

SPORTS INITIATION AND RISK FACTORS IN THE TRAINING OF SCHOOL ATHLETES

INICIAÇÃO ESPORTIVA E OS FATORES DE RISCO NA FORMAÇÃO DE ATLETAS ESCOLARES

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Abstract

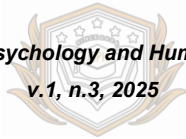
Sports initiation is highly relevant in academic, athletic, and specialized literature contexts. However, when it is not developed within an appropriate pedagogical approach, risk factors may arise, negatively impacting the training of school athletes and often leading to the abandonment of sports practice. This study aims to analyze sports initiation and the risk factors involved in athlete development. The relentless pursuit of immediate results contradicts the pedagogical principles of sports training, frustrating children and adolescents who undergo training stages that do not match their physical and psychological maturity. Among the main risk factors are the inadequate methodologies employed by some professionals, who, by prioritizing immediacy, expose young athletes to stress, overtraining, and physical and mental exhaustion. Although such issues can also occur in adult athletes, children and adolescents are more vulnerable as they are not fully prepared to cope with systematic performance-oriented practice, making them more susceptible to harmful effects on their development. The objective of this study was to analyze sports initiation and the risk factors in athlete development, contributing to the reflection and guidance of physical education and sports professionals.

Keywords: Sports initiation; Risk factors; Athlete development; School sports.

Resumo

A iniciação esportiva é algo muito relevante hoje seja nos aspectos acadêmicos, esportivos ou na literatura esportiva, sobretudo esta iniciação esportiva quando não é desenvolvida dentro de uma pedagogia adequada, logo aparecem os fatores de risco, tendo uma participação muito negativa na formação de atletas esportivos escolares, estes fatores de risco desencadeiam um processo de abandono na prática esportiva. O objeto de estudo tem como finalidade analisar a iniciação esportivas e os fatores de risco na formação de atletas esportivos. A busca desenfreada por resultados expressivos na formação de atletas esportivos, vai no sentido contrário da iniciação esportiva em quando pedagogia de formação de atletas em modalidades esportivas, é uma realidade que frustram crianças e adolescentes ao vivenciarem etapas de treinamentos que não condizem com sua realidade maturacional e psicológica. Dentro dos fatores de risco na formação de atletas esportivos, fica evidente que a metodologia utilizada por vários profissionais do esporte não está adequada com a iniciação esportiva, uma vez vislumbrando pelo imediatismo por parte destes profissionais, somam inúmeros fatores de risco como, estresse, overtraining e o esgotamento físico e mental. Isso não quer dizer que atletas adultos não sofram desses tipos de problemas, mas as crianças tendem a estar menos preparadas para lidar com a prática

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sistemática de rendimento e tornam-se mais suscetíveis a vários fatores prejudiciais ao seu desenvolvimento. O objetivo deste estudo foi analisar iniciação esportiva e os fatores de risco na formação de atletas, procurando auxiliar os profissionais da área de educação física e do esporte sobre os fatores de risco na iniciação esportiva na formação de atletas.

Palavras-chave: Iniciação; Escolares; Fatores; Risco; Formação.

1 INTRODUCTION

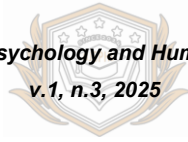
It is understood that sports initiation is highly relevant today, whether in academic, sporting, or sports literature aspects, especially when this initiation is not developed within an appropriate pedagogy. Risk factors such as early specialization, dropping out of sports, and sporting frustrations quickly emerge, indicating a very negative impact on the development of athletes. These risk factors trigger a process of abandonment of sports practice.

This generates numerous damages to the lives of these practitioners during their initiation into the sporting career, since they are subjected to an experience of exhaustion from training and competitions. It is believed that many sports professionals do not respect even the basic principles of sports training, subjecting children to high levels of training volume, often with a weekly frequency and session duration exceeding their biological and psychological capacities.

