

Sports and school involvement and performance: a systematic review of literature

Participación y rendimiento deportivo y escolar: una revisión sistemática de la literatura

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Abstract. The purpose of this article was to map the published empirical investigations on the involvement and sports and school performance of young athletes, through a systematic literature search in the Lilacs, ProQuest, Scielo and SportDiscus electronic databases. The characteristics of the studies were analyzed using absolute frequency, while their results were analyzed using categories (NVIVO PRO, version 12). The 17 selected studies revealed, in the athletes' perception, more benefits than harms due to the involvement with the sport, a positive relationship between sport and study, and a positive influence of sports practice on the academic performance of student-athletes. It can be concluded that the dual career accumulates numerous commitments and obligations, however, the benefits and positive relationships established make this involvement, in the perception of young people, something favorable to their development, making it essential to their human formation in a comprehensive way. Further research is needed to broaden the understanding of how trainings are related and how they influence the lives of student-athletes throughout their lives.

Key Words: Athlete, Students, Education, Youth Sport.

Resumen. El objetivo de este artículo fue mapear las investigaciones empíricas publicadas sobre la participación y el rendimiento deportivo y escolar de los jóvenes deportistas, mediante una búsqueda bibliográfica sistemática en las bases de datos electrónicas Lilacs, ProQuest, Scielo y SportDiscus. Las características de los estudios se analizaron mediante frecuencia absoluta, mientras que sus resultados se analizaron mediante categorías (NVIVO PRO, versión 12). Los 17 estudios seleccionados revelaron, en la percepción de los deportistas, una relación positiva entre deporte y estudio, una mayor percepción de beneficios que de daños y una influencia positiva de la práctica deportiva en el rendimiento académico de los estudiantes-deportistas. Se puede concluir que la carrera dual acumula numerosos compromisos y obligaciones, sin embargo, los beneficios y relaciones positivas que se establecen hacen de este involucramiento, en la percepción de los jóvenes, algo favorable a su desarrollo, haciéndolo imprescindible para su formación humana de manera integral. Se necesitan más investigaciones para ampliar la comprensión de cómo se relacionan los entrenamientos y cómo influyen en la vida de los estudiantes-atletas a lo largo de sus vidas.

Palabras clave: Atleta, Estudiantes, Educación, Deporte juvenil.

Introduction

Sport is a phenomenon of fundamental importance in view of the influences it exerts, implying behavioral, personal, social, and educational changes in the lives of athletes (Cortês-Neto, Alchieri, Miranda, & Dantas-Cavalcanti, 2010; Costa, Torregrossa, Figueiredo, & Soares, 2021). To reconcile sports practice, simultaneously with school years, it is necessary that student-athletes have access, at all levels of education, to educational measures (Storm & Eske, 2021) that enable a more flexible training process that avoids school and sports failure and abandonment.

The scientific literature in the area has shown contradictory results about the relationship between youth involvement and sports and school performance (Rigoni, Belém, & Viera, 2017). While some studies have shown positive effects of sport on the school competence of

student-athletes (Batista & Delgado, 2013; Bastos, Reis, Aranha, & Garrido, 2015; Maciel, Folle, Souza, Vaz, & Salles, 2017; Storm & Eske, 2021), others have revealed that sports practice negatively interferes with students' academic success, so that the more time athletes dedicate to sport, the lower their school grades (Costa, 2007; Pereira, 2011; López de Subijana, Barriopedro, & Sanz, 2015).

There are also studies that confirm that there is no interference from one activity to the other, given that there is no prejudice in the time dedicated to studies due to sports participation (Zenha, Resende, & Gomes, 2009; Frade, 2012). Despite the relevance of the theme and the growth of scientific literature in recent years, systematic reviews carried out previously focused primarily on psychological aspects (Stambulova & Wylleman, 2019), transition and post-retirement (Knights & Ruddock-Hudson, 2016), athletes of elite (Costa et al., 2021) and legal and social policy issues in Europe (Kornbeck, 2017), showing the absence of investigations focusing on the relationships

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between involvement and sports and school performance of young athletes, which makes it impossible to have a broad view of the sports training process simultaneously with academic training.

In this context, it is necessary to understand that sports involvement concerns the constant dedication to training and competitions, while performance refers to the action and the result of this dedication, among which stand out the physical condition and the technical-tactical level, in addition to the psychological aspects of the athletes who seek to excel in a certain sport modality (Miranda, Loreno, & Costa, 2020). Similarly, school involvement is characterized by commitment to school subjects, while performance is the result of grades or concepts of learning assessments acquired in the academic environment (Luckesi, 2002).

When relating the sporting and school career, there is a recurrence of the interruption of student-athletes with 'low' school performance in training and sports competitions, as a form of precaution or even punishment by family members. In turn, student-athletes with 'good' school performance and the perception of a possible contribution from sports practice to such success have not aroused the same attention or interest in the school-sports training process (Peserico, Kravchychyn, & Oliveira, 2015).

Considering this context, it is necessary to reflect that both involvement, sports and school performance are established in a successive process that is not linked only to sports victories or defeats, neither through numerical concepts nor through letters. They are established through the cultural, ideological, philosophical, political, social, and personal elements of each student-athlete, which develop intrinsically and extrinsically, manifesting themselves in an expressive behavior change in both contexts (Knights & Ruddock-Hudson, 2016; Knight, Harwood, & Sellars, 2018; Costa, Miranda, Hagström, Santos, & Rezende, 2021; Storm & Eske, 2021).

In this scenario, it is recognized that in sports and school contexts there are stimuli that can generate favorable and/or unfavorable consequences that directly influence the involvement and performance of the student-athlete, both in his performance before the competition and the opponent, as in the personal, social, and academic aspects (Stambulovaa & Wylleman, 2019; Morris et al., 2020). Thus, in order to gather information that can contribute to a better understanding of this phenomenon, the present systematic review aimed to map the published research on the involvement and sports and school performance of young athletes, considering the characteristics of the studies, the benefits and harms arising from sports, the relationship between sport and study and the influence of

sport on school performance, in the perception of student-athletes.

