequency of practice, and competitive experience. To assess effect size, partial eta squared was used, considering the following thresholds: 0.01–0.06 (small effect), 0.06–0.14 (moderate effect), and > 0.14 (large effect). Assumptions of normality and homogeneity of variance were verified. In the post hoc tests, the type 1 error rate was controlled using Tukey and Bonferroni corrections. Statistical significance was considered at $p < .05$. Data were analysed with SPSS (version 29).

Results

Sample characteristics are available in Table 1. Cronbach's alpha results for the 5Cs and contribution were calculated: .75 for character, .82 for caring, .77 for connection, .82 for confidence, .84 for competence, and .73 for both in-school and out-of-school contribution. All correlations between the 5Cs and the contribution dimensions had values higher than .3 ($p < .001$), enabling multivariate analyses. Only significant results are shown in the tables.

Regarding the MANOVA (Table 2) results, starting with males, sport type did not show overall discriminant capacity (Wilks $\lambda = .96$, $p = .121$, $\eta_p^2 = .02$) for the 5Cs, only for contribution (Wilks $\lambda = .97$, $p = .010$, $\eta_p^2 = .02$), namely for contribution inside school [$F_{(3, 488)} = 3.78$, $p = .011$, $\eta_p^2 = .02$] and contribution outside school [$F_{(3, 488)} = 2.73$, $p = .043$,

$\eta_p^2=.02$]. Meanwhile, after Bonferroni's adjustment, significant differences disappeared in the contribution outside school.

Table 2. MANOVA results for the “5Cs” and contribution.

Male (n=492)						
	None (N) (n=52) <i>M(SD)</i>	Individual (I) (n=163) <i>M(SD)</i>	Team (T) (n=212) <i>M(SD)</i>	Dance (D) (n=0) <i>M(SD)</i>	Combined (C) (n=65) <i>M(SD)</i>	≠
“5Cs”						
Character	3.29 (.44)	3.33 (.49)	3.32 (.56)	--	3.42 (.52)	--
Caring	3.05 (.85)	3.16 (.70)	3.17 (.65)	--	3.19 (.67)	--
Connection	2.90 (.70)	2.84 (.72)	3.04 (.64)	--	2.99 (.49)	--
Confidence	3.22 (.62)	3.13 (.69)	3.26 (.44)	--	3.27 (.44)	--
Competence	3.17 (.50)	2.99 (.70)	3.14 (.59)	--	3.14 (.53)	--
Contribution						
Contribution in	.46 (.77)	.78 (.82)	.83 (.83)	--	.94 (.79)	N < T, C ^a
Contribution out	.38 (.57)	.59 (.65)	.50 (.63)	--	.68 (.59)	
Female (n=670)						
	None (N) (n=143) <i>M(SD)</i>	Individual (I) (n=219) <i>M(SD)</i>	Team (T) (n=79) <i>M(SD)</i>	Dance (D) (n=127) <i>M(SD)</i>	Combined (C) (n=102) <i>M(SD)</i>	≠
“5Cs”						
Character	3.52 (.39)	3.51 (.44)	3.50 (.50)	3.57 (.38)	3.55 (.38)	--
Caring	3.49 (.45)	3.39 (.55)	3.40 (.52)	3.42 (.54)	3.31 (.51)	--
Connection	2.88 (.61)	2.95 (.67)	2.93 (.67)	3.01 (.63)	2.86 (.73)	--
Confidence	3.13 (.56)	3.00 (.65)	3.13 (.61)	3.19 (.58)	2.96 (.61)	I, C < D ^b
Competence	3.03 (.59)	2.90 (.68)	3.01 (.66)	3.09 (.56)	2.91 (.63)	I < D ^c
Contribution						
Contribution in	.73 (.81)	1.11 (.82)	1.15 (.83)	1.16 (.80)	1.26 (.78)	N < I, T, D, C ^d
Contribution out	.51 (.59)	0.58 (.56)	.67 (.63)	.74 (.61)	.87 (.59)	N < I, T, D, C; N < D, C; I < C ^e

Notes: *M* – mean; *SD* - standard deviation; ≠ - significant differences; > – significantly higher levels than; < – significantly lower levels than; a) - None < Team sports, Combined ($p=.016, p=.009$); b) - Individual sports, Combined < Dance ($p=.037, p=.034$); c) Individual sports < Dance ($p=.038$); d) - None < Individual sports, Team sports, Dance, Combined ($p<.001, p=.002, p<.001, p<.001$); e) None < Individual sports, Team sports, Dance, Combined ($p<.001, p=.002, p<.001, p<.001$).

For females, sport type showed discriminant capacity (Wilks $\lambda=.94, p=.007, \eta_p^2=.01$) for the 5Cs, specifically for confidence [$F_{(4, 665)}=3.31, p=.011, \eta_p^2=.02$] and competence [$F_{(4, 665)}=2.65, p=.032, \eta_p^2=.02$]. The results should be carefully analysed and discussed in terms of inference, as they were marginally significant due to the large

sample size. Regarding contribution, sport-type discriminant capacity was found (Wilks $\lambda=.93$, $p<.001$, $\eta_p^2=.04$). Statistical differences were found for contribution inside school [$F_{(4, 665)}=8.34$, $p<.001$, $\eta_p^2=0.05$] and contribution outside school [$F_{(4, 665)}=7.20$, $p<.001$, $\eta_p^2=.04$]. Multiple comparisons (male vs female) are available in Table 2.

Table 3 presents the MANCOVA results for the 5Cs and contribution by sport type, adjusted for age, duration, weekly frequency, and competitive experience. Beginning with males, when regarding the 5Cs, initially only age emerged as a significant covariate (Wilks $\lambda=.96$, $p=.006$, $\eta_p^2=.04$), specifically per confidence [$F_{(1, 461)}=6.45$, $p=.011$, $\eta_p^2=.01$] and competence [$F_{(1, 461)}=4.40$, $p=.037$, $\eta_p^2=.01$]. However, after Bonferroni corrections, competition experience also emerged as a significant covariate of character [$F_{(1, 461)}=4.82$, $p=.029$, $\eta_p^2=0.01$] and confidence [$F_{(1, 461)}=5.75$, $p=.017$, $\eta_p^2=.01$]. Regarding contribution, only competition experience showed primarily significant effects (Wilks $\lambda=.98$, $p=.012$, $\eta_p^2=.02$), namely on contribution outside school [$F_{(1, 461)}=8.66$, $p=.003$, $\eta_p^2=.02$]. However, after Bonferroni adjustments, weekly frequency also emerged as a significant covariate, specifically for contribution inside school [$F_{(1, 461)}=4.73$, $p=.030$, $\eta_p^2=.01$].

Regarding females, with relation to the 5Cs, only age (Wilks $\lambda=.97$, $p=.002$, $\eta_p^2=.03$) and duration (Wilks $\lambda=.98$, $p=.010$, $\eta_p^2=.02$) showed significant effects as covariates. After Bonferroni corrections, weekly frequency also emerged as a significant covariate of character [$F_{(1, 634)}=4.19$, $p=.041$, $\eta_p^2=.01$]. Significant covariate effects of age were on caring [$F_{(1, 634)}=6.01$, $p=.014$, $\eta_p^2=.01$], of duration were on connection [$F_{(1, 634)}=7.73$, $p=.006$, $\eta_p^2=.01$], and of weekly frequency were on character [$F_{(1, 634)}=4.19$, $p=.041$, $\eta_p^2=.01$]. Per contribution, only competition experience revealed initially significant effects (Wilks $\lambda=.99$, $p=.039$, $\eta_p^2=.01$), namely for contribution inside school

[$F_{(1, 634)}=6.45, p=.011, \eta_p^2=.01$]. However, duration also emerged as a significant covariate after Bonferroni corrections, specifically for contribution outside school [$F_{(1, 634)}=4.70, p=.031, \eta_p^2=.01$].

Table 3. MANCOVAs of the ‘5Cs’ and contribution by sport type adjusted for covariates by gender (details of significant covariate effects).

	Male (n=492)	Female (n=670)
Covariates		
Age	Older males showed lower levels of Confidence and Competence ($\beta=-.05, p=.011, \eta_p^2=.01$; $\beta=-.04, p=.037, \eta_p^2=.01$)	Older females showed lower levels of Caring ($\beta=-.03, p=.014, \eta_p^2=.01$)
Duration	--	Higher duration related with higher levels of Connection and Contribution outside school ($\beta=.03, p=.006, \eta_p^2=.01$; $\beta=.02, p=.031, \eta_p^2=.01$)
Weekly frequency	Higher weekly frequency related with higher levels of Contribution inside school ($\beta=.05, p=.030, \eta_p^2=.01$)	Higher weekly frequency related with higher levels of Character ($\beta=.03, p=.041, \eta_p^2=.01$)
Competition experience (yes)	Higher competition experience related with higher levels of Character, Confidence and Contribution outside school ($\beta=.15, p=.029, \eta_p^2=.01$; $\beta=.19, p=.017, \eta_p^2=.01$; $\beta=.24, p=.003, \eta_p^2=.02$)	Higher competition experience related with higher levels of Contribution inside school ($\beta=.20, p=.011, \eta_p^2=.01$)

Note. > – "is associated with higher scores in..."; < – "is associated with lower scores in...".

After controlling for all the covariates, sport type continued to show discriminant capacity (Wilks $\lambda=.97, p=.016, \eta_p^2=.02$) in females for contribution outside school [$F_{(1, 634)}=3.54, p=.017, \eta_p^2=.02$], with combined sports yielding higher levels than individual sports ($p=.003$).

Discussion

The aim was to study the relationship between participation in different types of sports and PYD outcomes, including citizenship contribution, among young vocational

secondary school students. The evidence supports the hypothesis that participation in different types of sports is associated with varied developmental outcomes, and that practicing different types of sports in combination is linked to better PYD and citizenship results than engaging in just one type of sport.

