

ATTENTION DEFICIT/ HYPERACTIVITY DISORDER (ADHD) IN CHILDREN AND THE LEARNING OF PHYSICAL ACTIVITIES IN MUNICIPALITIES IN THE FAR SOUTH OF SANTA CATARINA

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Abstract: The present study aims to investigate how the practice of physical activities contributes to improvements in the motor coordination of children who have Attention Deficit Hyperactivity Disorder (ADHD). This is a cross-sectional study that used an online form for data collection. Physical Education teachers from a non-profit philanthropic entity that dedicates its activities to special care at the Association of Parents and Friends of the Exceptional (APAE) in southern Santa Catarina participated in this study. Data analysis was performed using absolute and relative frequencies. The results found in the research reveal that the practice of physical activities contributes to the development of children's social skills. In addition, through methodologies and techniques, physical exercise has benefits such as improved dialogue, attention, learning, coordination, socialization, among other skills developed by children. This way, it is concluded that physical activities are beneficial mainly for the development and learning of children.

Keywords: TDAH; Physical activity; Physical exercise; Children.

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) since 1980 is classified as a chronic disease that is present in certain individuals who suffer from impulsive disorders, including difficulty in behavior, attention, and control of hyperactivity (BARKLEY, BENTON, 2016).

The disorder has had different names during the past period, including: hyperactive child syndrome, childhood hyperkinetic reaction, minimal brain dysfunction and attention deficit disorder with or without hyperactivity (BARKLEY, 2008). Attention Deficit Hyperactivity Disorder is a neurodevelopmental disorder characterized by unhealthy levels of inattention, disorganization, hyperactivity,

and impulsivity. ADHD occurs mainly in childhood and accompanies the individual throughout his life, bringing difficulties to be faced. According to the American Psychiatric Association (2014) ADHD affects 5% of children and 2.5% of adults.

According to Silva (2014), the disorder occurs in both sexes, regardless of the level of education, resulting in difficulties in helping the cognitive process. Children who have ADHD usually occur due to events that occurred during pregnancy or are characterized by family genetics.

According to Topczewski (2011) hyperactivity occurs through a reaction that changes in behavior, postulating that teachers are primarily responsible for observing the child's attitudes, noticing the differences compared to other children.

In view of this study, it was found that ADHD generates direct damage to children's social skills, having changes in their executive functions, limiting action, planning, behavior, emotions, and organization of thoughts (SKRSYPCSAK, 2019). (2011) and Best (2010) portray that physical activity can be used as a great auxiliary tool to help children with ADHD.

Physical activities bring greater benefits to children, both physical and psychological, among some are the improvement of physical conditioning, concentration, attention, control of hyperactivity and the ability to interact. Due to its effectiveness, the practice of physical activities has been recommended with great importance for the child. The sports modality will encourage the child to identify with some physical activity that arouses their interest, so the professional instructs the child to perform, encouraging them to see their success and overcoming their own goals, realities and limits, and not merely as victories (JONES, 2004; MATTOS, 2001).

Regular physical activity helps in the child's cognitive and disruptive function (BERWID, HALPERIN 2012). A child with ADHD repeatedly squirms in the chair for a period, for this reason, this energy needs to be released by practicing physical activities that will positively contribute to concentration, and in the execution of tasks.

This research is justified by the author's interest in identifying physical exercise strategies that contribute to facilitating the learning and development of children living with ADHD. The reason for this research arose from the fact that the author lived with family members with ADHD, we know that ADHD is a disease that makes it difficult to concentrate and develop to perform certain activities, and physical exercise tends to help children develop day-to-day tasks. easily attracting attention when performing it.

The relevance of this study is intended to contribute to the importance of improving the motor coordination of children with ADHD. Some contextualizations for ADHD children fit the social interaction, the relationship with others, the inability to show feelings and emotions becomes difficult so let's see a way to awaken socialization together and verify if physical activity results positively or negatively in this contextualization (SMITH, 2013).