Based on these objectives, the following research questions were formulated: (a) Do athletes perceive more benefits than harm caused by the sports practice? (b) Do athletes perceive a positive relationship between sport and study? and (c) Do athletes perceive that sports participation positively influences their school performance?

Methods

Study Design

It is a study that is characterized as a theoretical investigation, in the format of a systematic literature review (Ato, López, & Benavente, 2013). For its operationalization, the procedures suggested by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA – Moher, Shamseer, Clarke, Ghersi, Liberati, Petticrew, & Stewart, 2009) were followed. The study was registered in the database of the International Prospective Register of Systematic Reviews (PROSPERO – CRD42019133376), aiming at greater precision, completeness, and accessibility of the review by the scientific community of the area (Moher, Liberati, Telzloff, & Altman, 2015).

Sources of information and search strategy

The search for existing literature was performed in the Lilacs, ProQuest, Scielo and SportDiscus databases (via EBSCO), due to its prominent use in systematic reviews in Sports Sciences area (Sheridan, Coffee, & Lavallee, 2014; Rigoni et al., 2017). The research equations were elaborated from the combination of descriptors related to the theme of the study, which were combined with terms referring to the population and the research context, using the Boolean operators OR and AND to combine the terms (Figure 1):

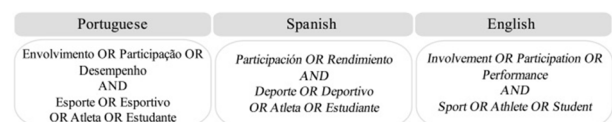


Figure 1. Search equations used in database search fields.

In the search field of all databases, the title search filter was applied in order to obtain studies with a direct focus (main object of study) on the perception of athletes about their involvement and sports and school performance.

Eligibility criteria

Original articles published in Portuguese, Spanish, and English, with abstract and full texts available online were considered for analysis. There was no stipulated period for

inclusion of the studies, with the purpose of covering the largest possible number of investigations.

The eligibility assessment was performed in a standardized and independent manner, by two researchers graduated in Physical Education and linked to the Graduate Program in Human Movement Sciences, with experience in the elaboration of scientific research and systematic reviews. If any divergence was observed, these were resolved by consensus. The inclusion and exclusion of the studies followed the Participate, Exposure, Comparison, Outcome and Study (PECOS) criteria, suggested by the PRISMA strategy (Figure 2). After searching the databases, duplicate studies were eliminated and, subsequently, three steps were followed to select articles based on the following eligibility criteria: reading the titles; reading of abstracts; and reading the full texts.

		Include	Exclude
P	Participate	Student-athletes (Basic Education, Higher Education)	Athletes (young, adults or elderly) who do not have school involvement; coaches, teachers, students not practicing competitive sports
E	Exposure	Systematic training of sports modalities in sports schools, clubs, Non-Governmental Organizations (NGOs) and extracurricular school sports, with participation in sports competitions	Sports practice in Physical Education classes, sport as a form of physical activity and leisure, sports practice without school involvement
C	Comparison	Dedication to training / competition and study; positive and / or negative aspects of sport and study; sports and school performance; female and male athletes; sports training and school level internships	—
O	Outcome	Perception of athletes about their involvement in sport and study	Perception of family members, coaches and teachers about the participation of student-athletes in sport and study
S	Study	Empirical investigations (field studies); scientific articles	Experimental, theoretical and instrumental investigations

Figure 2. Inclusion and exclusion criteria of the articles selected for the study.

The database search was performed during the second week of February 2019 and initially the application of the search equations in the search field resulted in 15,313 records. A flowchart summarizing the study selection process is shown in Figure 3.

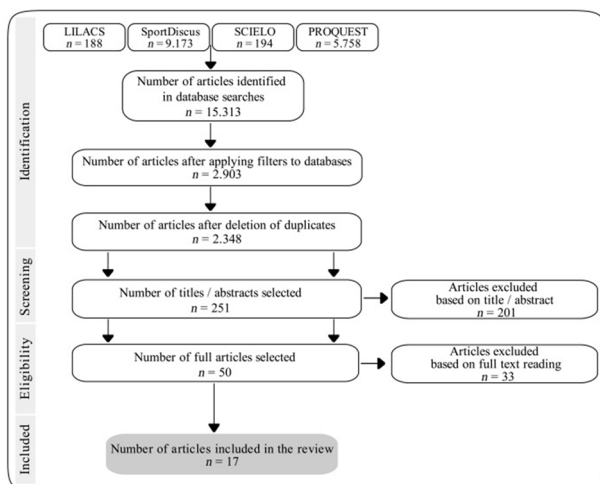


Figure 3. PRISMA flowchart of the article selection process.

Evaluation of methodological quality of studies

The methodological quality of the included studies was independently assessed by two researchers, using

the adapted checklist of the items included in the cross-sectional studies of the Checklist of items that should be included in reports of cross-sectional studies (STROBE – Elm, Altman, Egger, Pocock, Gotsche, & Vandenbrouche, 2008). The list is originally composed of 22 items, of which 17 were used in this study, which are related to the title and summary of the article (item 1), to the introduction (items 2 and 3), methods (items 4-8 and 10-12), results (items 13-14 and 16) and discussion sections (items 18-20).

The studies were qualified in accordance with the following cutoff points: A (> 80% high); B (50% to 80% moderate); and C (<50% low). The cutoff points were reached by adding the score applied to each item: 0 (does not answer); 1 (answers) (Olmos, Antelo, Vazquez, Smecuol, Mauriño, & Bai, 2008). Disagreements between investigators were resolved by consensus.

Data extraction and analysis

The extracted studies were organized and archived in the Endnote software (X7), while the categorization and analysis were performed with the aid of the QSR NVivo PRO software (version 12). The characteristics presented by the studies and the methodological quality after being categorized were analyzed quantitatively using descriptive statistics (absolute frequency). The results presented by the studies were analyzed qualitatively through the creation of analysis categories and subcategories (year, location, sex, stage of sports development – according to age, sports modality, school level, type of research and instrument), which were defined a posteriori, based on the empirical data of the studies.