Sports initiation can be the first step in the sporting life of a future athlete. However, some studies show that if this path is poorly guided, this first step can be traumatic in the life of a child starting out in sports.

Early specialization is the factor most cited by authors when the subject is related to the negative effects on the sports initiation process. Injuries are very common when a child specializes prematurely in a sport. The demanding training load, the stimuli that should only be applied to adults and are applied to children are factors that promote injuries in young athletes (Francke, 2009; Marques, 2000).

In a study related to injuries sustained by children playing soccer, Petri and Lourenço (2005) showed that 31% of injuries in children were due to falls and sprains, 24% to falls, 13% to kicks, 11% to contact with the ball, 10% to trauma against an opponent, and 55% to injury mechanisms that did not require the participation of another athlete or equipment, suggesting that factors such as the child's own physical conditioning or motor coordination are very important in the pathogenesis of injuries.



From this perspective, the objective of this study was to analyze sports initiation and risk factors in the training of athletes, seeking to alert professionals in the field of Physical Education and Sport about the dangers of these teaching methods used in the training of school sports athletes.

The object of study is sports initiation and the risk factors in the training of school athletes. The topic of sports initiation is very dynamic and at the same time complex for professionals without quality information, as it can lead to physical, social, and emotional harm to children. Thus, several negative aspects can be observed within the sports training process.

1.1 Sports initiation

Sports initiation is an extremely dynamic context; much has evolved in recent decades regarding the possibilities and potential of sports practice in childhood and adolescence. Given this universe, learning about the basic fundamentals and the impact of sport on child and adolescent development is of great relevance for sports professionals. Establishing a pedagogy that fosters sports practice to understand and identify the relationships established between biological individuality, environmental stimuli, growth, and maturation is the foundation of a sports initiation program.

It can occur in formal educational settings, i.e., schools, and in sports education settings, i.e., clubs, associations, social projects, NGOs, among others. Prolonged, systematic, and planned sports practice in the pedagogical field aims to develop and improve specific motor skills, as well as physical qualities, not to mention a range of emotional, moral, intellectual, and psychological qualities.

1.2 Risk factors in the development of school athletes

Because it does not respect certain characteristics of the maturational phase of the practitioners, the occurrence of early sports specialization can trigger the abandonment of the practice or even hinder sporting success after puberty (Nunomura; Pires; Carrara, 2009). The possible consequences of specializing a child prematurely are directly linked to the fact that a methodology incompatible with their characteristics, interests, and needs is adopted for a long period of time.

Therefore, the potential effects may not manifest themselves directly, but over the course of seasons (Santana, 2005).

In this regard, Kunz (1994) states that the biggest problems that early specialized training causes in a child's life, and especially their future after ending their sporting career, can be listed as:

- Deficient schooling, due to the high demands of successfully pursuing a sports career;
- The unilateralization of a development that should be plural;
- Reduced participation in activities, play, and games typical of the children's world, which are essential for personality development in childhood.

Vargas Neto (1995; 1997a; 1997b; 1997c; 1997d; 1998; 1999a; 1999b) and Vargas Neto, Vargas and Voser (1999; 2000), in some studies, present ethical issues related to children's involvement in sports activities from a very young age. Although there are many benefits to children's sports practice, we must not forget the risks to which children practicing high-performance sports are subject.

The risks are grouped into four main areas, namely:

- Physical risks: These are related to the child's physical health and involve bone, joint, muscle, and heart injuries; the problem stems from the immense number of repetitions of technical gestures aimed at perfecting and automating movement.
- Psychological risks: these relate to the mental state and behavior of the individuals.

In this respect, extremely high levels of anxiety, stress, and frustration were found in the children. Poor results in competitions cause disillusionment and abandonment, and today the issue of "unlived childhood" is being studied, with reports from former athletes who say they do not remember playing or their childhood.