It is estimated that the execution of physical activities contributes to several improvements for children who have behavioral differences, performing physical activities releases the hormones dopamine and noradrenaline that help the body and mind function properly, so children acquire improvements in development, performance, motor coordination and hyperactivity.

Thus, this study has as research question: What is the importance of learning physical activities for children with ADHD?

With this, it sought to analyze the

consequences of learning physical activity in children living with ADHD in municipalities in the extreme south of Santa Catarina, thus identifying the main challenges caused by ADHD in children in learning Physical Activities in concentration, organization, socialization and development.

METHODOLOGY

This is a descriptive cross-sectional study of an investigative nature. For data collection, a questionnaire was constructed based on elements that constitute the routine of Physical Education classes at the Associação de Pais e Amigos dos Excepcionais (APAE).

Subsequently, the direction of the APAES of the region of the Association of Municipalities of the Extreme South of Santa Catarina (AMESC) was contacted (Timbé do Sul, Turvo, Araranguá, Balneário Arroio do Silva, Maracajá, Meleiro, Sombrio, Santa Rosa, Jacinto Machado, São João do Sul, Praia Grande, Passo de Torres) totaling 12 municipalities. The research followed the necessary ethical procedures, obtaining acceptances in the Field Consent Term and signing the Free and Informed Consent Terms (TLCE).

The respondent public was composed of Physical Education teachers who work in these institutions. Prior contact was made and those who expressed interest in participating in the research digitally signed the Informed Consent Term (TLCE). Exclusion criteria were teachers who are on leave (leave, for example) or who are not part of the effective staff at the institution. All teachers who met the criteria agreed to participate in the study.

After contacting those responsible for the Physical Education classes, the questionnaire for the analysis of Attention Deficit Hyperactivity Disorder in children, prepared on the Google Forms platform developed by the authors of this article, was electronically

delivered via the WhatsApp application link. The questionnaire contained 16 objective questions that sought to investigate questions about the practice of physical activities in a school environment in children with ADHD, aged between two and twelve years. The questionnaire presented themes about children's motor skills, physical exercise, socialization with colleagues, interaction in school activities.

RESULTS

The questionnaire contained multiple-choice questions referring to children from APAES in the AMESC region aged between two and twelve years old who had ADHD. Of the 11 professionals registered as APAES Physical Education teachers who participated in the interview, most were female 7 (63.6%) and the minority were male 4 (36.3%), with the they had a mean age of 25 to 40 years. All the responding professionals stated that they play games that stimulate children's skills. All children who were referred by professionals are performing physical activities.

According to Graph 1, most children (72.7%) like to play together, however 27.3% prefer to play individually.

In Graph 2, the sample represented that 72.7% of the children do not have any restriction to practice physical activities, but 27.3% have difficulties, being in motor coordination, balance deficit and limitations in getting around.

According to Graph 3, 81.8% of the children did not suffer injuries, another 18.2% had some type of injury.

In this result presented in Graph 4, it can be seen that among 18.2% of the injuries that occurred, 9.1% were cutaneous and orthopedic, however, 81.8% did not suffer any injuries.

Graph 5 shows that 72.7% of children do not have any allergies, another 27.3% have:

lactose tolerance, allergy to some specific foods.

Most parents follow the progress of their children, totaling 81.8%, however, 18.2% show no interest in observing their performance, as shown in Graph 6.

According to Graph 7, 90.9% of the children eat well, another 9.1% are distracted by food and end up getting rid of the meal.

The graph 8, shows that most 18.2% of children like to perform physical activities demonstrating a feeling of joy, among some cases there are restrictions of not wanting to practice the activity due to the fact of distraction consequently.

The information contained in Graph 9 shows that 81.8% of children are unable to perform their tasks in a stable and helpful way, while 18.2% are focused on tasks.

