

Benefits of physical activity for the development of autistic children

Abstract

Autism is a neurodevelopmental disorder characterized by difficulty in establishing social relationships and a wide range of changes in the acquisition and use of language and motor behavior. Currently, there is no consolidated cure for autism and the practice of physical activity has been a resource used to minimize its deficits. The objective of this text was to present the benefits of physical activity in the global development of autistic children found in the literature, listing the activities used in research. The predominance of aerobic activities was observed and the main benefits were improvements in motor and psychomotor behavior and social interaction. It is concluded that the practice of physical activity has a positive impact on the essential and daily activities of children with autism.

Keywords: autism, physical activity, benefits

Volume 5 Issue 2 - 2020

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Received: February 12, 2020 | **Published:** March 20, 2020

Introduction

Autism or autism spectrum disorder (ASD), is defined by the Diagnostic and Statistical Manual of Mental Disorders - DSM-V,¹ as a neurodevelopmental disorder, characterized by persistent deficits in communication and social interaction, in addition to repetitive and stereotyped movements. Currently there is no consolidated cure, however, there are actions that aim to mitigate the consequences of ASD, the most common being drug treatment, adherence to therapeutic activities, physical activities and specialized educational assistance in schools.

According to data from the Center of Diseases Control and Prevention (CDC), there is currently one case of autism in every 59 individuals. This data shows the growing number of diagnoses, which may be related to the early identification of characteristics, even before the age of three, according to the Associação de Amigos do Autista (AMA). Congruently with this demand, we note the insertion of these individuals in school spaces, mainly in basic education and in therapeutic and sports spaces as an alternative to conduct the development of ASD children. It is pointed out that the treatment involves a multidisciplinary team, formed by doctors, psychologists, speech therapists, therapists and physical educators (among other professionals), who evaluate and develop a personalized intervention program, since no person with autism is the same as another.

Individuals with autism usually have low rates of participation in physical activities, focusing on an inactive lifestyle and increasing the risk of developing obesity and resulting diseases.² The risk of overweight is estimated at 30.4% of children with ASD, a higher value than children without ASD, which is 23.6%.³ Furthermore, this withdrawal from bodily activities ends up aggravating the difficulty in the social interaction, a characteristic of this disorder.

Benefits of physical activity

The benefits of regular physical activity lead to a wide recommendation by doctors and specialists, for individuals of all

age groups, people with some disability or not, since there are few absolute contraindications to physical activity. The WHO (World Health Organization) has been trying to sensitize different countries about the regular practice of physical activities and the emergency need to modify the sedentary lifestyle that is becoming more and more common in most societies. It is important to emphasize that the benefits obtained go beyond the physical sphere, covering socialization, life expectancy and quality, control of anxiety and depression. The regular practice of physical activities contributes positively to the reduction of cardiovascular risks, incidence of diabetes, blood pressure and also contributes to the improvement of bone density. These aspects contribute positively to improving the quality of life. It is noticed that the earlier physical activity is inserted in the lives of children, the more benefits it will trigger in their development, since the first and second childhood are the periods in which the child is in constant development for construction and full motor evolution.⁴

The practice of physical activity by autistic children

Although limitations in motor performance are not necessarily deficits due to ASD, 79% of autistic people face difficulties in this regard, compromising their ability to perform daily functions.^{5,6} The sooner these motor and psychomotor stimuli are worked on, the better the full development will be, giving them motor, cognitive possibilities, improvements in their affective and social development.⁴

In autistic individuals, in addition to the benefits mentioned above, the regular practice of physical activity can contribute significantly to the development of motor coordination, body awareness, social interaction, daily independence and cognitive ability.³ The diversification of stimuli regarding the expansion of possibilities and practical experiences, will have different effects on its practitioners, emphasizing the importance of an individualized intervention plan capable of focusing on the areas and activities most necessary for the global development of the autistic person.

In the meantime, targeted physical activity favors the development of motor skills through games and sports activities, providing the development of their physical, cognitive and sensory abilities. It also allows the exploration of the physical environment, the improvement in physical condition, spatial orientation, autonomy and independence for carrying out activities of daily living.⁷ It is noted, then, the relevance of the practice of activities that aim at the processes of integration and establishment of daily routines in order to contribute in physical and social aspects of the autistic child. In this scenario, the Physical Education teacher plays a fundamental role in the educational construction of the autistic person, since the intervention programs designed should not only aim at the development of the proposed activities, but also at improving the specific skills in deficit in individuals with ASD. Thus, the improvements obtained are reflected beyond the training locations, encouraging autonomy to perform simple daily tasks.

Focus activities

The literature directs the practice of certain physical activities by autistic individuals through research with positive results in relation to the benefits for this specific group. Among these activities are running,² mini-trampoline,^{2,8} water activities,⁹ horseback riding,⁷ skating,⁵ in addition to more diversified physical activity intervention plans.^{10,11} In these studies, there is a predominance of aerobic activities which increases the child's energy expenditure and favors the change in focus of stereotypes and self-injuries, as it requires greater body involvement and attention to the performance of the activity.

It is relevant to emphasize that there is no ideal exercise plan for people with autism, and that the same activity can generate different results for each participant, so it is important to evaluate the individual characteristics and the intended objectives. However, the prevalence of collective activities is suggested in order to mitigate the tendency to isolation and to favor the integration and improvement of social behavior.

Final considerations

From this text, it is possible to state that the practice of regular physical activity is beneficial for children diagnosed with autism spectrum disorder, positively influencing their psychomotor development, motor coordination, agility, speed, strength, in addition to reducing behaviors stereotyped and contribute to social skills and engagement in activities

Funding

None.

Acknowledgments

None.

Conflicts of interest

Authors declare that there is no conflict of interest.

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