

**03 - SEDENTARISM IN SCHOOL ADOLESCENTS**

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**INTRODUCTION**

Physical activity is recommended for all individuals, especially children, as it is during this stage of life that physical exercise can act against the onset of disease, and can also provide the adoption of the habit of a regular practice for life (BOELHOUWER, 2002)

The importance of physical activity has become evident for the general population in the sense of having a better quality of life, especially for children and adolescents acquire healthy habits from the first years of life.

The children should participate in play activities with the objective of developing creative and intuitive capacity, formulating strategies in games and games directed to leisure and entertainment (STOCKER, 1983).

According to Kishimoto (2011, p.24), play is the action that the child performs in fulfilling the rules of the game, by immersing himself in the playful action. It can be said that it is the playful in action.

Playing helps participants develop confidence in themselves and their abilities, and in social situations helps them judge the many variables present in social interactions and empathize with others. It leads children and adults to develop perceptions about other people and to understand the bidirectional demands of expectancy and tolerance. (MOYLES 2002).

In view of this, it is extremely important to guide the child, the adolescent, the value of physical activity to improve their quality of life, to reduce the risks of inactivity and especially, for the preservation of the healthy and physically fit human species even under conditions of limitations.

However, adolescents, individuals between 12 and 18 years of age, according to Law 8.069 / 90 - Statute of the Child and Adolescent (ECA), should consolidate the creation of healthy habits of practicing physical activities equally playful, but with theoretical foundation based on the sciences, in order to optimize the increasingly busy time with activities of all kinds, both in school life and in social life, and to make positive changes in their health and, in turn, create healthy habits (THE COOPER INSTITUTE, 2017).

Adolescents are part of a special part of the population, since the creation of healthy habits for health in the first years of life, such as regular and continuous physical activity, avoids physical inactivity and prevents Chronic Noncommunicable Diseases (DCNT In this paper, The World Health Organization (WHO, 2010) highlights that sedentary lifestyle is among the main causes of chronic non-communicable diseases.

The literature indicates that the adoption of an unhealthy lifestyle with reduced physical activity is strongly related to the development and maintenance of obesity, which has been described as an important public health problem, since its prevalence grows at each level higher (Silva et al., 2008).

Sedentarism is defined as the lack and / or absence and / or decrease of physical or sports activities, and is considered as the disease of the century. WHO understands that physical inactivity is associated with daily behavior with a low level of physical activity, such as electronic media over physical or sports activities (WHO 2010).

Some strategies have been adopted to modify this reality, such as the Fitnessgram Program (THE COOPER INSTITUTE, 2017), which consists of a program of physical fitness education for health and is aimed at children and young people in primary and secondary education . It is an educational program developed to assist the Physical Education teacher in the stages and methodology of the evaluation and education of the physical fitness of children and adolescents. It contains the most suitable physical fitness tests for these age groups and evaluates the performance in 3 distinct zones, the first one in which the student "Needs Improvement", the second one identifying the "Healthy Zone" and the last one "Above the Healthy Zone" (THE COOPER INSTITUTE, 2017).

For Gallahue, the criteria can and should be set for minimum levels of physical fitness necessary for good health. The Fitnessgram (American Fitness Alliance), an aptitude test, does this. He compares children's outcome to six health-related fitness measures to carefully discover healthy standards rather than national standards. (2005, page 283).

It should be emphasized that the identification of health risk behaviors becomes relevant for actions to be taken in the implementation of programs to prevent and combat sedentary lifestyle, and may serve as a basis for the modification of behaviors that place school adolescents in risk. Regarding the social context, it is important to know the information about behaviors that may endanger the health of schoolchildren. Thus, it is possible to plan intervention strategies, awareness campaigns, prevention and health promotion (FRANCO et al., 2010).

In order to mitigate the problem, some studies have been done to detect the possible causes of this phenomenon. Some factors will be addressed here. For better understanding, this review will cover the following topics: Sedentary lifestyle, Physical Activities, and Health Risk Behaviors.

Given this scenario, it is imperative that, as soon as possible, attention be focused on the adoption of healthy habits, so that children and adolescents adopt an adequate lifestyle in adulthood, which will lead them to prevent future health problems (FRANCO et al.;2010).

Unfortunately, physical education classes at school have been losing their importance for several reasons, sometimes because of the teachers themselves, the teacher realizes that he is not achieving the goals planned for discipline. Subsequently, the teacher comes up against undisciplined students, uninterested in the proposals, and rude to the modifications that the teacher tries to propose. Still in this context, the teacher suffers a certain discrimination, on the part of the managers and colleagues who make it difficult to make innovations and still make materials, spaces, and other components of this school unfeasible. It adds to this context a certain accommodation in front of the salary scale, which probably does not change in the face of its performance, whether it is bold or inhibited, innovative or reproductive, "archaic" or "modern", "sportsman" or "alternative" (ALVES, 2007).