According to Graph 10, 90.9% of children are restless and cannot maintain attention, while 9.1% are able to control themselves during leisure time. It must be noted that all the children who were investigated had

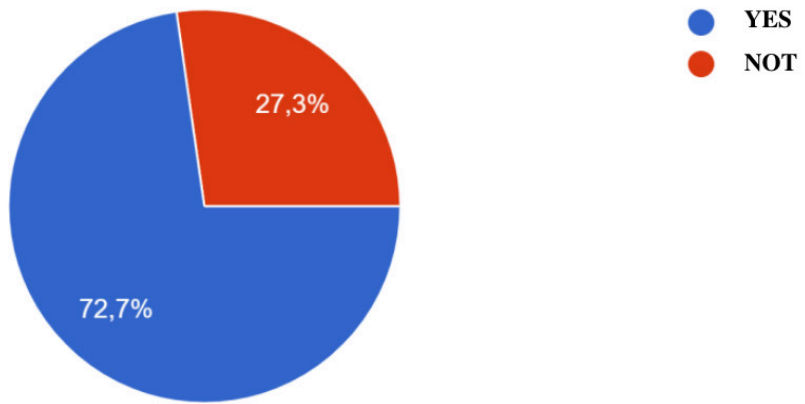
Difficulty sustaining attention during exercises.

According to Graph 11, the results showed that two teachers responded at level 7, obtaining (18.2%) where children get irritated easily, three teachers placed level 5, which resulted (27.3%), another three teachers responded at level 1.2 and 3 reaching (9.1%) of each answer, the rest of the three teachers answered level 8, reaching (27.3%). This graph represents which children have levels of irritability according to each specificity.

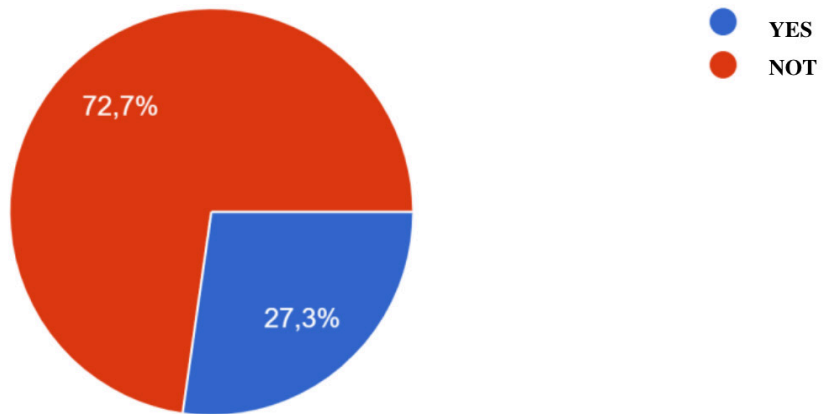
DISCUSSION

Regarding the habits of children with ADHD, it was identified that the practice of physical activity contributes to the improvement of the child's performance.