Results

Study characteristics

The preliminary assessment of the 17 scientific articles selected for this systematic review can be seen in Table 1. The information revealed a significant increase in the number of publications (14) from the year 2014, exposing the topicality of the theme investigated. Regarding the research development location, five of them were performed in the United States of America (USA) and four in Brazil, while China, Spain, Kenya, and Saudi Arabia presented only one study each. Two studies did not show the location of the research development.

The information obtained revealed that most of the research was performed with athletes: male and female together (15); in the sports investment stage (9); practitioners of collective sports (6); Higher Education (7). The quantitative approach (14) with the application of questionnaires (13) for data collection was the most used in the studies developed.

Table 1.

Extraction of the characteristics of the selected studies on sports and school involvement and performance.

Author (s)	Year	Locality	Gender	N° participants	Stages	Modality	School level	Search Type	Instruments	Methodological validity
Fisher et al.	1996	USA	M/F	838	I	Individual/ Collective	High school	Quantitative	Questionnaire	B
Lindner	1999	China	M/F	4.690	D/S/I	Individual/ Collective	Middle and High school	Quantitative	Questionnaire	B
Machado et al.	2007	Brazil	M/F	39	D	Not specified	Middle school	Quantitative	Questionnaire	B
Singer	2008	USA	M	4	I	Collective	College	Qualitative	Semi structured interview/ Focus group	B
Scott et al.	2008	NE	M/F	12.000	I	Individual/ Collective	College	Quantitative	Questionnaire	B
Cortês-Neto et al.	2010	Brazil	M/F	51	D/S/I	Not specified	Middle and High school	Quantitative	Semi-Open Interview	B
Aries et al.	2014	NE	M/F	1.817	I	Individual	College	Quantitative	Questionnaire	B
Pérez et al.	2014	Spain	M/F	16	I	Not specified	College	Qualitative	Semi structured interview	B
Bastos et al.	2015	Portugal	M/F	490	D/S/I	Not specified	Middle and High school	Quantitative	Questionnaire	A
Kamau et al.	2015	Kenya	M/F	384	S/I	Individual/ Collective	High school	Quantitative	Questionnaire	A
Lumpkin & Favor	2015	USA	M/F	139.349	I	Not specified	High school	Quantitative	Questionnaire	A
Peserico et al., 2015	2015	Brazil	M/F	59	S/I	Collective	High school	Quantitative	Questionnaire	B
Soares et al.	2015	Portugal	M/F	831	S/I	Collective	High school	Quantitative	Questionnaire	B
Alahmed et al.	2016	Saudi Arabia	M/F	102	I	Not specified	College	Quantitative	Questionnaire	C
Dobersek & Arellano	2017	USA	M	203	I	Collective	College	Qualitative	Interview/ Focus group	A
Maciel et al.	2017	Brazil	M/F	80	D/S	Collective	Middle and High school	Quantitative	Questionnaire	A
Scott & Castles	2017	USA	M/F	225	I	Collective	College	Quantitative	Questionnaire	B

Note. Developmental stage (defined based on Côté, Baker & Abernethy, 2003); D = Diversification (U12 years); S = Specialization (13 to 15 years); I = Investment (over 16 years); M = male; F = female; A = High quality, B = Moderate quality, C = Low quality; NE = Not specified.

Risk of vies

Based on the guidelines employed (Elm et al., 2008; Olmos et al., 2008), most studies (11) were classified with moderate methodological quality, while five studies were classified with high quality and only one was classified with low methodological quality. Thus, it is assumed that the risk of bias in the included studies is relatively low.

Benefits and harnesses

The results of the included studies were organized as follows: (a) benefits and harms of sport in the cognitive, psychological, personal, social, physical, and academic aspects (involvement and performance) of student-athletes; (b) relationship between sport and study (positive, negative, indifferent); and (c) academic performance (pass and fail) of student-athletes and non-athlete students.

The information related to the benefits and harms of the practice of sports, showed that the academic (performance – 9) and social (5) aspects seem to be the most benefited aspects due to sports involvement, at the same time as the academic aspects (involvement – 7) seem to be those with the greatest perception of harm. The analysis of the personal (4), psychological (4), academic (4) and cognitive (3) aspects showed that

the acquisition of values, the reduction of stress, greater connectivity with studies and the school, as well as greater concentration for academic tasks, reflect benefits from sport (Figure 4).

It was evident in the analysis, considerable numbers of perceptions about the harm of sport in relation to academic aspects (involvement – 7 and performance – 6) (Figure 5). In this case, fatigue, pain, and physical discomfort were highlighted by student-athletes investigated as negative aspects of excessive training and competitions. Perceptions of harm to the personal (1) and psychological (1) aspects were few expressed. In turn, young people have reported personal difficulties and psychosocial losses due to the vast time spent in travel and sports competitions. Negative cognitive aspects have not been reported.

Relationship Between Sport and Study

Information regarding the relationship (positive, negative, indifferent) between sport and study is highlighted in Figure 6. It can be seen in the studies analyzed, that the relationship between sport and study is predominantly positive (academic performance, responsibility, school success – 9). However, some studies have highlighted indifferent perception (with no relation between contexts