Comparing the practice of different types of sports and exploring their combination in terms of PYD outcomes and citizenship contribution

The results suggest that the type of sport has a significant discriminatory effect only in females, where dance has a greater impact on confidence and competence than individual sports or combined practice. Dance promotes emotional expression and continuous positive reinforcement (Anggraeni et al., 2024; Borowski, 2023). Individual sports, on the other hand, favour autonomy, but less emotional validation can compromise development by increasing social pressure and anxiety (Morano et al., 2022). A combined practice can disperse the developmental experience, jeopardising feelings of efficacy and self-confidence. However, it is essential to note that these results, particularly the impact of dance on females' confidence and competence, were marginally significant due to the large sample size. Therefore, they should be carefully considered, analysed, interpreted, and discussed in terms of inference and replication processes. These results are maintained here because of their potential relevance to the practical implications of this study, particularly regarding the specific needs and sociocultural barriers faced by females in sports. Gender has been a relevant variable in the context of PYD research through sport (Dadswell et al., 2023; Freire et al., 2023; Kilic & Ince, 2021; Raimundi et al., 2024; Vaquero-Cristóbal et al., 2024). Male and female teams, although practising the same sport, often operate in different cultures, with different coaching styles, expectations, and social norms (Agans & Geldhof, 2012; Bebetos et al., 2017). Besides

that, females tend to have higher levels of character, caring, connection, and civic engagement, while males excel in confidence and competence, reflecting asymmetrical socialisation trajectories (Raimundi et al., 2024; Sherrod, 2007; Vaquero-Cristóbal et al., 2024). These differences, in addition to dispositional, are also structural, and can sometimes be exacerbated by persistent inequalities and discrimination in access to sports (Dadswell et al., 2023; Knoppers et al., 2024; Spaaij et al., 2015).

The type of sport significantly influenced the contribution of both genders. In males, non-practitioners showed lower levels of contribution inside school than those who practised team sports or combined different sports. Team sports promote cooperation, a sense of belonging, group identity, leadership, and decision-making skills, strengthening commitment and social responsibility (Almeida et al., 2018; Hellison, 2011). The combination of different types of sports favours contribution inside schools by providing multiple experiences of socialisation and skills development. Mixing practices broaden experiences of socialisation and skill development, favouring the transfer of this learning to school and boosting interpersonal commitment, responsibility, and active participation in school communities (Almeida et al., 2023).

Among females, non-practising showed significantly lower contributions inside schools compared to practitioners, reinforcing the role of sport in developing social skills, communication, leadership, and responsibility, essential for PYD and active citizenship (Almeida et al., 2023; Armour & Sandford, 2013; Coakley, 2011; Ferreira et al., 2012). Given that females tend to be more prosocial (Quintelier, 2008), sport practice boosts self-efficacy and confidence, enabling them to take on leadership roles and increase their participation in school communities (Streetman & Heinrich, 2024; Vaquero-Cristóbal et al., 2024).

Regarding contribution outside of school, non-practitioners reported lower levels than participants in dance or a combination of different sports. Dance is a social and community experience in which, through performances in different and multiple contexts, individuals express feelings, communicate messages, and interact with an audience, thus being an activity conducive to the development of emotional intelligence, social skills, empathy, social awareness, and prosocial attitudes (Anggraeni et al., 2024; Borowski, 2023; Lai et al., 2021; Narikbayeva et al., 2025), a context favourable for community involvement, civic engagement and social intervention (Ferreira et al., 2012; Quintelier, 2008; Sherrod, 2007). Females who only practised individual sports contributed less than those involved in multiple sports, suggesting that exclusively practising individual sports can limit opportunities for socialisation and developing citizenship skills (Agans & Geldhof, 2012; Zarrett et al., 2009). These results highlight the potential of dance and sports diversification as social spaces conducive to civic engagement among young people.

Our results highlight that combining different types of sports influences confidence and contribution. Among females, a mixed practice has been associated with lower confidence levels than dance practice, which favours self-expression and emotional validation, essential for developing confidence (Anggraeni et al., 2024; Borowski, 2023). Diversification of practice can hinder the perception of progress and competence in a specific sport, thereby reducing self-efficacy (Forneris et al., 2015). In males, the combination of sports emerged related to citizenship contribution in school. The diversity of sporting contexts broadens social interactions, promoting interpersonal skills and reinforcing a sense of belonging (Agans & Geldhof, 2012; Forneris et al., 2015). In addition, the transfer processes promoted by multi-contextual experiences facilitate the

application of sport learning in other domains, including educational settings, thereby strengthening commitment, collective responsibility, and involvement in school and civic initiatives (Almeida et al., 2023; Ferreira et al., 2012).

Finally, regarding the contribution of females, the combination of sports was associated with greater civic and political involvement compared to individual sports. This is in line with previous studies (Forneris et al., 2015; Zarrett et al., 2009), suggesting that the diversity of experiences through involvement in different sporting contexts favours the transfer of skills and the expansion of young people's social network, providing opportunities to develop collaborative skills necessary to get involved in school activities and the community.

Additionally, our results confirm that females and males tend to exhibit distinct profiles of sport participation (Agans & Geldhof, 2012). Females tend to have lower participation rates in sports and prefer prosocial and diverse activities (Eccles et al., 2003). Segregation by sex in sport can lead to structural differences, such as team culture and the coach's leadership style, and impact participation (Agans & Geldhof, 2012). Gender stereotypes, social expectations, a focus on physical appearance, less social acceptance, and family responsibilities condition girls' involvement, generating social anxiety and perpetuating inequalities in sports practice (Morano et al., 2022).

All these findings highlight the need to overcome the "black box" approach to studying the impact of sports on young people's development. Recognising the specificities of different types of sports and the potential of their combination is essential to designing sport programs that boost PYD and encourage civic and political participation among young people.

Effects of age, duration, weekly frequency, and competitive sport experience

Our results also indicated that age influenced confidence and perceived competence in boys, contrary to previous studies (Fredricks & Eccles, 2006). The decrease in these indicators may be associated with sport specialisation, competitive pressure, and the expectations of coaches and parents (Camiré, 2015; Morano et al., 2022; Rotolo et al., 2020). Younger athletes can receive more significant support and positive reinforcement, creating environments more conducive to skill development (Super et al., 2017). Moreover, increased academic demands can affect student-athletes' perceptions of their self-efficacy and self-confidence, thus reinforcing the importance of monitoring that promotes continuity of development in the later stages of sporting life (Morano et al., 2022).

Among female athletes, age has been associated with a decline in caring despite females' prosocial tendencies (Sherrod, 2007). This decline may result from increased competitiveness and pressure on individual performance (Camiré, 2015; Røset et al., 2023), as well as sociocultural differences in sporting experiences compared to males (Eccles et al., 2003; Morano et al., 2022). The perception of sports as a male-dominated domain can impact team culture, training styles, and leadership dynamics, thereby compromising social interaction (Agans & Geldhof, 2012). However, age did not significantly affect citizenship contribution in this study, suggesting that the quality of involvement and opportunities experienced in sports are more determinant for the development of citizenship (Almeida et al., 2023; Ferreira et al., 2012; Zarrett et al., 2009).

In contrast to previous studies (Agans & Geldhof, 2012; Armour & Sandford, 2013; Reverdito et al., 2017), a longer duration of sport practice was associated with lower levels of connection in female athletes. Despite providing more opportunities for

participation, continuous exposure to social tensions and social anxiety can compromise a sense of belonging (Morano et al., 2022). The perception of sports as a predominantly male space can negatively influence team culture, leadership, and the female experience (Agans & Geldhof, 2012), reinforcing that different sporting contexts offer different developmental opportunities (Fredricks & Eccles, 2006; Hansen et al., 2010; Larson et al., 2006) and that the female experience of sports differs from that of males (Eccles et al., 2003; Raimundi et al., 2018). Conversely, a longer duration of playing sports was found to be positively related to out-of-school contribution, highlighting the long-term benefits for PYD (Reverdito et al., 2017). It is known that females tend to value social connections and community involvement more than males, who are more competition-oriented (Quintelier, 2008). The demand for fairness in sports can boost females' involvement in citizenship actions (Eccles et al., 2003; Raimundi et al., 2018), promoting the transfer of psychosocial and moral skills to school and community contexts (Almeida et al., 2023; Hellison, 2011; Lee & Martinek, 2013).

A higher weekly frequency of practice was associated with higher levels of contribution at school among males. Team sports, which are predominant among the boys in this sample, promote teamwork, collaboration, a sense of belonging, and social responsibility—crucial aspects for social interaction inherent to school contexts where these students-athletes also live (Almeida et al., 2018; Hansen et al., 2010; Koh et al., 2017). Despite the lower propensity for the civic participation of males (Eccles et al., 2003; Quintelier, 2008), the social dynamics of sports can boost their involvement in school and community initiatives, reinforcing citizenship and educational cohesion (Almeida et al., 2023; Ferreira et al., 2012; Forneris et al., 2015; Koh et al., 2017).

The weekly frequency of practice was found to be positively related to character in female student-athletes. As an activity structured by regulations, a sport practice stimulates reflections on ethics and justice (Camiré, 2015; Rotolo et al., 2020), reinforcing values such as integrity and resilience (Koh et al., 2017; Schwamberger & Curtner-Smith, 2019). In addition, the prosocial tendency of girls (Quintelier, 2008) and the challenges of gender segregation in sports (Agans & Geldhof, 2012; Vaquero-Cristóbal et al., 2024) can enhance their involvement in promoting equity, positioning sports as a privileged space for psychosocial and moral development.

Competitive experience emerged significantly related to character, confidence, and contribution, but with gender differences. In males, more competitive experiences were associated with higher character, self-confidence, and contributions to citizenship outside of school. Competition fosters character by requiring compliance with rules and strategic decision-making (Hellison, 2011; Schwamberger & Curtner-Smith, 2019). Inherent in competition, challenges, goals, and continuous feedback can reinforce self-confidence (Camiré, 2015). These skills can be meaningful and valuable in other social and community contexts, facilitating the transfer of skills and promoting the active participation of young people in their communities.

Competitive experience was found to have a positive association with females' citizenship contributions within schools. Competition requires goal-setting, decision-making, conflict resolution, and leadership (Camiré, 2015), fundamental skills for citizenship and social participation (Ferreira et al., 2012). Cooperation and opposition during competition require a balance between individual and collective goals, reinforcing shared responsibility (Almeida et al., 2018; Battaglia & Kerr, 2024; Hellison, 2011). In addition, competitive practice develops intrapersonal attributes (e.g., self-confidence,

emotion regulation, and focus) and interpersonal attributes, such as communication, respect, and leadership (Raimundi et al., 2024; van Mierlo & van Hooft, 2024), which are fundamental for citizenship participation (Ferreira et al., 2012; Rotolo et al., 2020). Thus, females can experience competition as a space to develop skills transferable to schools and communities, promoting active involvement and challenging gender stereotypes about the role of females in sports (Raimundi et al., 2024).

After controlling for covariates, we found that sport type was significantly associated with contribution outside of school in females. The difference between individual sports and combined practice highlights the benefits of involvement in multiple sports for PYD, with a particular impact on contribution inside schools. The combined practice of more than one type of sport promotes social interaction, networking, and community connection (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009). Collaborative experience in different contexts and striving for common goals favour the transfer of skills and civic engagement (Forneris et al., 2015). On the other hand, the practice of individual sports favours personal achievement (Almeida et al., 2018). This evidence reinforces that combining different sports favours developmental experiences and active participation in communities.

