# NURTURING THE DEVELOPMENT OF CHILDREN WITH AUTISM SPECTRUM DISORDERS THROUGH LEISURE ACTIVITIES

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**Abstract**
The paper underscores the crucial role of leisure activities in the development of children with autism spectrum disorders. It aims to provide a theoretical basis for understanding autism spectrum disorders and the significance of leisure time in their development. The paper also proposes practical recommendations on how to effectively use leisure time to support children with autism spectrum disorders. The research effort was based on the synthesis of professional literature, data obtained through a questionnaire survey, and interviews with experts and parents, thus providing a comprehensive overview of the current opportunities and challenges faced by children with autism spectrum disorders in leisure activities

**Key words**
autistic spectrum disorder(s), leisure time, personality development, social inclusion



## Introduction

Autism spectrum disorders are included in the categories of pervasive developmental disorders, which emphasises their profound impact on the overall development of an individual (Jacobs & Betts, 2013). The term spectrum reflects a broad diagnostic category that includes varying manifestations and intensity of symptoms between individuals (Orel et al., 2016). Specific developmental processes are most pronounced in children with ASD in cognitive functions and perception of the world, while insufficient social interaction negatively affects the child's development (Quinn & Malone, 2011).

A key framework for understanding ASD is the "triad of impairments," which includes difficulties in social communication, social interaction, and social imagination Wing and Gould (1979). These challenges influence how children with ASD perceive their environment and engage in everyday activities.

Leisure time plays an essential role in the development of all children, contributing to social skills, emotional well-being, and overall quality of life. For children with ASD, however, participation in leisure activities can be more demanding due to their specific needs, including differences in communication, behaviour, and sensory processing. Therefore, leisure activities must be carefully structured and adapted to support their development while remaining meaningful and enjoyable.

In Slovakia, various institutions and organisations provide leisure opportunities for children with ASD, yet issues such as accessibility and availability persist. This paper explores the relationship between ASD characteristics and leisure activities and examines the current situation in Slovakia. It combines theoretical perspectives with parental insights to better understand existing challenges and opportunities for improvement.

## 1. Triad of Disabilities in the Context of Autism Spectrum Disorders

Autism spectrum disorders (ASD) are included in the categories of pervasive developmental disorders, which emphasises their profound impact on the overall development of an individual (Jacobs & Betts, 2013). The term spectrum reflects a broad diagnostic category that includes varying manifestations and intensity of

symptoms between individuals (Orel et al., 2016). Specific developmental processes are most pronounced in children with ASD in cognitive functions and perception of the world, while insufficient social interaction negatively affects the child's development (Quinn & Malone, 2011). Thorova (2016) describes ASD as a neurodevelopmental disorder in which the main problems are difficulties with perception, analysis, and synthesis of information, which leads to a child's misunderstanding of the surrounding world. Symptoms of ASD usually begin to manifest in early childhood and negatively affect the individual's personal, family, social, and educational functioning.

Wing and Gould (1979) introduced the term disability triad in the context of autism spectrum disorders (ASD). They concluded that the difficulties characteristic of autism could be described as a triad of impairments, i.e. impairment of social communication, impairment of social interaction, and impairment of social imagination. These three core deficits often manifest in various ways and can significantly impact an individual's daily functioning, particularly in educational and social settings (Pioggia et al., 2007).

One of the hallmark features of autism spectrum disorder is the marked impairment in social communication and interaction. Individuals with autism may struggle to initiate and maintain meaningful conversations, read social cues and nonverbal communication, and develop appropriate relationships with peers. These deficits can lead to significant challenges in navigating the social world and forming meaningful connections with others (Wittke et al., 2017).

Restricted and repetitive behaviours are closely related to social communication difficulties. These behaviours can take the form of rigid routines, intense interest in specific topics, or repetitive motor movements, such as hand flapping or rocking. These behaviours can interfere with an individual's ability to adapt to environmental changes and contribute to social isolation (Jarbou et al., 2022).

Understanding the complexities of the triad of disabilities in autism is crucial for developing effective interventions and support strategies to address the unique needs of individuals on the autism spectrum. These challenges can significantly impact their ability to engage in meaningful activities and participate fully in their communities. One critical aspect of supporting the holistic well-being of autistic children is ensuring access to free time and recreational activities.



## 2. Specifics of Leisure Time Activities for Children with ASD

For children with autism spectrum disorders, leisure time is a key aspect of their development and plays a fundamental role in their education and social adaptation. It is important to realise that despite the diversity of the spectrum, all children with ASD are exposed to particular challenges in organising and using their leisure time, which differ depending on the degree and type of ASD. Leisure activities should, therefore, be designed to support and respect their unique needs, thereby contributing to their personal development, social inclusion, and adaptation to different social situations.