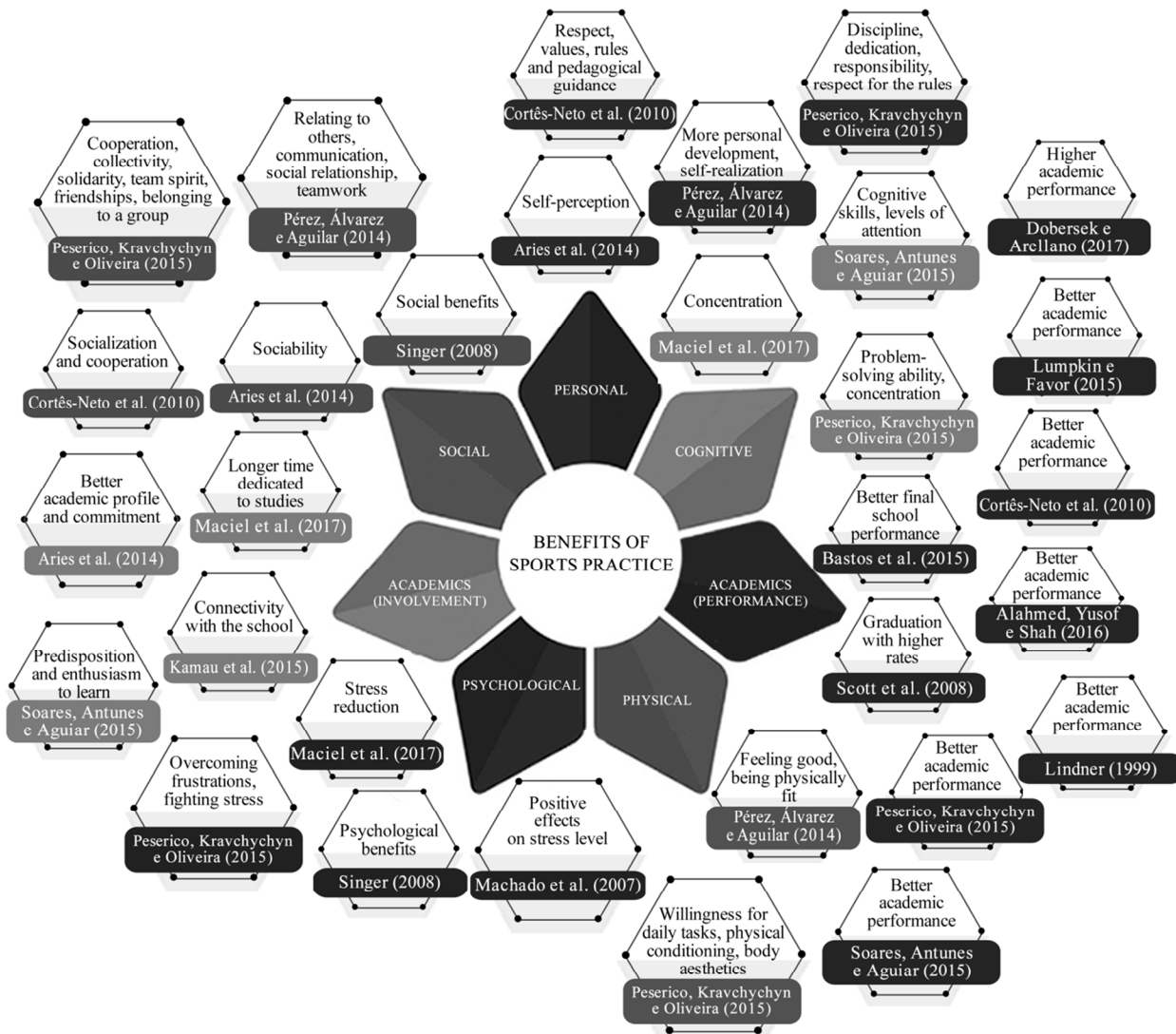


Figure 4. Flowchart of the benefits of sports practice.