Limitations and proposals for future research

Cross-sectional studies can limit causal inferences (Cunningham, 2021). It is therefore recommended that longitudinal studies be considered in the future to deepen and strengthen the causality between the nature of sports practice and PYD, including here citizenship contribution. The results on females' confidence and competence were marginally significant due to the large sample size. Therefore, it should be considered, analysed, interpreted, and discussed very carefully in terms of inferential results and potential replication in the future. Equally relevant is the need to emphasise that a sample

of vocational education students may not represent the overall student population. It is therefore proposed that more comprehensive samples of students be used, including different school paths in addition to vocational courses, to strengthen the generalisability of the results. In addition, the research purpose could benefit from using interviews or focus groups to explore young people's perceptions of the influence of sports on their community involvement and gender dynamics, thereby analyzing the socialization processes that shape boys' and girls' participation in sports.

In future studies of this nature, the practice time should be taken into account. In previous studies (Armour & Sandford, 2013; Fredricks & Eccles, 2006; Reverdito et al., 2017), this factor was found to be relevant. Someone who practices 30 minutes twice a week will have different developmental experiences than someone who practices 120 minutes twice a week.

Conclusions

This study's main conclusions indicate that gender and type of sport influence PYD and citizenship contribution. Females have different participation profiles and perceptions of their sporting experiences from males. Different types of sports promote different developmental outcomes, with combined practice emerging as a key factor in fostering psychosocial and citizenship development. Age was associated with a reduction in some PYD indicators, while duration, weekly frequency, and competitive experience were found to be facilitators of youth development. Competitive experience was crucial in promoting character, confidence, and citizenship contribution inside and outside of schools.

The relationship between sport practice and PYD appears dynamic. It depends on the interaction between individual and contextual variables (Bronfenbrenner & Morris,

2006; Lerner et al., 2005). So, more than participation, it is the quality of the sporting experience that promotes youth development (Almeida et al., 2023; Ferreira et al., 2012).

Regarding citizenship contributions, sports are a privileged space for PYD and civic and political developmental experiences. Social interaction in sport promotes democratic experiences that encourage young people to engage in active citizenship. It is a privileged space for educational intervention and social contribution, both inside and outside the school.

Implications for practice

Males and females tend to have different sporting profiles. As such, sports programs must be adapted to the specific needs of each gender and overcome sociocultural barriers to female participation. Besides that, since the quality of sporting experiences, rather than their quantity, most determines PYD, coaches and teachers must ensure physically and psychologically safe, positive and motivating environments, as well as promote the practice of different types of sports and competitive experiences adapted to individual needs. Considering all these aspects, it is defended that the training of coaches should therefore include approaches that are sensitive to gender and the social context of young people, maximising sport as a context for promoting citizenship and PYD.

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3.3. Living, doing and learning in sport, civic and political activities: Possible paths for positive youth development

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Living, doing and learning in sport, civic and political activities: Possible paths for positive youth development

This study investigated the relationship between patterns of youth participation in sports, civic and political activities, and positive youth development outcomes, including social and personal responsibility. It used cluster analysis complemented by a MANOVA and MANCOVA. A sample of 1,174 secondary vocational students (57.1% female) aged 14 to 19 completed an online questionnaire. Results show that different participation patterns promote different developmental outcomes; combining sports and citizenship activities enhances character, caring, and social and personal responsibility. Gender and age are significant moderating factors in the relationship between youth participation patterns and developmental outcomes, with girls scoring higher in character, caring and personal responsibility, while boys showed higher levels of competence and confidence. Older students revealed weaker competence and personal responsibility. This study emphasizes the benefits of combining different activities to promote youth development and the role of schools in promoting active, socially responsible youth. The study appeals to adapted interventions and for more research into contextual variables and long-term effects.

Keywords: sport; civic and political participation; positive youth development, school; students

Introduction

Over the past two decades, sport has been recognized as a valuable context for the development of young students (Almeida et al., 2023; Bruner et al., 2021; Whitley et al., 2019). The social interactions sport provides, both inside and outside school, especially

when structured, organized and supervised by adults, contribute to the psychosocial and moral development of youth (Bean & Forneris, 2016; Camiré, 2015; Clanton et al., 2023; Hellison, 2011; Linver et al., 2023; Petitpas et al., 2005). Sport also offers opportunities for the transfer of skills and values to other areas of life (Lee & Martinek, 2013). However, sport, whether competitive or not (e.g. leisure, adventure), is just one of the many contexts in which young people participate.

Since the early 21st century, youth engagement in citizenship activities has gained increasing attention among scholars, policymakers and educators (Commission et al., 2018; Eccles et al., 2003; Ferreira et al., 2012; Fredricks & Eccles, 2006; Hansen et al., 2003; Hilliard et al., 2019; Kornbluh, 2023; Shernoff & Vandell, 2007; Sherrod, 2007). Civic and political participation are essential for the health of democracy because they are linked to personal and social well-being, as well as future civic and political involvement (Zaff et al., 2008). Studying young people's civic and political engagement has become increasingly relevant given the growing focus on youth participation and citizenship (Commission et al., 2018), as well as the recognition of these activities as expressions of positive youth development (PYD)(Sherrod, 2007).

Organized youth activities, including sports and civic and political activities, offer unique opportunities to promote youth development (Ferreira et al., 2012; Quintelier, 2008). Youth often experience higher levels of motivation and cognitive engagement in these activities compared to other contexts in their lives (Shernoff & Vandell, 2007). The activities seem to be beneficial to the psychosocial and moral development, within and outside the school context (Almeida et al., 2023). This becomes more relevant when these activities are voluntarily sought out and experienced by students, both in and out of school. It is important to highlight that school is a common, if not liquid, socio-

educational space, into which everything flows, connects, discusses, confronts and lives together: knowledge, skills, ideas and experiences. However, despite the well-documented benefits of sports and citizenship activities for PYD, as well as the growing presence of both in the daily lives of a significant proportion of young people, to date there has been no study that has looked not only at the relation between citizenship activities, specifically civic and political, and PYD, but also to youth developmental experiences of both sport and citizenship activities.

Through an ecological approach (Bronfenbrenner & Morris, 2006; Lerner et al., 2005) it is known that different activities offer distinct opportunities for developmental experiences (Fredricks & Eccles, 2006; Hansen et al., 2003; Larson et al., 2006; Quintelier, 2008). The combination of different types of activities, both sport and non-sport, also seems to add benefits (Almeida et al., 2023). This study therefore sought to explore the relationship between young students' patterns of participation in sport, civic and political activities and PYD.

The PYD approach

After emerging in the early 1990s and gaining visibility during the current century, the PYD approach assumes that all children and young people have the potential for a bright future. That potential results from the mutually influential relationships between developing individuals and their biological, psychological, ecological and historical niche (Lerner et al., 2005). Based on ecological approaches to human development (Bronfenbrenner & Morris, 2006), the PYD framework assumes that the developing young person has a permanent relation (influencing and being influenced) with his or her ecology and with spaces and times that are continuously interconnected. The various activities in which young people engage can be seen as differing learning and

experimental environments that provide different opportunities for developmental experiences and growth (Lerner et al., 2005). Young people are seen as participatory and active agents in their development, with sport being recognized as a favourable context for this process, both in and out of school (Almeida et al., 2023).

PYD through sport

Sport is recognized as a favourable context for PYD within and outside school (Almeida et al., 2023). It facilitates the transfer of skills and strengthens connections between youth, schools and communities (Armour & Sandford, 2013; Koh et al., 2016). Policymakers, researchers, teachers and coaches view sport as a socio-educational context that can be organized to promote participatory citizenship, prosocial behaviours, personal and social responsibility, community involvement and the acquisition of citizenship skills (Forneris et al., 2015; Hilliard et al., 2019; Rotolo et al., 2020; Zaff et al., 2008; Zarrett et al., 2009).

Sport is a context that promotes social interaction, interpersonal communication, teamwork, leadership and goal-setting (Almeida et al., 2023). It promotes cooperation, confrontation, and arbitration, as well as situations that facilitate experiences calling for conflict and problem solving, decision-making and emotion and time management, which are essential components in the development of psychosocial and life skills (Armour & Sandford, 2013; Camiré, 2015).

The social interaction provided by sport promotes perspective-taking, reciprocity and social exchange, which are the basics of social and moral development (Hellison, 2011). Dealing with diverse opinions and points of view promotes reflection and an understanding of fairness and reciprocity, which are crucial factors for positive social relationships, while also allowing individuals to see themselves through the eyes of

others. As a communication process, role-taking emphasizes self-development by understanding and assuming the perspectives of others (Ferreira et al., 2012). Because sport is regulated not only by rules and norms but also guided by values such as fair play, equity, justice, respect and social responsibility, participation reinforces PYD outcomes and moral development (Hellison, 2011; Hellison & Wright, 2003; Petitpas et al., 2005). In environments that are safe, structured and supervised by supportive adults (e.g. physical education, school sport, competition), sports activities have become a favourable space for PYD programmes and the transfer of positive experiences (Almeida et al., 2023; Bean & Forneris, 2016; Lee & Martinek, 2013).

Youth development through citizenship activities

Research has also considered the place of non-sporting activities in youth development, including citizenship activities such as civic and political participation (Almeida et al., 2023; Ferreira et al., 2012; Quintelier, 2008; Sherrod, 2007; Soutter & Clark, 2024). These activities aim to defend social justice and inclusion; influence government decisions; promote communication and leadership skills, teamwork and social activism; and favour young people's psychosocial and moral development. They also foster a moral commitment to improving society, especially in terms of social justice and equity, and a sense of active citizenship with strong community ties and moral and political awareness (Ekman & Amnå, 2012; Ferreira et al., 2012). However, despite evidence that citizenship activities are a favourable context for youth development, no studies were found on the relationship between citizenship activities, namely political and civic involvement, and PYD.

The “black box”: Is participation always good?

Sports and citizenship activities are widely acknowledged as a favourable context for youth development, both within and outside school contexts. However, some research has suggested that involvement in these activities does not in itself guarantee growth (Almeida et al., 2023; Ferreira et al., 2012). Negative developmental experiences have been reported, attributed to factors such as lack of structure, supervision and intentionality; barriers to participation and transfer; negative interactions with peers and adults; unsafe and unwelcoming environments; and lack of opportunities for leadership and participation in decision-making processes, among others (Andersson, 2019; Bean & Forneris, 2016; Hilliard et al., 2019; Koh et al., 2017; Larson et al., 2006; Røset et al., 2023). The connection between participation and youth development is neither inherent nor linear, but is influenced by the continuous interaction between the developing individual and their multi-contextual environment (Almeida et al., 2023; Bronfenbrenner & Morris, 2006; Lerner et al., 2005).