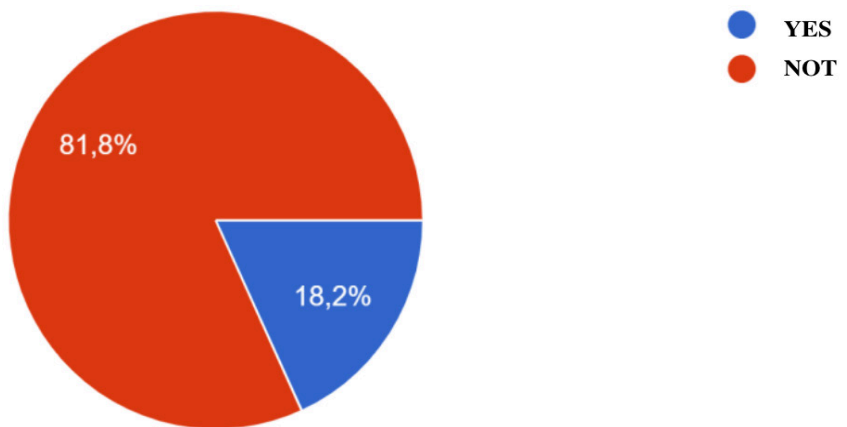
In general, children with TDAH like to



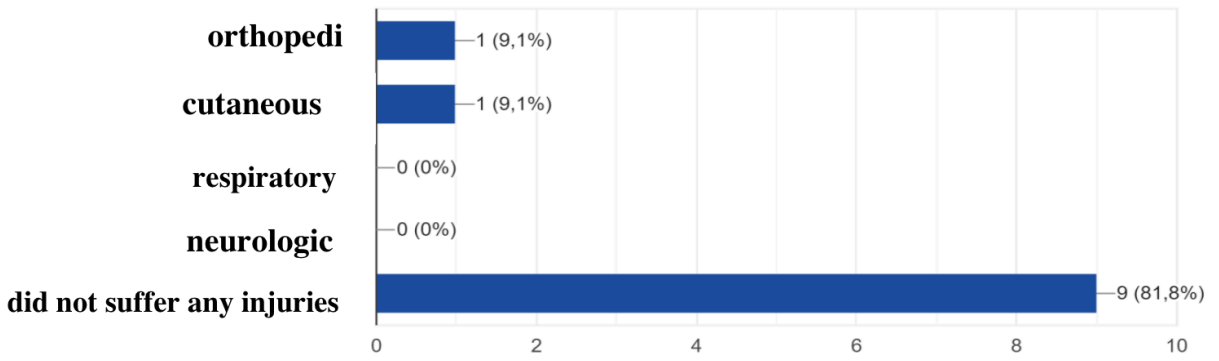
Graphic 1. Children's preference for the modality of play together.
Source: Authorship own.



Graphic 2. Restrictions on the practice of Physical Activities with children.
Source: Own authorship.

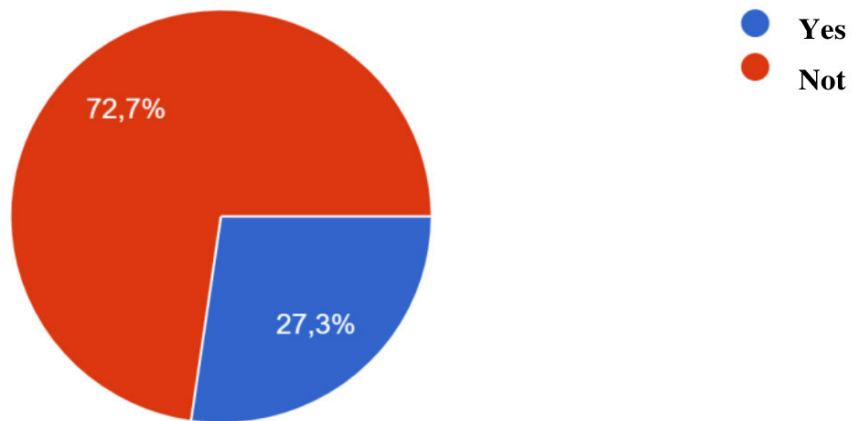


Graphic 3. Injuries caused by children.
Source: Own authorship.



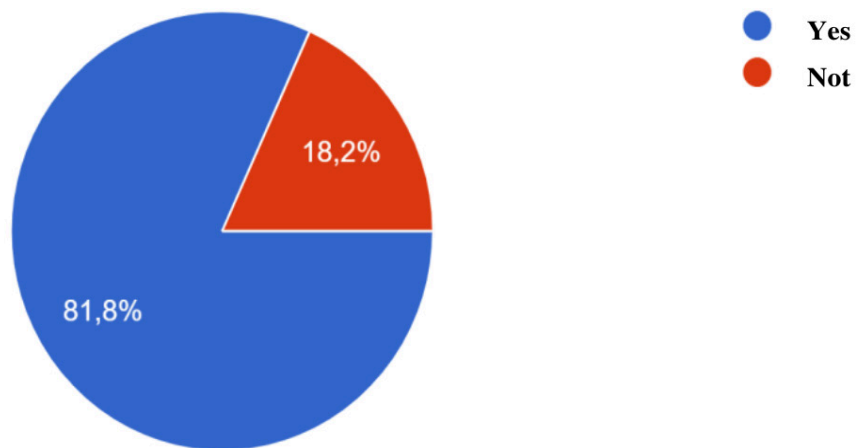
Graphic 4. Signs of childhood injuries.