Kubisova and Lovasova (2012) distinguish between structured and unstructured leisure time for children with ASD. Unstructured leisure time often leads to fixation on favourite topics or repetitive activities, while structured leisure time, guided by adults, encourages children's engagement and skill development. This organised approach helps to minimise stereotyped behaviour, expands the spectrum of activities, and supports the development of new interests and abilities.

When organising the leisure time activities of children with ASD, it is important to ensure that the work system provides a clear structure and direction. Using structured learning methods, such as breaking down goals into smaller steps, reinforcing new skills, and creating rules and instructions, can promote independence and success in leisure activities for children with ASD.

## 3. Leisure Facilities for Children with ASD in Slovakia

Leisure activities for children with ASD often rely on therapeutic approaches that aim to support their social, motor, and emotional skills, laying the foundation for their comprehensive development. These activities are designed to reflect and develop leisure functions, ensuring that leisure activities are enjoyable and contribute significantly to the overall development of children with ASD. Some currently popular therapeutic approaches are Art therapy, Canine-assisted therapy, Music therapy, and Snoezelen.

Several facilities and organisations in Slovakia provide leisure activities for children with ASD. One of the most significant is the children's school club.

A children's school club is an educational facility that is part of a primary school. Its main task is ensuring education and training for pupils who fulfil compulsory school attendance outside school hours and during school holidays. The activities of children's school clubs in regular elementary schools are primarily intended for children in the primary level of education (Slovak Republic, 2008). special elementary schools intended for children with mental disabilities (including special elementary schools for pupils with autism), it is valid that children's school clubs can be established for all grades. Children's school club offers activities according to the school's educational program, including preparation for teaching, activities of interest and relaxation, thereby supporting the child's comprehensive development. The leading pedagogic employee is responsible for the educational activity in the children's school club and ensures that the activities meet the children's needs and abilities.

In special primary schools for pupils with autism, the children's school club can be established for a minimum of eight pupils and is further divided into departments with the same number of children as in the classes (Ministry of Education of the Slovak Republic, 2008). The reduced number of children enables a more intensive individual approach and adaptation of activities to the specific needs of children with ASD. This rule encourages social interaction and the development of social skills in a safe and supportive environment.



Activities in children's school clubs should be designed to support the development of social and communication skills, self-regulation, and other important aspects of the personal development of children with ASD. Thus, they should provide them with optimal conditions for their overall development, including sensory activities, social and group games, communicative activities, artistic and creative activities, and sports activities. These activities should help children cope with stress, express themselves, and improve verbal and nonverbal communication.

Children's school clubs represent a key part of the educational system in Slovakia, and they play a fundamental role for children with ASD, who often lack alternative options for spending quality leisure time. Thanks to its affordability, children's school clubs become an accessible option for a wide range of families, thus significantly contributing to social inclusion and strengthening community ties. When including children with ASD in the school club, it is necessary to consider whether these children are enrolled in regular elementary schools or attend elementary schools designed for students with ASD. In the context of regular elementary schools, children with ASD face various challenges, including the absence of teaching assistants in the preschool, the high number of children in the classes, and the lack of interest-based activities adapted to their unique needs. This situation can lead to the fact that if a child with ASD cannot adapt to the standard conditions of a school club without the presence of a pedagogical assistant, the school club will remain unavailable for such a child.

On the other hand, preschools for children with ASD are often focused on providing relaxing activities, such as Snoezelen and art therapy, which can be beneficial for their sensory and emotional development, but a wider spectrum of interesting activities may be missing.

Given these differences, it is clear that there is a need for more adapted and inclusive approaches so that all children, including those with ASD, can fully benefit from the educational opportunities offered, regardless of the type of school they attend.

Autistic centre Andreas NPO, based in Bratislava, has been a key institution in supporting people with ASD since its establishment in 2001. This centre provides comprehensive services, including diagnostics, individual therapies, educational programs and diverse leisure activities. It offers specialised programs that children with ASD use in their leisure time, such as art therapy, Snoezelen, music therapy, canist therapy and. These activities extend the functions of leisure time with a therapeutic dimension that supports children's emotional and sensory development. Through its activities, the centre focuses on supporting the social and communication skills of children with ASD and, at the same time, serves as a regional autism centre for Bratislava.

Even though Andreas Autistic Centre NPO provides a wide range of high-quality leisure activities, demand for these programs far exceeds its current capacity, resulting in long waiting times (12 to 24 months, depending on the type of program). This situation reflects the need to expand the offer and increase the accessibility of similar important services. Another challenge for families with children with ASD is the financial burden of participating in these programs. This situation underscores the importance of finding additional sources of funding and support to make similar programs more accessible to all children with ASD who need them.