The current research

Sports practice and involvement in non-sporting activities has been associated with youth development (Almeida et al., 2023). However, although some studies have considered citizenship activities as contexts for youth development (Andersson, 2019; Eccles et al., 2003; Ferreira et al., 2012; Hansen et al., 2010; Larson et al., 2006; Quintelier, 2008; Zaff et al., 2008) and the conceptualization of “civic engagement” as an expression of PYD (Sherrod, 2007), no studies were found about the relationship between youth participation patterns in sports and citizenship activities and PYD.

The ecological approach theory suggests that development results from the continuous interaction between individuals and their environment (Bronfenbrenner & Morris, 2006). Some research has added that different activities offer distinct opportunities for developmental experiences and promote different PYD outcomes (Fredricks & Eccles, 2006; Hansen et al., 2003; Hansen et al., 2010; Larson et al., 2006; Quintelier, 2008). Sports and citizenship activities both provide different interactions, structures, growth opportunities and, consequently, developmental experiences and contexts. Sport may emphasize the development of physical and life skills, discipline, teamwork, resilience and personal and social responsibility (Armour & Sandford, 2013; Hellison, 2011; Ho et al., 2017). Sports activities are usually structured and competitive in nature, which can lead to the development of a strong work ethic, emotional regulation, time-management, identity work, prosocial norms and the ability to deal with victory and defeat (Camiré, 2015).

Citizenship activities, meanwhile, imply decision-making processes, community participation and advocacy, which can promote a deeper understanding of civic rights and duties, as well as greater empathy and understanding of social issues. They may foster skills, social responsibility and political participation (Andersson, 2019; Ferreira et al., 2012; Zaff et al., 2008). Of relevance is the fact that responsibility-related skills emerged from participation in both activities in the referred studies. In fact, the theme of responsibility – in particular the skills of social and personal responsibility – is often mentioned not only by PYD theorists (Damon, 2004; Lerner et al., 2005), but also in research about PYD through sports and non-sports activities (Armour & Sandford, 2013; Eccles et al., 2003; Hellison & Wright, 2003; Pozo et al., 2019; Rotolo et al., 2020). It can also be recognized that participation in multidisciplinary and multi-contextual

environments – namely, the combination of sports with non-sports activities – can be highly beneficial for the psychosocial and moral development of young people (Almeida et al., 2023; Forneris et al., 2015; Zarrett et al., 2009). It is thus important to study the patterns of participation in sports and citizenship activities and their relationship with young people’s psychosocial and moral development to gain a better understanding of how both activities influence PYD.

It is important to highlight that organized sport (e.g. team sports) are recognized as a traditionally sex-segregated environment, which can differ across a wide range of factors, including team culture, coaching and teaching styles (Agans & Geldhof, 2012). Boys and girls currently show different ways of getting involved in civic and political activities and tend to participate in different activities. Girls tend to be more prosocial, while boys prefer participating in sports activities and show more traditional political views (Quintelier, 2008; Sherrod, 2007). Besides gender, age is often mentioned as an important individual variable to consider in the context of youth development and participation in sports and citizenship activities (Hellison & Wright, 2003; Raimundi et al., 2018).

This work sought to study the relationship between patterns of participation in sports and citizenship activities and the PYD results – specifically the “5Cs” (discussed below), social responsibility and personal responsibility – of young Portuguese secondary school students. The first hypothesis of this study was that different patterns of participation in sports and citizenship activities are associated with different PYD results. To verify this hypothesis, it is essential to find and characterize the participation patterns of the sample – in other words, to segment a heterogeneous sample into more homogeneous segments. This was the main reason for opting for cluster analysis. The

second study hypothesis was that combining sport with citizenship activities promotes complementary benefits. Verifying this hypothesis would help in designing more effective interventions and programmes to promote PYD and social and personal responsibility among young student-athletes. In this context, the following research questions were defined for this study:

1. What is the relationship between Portuguese secondary vocational school students' sports and citizenship participation patterns and PYD outcomes, specifically concerning the "5Cs" (character, caring, connection, confidence and competence) and social and personal responsibility?
2. What influence do gender and age have on this relationship?

Materials and methods

Sample

In a quantitative cross-sectional study, 1,174 Portuguese vocational students (57.1% females) between 10th and 12th grade, aged 14–19 ($M = 16.98$, $SD = 1.44$), completed an online survey. A simple random sampling process was used in the initial phase of approaching schools. Thus, all 18 schools in the target area (the metropolitan area of Porto) received a request for collaboration in the study. The survey was completed by 96% of the total number of students present in the classrooms at the planned, scheduled times and days, duly authorized by their parents.

Table 1. Baseline Sample Characteristics

		n	%
Gender			
	Male	504	42.9
	Female	670	57.1
Sport in (Sports participation in school)			
	No	707	60.2
	Yes ^a	467	39.8
	Male		
	No	280	55.6
	Yes ^a	224	44.4
	Female		
	No	427	63.7
	Yes ^a	243	36.3
Sport out (Sports participation outside of school)			
	No	176	15.0
	Yes	998	85.0
	Male		
	No	40	7.9
	Yes ^a	464	92.1
	Female		
	No	136	20.3
	Yes ^a	534	79.7
Participation in (Civic and political participation in school)			
	No	440	37.5
	Yes	734	62.5
	Male		
	No	232	46.0
	Yes ^a	272	54.0
	Female		
	No	208	31.0
	Yes ^a	462	69.0
Participation out (Civic and political participation outside of school)			
	No	545	46.4
	Yes	629	53.6
	Male		
	No	267	53.0
	Yes ^a	237	47.0
	Female		
	No	278	41.5
	Yes ^a	392	58.5

^a Currently or in the past

Procedures

This study was previously approved by Ethics Committee of the Faculty of Sport of the University of Porto (approval number: CEFAD 30 2019). Emails were sent to the directors of the schools to request their collaboration in the research. Students who agreed to collaborate were given an informed consent form to be handed in and signed by their parents or, if aged at least 18 years, they presented the signed informed consent form; all students completed the questionnaires in the presence of the teachers. The teachers who collaborated in the data collection process received prior specific training for the survey

application. A protocol was used to ensure that data collection was administered uniformly and that all study materials were returned. The online inventory was administered in classrooms equipped with computers. The process was preceded by a pilot application by the first author with two classes (one 10th grade and one 12th grade class, 24 pupils each).

Measures

Participants answered a questionnaire about socio-demographic, sport, civic and political participation experience variables and PYD indicators. This study adopted the concept of sport proposed by the Council of Europe (Commission, 2007): “all forms of physical activity which, through casual or organized participation, are aimed at maintaining or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels” (p. 2). Sports data were collected through simple questions: Do you practise (or have you ever practised) any sport in School Sport (Yes/No)? A similar question queried sports activities “outside of school”.

Involvement in citizenship activities, in this study measured by civic and political participation, was referred to under the term “Participation”. Information about such experiences was gathered through the Participation Experiences Questionnaire (Ferreira & Menezes, 2001), which was designed to collect information about adolescents’ civic and political participation experiences. It has two parts, but only the first part was used (14 items), in which participants state if they ever participated (*Never; Occasionally; Continuously, less than 6 months; Continuously, more than 6 months*) in a variety of civic and political experiences groups (participation in groups, associations and movements). Each of the items was carefully analysed and framed with a view to constituting two independent variables: “participation in” (civic and political participation within the

school) and “participation out” (civic and political participation outside the school). Examples for items outside of school: “*Have you ever collaborated with or been involved in, for example, volunteering, charity or social solidarity groups? Political parties, youth organizations?*” For inside school: “*There are many ways for students to get involved in their school. During the last year, did you get involved in a school group or club, e.g., theatre, school newspaper, other? Voted for the student or school councils, parliaments or assemblies?*” For each variable, students who answered “Never” to all the items were classified as “non-participants” (No). The rest were considered “participants” (Yes). The good psychometric properties of this scale have been confirmed in previous studies (Ferreira et al., 2012).

The PYDp/red (Esperança et al., 2017), a reduced version of the PYDp, the Portuguese version of the PYD measure (Lerner et al., 2005), was used. It consists of 30 items, equally divided into five subscales, known as the 5Cs: character (respect for social and cultural norms, standards of correct behaviour, morality and integrity); caring (a sense of sympathy and empathy for others); connection (positive links with people and institutions reflected in two-way exchanges between the individual and their peers, family, school and community, with both parties contributing to the relationship); confidence (internal sense of self-esteem and overall positive self-efficacy); and competence (positive view of own actions in specific areas, including the social, academic, cognitive and professional domains). The items were assessed on a 4-point Likert scale, on which participants specified the level of agreement with how each statement applies to them, ranging from 1 (*Not at all important*) and 4 (*Very important*) or similar options (e.g., 1, *I am completely different* or 4, *I am exactly like this*). Past research has evidenced the validity and reliability of this scale (Esperança et al., 2018).

The Personal and Social Responsibility Questionnaire (Martins et al., 2015) was used to measure social and personal forms of responsibility, which refer to individuals making choices and behaving with a focus on human values (Damon, 2004). This questionnaire includes 14 items distributed across two dimensions: social responsibility (SR), which reflects the responsibility needed to establish a positive learning environment that reflects respect and concern for others (Items 1–7; examples: “I respect my teammates” and “I am helpful to my teammates”); and personal responsibility (PR), which refers to the basic responsibilities needed to establish a positive learning environment which reflects effort and self-direction (Items 8–14; examples: “I make an effort” and “I set goals for myself”). A 6-point Likert scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), was used. The good psychometric properties have been proven in previous studies (Martins et al., 2019).

Statistical analysis

Descriptive statistics have been presented as means (M) and standard deviations (SD) for continuous variables. Continuous variables were checked for symmetry and normality. Frequencies (n) and percentages (%) were calculated for categorical variables. Internal consistency analysis of the 5Cs (character, caring, connection, confidence and competence) and responsibility dimensions (SR and PR) was performed using Cronbach’s alpha. Pearson correlations were calculated to assess the strength of the association between dependent variables and thus confirm the feasibility of conducting multivariate analysis of variance and covariance.

Considering the aim of the study, it was essential to find and characterize the patterns of participation in sport and citizenship activities by students in the sample. Cluster analysis was used to group the independent variables. Hierarchical clustering was

performed considering a range of solutions with between two and six clusters, exploring less comprehensive to more comprehensive solutions. Because variables were categorical and mostly binary, the squared Euclidean distance was applied for cluster centre initialization. Ward's cluster method was used to maximize the significance of differences between clusters. Chi-squared tests assessed differences between the included variables and the output cluster solutions. The distribution of cluster solutions was also assessed. Cluster solution assessment was based on chi-squared tests, distribution and observation of the dendrogram.