Source: Own authorship.



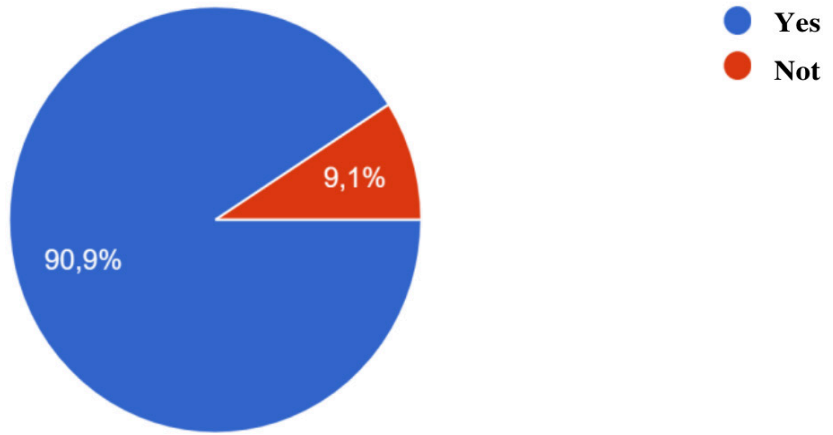
Graphic 5. Allergies presented by children.

Source: Own authorship.



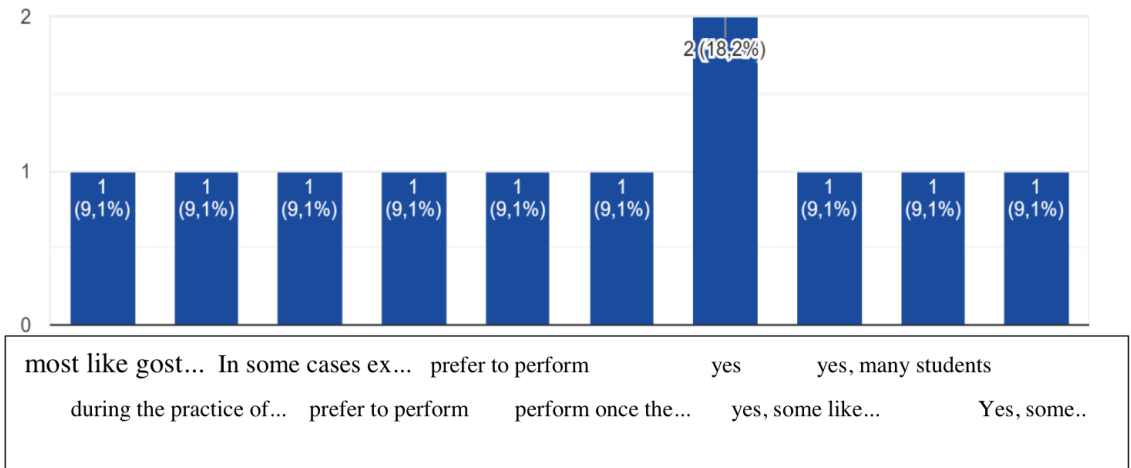
Graphic 6. Interest of parents in children's school participation.

Source: Own authorship.



