

The contribution of futsal to the physical fitness of schoolchildren: An integrative review

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ABSTRACT

According to Guedes and Guedes (1995), we can define that physical fitness is linked to the ability of human beings to perform physical activities, in which these efforts help them to survive in conditions considered appropriate for their organism, in the environment in which this individual is inserted.

Keywords: Physical fitness, Lifestyle, Sedentary lifestyle.

INTRODUCTION

According to Guedes and Guedes (1995), we can define that physical fitness is linked to the ability of human beings to perform physical activities, in which these efforts help them to survive in conditions considered appropriate for their organism, in the environment in which this individual is inserted.

The lack of physical fitness is an increasingly present concern in modern society, in which the sedentary routine and technological facilities have contributed to the increase in health problems. This affects not only adults, but also children, adolescents and young people, who are attracted to technologies and end up adopting a sedentary lifestyle. This lack of physical activity has been linked to chronic diseases such as diabetes, heart disease, and obesity, which are now affecting the young population (Guedes and Guedes, 2021; Pernambuco; De Souza Vale; Dantas, 2023).

Lack of physical fitness is related to a lack of proper training and conditioning, which can lead to a reduction in the body's ability to perform physical activities efficiently. For example, a sedentary person may have low cardiovascular endurance and become easily tired when performing a physical activity that requires prolonged aerobic effort, such as running (Guedes and Guedes, 2021).

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It is good to emphasize that physical fitness is related to both the health of the individual and the motor / sports performance of each subject, and both are related to a good living condition such as doing physical activities regularly, such as the practice of sports and a good diet, thus providing a level of health and well-being of the individual, as he states (Arruda 2012).

Physical fitness is also related to the execution of muscle and cardiovascular movements, and daily activities without much effort. This concept is more linked to sports practices that develop skills such as strength, agility, control of body movements, explosive strength, speed. According to Gallahue and Donnelly (2008), it is the favorable condition of performing certain tasks that require a certain effort from the body.

Fitness, whether related to health or fitness, can be altered. Sports practices combined with a healthy diet make both boys and girls capable of getting better, but for this to occur they must regularly perform these sports activities (Folegatti, 2013).

Physical fitness, whether related to health, as well as physical conditioning, is necessary to practice sports / physical activities, this is related to a good diet and healthy living conditions, these practices being constant, both for girls and boys (Folegatti, 2013).

Futsal emerges as a physical activity that can help improve people's physical fitness. Futsal is a dynamic and high-intensity sport, which involves running, agility, endurance and technical skills. By practicing futsal regularly, it is possible to improve cardiovascular capacity, strengthen muscles, increase physical endurance and develop motor skills (Pernambuco; De Souza Vale; Dantas, 2023).

However, Pinto and Santana (2005) emphasize that futsal sports in school are no longer merely for athletic training, but also for the didactic and motor aspects and other skills related to the physical fitness of schoolchildren.

Therefore, it is essential to encourage the practice of physical activities, such as futsal, in order to combat a sedentary lifestyle and its negative effects on health. By adopting an active lifestyle, we can improve our physical fitness, prevent diseases, and promote a healthier and more balanced life (Guedes, 2021; Matsudo; Dos Santos; De Oliveira, 2020; Pernambuco; De Souza Vale; Dantas, 2023).

Souza and Honorato (2016) state that the practice of futsal in schools is an instrument that brings benefits to health and also to performance in sports, such as the development of "speed, agility, power (or explosive strength), cardiorespiratory endurance".

The practice of futsal is widely disseminated in Brazilian culture, involving millions of people in clubs, streets, sports squares and schools. However, according to Coneglian and Silva (2013), the teaching of futsal in school should not be limited only to the basic fundamentals and techniques, but should also cover cognitive aspects, motor coordination and psychological, physical and social skills of the students.