Moreover, Special Olympics Slovakia, a part of the International Organization Special Olympics, is very popular. It provides sporting opportunities for people with intellectual disabilities, including children with ASD. The organisation's main mission is to provide children with ASD with the opportunity to participate in sports activities, support their social inclusion, and improve their physical condition, self-confidence, and joy of participation.



Even though there are organisations active in Slovakia, the following research will reveal whether the number of organisations is sufficient and whether the needs of children with ASD and their parents are met.

## 4. Research Methodology

In this part, we would like to bridge the theoretical knowledge presented in the introductory parts with the practical experiences and perspectives of families of children with ASD. Our efforts are based on the assumption that families' real-life experiences can enrich and expand our understanding of leisure activities and their impact on children with ASD.

For this purpose, we used a questionnaire Leisure Activities of Children with ASD: Parents' Perspective.

The aim of the questionnaire was:

1. To identify the most appealing leisure activities for children with ASD from their families' perspective.
2. To recognise the main obstacles that prevent these children from participating in selected activities.
3. To determine how leisure activities affect the development of children with ASD from their families' perspective.

The questionnaire was distributed online through a social media platform in a group intended for parents of children with ASD and was also available on the online questionnaire platform from 8.-29.2 2024. The questionnaire contained 19 questions combining closed, semi-open, and open questions to comprehensively understand the investigated issue.

Two hundred ten responses from parents of children with ASD were received, offering indicative but essential knowledge explained in detail in the following lines.

## 5. Research Findings

Demographic data on children with autism spectrum disorders provided a comprehensive overview of their age, diagnosis, geographic location, intellectual abilities and type of school attended.

**Table 1: Demographic Characteristics of Children with ASD (N = 210)**

| Category | Variable | % of respondents |
|---|---|---|
| **Age group** | 6–10 years | 50.0 |
| | 11–15 years | 27.1 |
| | Other | 22.9 |
| **Diagnosis** | Childhood autism | 59.0 |
| | Asperger syndrome | 24.3 |
| | Atypical autism | 10.0 |
| | Other | 6.7 |
| **Intellectual abilities** | IQ in normal range | 34.3 |
| | Intellectual disability | 29.0 |
| | Above-average IQ | 10.5 |
| **Type of school** | Regular primary school | 31.0 |
| | Primary school for pupils with autism | 21.0 |
| | General secondary school | 11.9 |
| | Other | 36.1 |
| **Geographical location** | Nitra Region | 24.3 |
| | Bratislava Region | 16.2 |
| | Košice Region | 15.7 |
| | Other regions | 43.8 |

Note. Percentages are rounded to one decimal place. Data are based on the authors' processing of questionnaire responses (2024).

Findings regarding children's school clubs and their availability for children with ASD revealed the following:

Availability of afterschool: We found that 19.5% of elementary schools have established afterschool programs that offer interest groups specifically designed for children with ASD. On the other hand, in 35.2% of schools where a school club is established, there are no clubs suitable for children with ASD. Another 11.4% of respondents said that children with ASD do not attend a school club despite its existence, often due to a lack of support. According to the findings, only 31.9% of children with ASD attend a school club.

Activities offered in school clubs: Snoezelen with 29.5%, canister therapy, and art therapy, both 13.8%, are among the most frequently available activities for children with ASD. However, they emphasise the lack of attractive, well-adapted clubs for children with ASD, indicating the need to expand and diversify the range of activities.

In the context of the findings from the questionnaire survey, it is important to emphasise the importance of pedagogical assistants in school clubs for supporting children with ASD who attend regular elementary schools. Their presence is key to ensuring an adapted and supportive environment that allows children with ASD to engage in leisure

activities and fulfil their individual needs and interests. The survey also revealed that due to the lack of availability and diversity of leisure activities in schools and communities for children with ASD, families often take the primary responsibility for organising leisure activities. The most frequently preferred family activities include nature trips, playing together at home, sports activities and visiting cultural events.
The objectives of our questionnaire survey were to identify attractive activities, identify obstacles to participation in these activities, and assess the impact of leisure activities on the development of children with ASD.
Preferred leisure activities: Parents identified a wide range of their children's favourite activities, including digital media (63.3%), walking (46.2%), drawing and painting (33.8%), and music (33.3%). Sports are also popular (29%), with some respondents specifying favourite sports activities such as table tennis, swimming, darts, horse riding and football. Children are also interested in hobbies such as playing with Lego and building blocks, exploring space, reading comics, riding public transport around the city, or doing scientific experiments. These findings point out the need for diversification of leisure programs that would be able to reflect the individual needs and interests of children with ASD. At the same time, based on a questionnaire survey, we highlight the alarming lack of such activities in the school environment, indicating an urgent need to introduce inclusive and accessible leisure options integrated into the general offerings of schools and communities.