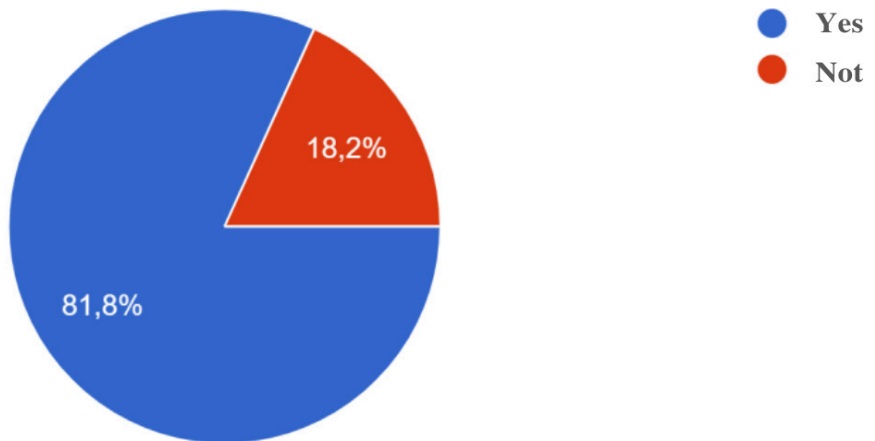
Graphic 7. Children eat properly during school time.

Source: Own authorship.



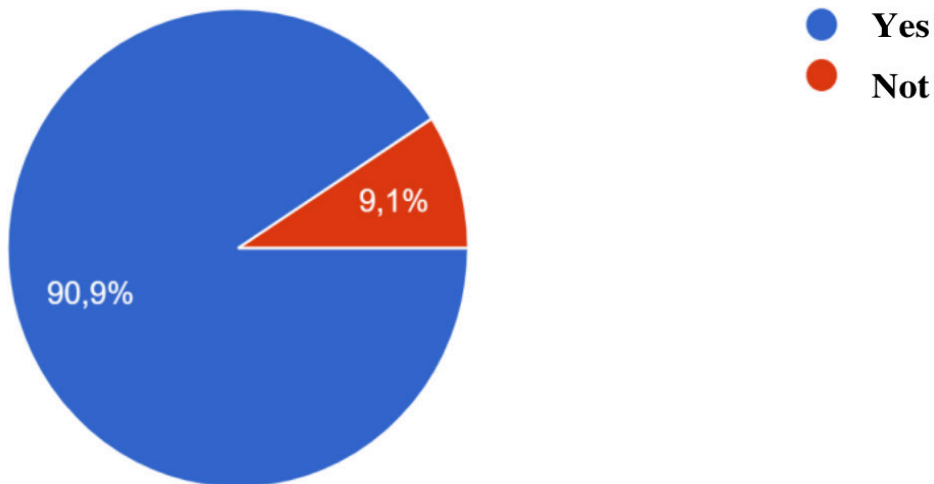
Graphic 8. Representation of children who cultivate the practice of Physical Activity.

Source: Own authorship.



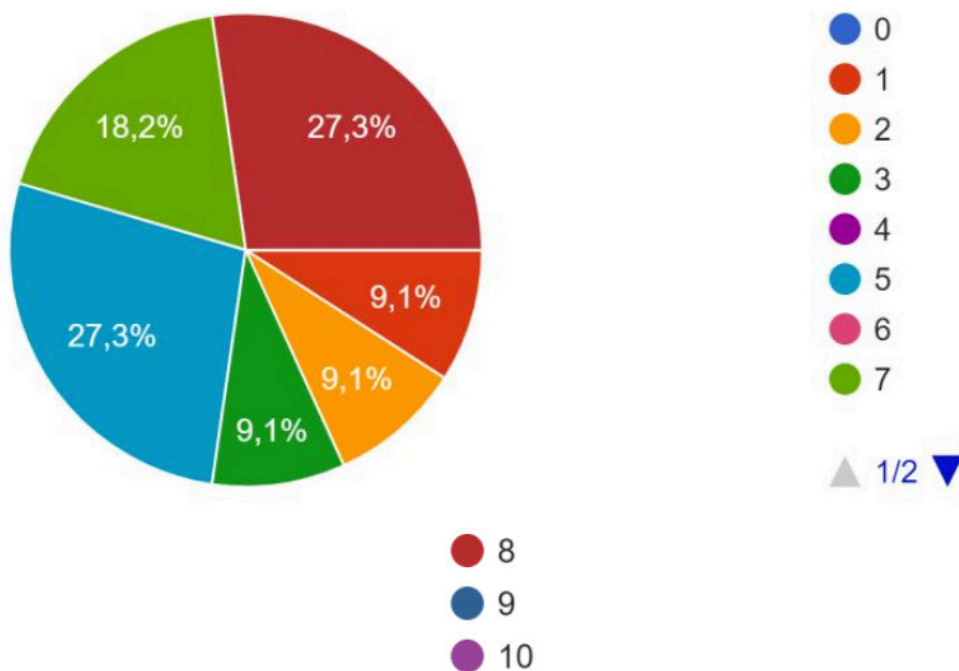
Graphic 9. Difficulties faced by children to maintain attention in tasks.