Cluster discrimination capacity was assessed with multivariate analysis of variance (MANOVA). The final cluster solution had five clusters. MANCOVAs were implemented to assess the association of this solution with the 5Cs and the responsibility dimensions adjusted for gender and age. To assess effect size, partial eta squared was used considering the following thresholds: 0.01–0.06 (small effect), 0.06–0.14 (moderate effect) and > 0.14 (large effect). The necessary assumptions of normality and variance homogeneity were verified. In the post hoc tests, type 1 error rate was controlled using Tukey and Bonferroni corrections. Statistical significance was considered at $p < .05$. Data were analysed with SPSS version 2.0.

Results

Sample characteristics are available in Table 1. The Cronbach's alpha results were 0.75 for character, 0.82 for caring, 0.77 for connection, 0.83 for confidence, 0.84 for competence, 0.80 for SR and 0.77 for PR. Correlations between the dimensions of the 5Cs were all above 0.3, which suggests the feasibility of conducting MANCOVAs.

All cluster solutions (between two and six) showed significant associations with the included variables in the clustering process ($p < .001$); all could differentiate the proportions of the included variables. Assessment of the dendrograms showed that the most admissible solutions were Solutions 4 and 5. Solution 5 was chosen because its frequency distribution was more balanced.

Figure 1 shows the distribution of variables for each cluster in Solution 5. The following designations were assigned to each cluster according to the percentages of those who practised sport within and outside of school, as well as civic and political participation within and outside of school:

- Cluster 1 (CL1): “Athlete activists” – highly engaged in sports and citizenship activities (n = 241, 58.5% females);
- Cluster 2 (CL2): “Athletes out-of-school, non-activists” – mainly active in sport outside of school (n = 254, 42.9% females);
- Cluster 3 (CL3): “Athletes, moderately activist at school” – highly active in sport with some school-based citizenship (n = 176, 44.3% females);
- Cluster 4 (CL4): “Athletes out-of-school, active in citizenship” – active in citizenship and sport outside of school (n = 327, 63.0% females); and
- Cluster 5 (CL5): “Non-athletes, moderately activist” – moderately active in citizenship with low sport participation (n = 176, 77.3% females).

Patterns of participation and youth development

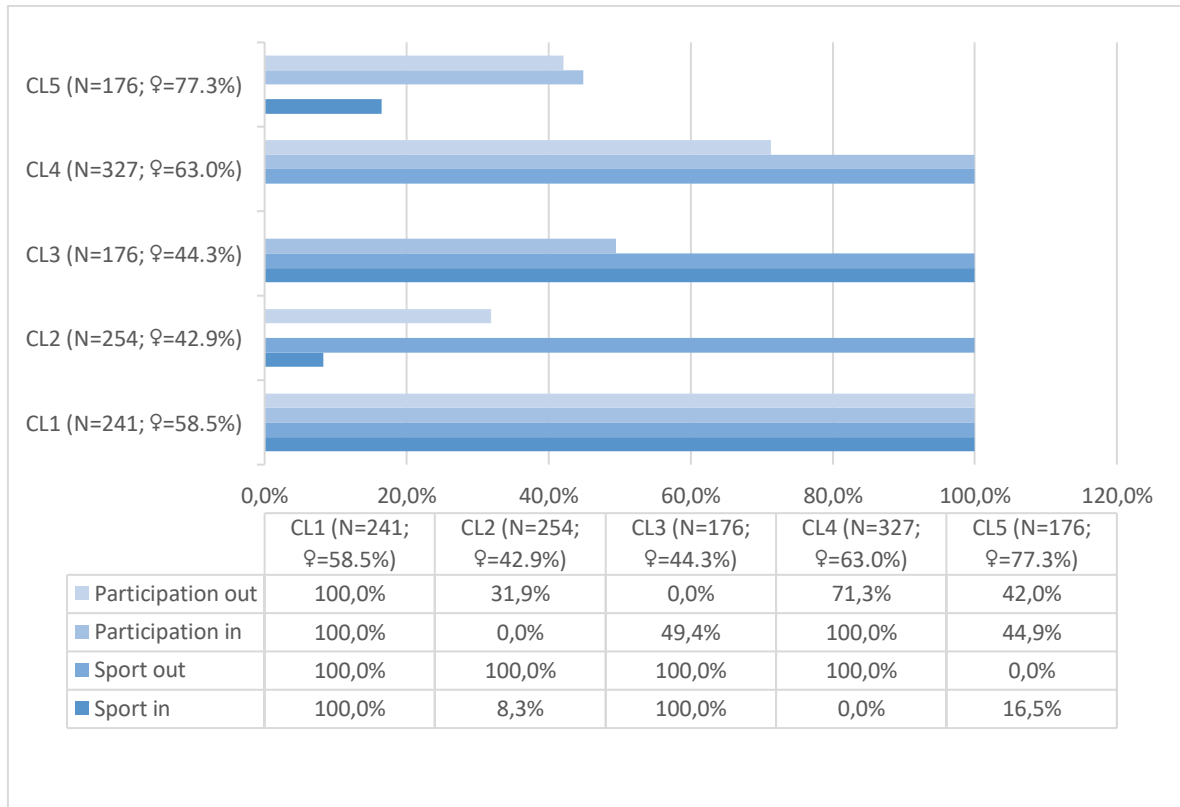


Figure 1. Variable distribution for each cluster

The selected five-cluster solution shows discriminant capacity for the 5Cs (Wilks $\lambda = 0.96$, $p < .001$, $\eta_p^2 = 0.01$) and the responsibility dimensions (Wilks $\lambda = 0.97$, $p < .001$, $\eta_p^2 = 0.02$). Multiple comparisons showed significant differences for character [$F_{(4, 1169)} = 4,26$, ($p = .002$), $\eta_p^2 = 0.01$], connection [$F_{(4, 1169)} = 3.02$ ($p = .017$), $\eta_p^2 = 0.01$], SR [$F_{(4, 1169)} = 5,83$, $p < .001$, $\eta_p^2 = 0.02$] and PR [$F_{(4, 1169)} = 4,45$, $p = .001$, $\eta_p^2 = 0.02$] (see Table 2). Only significant differences are presented.

Table 2. Cluster Solution: Discriminant Capacity for 5Cs and Responsibility ^a

Clusters	CL1 (n = 241) (♀ = 58.5%)	CL2 (n = 254) (♀ = 42.9%)	CL3 (n = 176) (♀ = 44.3%)	CL4 (n = 327) (♀ = 63.0%)	CL5 (n = 176) (♀ = 77.3%)	Multiple comparisons ^b
5Cs						
Character	3.46 (0.49)	3.40 (0.53)	3.35 (0.51)	3.52 (0.41)	3.46 (0.42)	CL2, CL3 < CL4 (p = .040; p = .001)
Caring	3.35 (0.57)	3.25 (0.64)	3.19 (0.66)	3.33 (0.57)	3.36 (0.63)	—
Connection	2.96 (0.65)	2.88 (0.69)	2.95 (0.67)	3.03 (0.65)	2.85 (0.62)	CL2, CL5 < CL4 (p = .039; p = .029)
Confidence	3.09 (0.65)	3.11 (0.64)	3.11 (0.61)	3.20 (0.59)	3.15 (0.55)	—
Competence	3.05 (0.63)	3.00 (0.68)	2.99 (0.64)	3.04 (0.61)	3.05 (0.56)	—
Responsibility						
Social Responsibility	4.37 (0.53)	4.21 (0.68)	4.16 (0.64)	4.36 (0.53)	4.27 (0.56)	CL1 > CL2, CL3 < CL4 (p = .025; p = .003; p = .017; p = .002)
Personal Responsibility	4.22 (0.53)	4.07 (0.73)	4.04 (0.65)	4.15 (0.61)	3.99 (0.72)	CL1 > CL5 (p = .003)

Legends: ♀ = female; Notes: ^a Includes means and standard deviations; ^b Multiple comparisons after adjusting for gender and age: Character – CL3 < CL4 (p = .022), Connection – CL2, CL5 < CL4 (p = .039; p = .047), SR – CL1 > CL2, CL3 < CL4 (p = .043; p = .004; p = .039; p = .003) and PR – CL1, CL4 > CL5 (p < .001, ; p = .024).

Concerning the 5Cs, after adjusting for gender (Wilk’s $\Lambda = 0.91$, $p < .001$, $\eta_p^2 = 0.09$) and age (Wilk’s $\Lambda = 0.99$, $p = .033$, $\eta_p^2 = 0.01$), statistically significant global results emerged in the comparison of clusters (Wilk’s $\Lambda = 0.97$, $p = .004$, $\eta_p^2 = 0.01$). Significant differences remained for character [$F_{(4,1066)} = 2.70$, $p = .030$, $\eta_p^2 = 0.01$] and connection [$F_{(4,1064)} = 3.03$, $p = .017$, $\eta_p^2 = 0.01$] (see notes to Table 2). Regarding responsibility, after controlling for gender (Wilk’s $\Lambda = 0.99$, $p = .012$, $\eta_p^2 = 0.01$) and age (Wilk’s $\Lambda = 1.00$, $p = .104$, $\eta_p^2 \approx 0.00$), significant results continued to appear in the cluster comparisons (Wilk’s $\Lambda = 0.97$, $p < .001$, $\eta_p^2 = 0.02$), with significant differences remaining for SR

[$F_{(4,1066)} = 5.38, p < .001, \eta_p^2 = 0.02$] and PR [$F_{(4,1064)} = 4.70, p < .001, \eta_p^2 = 0.02$] (see notes to Table 2).

Parameter estimates showed that girls scored significantly higher than boys for character ($B = 0.18, p < .001, \eta_p^2 = 0.03$), caring ($B = 0.23, p < .001, \eta_p^2 = 0.03$) and PR ($B = 0.11, p = .004, \eta_p^2 = 0.01$), while boys scored higher in confidence ($B = 0.16, p < .001, \eta_p^2 = 0.02$) and competence ($B = 0.13, p < .001, \eta_p^2 = 0.01$). The age effect was statistically significant only for competence ($B = 0.25, p = .048, \eta_p^2 \approx 0.00$) and PR ($B = 0.27, p = .038, \eta_p^2 = 0.01$), with lower results for older participants.

Discussion

Previous investigations (Almeida et al., 2023) have suggested that different activities promote different opportunities for developmental experiences, as well as different PYD outcomes. However, no study has explored developmental outcomes resulting from the participation of young people in sports and civic activities. This study explored the relationship between participation patterns in sports, civic and political activities, and the PYD outcomes of Portuguese secondary vocational students. The evidence corroborates the initial hypotheses: different participation patterns are associated with different developmental outcomes and the combination of activities benefits the PYD.