As the purpose of this article is to know the behaviors of risks to the health of adolescents, this knowledge becomes relevant for the decision making of actions to implement programs to combat sedentarism. Chronic noncommunicable diseases

(NCDs) are the major global health problem, adolescent schoolchildren need to create habits of physical fitness education. High number of premature deaths, loss of quality of life, with a high degree of limitation and incapacity, besides being responsible for economic impacts for families and communities, and for the general society.

### **Sedentary lifestyle**

Physical inactivity is the lack or decrease of regular physical activity, it is associated with the daily behavior of modern life. OEHLSCHLAEGGER, et al., 2004). In the present study, it was found that the risk of chronic degenerative diseases was associated with an increased risk of death.

Sedentary lifestyle is the most frequent risk factor for the development of degenerative cardiovascular diseases. Thus, in 1992, sedentarism based on causality criteria was elevated to the status of a primary (causal, independent variable) risk factor for population morbidity and mortality (DCNT), similar to the other three major primary risk factors: smoking, hypertension and hypercholesterolemia (AMERICAN HEART ASSOCIATION, 1992).

Developed countries, through institutions and organizations, have concentrated their efforts in the area of public health and in the prevention of various diseases such as coronary and hypertension. Therefore, emphasis has been placed on the reduction of sedentarism, through plans to adopt regular physical activity to improve individual and collective health (WHO, 2010).

Historically, physical activities have always been at an inferior stage in relation to activities, known as intellectual activities. The Physical Education discipline has been searching for its space within the school context as an important curricular component because, in addition to developing motor skills and teaching sports and games, it can bring significant improvements in the formation of the citizen and in the change and creation of healthy habits of adolescents within and outside school (JUNIOR 2013).

The suitability of health-related fitness components (cardiorespiratory fitness, muscular strength / endurance, flexibility and body composition) is important for reducing chronic diseases and for better performance; and therefore, physical fitness resulting from regular physical activity is beneficial for children at school and extracurricular physical activities (ANDREASI, et al., 2010).

Among the extracurricular activities most important for the development of adolescents are physical-sports practices (CODINA, et al., 2016). The practice of games and sports contribute to physical, personal and social development; the creation of habits of healthy lifestyle behaviors improves both physical and psychological condition; the encouragement of a state of well-being and a healthy lifestyle; the increase of self-esteem and motivation in adolescents to promote integral development (CODINA et al., 2016, WHO, 2010).

During the transitional period from childhood to adulthood, many transformations occur in the cognitive, affective-social, physical, and hormonal dimensions. At this particular time of life, autonomy and independence grow in relation to the family and the experimentation of new behaviors and experiences. Some of these behaviors represent important risk factors for health, especially sedentary lifestyle, which contributes to the future development of chronic diseases, such as cardiovascular diseases, diabetes, hypertension, postural problems, increased cholesterol and obesity, among others (WHO 2010).

Cardiovascular diseases (CVD) are a serious public health problem in Brazil and in the world, being the main cause of death worldwide, responsible for approximately 15 million deaths each year and represent the highest costs in medical care according to Organization World Health Organization. Cardiovascular diseases cause more than 1/3 of the deaths in Brazil. Vascular lesions following these conditions are linked to atherosclerosis. Due to its multi-causality, many of the risk factors for this disease, such as obesity, arterial hypertension and smoking, are rooted in adolescence and show additional results in adulthood (MARQUES 2003).

Hypertension, in addition to being a major health problem in Brazil, increases the medico-social cost, mainly due to complications such as cerebrovascular diseases, coronary artery disease, vascular end-points, heart failure and chronic renal failure (MION et al., 2002).

Obesity is a progressive problem in childhood, reaching between 25 and 30% of the population of children in rich countries. In Brazil, overweight and obesity already reach more than 30% of the adult population. Obesity is accompanied by increased morbidity and decreased longevity, being strongly associated with diseases such as hypertension, diabetes mellitus, postural problems, psychosocial dysfunction, among others. Obesity in childhood and adolescence is related to obesity in adult life: 50 to 65% of obese adults were obese children or adolescents. Among obese adults, those who were already overweight in childhood indicate a lower therapeutic response compared to those who became obese in adult life. The root cause of obesity is the imbalance between the calories consumed and the calories expended. (Martinez, 1999).

The prevalence of overweight and obesity among children and adolescents increased from 4% in 1975 to 18% in 2016 (WHO 2017).

Diabetes Mellitus is a public health problem with a high social and economic burden, the diagnosis of which is unknown in half of the individuals with diabetes.

The World Health Organization (WHO, 1999) defines Diabetes Mellitus as a multiple etiology syndrome, due to lack of insulin and/or inability of insulin to adequately exercise its actions, characterized by chronic hypoglycemia and changes in the metabolism of carbohydrates, lipids and proteins. The characteristic symptoms are: polydipsia, polyuria, blurred vision and weight loss.

These disorders may impair quality of life, if there is no adequate prescription for therapy or the importance of the implications of these pathologies (MIRANZI et al, 2008).