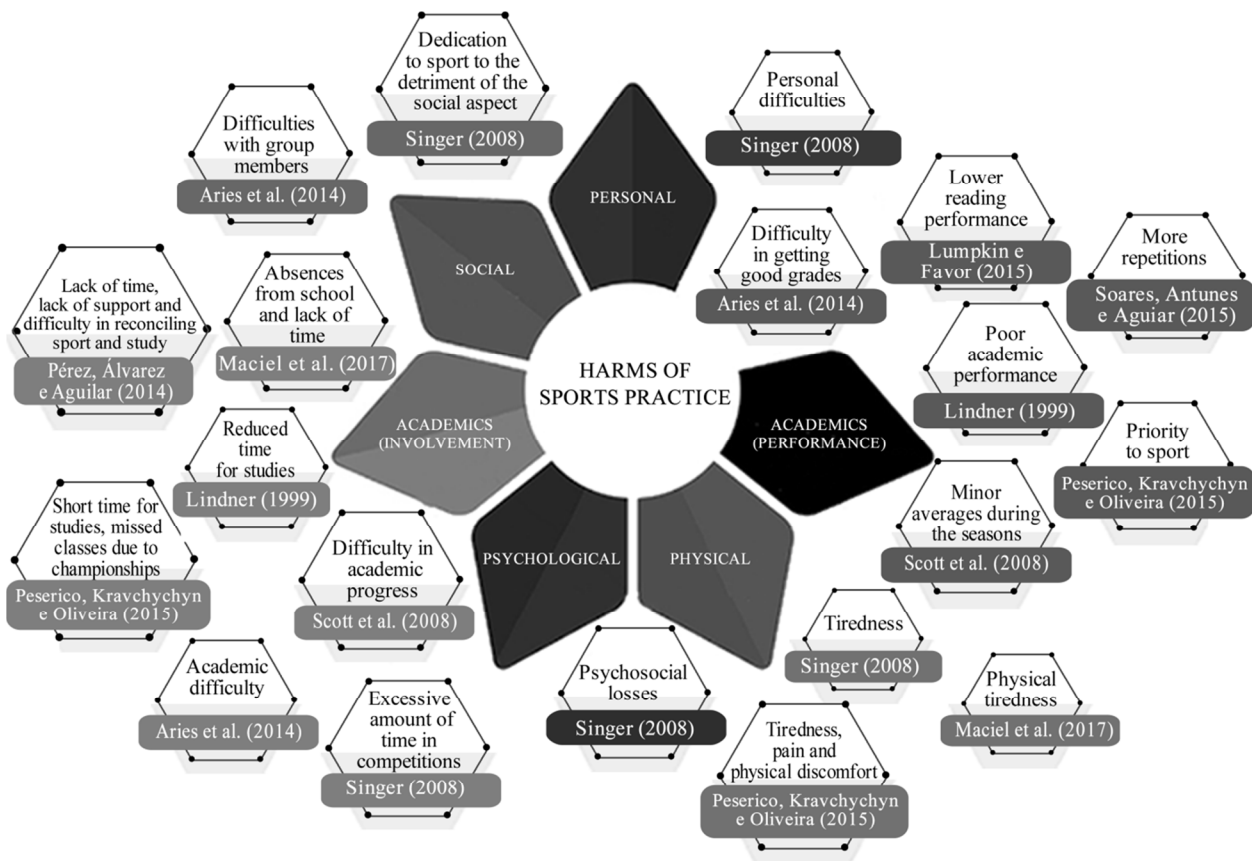


Figure 5. Flowchart of the harms of sports practice.

– 4) and negative (involvement with sport neutralizes studies – 3) between the two contexts.

School performance

Studies that compared the academic performance of student-athletes and non-athlete students highlighted that, in general, the academic performance (school averages, graduation and non-graduation rates) of athletes is predominantly superior when compared to non-athletes (Figure 7). Regarding gender, it is observed that female student-athletes have better academic rates than male student-athletes.

Discussion

The main objective of this study was to map the published investigations on the involvement and sports and school performance of young athletes, which revealed that the theme is still incipient in the literature, despite seeing a significant growth in the number of publications

since 2014. Research have been performed in the USA and Brazil, with athletes of collective modalities of both sexes, in the sports investment stage (above 16 years old) and with students of Higher Education.

It is necessary to recognize, regarding the origin of the works performed, that there are considerable differences between the methods used and the educational and sports systems used in the different countries (Bailey, Armour, Kirk, Jess, Pickup, & Sanford, 2009). This is reflected in the way the sport is promoted and how it relates to the school career of young athletes, since it can be organized into multiple strands and levels of practice, among which is school sport (extracurricular) and federated sport (clubs and sports training centers) (Soares, Aranha, & Antunes, 2013).

In the USA, the nationality in which most of the analyzed studies are concentrated, the sport is presented mainly in the student scope. However, the sport performed in North American schools and universities differs from the merely participatory sport and focusing only on the

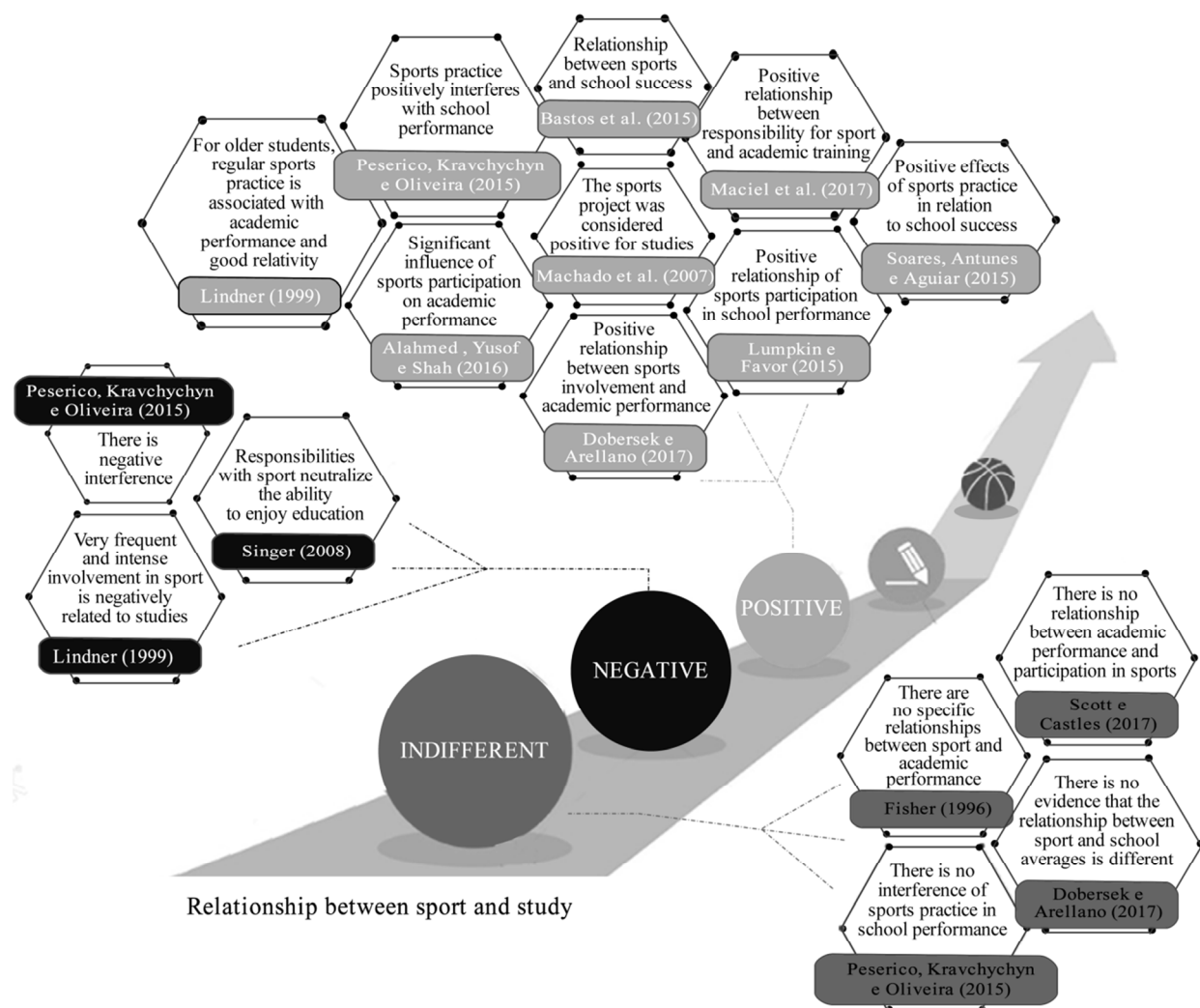


Figure 6. Relationship between sport and study.