Relationship between sports and citizenship participation patterns and PYD/responsibility outcomes

Different participation patterns were found among the Portuguese vocational secondary school students that reflected differences in sports practice and civic participation within and outside of school. The results suggest an association between the patterns of participation and PYD outcomes, particularly for character, connection, and SR and PR.

Significant differences in character were found between CL4 (“Athlete activists”) and both CL2 (“Athletes out-of-school, non-activists”) and CL3 (“Athletes, moderately activist at school”), with higher levels for CL4. Students from CL4 are highly active in their combination of citizenship and sports activities, inside and outside school. They experience high social interaction, cooperation and confrontation, leadership, decision-making and solving problems, society participation and defence of rights and duties, where justice and equity are cultivated. This liquid environment supplies them with experiences promoting continuous action and reflection favourable to a greater understanding of social issues and the development of skills such as empathy and responsibility (Almeida et al., 2023; Andersson, 2019; Ferreira et al., 2012). Less involvement in school sport seems to be related to higher character scores. This may suggest that citizenship involvement favours character development more than school sport does. This trend should be carefully analysed, because there may be many other factors involved, like sports involvement outside school. However, it should not be forgotten that sport may promote negative experiences (Hansen et al., 2003)(Hansen et al., 2003). In addition, practising sport outside of school, a context often structured and supervised that is sometimes also more competitive, can promote resilience, self-discipline, respect, commitment and a good work ethic, which are crucial elements for character development (Camiré, 2015; Hansen et al., 2003; Hellison, 2011; Koh et al., 2017).

Students from CL2 (“Athletes out-of-school, non-activists”) and CL3 (“Athletes, moderately activist at school”) are noted for their limited participation in citizenship activities. The students in CL2 focus almost exclusively on sport outside of school, with minimal citizenship engagement, which could restrict the development of civic and

political awareness often promoted in citizenship activities (Ferreira et al., 2012; Quintelier, 2008). The pupils in CL3, on the other hand, although active in sport both in and outside of school and with medium civic and political participation, may find character development limited by a lack of citizenship activities outside of school. These findings suggest that combining out-of-school sport and participation in civic and political activities inside and outside the school environment can be especially effective in developing a solid character.

Significant differences were found between CL4 (“Athletes out-of-school, activists in citizenship”) and both CL2 (“Athletes out-of-school, non-activists”) and CL5 (“Non-athletes, moderately activist”) in terms of connection, with pupils from CL4 showing the highest scores. Comparing CL4 and CL2, both play sport outside of school; however, CL4 students are more active in citizenship. This seems to be related to their greater levels of connection. Students from CL5 participate less in sports and citizenship activities than those from CL4, which may explain the differences. The data suggest sports participation alone does not foster connection, except when combined with citizenship activities. On the other hand, as in previous studies (Forneris et al., 2015; Zarrett et al., 2009), being civic and politically participative appears to facilitate the development of connection. Citizenship actions, particularly when combined with sport, also seem to boost connections with the community. Sports and citizenship activities share an important phenomenon, which is social interaction, but each context has its own specific contributions. Sports activities facilitate opportunities for interpersonal communication, teamwork, cooperation and confrontation, problem solving, leadership and goal-setting (Almeida et al., 2023). Citizenship implies active participation in society, interaction with diverse groups and reciprocal communication, thus strengthening

community connections (Ekman & Amnå, 2012; Ferreira et al., 2012). These experiences facilitate two-way exchanges between young people and their peers, coaches, teachers and other community actors, which promote more robust and healthier bonds, thus highlighting the importance of an ecological approach in the study of youth development through youth activities (Bronfenbrenner & Morris, 2006; Lerner et al., 2005).

As with character and connection, the findings suggest that different patterns of youth participation in sports, civic and political activities are associated with different developmental outcomes for SR and PR. First, the results indicate that students in CL1 (“Athlete activists”), who are highly involved in sports and citizenship activities, and CL4 (“Athletes out-of-school, activists in citizenship”) show higher levels of SR compared to students in CL2 (“Athletes out-of-school, non-activists”) and CL3 (“Athletes, moderately activist at school”). This difference can be attributed to the fact that CL1 and CL4 combine both sports experiences and civic activities, here within and outside of school, which potentially creates more opportunities for young people to develop and transfer social and life skills linked to respect for others and the community environment (Armour & Sandford, 2013; Bruner et al., 2021; Eccles et al., 2003; Ettekal et al., 2017; Lee & Martinek, 2013; Pozo et al., 2019). Civic activities, in particular, encourage young people to act and reflect on collective well-being and the importance of the social involvement (Ferreira et al., 2012). In contrast, CL2, which comprises sports practice outside of school with poor civic and political participation, shows significantly lower levels of SR. The low citizenship involvement seems to limit the development of a sense of respect for others and the community environment. Similarly, CL3 students, who combine sport with moderate civic participation inside the school, also register lower SR levels than CL4, where young people demonstrate a more robust balance between sport and civic

engagement outside school. These results, like those of other studies (Forneris et al., 2015; Zarrett et al., 2009), corroborate the hypothesis that combining sport with non-sports activities, namely citizenship activities, is associated with a more significant development of skills like SR.

Regarding PR, the data show that CL1 students also stand out with significantly higher PR levels than CL5. With full participation in sport and citizenship, the CL1 pattern promotes an environment where young people are encouraged to develop self-discipline, effort and personal orientation, which are fundamental skills for establishing a positive learning environment (Hellison, 2011). The combination of sports and citizenship activities facilitates the practice of individual responsibility by requiring young people to strive to achieve personal and collective goals actively (Almeida et al., 2023; Forneris et al., 2015; Zarrett et al., 2009). The context of CL5, comprised of young students with moderate participation in civic and political activities and low involvement in sport, has lower levels of PR. This group, with less involvement in sport, does not seem to benefit from the same opportunities to develop the skills of self-discipline and effort, which are often promoted in sporting contexts through competition, goal-setting and problem-solving (Camiré, 2015). Previous studies have suggested that sport can be an essential facilitator of PR, especially when involved with other structured activities, namely non-sporting ones linked to the community (Almeida et al., 2023).

The results confirm that participation in sports and citizenship activities is related to better SR and RP scores. Different participation patterns were also found to be associated with different responsibility scores. However, combining those activities also seems to favour SR and RP development, because it offers opportunities for active participation in social activities, increasing respect for others and self-discipline.

However, weak involvement in sports or citizenship activities seems to reduce levels of responsibility, thus emphasizing the importance of an ecological approach to young people's involvement and development (Almeida et al., 2023; Bronfenbrenner & Morris, 2006; Lerner et al., 2005).

Relationship between participation patterns and PYD: The role of gender and age

The results provide important insights into the influence of gender and age on the relationship between patterns of youth participation and PYD and responsibility outcomes, notably suggesting that different groups benefit unequally from these activities depending on their age and gender.

The data reveal that gender significantly affects character, caring, confidence, competence and PR. Girls scored significantly higher than boys in character, caring and PR, which suggests that girls tend to develop a greater respect for social and cultural rules and a greater sense of morality and empathy for others, characteristics that are central to the character concept (Lerner et al., 2005). Previous studies (Sherrod, 2007) have indicated that girls tend to be more oriented towards pro-social and empathetic behaviours, which may explain their higher scores in caring, while boys prefer participating in sport and showing more traditional political views. On the other hand, boys scored higher in confidence and competence, which suggests that they tend to have higher self-esteem and self-efficacy. This can possibly be explained by their higher participation in sport (see Table 1). More significant participation in sport provides more opportunities to develop the cognitive, social and professional skills reflected in self-perceptions of competence. The difference may also reflect boys' greater exposure to competitive environments, such as sport, which favour the development of confidence in their abilities and skills (Camiré, 2015). These results suggest that girls and boys have different tendencies to participate in sports, civic and political activities. As previously

argued (Quintelier, 2008; Raimundi et al., 2018), boys and girls show different ways of getting involved in civic and political activities and tend to participate in different activities, particularly inside school. These tendencies corroborate previous studies (Agans & Geldhof, 2012) – namely, that girls have different sports participation profiles and patterns than boys. First, girls not only tend to participate in sport less than boys, but they also tend to prefer pro-social activities and taking part in a wider range of activities compared to boys (Eccles et al., 2003). Second, it is important to remember that organized sports activities are traditionally a sex-segregated environment: female and male teams may differ considerably across a large range of factors (e.g. team culture, coaching style), even within the same type of sport (Agans & Geldhof, 2012).

Age effects were statistically significant only for competence and PR, with lower results for older participants. This could be a reflection of the cognitive and social changes that occur during adolescence, which is marked by physical and cognitive transformations in social expectations (Morano et al., 2022). Adolescents face growing challenges in trying to maintain self-discipline and perceived competence as they age, especially with increased academic and social demands. Higher performance expectations and growing levels of responsibility may generate lower perceptions of efficacy, thus increasing anxiety and apprehension (Røset et al., 2023). The growing pressure to manage multiple responsibilities inside and outside school, including social life, can decrease perceptions of self-efficacy. Simultaneous demands can also lead to an overload of functions, thus weakening the ability to manage responsibilities. In the context of sport, older athletes face increased challenges due to growing specialization, competition experiences and the pressure to succeed (Camiré, 2015; Fraser-Thomas & Côté, 2009). This can lead pupils to doubt their own capacities, thus reducing self-perceived competence and,

consequently, to a decrease in self-confidence. Late adolescence, with the inherent transition to adulthood and its social roles and responsibilities, involves a significant increase in external demands, such as academic responsibilities and social pressures, which could also possibly contribute to decreased perceived efficacy in managing responsibilities.

In short, the results suggest that different patterns of sports and citizenship participation are associated with different PYD and responsibility outcomes. Combining these activities benefits character, connection, SR and RP development. The “activist athletes” demonstrated the highest scores, possibly because they combined sports with citizenship activities. Lower activism in citizenship issues, even when combined with sport, seems to contribute to lower scores in PYD and responsibility. It can also limit PYD and responsibility development. This emphasizes the value of combining sports practice with citizenship participation for PYD. Gender and age emerged as moderating factors for PYD and responsibility development through youth participation in sports and citizenship activities. This underlines the need for youth development programmes to consider the specificities of gender and age to maximize youth development.

Conclusions: Living, doing and learning

The analyses indicate that different participation patterns are associated with different developmental outcomes and that combining sport with civic and political activities offers complementary benefits and promotes PYD. The exception is when participation patterns in civic activities are limited or non-existent. Civic and political participation is thus a favourable context to promote character, connection, SR and PR. Although not decisive, sport is a potential space for broadening and transferring

developmental and learning experiences and, consequently, the skills acquired in citizenship activities.