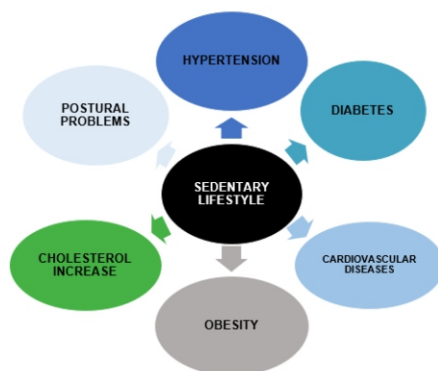
Increased cholesterol, also known as hypercholesterolemia, is a condition in which the body has high levels of LDL cholesterol, the cholesterol popularly known as "bad" cholesterol. With high LDL cholesterol levels, the risk of cardiovascular disease is very high. High blood cholesterol can cause artery clogging and lead to diseases such as atherosclerosis and heart attack. Knowledge of risk factors is critical, since high cholesterol has no symptoms. However, the cause is associated with genetic factors and a sedentary and unhealthy lifestyle (CAPRONI et al., 2018).

The major postural changes in the child and adolescent population, regardless of obesity, are thoracic hyperkinesis, thoraco-lumbar scoliosis and lumbar hyperlordosis. Body posture involves a dynamic relationship between the segments of the human body, which is determined by the action of the skeletal muscles that adapt to the stimuli received. Sedentary lifestyle can lead to decreased energy expenditure and a greater likelihood of being overweight. Physical inactivity is related to inappropriate posture habits, such as sitting incorrectly and spending many hours using the cell phone, in front of the computer, tablet, accessing social media, and also watching television (LARISSA ROSA et al., 2011).

Guedes (2009) states that children and adolescents are considered sedentary when they practice physical activities less than three times a week and less than 30 minutes during the activity. This inertia comes from attractive media such as games,

TV, movies and more.

Figure 1 - Health Risk Factors.



Source: Prepared by the author, 2018.

### Conclusion

It is extremely important to guide the child, the adolescent, the value of physical activity to improve their quality of life, to reduce the risks of inactivity and especially, for the preservation of the healthy and physically fit human species even in conditions of limitations.

Assessing sedentarism as a single factor is difficult because it is constantly associated with other risk factors (WEINECK, 2005).

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#### ABSTRACT

The WHO understands that the sedentarismo is associated with the daily behavior with low level of physical activity. In recent years, there has been a significant increase in the prevalence of sedentary behavior among adolescents (12 to 18 years old), not only in Brazil but also in developed countries, which may reach epidemic proportions if there are no public policies aimed at the promotion, prevention and treatment of this condition. Although the effects are not yet great, studies that have been carried out with the objective of evaluating and measuring sedentary behavior in adolescents have been carried out and have presented important results for the academic community.

KEY WORDS: Adolescents, Schoolchildren, Sedentary Lifestyle.

#### RÉSUMÉ

L'OMS comprend que le sedentarismo est associé au comportement quotidien avec un faible niveau d'activité physique. Ces dernières années, la prévalence des comportements sédentaires chez les adolescents (âgés de 12 à 18 ans) a considérablement augmenté, non seulement au Brésil, mais également dans les pays développés, pouvant atteindre des proportions épidémiques en l'absence de politique publique. visant à la promotion, la prévention et le traitement de cette condition. Bien que les effets ne soient pas encore importants, des études ont été menées dans le but d'évaluer et de mesurer le comportement sédentaire chez les adolescents et ont présenté des résultats importants pour la communauté universitaire.

MOTS CLÉS: Adolescents, écoliers, sédentarité.

#### RESUMEN

La OMS comprende que el sedentarismo está asociado al comportamiento cotidiano con bajo nivel de actividad física. En los últimos años, se ha observado un aumento significativo en la prevalencia en el comportamiento de sedentarismo entre adolescentes (12 a 18 años - ECA), no sólo en Brasil como en países desarrollados, lo que puede alcanzar, proporciones epidémicas, si no hay políticas públicas orientadas a la promoción, prevención y tratamiento de esta condición. Aunque los efectos aún no son grandes, estudios ya realizados con el objetivo de evaluar y medir el comportamiento sedentario en adolescentes se han realizado y tiene presentando resultados importantes para la comunidad académica.

PALABRAS CLAVE: Adolescente, Escolares, Estilo de vida sedentario.

#### RESUMO

A OMS compreende que o sedentarismo está associado ao comportamento cotidiano com baixo nível de atividade física. Nos últimos anos, tem-se observado um aumento significativo na prevalência no comportamento de sedentarismo entre adolescentes (12 a 18 anos - ECA), não somente no Brasil como em países desenvolvidos, o que pode atingir, proporções epidêmicas, caso não haja políticas públicas voltadas para a promoção, prevenção e tratamento desta condição. Embora os efeitos ainda não sejam grandes, estudos já realizados com o objetivo de avaliar e mensurar o comportamento sedentário em adolescentes têm sido realizados e tem apresentando resultados importantes para a comunidade acadêmica.

PALAVRAS-CHAVE: Adolescente, Escolares, Estilo de Vida Sedentário.