Source: Own authorship.



Graphic 10. Maintenance of concentration by children.

Source: Own authorship.



Graphic 11. Child's irritability level.

Source: Own authorship.

get close to other children to share their activities, however, it is noteworthy that some, especially in early pre-adolescence, prefer to perform their tasks individually, feeling more comfortable. Thus, Walz (2004) warns that at this stage of life children have unusual memories that might not be accepted by peer groups. In this sense, it is recommended to use didactic resources to stimulate the ability of creativity and approximation between children, promoting the pleasure of playing and interacting with other colleagues (VIANA, 2013). Attention deficit hyperactivity disorder ends up affecting some children to perform activities easily, hindering their motor coordination, balance and locomotion, in this case, the support of professionals and the practice of physical exercises help to improve movement. Studies carried out by Poeta (2005), using physical activities, prove that children with ADHD show progress in motor areas such as: motor coordination, balance, and attention to perform everyday tasks.

A child with the right disorder ends up not paying attention to their activities, which shows that carelessness in their tasks can affect the increase in bodily harm. In this study, it was identified that the children had two types of injuries: orthopedic and cutaneous. According to Cunha (2012), playful activities are effective tools for children's learning because they minimize irritability and reinforce attention.

Food is an important stage for the development of the child, since the beginning of life it is essential to receive nutrients and a healthy diet, this way, Barrett (2007) states that some foods that have additives present as preservatives, dyes and artificial aromas influence hyperactivity, of the child and may have symptoms of specific allergies such as: lactose intolerance and food allergy.

Children need family guidance at this stage of childhood as ADHD is a slow process

to adapt, however, regular monitoring of children at school is extremely important. For Jones (2004), the participation of parents is essential in the school progress of their children to verify the level of performance of their child.

In general, sports modalities collaborate for children's performance, according to Samulski (2008) sport can contribute to the method of progress for the child by establishing realistic and demanding goals in the face of each particularity.

One of the symptoms present in ADHD is the inhibition of children's concentration at all times. According to Hattori et al, (2006), children with ADHD share common appearances, such as repetitive behaviors: difficulties in social interaction, concentration, hyperactivity and communication, so irritability and stress also appear frequently in this complex stage of life. child.

FINAL CONSIDERATIONS

The study points out that the beginning of ADHD in a child can be desperate for family and teachers, as it is a disease that brings complications over the years and needs to be taken care of.

A child diagnosed with ADHD needs medical follow-up, neuropsychologists and psychologists from the beginning of the discovery to be able to alleviate their symptoms and develop strategies that can help in mental development. Cooperative work is of paramount importance for children, as it requires the competence of the professional to dedicate himself to creating routines, establishing rules and limits.

However, the use of sports modalities brings physiological benefits to the child, helping to develop cognitive skills, promoting self-control, attention and organization.

In view of this study, we concluded that it was possible to conclude that the practice

of Physical Activities for children with ADHD positively influences the course of their life, helping to improve behavior and concentration.

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