Gender seems determinant for PYD through sports and citizenship activities, with girls and boys showing different participation tendencies for sports, civic and political activities. Age also emerged as a relevant variable but requires complementary data and further studies. This work also supports the idea that not only do mutually influential relationships between individuals and their contexts promote different environments and, consequently, different opportunities for young people to adapt to their contexts, but also that the interconnectedness and diversity of these multi-contextual environments favour the quality of young people's developmental experiences and transfer processes. In fact, connection may be related to character (Sherrod, 2007), especially among civically and politically active students. To build a fairer society, it is necessary to be socially active.

Finally, this study reinforces the argument (Almeida et al., 2023; Soutter & Clark, 2024) that school is a plural socio-educational space offering sports and democratic, civic and political experiences that favour PYD. The school acts as a "bridge" that connects different spaces in young people's lives inside and outside the school environment, in sporting and non-sporting contexts, thus facilitating transfer processes. School is central in young people's lives, and this centrality highlights the need to understand the possibilities (and impossibilities) it promotes in terms of education for citizenship, where democracy and citizenship can be learned through real, everyday experiences, not just through books.

Limitations and proposals for future research

Researchers should keep in mind some of the limitations of this study. First, this study focused exclusively on vocational secondary school students, which may restrict the

generalizability of the results to other student populations. Future studies should consider different school paths to analyse the consistency of the patterns and results observed. Second, because this was a cross-sectional study, causality may be conditioned. Therefore, longitudinal studies should be performed to evaluate the development of student athletes over time and the causal relationships between youth participation patterns and developmental outcomes.

Implications for practice

The combination of sports and citizenship activities seems favourable to PYD. Programme managers, coaches and teachers should consider both activities to promote youth development. Programmes should intentionally consider the different genders and age groups, so activities address their specific needs. The importance of early intervention was also highlighted, especially during the critical transitions of adolescence. Continued participation in multidisciplinary programmes seems essential to support the development of adolescents, who face increasing pressures from their academic, sports and social activities. Policymakers and sports and education professionals should capitalize on the value of extracurricular sports and citizenship activities as essential contexts and mechanisms for PYD. Investment in school and community programmes could improve young people's social and personal skills, as well as promoting active and responsible citizenship.

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IV. FINAL CONSIDERATIONS

4.1. Final considerations

This thesis aimed to study sports as a socio-educational context favourable to PYD and participatory citizenship among Portuguese vocational education students, recognizing the central role of the school as a space for integrating the experiences of young people. The research intended to contribute substantially to the theoretical and empirical advancement of the PYD approach (Lerner et al., 2005) in educational contexts often overlooked by scientific research, such as vocational education. By combining a systematic review with three quantitative empirical studies, this thesis has provided an understanding of how different forms of youth engagement - sports, civic, and political - and different contexts of sports practice (inside and outside school) are associated with the development of personal, relational, and civic skills. This ecologically situated and theoretically grounded analysis offers a comprehensive reading of the mechanisms that enhance positive development trajectories, particularly when experiences are lived in multiple contexts and guided by explicit pedagogical intentionality.

In line with the objectives presented in chapter "1.4. Research problems and goals", the following considerations are added:

1 - The systematic review identified a set of empirical evidence marked by geographical, methodological, and conceptual asymmetries. Most of the studies analyzed were conducted in English-speaking contexts, predominantly in the United States and Canada, with no research focused on vocational education and little research conducted in southern European countries such as Portugal. This gap limits the generalization of results and weakens the construction of knowledge applicable to culturally and socially diverse educational contexts.

It was found that the dimension "contribution" (the "sixth C"), assumed in the empirical component of this thesis as an expression of participatory citizenship through the term "citizenship contribution," is rarely considered. When it is, it takes very diverse and incomparable forms, making its integration and investigation within the conceptual framework of PYD of Lerner et al. (2005) difficult. It was also found that research on involvement in more than one youth activity, i.e., on the combination between different types of sports and contexts of

sports practice (school and out-of-school), as well as between sports and non-sports activities, namely civic and political activities, remains incipient despite promising signs pointing to increased benefits in multi-contextual participation trajectories (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009).

One of the central contributions of the review article was to emphasize that sports participation alone does not guarantee positive developmental outcomes. Such outcomes seem to depend fundamentally on the quality of experiences (Ferreira et al., 2012; Shernoff & Vandell, 2007), i.e., contextual factors (safe environments, intentionally structured activities, explicit norms, significant adults, and supportive relationships), individual factors (gender, age, perceptions, specific needs, and previous experience), and above all, the interaction between the two (Bronfenbrenner & Morris, 2006; Lerner et al., 2005). In this context, the concept of intentionality emerges as a structuring axis for maximizing the formative potential of sport, requiring clear objectives, structured activities, supervision, coherent strategies, and an educational philosophy oriented toward the integral development of young people (Bean & Forneris, 2016; Bean et al., 2018). The results support the relevance of the articulation between school and non-school contexts and the inclusion of non-sport activities (e.g., associative, cultural, civic), suggesting that these combinations enhance a richer, more critical, and transferable appropriation of the skills promoted in different domains of youth life.

2 – The data collected from the second article, the first empirical one, suggest not only that different contexts of practice are related to different developmental outcomes but also, and above all, in line with previous studies (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009), that combined participation (i.e., “in more than one”) in sports practices inside and outside school contributes to better PYD outcomes, especially concerning “citizenship contribution,” in this thesis, an empirical expression of participatory citizenship. This finding highlights

the relevance not only of development systems theory - the PYD perspective (Lerner et al., 2005) - but also of an ecological approach to youth development (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006), in which the articulation between different socialization contexts, such as SS and sports outside school walls, like clubs, seems to favour more integrated, consistent, and transferable developmental trajectories. On the other hand, it reinforces that it is not just the simple practice of sport in a sporting context that guarantees positive developmental outcomes. Instead, as previously referred (Bean et al., 2021; Ferreira et al., 2012; Shernoff & Vandell, 2007), there is an involvement that is conducive to social interaction and socio-educational dynamics, supported by pedagogical, relational, and normative quality in practice environments and, very importantly, an ecological coherence, reinforced by the shared social space that is the school, between the spaces of participation and the domains where the skills developed are expected to be applied by students (Bronfenbrenner & Morris, 2006; Lee & Martinek, 2013; Martin et al., 2022; Pierce et al., 2017).

The results added that young people who combine SS with sports practices outside school (e.g., in clubs or gyms), especially when associated with competition, show higher levels of connection with others and organizations, responsibility, and citizenship contribution. This evidence highlights, firstly, the importance of the quality of sporting experiences (Ferreira et al., 2012; Shernoff & Vandell, 2007), expressed in opportunities for leadership, teamwork, interaction with significant adults and teammates, cooperation and opposition, and the possibility for active participation (having a voice and involvement in decision-making) to promote the development potential of sport. Secondly, it is important to recognize that the role of competition in youth development remains a subject of debate. On the one hand, in line with the findings, several studies suggest that competitive contexts, when well guided, can stimulate high levels of dedication, emotional self-regulation, personal identity, and internalization of prosocial norms

(Camiré, 2015; Raimundi et al., 2024). This perspective is reinforced by research highlighting the value of “competitive” environments, in which shared performance goals simultaneously encourage cooperation and functional competition among peers, promoting collective performance and interpersonal learning (Raimundi et al., 2018; van Mierlo & van Hooft, 2024). On the other hand, it is necessary not to forget the risks of overly victory-oriented contexts, in which competition can induce negative experiences such as stress, feelings of defeat and social exclusion (Reverdito et al., 2023; Zenic et al., 2024). Thus, although the present investigation points to positive effects of competition on PYD indicators, such effects seem to depend on the pedagogical and ethical management of competitive contexts, the clarity of evaluation criteria, the promotion of justice and collective identity, and it is essential to train coaches and teachers to ensure healthy and inclusive competitive environments (Camiré, 2015; Marta et al., 2024).

3 – The evidence from the third article, in addition to reinforcing that involvement in different types of sports is associated with different developmental outcomes (Almeida et al., 2018; Raimundi et al., 2018), confirmed that contextual variables (competitive experience, in addition to the type of sport) and individual variables (such as gender, age, years of practice, and weekly frequency) can explain significant differences in the results obtained in terms of PYD and citizenship contribution (Bronfenbrenner & Morris, 2006; Hansen et al., 2010; Larson et al., 2006; Lerner et al., 2005). This finding reinforces that youth development trajectories are neither uniform nor linear nor predictable (Bean & Forneris, 2016; Coakley, 2011; Jones et al., 2017) but are shaped by the dynamic interaction between personal characteristics and the contexts in which young people are involved (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006; Lerner et al., 2005). In practical terms, it was again observed that the type of sport practised influences the domains of PYD in different ways, with the practice of more than

one type of sport, i.e., its combination, appearing to enhance psychosocial development, competence, and citizenship contribution.

Competitive experience emerged, as in the previous article, to be a decisive variable in promoting PYD, specifically character, confidence, and civic contribution, both inside and outside school. Once again, evidence supports that competitive involvement, when pedagogically oriented, provides significant opportunities for the exercise of responsibility, decision-making, cooperation, and leadership, as well as skills that structure citizenship.

It was also found that females and males have different profiles of sports participation. These gender differences require extra attention when designing interventions to ensure greater equity and personalization of educational practices (Bebetsos et al., 2017; Freire et al., 2023; Gomez-Baya et al., 2019; Kilic & Ince, 2021; Lundqvist et al., 2024; Raimundi et al., 2024). In addition, like in previous studies (Raimundi et al., 2018), age was associated with a decrease in some PYD indicators, specifically caring, confidence and competence, which may reflect not only gender differences (like gender stereotypes, social expectations, a focus on physical appearance, less social acceptance) or social anxiety (Agans & Geldhof, 2012; Eccles et al., 2003; Morano et al., 2022), but also the influence of school transitions, less positive interpersonal relationships, less stable or more pressured practice contexts, or less meaningful educational experiences as compulsory schooling progresses (Camiré, 2015; Røset et al., 2023; Rotolo et al., 2020).

In general terms, rather than mere participation in sports alone, the data supports, as in the two previous articles, that the quality of the sports experience, in its pedagogical, relational, and normative dimensions, is a determining factor for developmental success (Bean et al., 2021; Ferreira et al., 2012; Shernoff & Vandell, 2007). This reinforces the need to design programmes and interventions that are sensitive not only to the type and frequency of sports practice but also to

the perceptions, motivations and relationships established by young people, as well as the ecological context of their experience.