- Motor-related risks: early specialization leads to a significant lack of a multi-sport foundation, resulting in a likely inability to practice another sport in the future, as observed in the extremely rigid motor automatisms acquired by these athletes.
- Sports-related risks: because specialization is early, it is impossible to know the characteristics (physical, technical, psychological, motor, etc.) of the future elite athlete. This same athlete may, in the future, not possess the required conditions for that particular sport.

This means that sports specialization is a complex process, dependent on the dynamic interaction between multiple variables, which are the instigating factors of development, and which can positively or negatively affect the proximal processes inherent to sports development (Krebs, 2007).

Given these aspects, it is important to note that, throughout sports training, there are some sensitive periods ideal for acquiring new experiences, indicating that the necessary abilities for movement execution are present and certain psychosocial characteristics should prevail in the context of learning/practice and specialization.

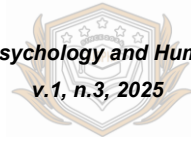
2. MATERIALS AND METHODS

This study was developed from a literature review, of an exploratory and descriptive nature, based on data present in scientific articles, journals and books specialized in the proposed theme, in which the scientific data is the already published literature that addresses the theme of the study, thus serving to evaluate the main objective of the work, on early specialization and risk factors in the training of futsal players.

Gil (2002) states that bibliographic research is developed based on already existing materials, mainly consisting of books, dissertations, theses, and scientific articles. Therefore, this work primarily used articles published in national and international journals, proceedings, dissertations, and papers freely available on the internet that addressed the topic as its source. The main descriptors used for research and article retrieval were: sports initiation, training, school, and athletes.

Knowing that early specialization in futsal exposes children to considerable risks (Santana, 2008), if the teacher adopts a pedagogy that chooses teaching principles and procedures that make the training process excessively demanding and specialized, it may happen that children, over the course of seasons, drift away from the sport.

Brazil is one of the countries where this practice has been occurring at increasingly younger ages, as evidenced by the championships in various sports that have been promoted and held by the respective federations (Souto, 2002). Currently, it is possible to find children aged 8-9 years old competing in Rhythmic Gymnastics, Artistic Gymnastics, Judo, Football and others (Fechio). *et al.*, 2011).



3. RESULTS AND DISCUSSION

Based on the contributions of various authors who confirm that the training of school athletes deserves a critical look at the risk factors in their development, since there is no adequate pedagogy, and the teaching is applied from a perspective of overvaluing training and competitions, where children and adolescents are not suited to this sporting model, even though their maturational and psychological structure is still developing.

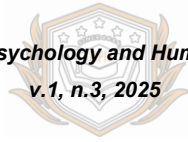
We understand early intensive training (early sports specialization) to be when, before the appropriate time, training programs and methods are adopted for children that may cause negative effects.

It is always complex to define whether these programs are premature, but some indicators help to define them as such, for example, when children are subjected to excessive demands in training and competitions to obtain results (emotional aspect), when they participate in repetitive series of exercises to memorize specific skills (technical-gestural aspect), when they play only in one tactical function/position (tactical aspect), when they directly train physical capacities such as strength, endurance and speed (physical aspect). In other words, a situation that represents early intensive training requires careful and systemic analysis (Santana, 2018).

When a child is led to specialize prematurely, whether from a motor standpoint, through specific training, and/or emotionally, through overload, there is a high probability that a mistake is being made (Santana, 2001).

Given this view on early sports specialization presented by the authors, we emphasize that, according to João Bosco da Silva in **Learning to Learn by Doing** (1995), this attempt will bring [...] serious consequences of a neurophysiological, anatomical, psychological, and pedagogical nature, because by ignoring the phases and stages specified by science, 'specific physical training' and 'technical performance' (early training) become absolute priorities, failing to respect the nature of the child.

Thus, the results of this study show that early sports specialization brings a range of risk factors to the development of futsal players, from physical aspects to psychological trauma in human development.