**Table 2: Preferred Leisure Activities of Children with ASD (N = 210)**

| Activity | % of respondents |
|---|---|
| **Digital media** | 63.3 |
| **Walking** | 46.2 |
| **Drawing and painting** | 33.8 |
| **Music** | 33.3 |
| **Sports (e.g., swimming, football, table tennis)** | 29.0 |
| **Nature trips / family activities** | 25.0 |
| **Building blocks (e.g., LEGO)** | 20.0 |
| **Reading or comics** | 18.0 |



Obstacles to participation: The most significant obstacle to participation in leisure activities is the unavailability of suitable activities in the vicinity (81%). Financial constraints, the child's social and emotional barriers and logistical challenges are other obstacles that prevent children from participating in leisure activities. These findings are evidence of the existing gap in the provision of inclusive options and the need to intensify efforts to develop and strengthen support structures. They emphasise the importance of taking a systematic approach to removing these barriers so that all children with ASD have access to enriching leisure activities, as most respondents (90.9%) expressed a tremendous or probable interest in specific leisure programs or activities for children with ASD in their neighbourhood, which points to a high need and demand for such initiatives.
Positive impact of leisure activities: When school clubs were able to meet all the requirements of ASD pupils, the data confirm the positive impact of adapted leisure activities on social skills and interaction (53.8%), and on the improvement of motor skills (47.6%) improvement of mood and behaviour (40.5%), as well as improvement of verbal and non-verbal communication (40%). Parents also positively assess the increase in self-confidence and self-esteem of children (28.1%), calming and better handling of emotions (23.8%), and improved ability to concentrate and attention (20%).

They positively evaluate the opportunities for interaction of children with ASD in an inclusive environment, together with neurotypical children. These findings point to the importance of incorporating adapted leisure programs into the lives of children with ASD and creating conditions that support their full social inclusion.

## 6. Proposals for the Development and Support of Leisure Activities of Children with ASD

To support the leisure activities of children with ASD, we propose an innovative programme that would combine theoretical knowledge with practical experience. Civil associations should ensure and implement this programme in cooperation with local schools and community centres, thus creating a support network for children with ASD. A key element of this approach would be to harness the potential of volunteers and students in special education, pedagogy and psychology, who would be thoroughly trained to provide targeted and practical support. They would be trained by experts in relevant fields, including university educators, certified therapists and experienced special education and psychology staff, so that they are equipped to provide targeted and practical support.

Students and volunteers would lead small groups of children in activities within the proposed programmes, ensuring accessibility and individual support for each child. This approach is based on the wishes of families recorded in the questionnaire and focuses on providing adapted leisure activities for children with ASD.

Given the significant financial constraints identified as a major barrier to participation in leisure activities, we suggest seeking partnerships with local businesses and non-profit organisations to support programme funding. We also recommend securing grants and other financial resources specifically designed to support inclusive leisure activities for children with ASD. These measures would help ease the financial burden on families and increase the availability of quality programmes for all children.



## Conclusion

In conclusion, leisure activities play an essential role in the development and well-being of children with ASD. The integration of structured leisure activities can serve as a valuable tool for fostering social skills, enhancing communication, and supporting cognitive development in children with ASD. By engaging in leisure activities, these children can experience improved self-esteem, greater social inclusion, and enhanced opportunities for meaningful interactions with peers and family members.

Through a comprehensive understanding of the characteristics and challenges presented by ASD, as well as the identified triad of disabilities, that is, the impairments in social communication, social interaction, and social imagination, stakeholders can develop targeted strategies that leverage the benefits of leisure time. Practical recommendations, grounded in research and expert insights, can guide parents, educators, and practitioners in creating supportive environments and activities that cater to the unique needs of children on the spectrum.

As the survey revealed, one of the biggest barriers to providing high-quality assistance in school clubs is the lack of personnel and trained professionals. Moreover, financial support and access to school clubs play a crucial role that parents must take into consideration. In spite of that, prioritising leisure activities not only enriches the lives of children with ASD but also cultivates a more inclusive society, where differences are embraced, and every child has the opportunity to thrive. By nurturing the development of children with autism through purposeful leisure engagement, we contribute to their overall growth and well-being, paving the way for a brighter future.

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