According to Brasil (2018), futsal is classified as an invasion sport, inserted in the thematic unit of Sports. This type of sport is characterized by the ability of a team to take the ball to the opponent's defense sector with the aim of scoring a goal or point. The teaching of futsal in schools starts from the 3rd year of elementary school.

In school too, futsal has its importance as an instrument of leisure, health and social life, in addition to the sport being culturally popular in the country and when worked objectively it meets the student's learning demands in a practical way (Pinto; Santana, 2005).

However, it is important that the teacher understands, through his planning, the importance of integrating futsal in physical education classes as a didactic instrument that favors several benefits when practiced correctly, including the development of physical fitness (Cavalcanti, 2013; Reis, 2014), and it is extremely important that the teacher shows what is learned as a sports practice, but also as knowledge to be used outside the school (Mendes; Nóbrega; Sabóia, 2012).

There are several benefits of futsal, both physical, motor, psychosocial and even cultural, as highlighted by several outstanding theoretical researchers in the area such as Santos, Souza and Cruz (2021), Darido and Rangel (2015), as well as acceptance of rules, austerity, competitive and initiative, creative spirit, Andrade (2017) reaffirms this issue.

These skills, still in futsal, need to be developed simultaneously, as strategic game resources, where agility, strength and perception of space make all the difference to be a good athlete in the sport, where he needs to make quick and effective decisions in quick seconds or milliseconds (Chagas; Barbosa; Lima, 2005).

Weneik (2003) points out that for a good performance in futsal it is necessary strength, agility, endurance, flexibility, that is, a well-developed physical fitness.

Thus, as mentioned by Santos (2021) and Weinek (2003), sports practice is a greater asset for the physical and motor development of children in sports initiation, just as the continuity of this practice contributes to the development of both physical and motor techniques and skills, leading to the sequential development, ordered in a healthy way of skills such as: strength, speed, logical reasoning that contributes to the development of emancipatory tactics.

The choice of the theme about the lack of physical fitness and the importance of futsal as a physical activity is justified by the growing concern with sedentary lifestyle and its negative impacts on the health of the population, especially among children, adolescents and young people. Through this approach, it seeks to promote awareness of the importance of adopting an active lifestyle, highlighting the benefits of regular physical activity, such as futsal, in improving physical fitness, preventing diseases, and promoting a healthy and balanced life. Thus, the choice of the theme aims to contribute to the promotion of health and well-being of society as a whole.



In this way, we seek to carry out this research so that it can help studies that can contribute to classes and projects that address this theme and that it is more debated in the academic environment.

OBJECTIVE

To evaluate the contributions of the futsal modality to the physical fitness of students in basic education.

METHODOLOGY

The present research consists of an integrative literature review that consists of a broader approach to the literature, which allows studies with theoretical and empirical data with the purpose of making a broad analysis of the researched phenomena, such as: "definition of concepts, review of theories and evidence, and the analysis of methodological problems of a particular topic" (Souza; Silva and Carvalho, 2008). With the objective of discussing and analyzing the physical fitness of students in basic education. To this end, quantitative and qualitative research available in databases of works indexed by CAPES and SciELO were used.

The bibliographic search was carried out in the databases of CAPES and SciELO journals. Articles published between 2012 and 2022, in English, Spanish, and Portuguese, were considered. The descriptors used were "Sports initiation", "physical fitness", "school physical education" and "futsal for schoolchildren".

The inclusion criteria adopted for the selection of the researched documents were the following: articles that address school physical fitness education and school physical education classes, articles that compare the development of physical fitness between futsal and non-futsal students, and articles that analyze the benefits of physical fitness in schoolchildren.

Articles that were not directly related to the proposed topics were excluded, as well as those that were not available in full or were not accessible in the languages mentioned.

After the initial search in the selected databases, the articles were pre-selected based on the inclusion criteria. Then, the reading and full study of each selected material was carried out, in order to extract the relevant information for the discussion of the physical fitness of students and their link with futsal.