4 CONCLUSION

We conclude from this study that sports initiation and risk factors in the training of school athletes is a complex topic involving many factors. We also understand that one of the strong reasons for early sports specialization in the training of sports players is the pedagogy used by physical education and sports professionals, aiming for immediate results in sports competitions. They subject children and young people to excessively high-intensity training, generating numerous demands for their athletic performance.

Given this, several risk factors are found during this period, highlighting some relevant aspects in this context such as psychological factors and their traumas that create a universe of abandonment of sports practice.

In this conception, when an athlete leaves the sport because they are interested in other social activities or even another sporting discipline, this does not necessarily mean that they suffer from exhaustion or stress. The involvement of children and young people in competitive sports has worried the scientific community, mainly due to the implications that the pursuit of competitive results can have on long-term development.

This emphasis on immediate results is inconsistent with the developmental work that should exist in youth categories, but rather with a process of early sports specialization. Another risk factor in the development of futsal players is the negative influence, in the vast majority of cases, of parents who see their children as miniature adults, making comparisons and overvaluing themselves in the face of competition, leading their children to abandon the sport.

Therefore, it is up to physical education and sports professionals, and others involved, to conduct assessments and plan sports initiation programs that systematically consider this entire context, for adequate training that respects the participant's stage of human development and limitations, so that the participant can experience all stages of training with quality content and good guidance for their growth in sports.

REFERENCES

AÑÓ, V. **Planificación del Entrenamiento Juvenil**. Madrid: Editorial Gymnos, 1997.

Revista Brasileira de Educação Física e Esporte, v. 24, n. 3, p. 305-314, 2010.
Disponível em: <https://goo.gl/ydkrs5>. Acesso em 28 mar. 2020.

FRANCKE, P.E. A iniciação esportiva e a especialização precoce no futebol: fatores de crescimento ou de exclusão? **EFDeportes.com, Revista Digital**. Buenos Aires, Nº 131, 2009.

FECHIO, J. J.; CASTRO, N. M. de; CICHOWICZ, F. D. A.; ALVES, H. Estresse infantil e a especialização esportiva precoce. **Revista Psicologia e Saúde**, v. 3, n. 1, jan./jun. 2011.

FUZHARA, C. N; SOUZA, D. M. M. B. A infância no país do futebol. **Revista Brasileira de Educação Física e Esporte**, v. 24, n. 3, p. 305-314, 2010.
Disponível em: <https://goo.gl/ydkrs5>. Acesso em 28 mar. 2020.

KREBS, R. J. Da estimulação à especialização: primeiro esboço de uma teoria da especialização motora. **Kinesis**, v. 9, 1992, p. 29-44.

KUNZ, E. **Transformação didático-pedagógica do esporte**. Ijuí: Unijuí, 1994

HARRIS, P. L. **Criança e emoção**: o desenvolvimento da compreensão psicológica. São Paulo: Martins Fontes, 1996.

MARQUES, A.T. **As profissões do corpo**: treinador. *Treinamento Desportivo*, Curitiba, v.5, n.1, p. 4-8, junho. 2000.

MOESCH, K. et al. Late specialization: the key to success in centimeters, grams, or seconds (cgs) sports. **Scandinavian Journal Medicine of Science Sports**, Copenhagen, v. 21, p. 282-290, 2011.

NUNOMURA, M.; PIRES, F. R.; CARRARA, P. Análise do treinamento na ginástica artística brasileira. **Revista de Brasileira de Educação Física e Esporte**, São Paulo, v. 31, n. 1, p. 25-40, 2009.

PETRI, F.C; LOURENÇO, A. Lesões traumáticas das crianças no esporte. In: COHEN, M; ABDALLA, R. J. **Lesões nos esportes**: diagnóstico, prevenção e tratamento. Rio de Janeiro: Revinter. 2005. p. 625- 639.

SANTANA, W. C. **Iniciação esportiva e algumas evidências de complexidade**. Campinas: Autores Associad.