Promoting more personalized and equitable practices adapted to the diversity of young people's profiles should be a priority in all educational contexts. Recognizing the plurality of trajectories and needs requires a differentiated pedagogy based on a holistic view of human development and the value of participation as the foundation of active citizenship (Bronfenbrenner & Morris, 2006; Ferreira et al., 2012; Lerner et al., 2005; Lerner et al., 2010; Menezes & Ferreira, 2014; Ribeiro et al., 2014).

4 - In line with the two previous empirical articles and with the research carried out (Agans & Geldhof, 2012; Forneris et al., 2015; Zarrett et al., 2009), the fourth article suggests that young people who combine sporting, civic and political activities tend to have more positive development trajectories, reflected in higher levels of character, connection with others, personal and social responsibility. Personal and social responsibility emerged as a cross-cutting and structuring competence, capable of articulating the various spheres of participation and reinforcing young people's agency as active development subjects (Hellison, 2011). These data support and reinforce the argument that combined involvement in multiple contexts promotes synergistic effects on developmental processes. The combination of sports practices and civic and political participation experiences contributes to individual and relational development and dispositions for active and transformative citizenship. In this sense, the empirical results reinforce the argument that it is not only the quantity or presence in different contexts that determines their developmental impact but rather the quality of the participation experiences that emerged from the diversity of the environments and the possibility of significant transfer between them (Ferreira et al., 2012; Lee & Martinek, 2013; Martin et al., 2022).

Participation profiles suggested that the absence or limitation of citizen participation compromises the benefits arising from its combination with other activities, namely sports, underlining the importance of ensuring real opportunities for civic and political involvement in young people's daily lives (Ferreira et al., 2012; Ribeiro et al., 2014). This finding reinforces that citizenship is not learned solely through formal education but through concrete and repeated participation in public and community spaces where young people can exercise their voice, agency and responsibility. Thus, for the combination of participation contexts to be effective in promoting youth development, it is essential that civic engagement is not neglected but intentionally integrated as a structuring dimension of educational pathways (Bean & Forneris, 2016; Bean et al., 2018). When citizenship experiences are scarce, symbolic or exclusively school-based, critical moral, civic, political and community development opportunities are lost. Like in previous studies (Eccles et al., 2003; Spaaij et al., 2015), males and females showed different participation patterns concerning sports and civic and political activities. Girls tend to be more oriented towards prosocial and empathetic behaviour, while boys prefer to participate in sports (Quintelier, 2008). This evidence requires differentiated attention in the design of equitable and inclusive educational programs.

This article reinforces the idea that participation in multiple activities in multiple spaces and contexts, provided that it is sustained by intentionality facilitated by an inclusive educational logic and the promotion of safe, meaningful, and participatory environments, is a privileged path for the formation of more committed, critical, and socially active young people (Bean & Forneris, 2016; Bean et al., 2018). When combined with other experiences of citizenship, sport ceases to be merely a space for performance and becomes a catalyst for personal and social transformation (Hellison, 2011; Zarrett et al., 2009).

Both in the literature review and the empirical part of this thesis, school emerges in a central role not only as a formal institutional context but as a space for pedagogical articulation between different domains of youth life. The evidence confirms its role as an “ecological bridge” with the potential to integrate and articulate sporting, civic, and political experiences and enhance processes of meaningful skills transfer between contexts. This mediating function is all the more relevant, the more clearly structured the pedagogical intentionality is, including the deliberate and strategic establishment of educational and developmental goals, coherent norms, physically and psychologically safe environments, and positive and meaningful relationships with others and the school (Bean & Forneris, 2016; Bean et al., 2018). Thus, the school emerges as a key context for PYD and participatory citizenship by allowing the skills acquired and developed in extracurricular spaces to find recognition, application, and extension in everyday school and community life, favouring and promoting effective and constructive transfer processes. This mediating role of the school takes on particular relevance when its potential to promote daily experiences of lived and participatory citizenship is recognized (Menezes & Ferreira, 2014; Menezes et al., 2022), where citizenship is learned not only in books but in everyday practice. In other words, more than education for citizenship, it is an education “in” citizenship.

In addition to the empirical evidence produced, this thesis contributes conceptually to the consolidation and refinement of the PYD model (Lerner et al., 2005) in three fundamental dimensions. Firstly, by operationalizing the dimension of “citizenship contribution” as an empirical expression of participatory citizenship, the conceptual and empirical scope of the PYD is broadened, responding to the scarcity of studies that associate youth development with their experiences and exercise of citizenship. Secondly, the results obtained reinforce the validity of the ecological approach to human development (Bronfenbrenner,

1977; Bronfenbrenner & Morris, 2006) by confirming that the most favourable developmental trajectories emerge from the coherent articulation of multiple contexts – sporting, school, civic and political – that are deliberately and strategically structured, organized, supervised and directed towards pre-established objectives, i.e. sustained by pedagogical intentionality. Finally, this thesis offers clear evidence that it is not mere participation or the isolated type of activity or context in itself that enhances the results of PYD, but above all, the quality of the sport, civic and political experiences lived in them, especially when including the combination of different types of activity and/or contexts of participation. An integrated model of multi-contextual participation is thus proposed as the key to more comprehensive, critical and citizenship education and training for young people.

4.2. Limitations and proposals for the future

Despite the methodological robustness of the included studies and the richness of the data obtained, this research has some relevant limitations that must be acknowledged for the correct interpretation of the results and the design of future lines of research. First, all empirical studies adopted a cross-sectional design, which makes it impossible to establish causal inferences. As such, the relationships identified between types of practice and contexts of participation and the outcomes of PYD and participatory citizenship should be interpreted cautiously, recognizing the explanatory limits of correlational analyses. In this sense, longitudinal studies are strongly recommended to follow the evolution of young people's developmental trajectories over time and identify more robust causal relationships.

Secondly, the sample consisted exclusively of vocational secondary school students, which, although an advantage given the rarity with which this student

population has been studied, limits the generalizability of the results. To ensure the external validity of the results, future studies should consider students from educational paths other than vocational education.

A third limitation is due to the exclusively quantitative nature of empirical studies, with data obtained through questionnaires. Although this allows for larger samples, the absence of a qualitative component limits access to the perceptions, motivations, and meanings of young people's experiences of participation.. In this context, it is considered relevant to "give voice" not only to students but also to include interviews, focus groups, or observational data, triangulated with perspectives from teachers, coaches, and parents, in order to substantially enrich the analysis, offering a more holistic and contextualized view of the processes of socialization and development.

In addition, questionnaires may have introduced biases arising from social desirability or different interpretations of the items. In this sense, it is suggested that future studies use mixed methods, combining quantitative data with qualitative approaches, to integrate different sources of information and minimize the effects of bias.

Another limitation identified is the absence of mediating and moderating variables that, according to the literature, significantly influence PYD outcomes. It will be relevant to incorporate the perceived motivational climate, as well as the quality of relationships with significant adults (teachers, coaches, and parents) and peers, variables that have been identified as central to understanding the complexity of developmental mechanisms (Holt & Neely, 2011; Jones et al., 2017; Whitley et al., 2019; Williams et al., 2020).

Future research should consider non-binary gender identities in data collection to ensure the inclusion and representation of different identity trajectories among young people, respecting the principles of social justice and diversity.

In this context, the following priority lines for future research are proposed:

- Conducting longitudinal studies to monitor the evolution of young people and identify causal relationships between participation contexts and developmental outcomes;
- Adopting mixed methods that integrate quantitative and qualitative approaches, with data collection from multiple educational agents (students, teachers, coaches, families);
- Comparison between different types of school pathways, namely between vocational education and regular education, in order to broaden the generalization of results;
- The inclusion of relational and motivational variables, such as the quality of interactions with significant adults and the motivational climate, in addition to analyzing the role of basic psychological needs (Deci & Ryan, 2000) as mediators of the impact of lived experiences on PYD outcomes.
- Consider gender diversity and plurality of young people's identities, investing in research sensitive to gender specificities and intersectionality.

These suggestions for future research may advance scientific knowledge about PYD and participatory citizenship through sport, contributing to a more solid theoretical and scientific basis for more effective, personalized, and transformative pedagogical practices.

4.3. Implications for practice

The founded evidence offers relevant contributions to teaching practice, curriculum planning, and formulating educational policies that aim to promote the PYD. Firstly, they reinforce the need to design structured sports and civic programs based on consistent pedagogical models with explicit educational objectives and meaningful educational relationships (Bean & Forneris, 2016; Ferreira et al., 2012). This pedagogical intentionality should be geared towards

developing personal, relational and civic skills, responsibility, care for oneself and others, citizenship and participation as the central axes of educational action.

Secondly, the importance of the school as an integrating ecosystem (Bronfenbrenner & Morris, 2006; Lee & Martinek, 2013; Lerner et al., 2005), capable of articulating school and extracurricular experiences and promoting multi-contextual paths of participation and learning, stands out. This centrality of the school as a common space for all young people makes it possible to enhance processes of skills transfer between contexts, for example, between sports clubs and the school or between youth associations and community life, reinforcing the role of the school as an ecological bridge between different spheres of youth socialization.

Thirdly, the studies' conclusions highlight the need to value vocational education socially, educationally and politically, recognizing its potential as a space for integral development and not just technical preparation for the labour market. Research (Gregório, 2024; Pereira & Carvalho, 2021) shows that this path can be equally fruitful in promoting active citizenship, inclusion and youth autonomy, provided that equitable, stimulating educational conditions consistent with the objectives of the PYD are ensured.

Evidence highlights the importance of continuous training for teachers and coaches as critical agents in young people's development, promoting positive motivational climates, leadership opportunities and meaningful experiences of participation. This training process should consider gender issues, the socio-cultural context of young people and intersectionality, promoting practices that are fairer, more equitable and responsive to their diverse needs. Equally important is adapting programs and interventions to different participation profiles. Boys and girls tend to follow different paths of involvement in sports and citizenship. Activities that respond to their specific needs ensuring equitable access and meaningful participation for all, are therefore urgent. In this context,

the practice of "mixed-gender sports", such as korfbal or ultimate frisbee, or with adapted rules, can contribute to more inclusive and safer environments.

Evidence also highlights the importance of early intervention, especially during the critical transitions of adolescence, and the promotion of long-term multidisciplinary programs that can simultaneously address young people's academic, social and sporting pressures. Adopting teaching methodologies that value young people's motivation and assign them leadership roles — such as mentors or assistant coaches — can strengthen their commitment, responsibility and sense of belonging to programs, enhancing their developmental effectiveness (Hellison, 2011).

Finally, it is recommended that educational and sports practices and policies be designed to incorporate the principles of PYD and participatory citizenship intentionally, valuing not only extracurricular activities as essential educational spaces but also curricular activities and the school itself as an ecological bridge between the diverse contexts of young students' lives, both inside and outside school.

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