The analysis of the data obtained consisted of the identification of themes, concepts and results that emerged from the selected articles. These data were organized and synthesized in order to provide a comprehensive view of the relationship between the physical fitness of schoolchildren and futsal, considering the educational aspects and the associated benefits.



The present work was the result of a pure nature research, which aims at scientific advancement and the development of knowledge, as described by Gil (2019). The research aimed to discuss the effect of futsal on the physical fitness of schoolchildren.

A research question was formulated "What is the contribution of futsal in improving the physical fitness of schoolchildren?" To answer this question, the objective of the review was specified and directed, determining the search terms that were used to carry out this search. The defined search terms were used to find articles that addressed the theme of the review through a systematic search in the relevant databases, such as CAPES and SciELO.

The articles found were evaluated according to pre-defined inclusion and exclusion criteria. Criteria included the type of study, language, period of publication, among others. A rigorous selection of studies that met the inclusion criteria was carried out. Only then, the relevant data were extracted from the selected studies. This included information about the study's objectives, methods, results, and conclusions. A spreadsheet or form was used to organize the data in a systematic way.

With this material, an analysis of the data extracted from the selected studies was carried out. The main themes, concepts and results found were identified. The information was grouped and organized in order to answer the research question, where the results found were discussed and a synthesis of the main findings of the studies included in the integrative review was made. The results were compared and related, highlighting the similarities and differences between the studies. Finally, an overall conclusion of the integrative review was made, summarizing the main results and answering the research question. The limitations of the included studies were pointed out and suggestions were made for areas of future research.

DEVELOPMENT

In the searches carried out, 27 works were found, with different themes on futsal, 17 works were excluded because they did not directly involve the theme discussed, then eliminating 6 more works because they were duplicates or involved similar themes. There were 4 articles that reported experiences of futsal's contributions to the physical fitness of basic education students, as well as research that tested the physical fitness of futsal practitioners and non-practitioners in schools.

To this end, chart 1 is presented with bibliographic data of the works included in the research for analysis of their respective data.

Table 1 - Summary of the articles that aim to ascertain the extent to which futsal contributes to the physical fitness of schoolchildren.

Author / year	Objective	Results	Conclusion
Maniká (2019)	To make a comparison between soccer and futsal fans regarding the physical fitness of schoolchildren.	Similarity in the results, where both corroborate physical fitness and anthropometric development.	There were no differences between physical fitness and measures of structure, mass, strength were equalized, differing only in the speed category, where futsal requires greater effort in this category.
Souza (2017)	Research the benefits of futsal among schoolchildren.	It was found that the practice of futsal goes beyond the physical fitness of students, also contributing to their mental health.	The research reported the importance of physical education classes involving the practice of the sport in question, however the approach was quite superficial and did not present concrete means of verifying the physical fitness of students. A broader deepening of this issue is recommended.
Santos and Jefferson (2021)	To analyze the physical fitness of schoolchildren, based on metric scales, taking into account strength, agility, wingspan and explosive strength in the city of Maceió - AL.	The results obtained describe futsal practitioners who are in a healthy zone with regard to the physical fitness of schoolchildren, where only the strength of the upper limbs has not developed to the extent of the others.	It is concluded that the good practices of futsal favor a good healthy level, as well as an excellent motor development, as well as a development of physical fitness related to physical conditioning. However, there is a lack of tests for practitioners and non-practitioners of other modalities for a more accurate analysis.
Lopes and Lima (2020)	To analyze physical fitness to the detriment of performance in sports activities (futsal) of schoolchildren.	The study concludes that there is a balance between the development of physical fitness and the practice of tactics in play, thus demonstrating that the development of physical fitness corroborates a good performance in other cognitive functions of schoolchildren.	The study concludes that the level of physical fitness of schoolchildren is satisfactory, presenting better results in motor skills followed by agility and speed.

Source: authorship.