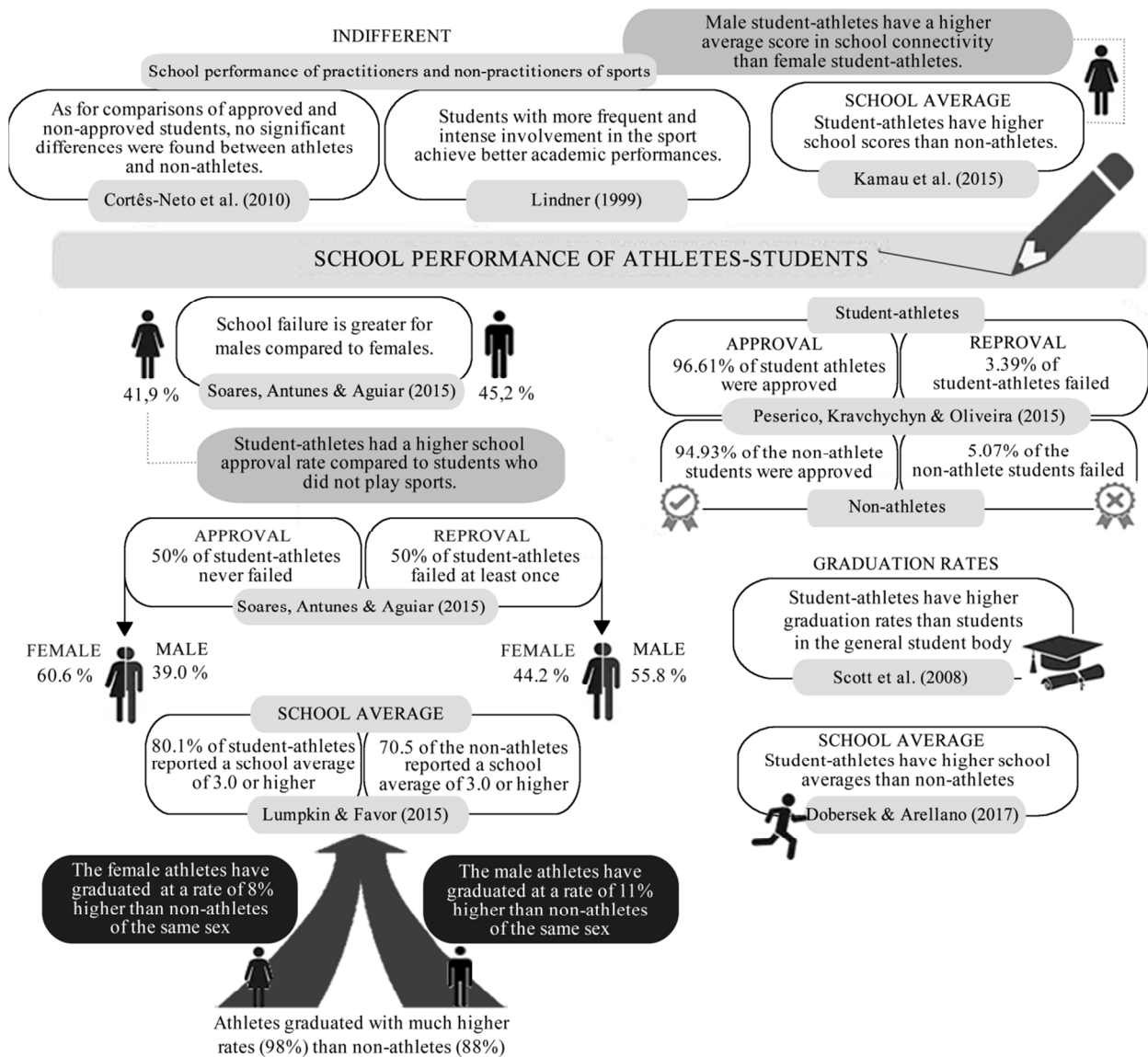


Figure 7. School performance of student-athletes and non-athlete students.

initial motor training of young people (Boxill, Glanville, & Murray, 2010).

Many American universities offer sports scholarships to students who are academically qualified and excel in a particular sport. Historically the USA stands out in most competitions in practically all modalities, a fact that can be proven by the numerous Olympic medals acquired in Rio 2016 and Tokyo 2020. Such performance stems from numerous reasons, among them, the strategic management of sports practices in North American schools and universities (Boxill et al., 2010).

In this context, thousands of sports scholarships are provided annually by the National Collegiate Athletic Association (NCAA) so that young athletes can have a quality study and dedicate themselves to the sport (Dobersek & Arellano, 2017). In addition, for that, athletes with academic difficulties receive specific help (supervised

study, specialized tutoring) in order to make them able to participate in sports activities (Dobersek & Arellano, 2017) and to progress satisfactorily in school years and obtain the academic diploma (Scott & Castles, 2017).

In Europe, unlike the USA, sport takes place in private clubs (Lupo et al., 2015) and the theme is the object of research that involves different countries and academic leaders in the search for alternatives that effectively harmonize the demands of this phenomenon (Guidotti & Cortis, 2015; Pato, Isidori, & Calderón, 2017; Stambulova & Wylleman, 2019). Denmark, for example, governs a law that requires elite sport to be developed and supported in a socially responsible way, so that athletes succeed in their academic achievements and have employment opportunities later in life (Storm & Eske, 2021).

Despite having improved in terms of participation and Olympic medals won, Brazil (second country in number

of studies found in this review) is still a long way from its real sporting potential, aggravated by the fact that there is no effectiveness of public policies that seek to address the problems of reconciling sport and study frankly (Rocha, Miranda, Costa e Silva, & Costa, 2020). It is known that the Brazilian sport and education scenario is still deficient and that this is even more evident when compared to the scenario of other countries.