Maniká (2019) carried out a comparative analysis between endurance and physical fitness indicators in soccer and futsal athletes, taking into account their performance. The author concluded that, in terms of agility and strength, futsal practitioners stand out in relation to soccer practitioners. This is due to the dynamics of the futsal game, which requires quick movements and constant confrontations of explosive force, especially with the lower limbs.

However, Maniká (2019) observed that the upper limbs have a less pronounced development in this sport, since futsal is characterized by greater use of the lower limbs. However, he points out that the progressive development of the physical aptitudes of students in the practice of futsal is crucial, in order to obtain adequate performance.

In addition, Souza (2017) reaffirms the benefits of physical fitness in the practice of futsal, highlighting that physical fitness is evident when worked on systematically and not just as a form of leisure or entertainment. The author emphasizes that futsal can contribute to the development of important physical skills, such as cardiovascular endurance, muscle strength, agility and motor coordination.



Santos (2021) points out that futsal practitioners are in a healthy zone in relation to physical fitness, positively evaluating the performance of students in this sport. However, he notes that there is a discrepancy in the development of the upper limbs compared to the other aspects of physical fitness, which can be attributed to the specific characteristics of the game.

Lopes and Lima (2020) analyzes the relationship between physical fitness and performance in sports practices, highlighting the importance of developing physical fitness for the athlete's good performance, regardless of the chosen sport modality.

These studies demonstrate that the practice of futsal can contribute significantly to the development of physical fitness in schoolchildren. The benefits go beyond the sports sphere, also impacting the physical and mental health of practitioners. The regular practice of futsal promotes the development of agility, strength, balance and motor coordination of students, in addition to providing an adequate disposition for daily activities.

It is relevant to highlight that these findings have direct implications for school physical education. The inclusion of futsal as part of the school curriculum, when approached in a systematic way and with a critical approach, can contribute to the overall development of students. Physical education plays a key role in promoting physical fitness and encouraging the adoption of healthy lifestyle habits from childhood. Physical education classes need to create a sports awareness related to physical conditioning and health, in addition to the tactical training of the sport. In this context, it is evident that the practice of futsal, when practiced from childhood can bring and maintain several benefits related to health and motor conditioning until adulthood (Santos, 2021).

Although the theme is observed by all studies in which the practice of futsal contributes to the physical fitness of schoolchildren, Santos (2021) points out that the lack of tests that compare with other modalities between practitioners and non-practitioners of sports leaves a gap for a more accurate analysis. However, Maniká (2019) makes a comparison between soccer and futsal, in which both corroborate physical fitness in some factors, and in terms of agility and explosive strength of the lower limbs, futsal practitioners stand out.

Therefore, futsal is a sport that contributes both to physical fitness in terms of health, in which its practitioners develop physical skills that are very important for their survival and well-being, such as agility, explosive strength, quick thinking for decision-making, which are characteristic of this sport, which is confirmed in the study by Santos (2021) as well as in motor development, in which athletes, regardless of the sport they practice, are able to stand out due to their skills that have been worked on since sports initiation, making them people with great motor development, which will result in good performance, generating satisfactory results regardless of the sport, stated by (Lopes and Lima, 2020).



FINAL CONSIDERATIONS

Based on the presentation of systematized research, it is concluded that studies point to the benefits of futsal for the development of physical fitness in schoolchildren, with some specific observations such as: the lack of tests for other sports leaves a gap in greater benefits of futsal for the physical fitness of schoolchildren, however, everyone agrees on the effectiveness of the sport as didactic instruments for health promotion and physical conditioning of schoolchildren, in addition to other benefits that help in the basic training of athletes and practitioners during their adult life, gaining a quality of life, at a healthy level.

Therefore, with these surveys, it is possible to answer the questions of the research in relevance in which futsal is an efficient instrument for the development of physical fitness of schoolchildren, both related to health and motor development. However, more in-depth studies are needed to measure the physical fitness of schoolchildren compared to other sports.



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