In the Brazilian reality, sport performed in schools (both extracurricular and training for student competitions) has a social and health-promoting character with little or no strategy that links the sports career to the students' school career (Rocha et al., 2020). In view of this, the sports system in Brazil, similarly to Europe, is guided by clubs, but without legal support for the condition of student-athlete, with the sports federations of each state as a regulatory body, characterized by assuming a more intense and competition, in addition to an extensive schedule of games throughout the year (Rocha et al., 2020; Soares et al., 2013).

It is also important to consider the prevalence of amateur sport in the country, since athletes representing state teams do not fit into elite sport, and their dedication is considered as representation or participation (Rocha et al., 2020). For this reason, the possibility of sports ascension to achieve a high socioeconomic status for many athletes is limited, and it is even more important to have a critical and conscious reflection about the opportunities provided by both sport and education (Costa, Miranda, et al., 2021).

Such reflection is essential to avoid prioritizing one career over another and to encourage continuity and good academic performance, allowing for the successful migration of young people to the world of work (Costa, Miranda, et al., 2021). According to Gledhill & Harwood (2015), many athletes sacrifice their sporting goals in favor of educational or even vocational goals, as they consider it unlikely to reach a high level in sport and, therefore, to support themselves financially through a sports career.

The superiority of research performed with athletes in the sports investment stage and, consequently, university students is possibly due to this being an important period in the lives of young people, with regard to the definitions of professional career, whether in sport or study (Borggrefe & Cachay, 2012; Miranda et al., 2021), making them the focus of researchers. At this moment, young people are at the peak of their development, since throughout their sports-school career they prepare their body and mind to face the challenges of training and high competition, as well as academic and professional requirements (Scott & Castles, 2017).

The evidence found highlighted more benefits than harms than harms arising from sports practice, answering

the first question of the study. This result is not exclusive to this investigation, systematic reviews on the impact of sport on young athletes found that sport promotes numerous personal and social benefits, as well as providing opportunities for young people to learn about themselves and acquire skills that can help them throughout their lives (Petitpas, Cornelius, Raalte, & Jones, 2005; Rigoni et al., 2017).

Academic performance was the most benefited aspect, in the perception of student-athletes. Currently, school performance is seen as a complex and widely debated phenomenon (Peserico et al., 2015), the opposite of decades ago, when in a simplistic view, the student's lack of learning was attributed solely to his lack of dedication. With this result, it can be inferred that being involved with the systematic practice of sports, and consequently being more physically active, leads most young people to achieve better grades and school averages, as well as to obtain greater chances of success in their studies (Soares et al., 2013).

Social, personal, psychological, and cognitive aspects were also highlighted as benefits of playing sports. It is speculated that student-athletes would be able to transfer skills learned in sport (social behaviors, emotional regulation, acquisition of values, setting goals, concentration) to their educational aspirations (Lindner, 1999), and consequently, obtain better academic performance (Dobersek & Arellano, 2017), provided that such skills are explicitly organized, aiming at their transfer to youth development (Harvey, Kirk, & O'Donovan, 2014).

In this scenario, considerable progress was observed in the relationship between sports participation and academic performance in recent years, reporting in most studies a positive and satisfactory relationship between training (Alahmed, Yusof, & Shah, 2016). However, the results are still inconsistent and should be interpreted with caution, considering the specificities of each investigated context.

The most cited aspects regarding the harm related to the practice of sports were involvement and academic performance. It is noteworthy that, not all research has found only benefits from sports participation, because the goals of athletic performance and academic performance are often incompatible (Kelley, Soboroff, Katayama, Pfeiffer, & Lovaglia, 2018), which contributes to stressful and anxiety-provoking experiences in student-athletes.

However, although school failure is usually attributed to the student, there are personal, social, psychological, and cognitive factors linked to learning, which can be determinant for academic success, since the life of an athlete, depending on his conduct, can bring out positive and/or negative aspects of these factors (Soares et al.,

2013). In this case, athletes have claimed that if it were not for the time constraints and physical demands associated with intense university sports participation, they could perform as well as, if not better than, their non-athletic peers (Singer, 2008).

Clearly, sports have significant time demands, especially during the competitive season (Fisher, Juszcak, & Fridman, 1996; Miranda et al., 2021). Therefore, although many benefits have been observed (Aries, McCarthy, Salovey, & Banaji, 2014; Maciel et al., 2017), highly competitive demands can lead to academic difficulties (Fisher et al., 1996), absences from school and lack of time for daily activities of some student-athletes (Maciel et al., 2017).

The indications referring to the relationship between sport and study seen in the included studies showed predominantly positive evidence between the formations, answering the second question formulated for this review. However, it is necessary to clarify that the studies that showed a negative relationship, even if in a reduced form, are in line with what was exposed earlier in this study, about the loss of participation in highly competitive sport in the involvement and school performance of young athletes.

The relationship exposed as indifferent, refers to studies that did not find a positive relationship, but neither negative between the formations. In these studies, the perception of student-athletes is that they would not be better students if they did not participate in sports, as well as they would not be better athletes if they did not study, having no influence of sports participation in academic life (Scott & Castles, 2017; Peserico et al., 2015).

The positive relationship perceived in most investigated research is similar to the results found in other systematic reviews on the relationship between Physical Education and physical activity and academic performance, which concluded that the younger people participate in physical activity practices, the better their school performance (Peralta, Maurício, Lopes, Costa, Sarmiento, & Marques, 2014; Mota, Picado, Assunção, Alvito, Gomes, & Marques, 2015). Thus, even if participation in sport causes tiredness, lack of time and an extensive routine of training and competitions, these do not, in the perception of young people, dedication, involvement and good performance in studies.

The third question of this review asked whether sports participation had a positive or negative relationship with the academic performance of student-athletes. Despite the positive confirmation of the data, it is important to infer that the acquisition of school skills depends on the student's active involvement in pursuing their learning objectives and on the positive relationship established between sport and school tasks. However, counting on

the continuous support of the school, teachers, parents, coaches, and members of the school community to pursue their goals, both sports and school, play a fundamental role in determining patterns of participation, attitudes, and aspirations to pursue a professional career (Eime, Charity, Harvey, & Payne, 2015; Eather, Fray, & Gore, 2019).

The concept of school success is understood as the indicator of student achievement at the end of the school year, expressed by passing or failing in the respective year (Kamau, Rintaugu, Muniu, & Amusa, 2015). In this review, the studies included showed that student-athletes have higher approval rates when compared to non-athletes, as well as school success is slightly higher for women compared to men (Kamau et al., 2015; Peserico et al., 2015; Soares et al., 2013).

Perhaps this finding is because female athletes are more relaxed and disciplined in their tasks, as well as because they value social interaction and building friendships through sports participation. On the other hand, male athletes see sports competition as an end in itself and tend to value confrontation and social status (Antunes & Aguiar, 2015). Such ideas correspond to the descriptions of organized sports as an important field for the development and strengthening of gender identity (Strandbu, Bakken, & Stefansen, 2019).

On this subject, it should be noted that certain sports present greater challenges and specific barriers to female student-athletes (Souza & Martins, 2018). Especially when it comes to a primarily male sport, permeated by situations of prejudice related to gender inequalities, such as football/futsal (Mascarin, Oliveira, & Marques, 2019; Maquiaveli et al., 2021).

In general, according to Mascarin et al. (2019), athletes have a later start in futsal practice than men. On the one hand, this delay can lead to a disadvantage in their training as an athlete, but on the other hand, it prevents early specialization (Oliveira, Menezes, & Marques, 2017) and favors academic involvement. Specifically in Brazil, there is a growth in the number of female athletes, as well as their relevance and sporting impact at national and international levels (Martins, Reis, Castellani, Santana, & Altmann, 2018), which needs to be considered and studied in future research.

In this perspective, it can also be seen that many student-athletes are unable to complete their studies or fail to integrate satisfactorily with the dynamics of academic life. The causes of this situation are numerous, such as difficulties in complying with the requirements of the training process; difficulty in combining tasks of different natures; lack of resources; lack of motivation; lack of clear objectives and; lack of support (Pérez, Álvarez, & Aguilar, 2014). Thus, in the perspective of reconciling sports and

school involvement and performance, it is necessary to consider educational measures at all levels of education that enable a training process more directed to the student-athlete, leading them to pursue positive and successful careers.

The findings presented in this review have some limitations that point to future research opportunities, such as: difficulty in finding descriptors that represented the theme for all selected databases, as only one form of search was used; inclusion of articles only in Portuguese, Spanish and English; non-observation of the perception of other characters such as family members, coaches and teachers in the process of sports and school education of student-athletes; option for a longer period of time in the study search process; no definition of a specific age group for the analysis of the relationships, benefits, harms and perceptions of student-athletes.

Finally, although it is necessary to expand the demand for research on the subject, important results were made explicit in this study. In particular, the motivation for studies depends not only on the student-athlete and his/her pursuit of learning (intrinsic motivation), but also on the family, social and cultural contexts that influence, in addition to generating rewards (extrinsic motivation), allied to the school. and the joint work of teachers and coaches (Peserico et al., 2015). Therefore, the evaluations must include the analysis of family support and social network, the importance attributed to the activities of culture and values of the community where the young person resides, in addition to the public policies adopted in the region (Cortés-Neto et al., 2010; Costa et al., 2021).

Conclusions

In summary, the information obtained elucidated that the development of research around the theme of involvement and sports and school performance, although current, is still incipient. The articles published in the journals indexed in the selected databases resulted in a greater number of American scientific research, performed with athletes of collective modalities, of both sexes, active in the sports investment stage and students of Higher Education.

Specifically in this analysis of the literature, it was noticed that, in the perception of the athletes: (a) there are more benefits than harm resulting from sports practice; (b) there is a positive relationship between sport-study and; (c) there is a positive influence of sports practice on school performance. It is concluded that the simultaneous involvement in sports and school training entails numerous commitments and obligations, leading student-athletes

often to their physical, psychological, and mental extreme. However, the benefits and the positive relationships established make this involvement something beneficial and favorable to the youth's development, making it something essential to their human formation in an integral way.

Finally, to move towards a broader body of literature, it is suggested that future research should investigate all the characters involved in the two formations (family members, coaches, teachers, businessmen, sports, and school directors), to provide evidence to enable successful sports and school education. In addition, they seek to merge different techniques of data collection and analysis, such as conducting interviews, which would possibly contribute to a better understanding of the underlying issues that permeate sports and school involvement and performance, from perspectives that include, in addition to performance variables (grades and competitive results), social, personal, motivational, and psychological variables, using the exploration of theories or support models, such as the Theory of Self-Determination (Deci & Ryan, 1985), Theory of Planned Behavior (Ajzen, 1991), Socioecological Model (McLeroy, Bibeau, Steckler, & Glanz, 1988) and Transcontextual Model (Chan & Hagger, 2012).

Practical applications

Based on the review conducted, the importance of new lines of investigation based on a qualitative approach is highlighted to obtain a deeper understanding of the student-athletes' perception of both formations, considering a larger sample size, and considering the age and stage of sports and school training of young people. Experimental studies with high-performance and amateur athletes, students with school failure and/or success and practitioners of collective and individual sports can expand the understanding of the topic and provide more precise evidence, based on the specificities of Brazilian culture and its regions.

Programs can implement interventions to help student-athletes throughout their careers, both within the school and in training and sports competitions, by expanding debates and scientific events on the subject, aiming to increase the visibility of the theme, incorporating bodies and institutions interested in conducting both training, based on the perception of those involved.

The literature on the subject could benefit from a more in-depth analysis of environments and initiatives that support student-athletes throughout their sports and school careers. Indeed, such research may lead to the development of more personalized interventions aimed at assisting young people in their engagement in both contexts.

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