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Play in Children with Autism – Parents and Professionals' Perception

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Abstract

Play is a central activity of childhood that provides children with enjoyment and stimulates the development of creativity. It helps them better understand the world around them, express their emotions, refine motor skills, and develop essential life skills.

The aim of this study is to determine whether there is a difference in how parents and professionals perceive the play of children with autism. The sample included parents of children with autism (N = 60) and professionals (N = 60) employed in kindergartens and schools attended by these children. The children's ages ranged from four years and eight months to nine years (AS = 7.70; SD = 1.03). To assess play performance, the My Child's Play – Parent Questionnaire (MCP; Schneider & Rosenblum, 2014) was used. The results showed statistically significant differences in play perception between parents and professionals in the subscales of Interpersonal Relationships and Social Participation ($p < 0.05$), Executive Functions ($p < 0.05$), and Play Choices and Preferences ($p < 0.05$). Parents perceived their child's engagement in play more positively, including their ability to join play, adapt to new play partners, maintain focus, stay organized, persist, and overcome frustrating situations that may arise during play.

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Introduction

Play is often defined as an activity that is an end in itself and provides enjoyment for the child (Smith & Pellegrini, 2013). It is particularly important for early childhood development. Play represents a form of learning through which the child attempts to understand and master what holds personal meaning and significance for them. It is essential to provide the child with sufficient time, space, and materials to engage in free play and find a play partner (Šain et al., 2012).

The play of children with autism is usually characterized by a preoccupation with a toy or a fascination with a specific feature of the toy, as well as a reluctance to introduce changes. A lack of imagination and creativity in children with autism affects their participation in social interactions, leads to rigidity in thinking, and creates difficulties in pretend play (Vuković et al., 2021). Additionally, reduced spontaneity and challenges in social imitation negatively impact the play of children with autism (Wolfberg, 2015). Difficulties with attention, underdeveloped inhibitory control, and higher levels of disruptive behaviors often result in these children being perceived as strange by their typically developing peers (Scheeren et al., 2012; Westby, 2022).

Children on the spectrum are primarily focused on the sensory aspects of toys (Romero-Ayuso et al., 2021). They are usually not very skilled in spontaneous play. Most often, they play alone, and their play is frequently repetitive in nature (e.g., lining up toys, moving objects from one place to another, or playing with the same toys all the time, often reacting with anger and tantrums if their toys are taken away) (Lord et al., 2018). Children with autism struggle to properly initiate interactions and very often do not respond appropriately to peer-initiated interactions (Đorđević et al., 2023). It is also the case that they frequently show a preference for parallel play rather than engaged, interactive play. This preference can illustrate broader social impairments common in ASD, where children may struggle with the complexities of joint play interactions (Yu et al., 2024). However, parallel play can also offer opportunities for children to engage with peers in less demanding contexts, which could be beneficial for building foundational social skills (Salter et al., 2016). Studies have highlighted that while play patterns differ, children with autism may show more similarities than differences when their developmental levels are taken into account, particularly in functional and symbolic play (Thiemann-Bourque et al., 2011). This suggests that interventions tailored to align with the child's developmental stage rather than chronological age might be more effective in enhancing play skills (Namocot, 2023).

Furthermore, engaging in play can be profoundly influenced by a child's verbal abilities and interests. Research indicates that children with higher verbal comprehension can engage in more elaborate pretend play, which is critical for social interaction and cognitive development (Chen et al., 2019). Likewise, specialized interests common in ASD can serve as a motivating factor that fosters engagement in play scenarios, providing pathways for enhancing interactions (Kang et al., 2016). By incorporating these interests into structured play activities, caregivers and professionals can create more meaningful and enjoyable play experiences that promote social communication and adaptive skills.

The aim of this study is to determine whether there are differences in the perceptions of parents and professionals regarding play in children with autism.

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Methods

Sample

A total of 60 parents of children with autism and 60 professionals (special educators) participated in the study by completing questionnaires. The research was conducted in 2024 in the Republic of Serbia. The children's ages ranged from four years and eight months to nine years (M = 7.70; SD = 1.03). Out of the total number of children (N = 60), the sample included 46 boys (76.6%) and 14 girls (23.3%). Autism diagnosis F84 was present in 57 children (95%), while only three children (5%) had a diagnosis of F84.9 (unspecified pervasive developmental disorder). The autism index (which represents severity) ranged from 72 to 126 (M = 105.02). It can be observed that the children had a mean autism index above 100, indicating that they require highly significant support. When analyzing the sample of informants in terms of gender, out of the total number of parents (N = 60), 48 mothers (80%) and 12 fathers (20%) completed the questionnaire. In the group of professionals who completed the questionnaires, only one special educator was male. The professionals providing data were familiar with the child they assessed for a period ranging from three to 36 months (M = 16.53).

Instruments

In addition to the general questionnaire created for the purposes of this study, two additional instruments were used. The Gilliam Autism Rating Scale – 3rd Edition (GARS-3; Gilliam, 2014) was used to assess the severity of autism. It is designed for individuals aged three to 22 years. The items are divided into six subscales: 1) Stereotyped Behavior, 2) Social Interactions, 3) Social Communication, 4) Emotional Development, 5) Cognitive Styles, and 6) Maladaptive Speech. The scale is of the Likert type, with ratings from zero to three: 0 – Not at all, 1 – Mostly not true, 2 – Sometimes true, 3 – Very true. Raw scores are converted into scaled scores, which are then used to determine the autism index. If the autism index is <54, the risk is low or the child does not have autism. An autism index between 55 and 70 suggests that the child probably has autism, but the need for support is minimal. An index between 71 and 100 indicates that the child very likely has autism and requires a moderate level of support. An autism index of >100 strongly suggests autism and indicates that the child requires highly significant support. The scale has high internal consistency (α = .94, Gilliam, 2014). The questionnaire is completed by a person who knows the child well and has the opportunity to observe them in various situations. For the purposes of this study, the autism index was calculated and used, and the scale was completed by professionals.

The My Child's Play – Parent Questionnaire (MCP; Schneider & Rosenblum, 2014) was used to gather information about the characteristics of play in preschool- and school-aged children, specifically those aged three to nine years. It was originally designed for parents of children with neurodevelopmental disorders. Completing the questionnaire takes approximately 10 minutes. The questionnaire has demonstrated good internal consistency (α = .86). The items are divided into four dimensions (subscales): 1. Interpersonal Relationships and Social Participation, 2. Executive Functions, 3. Play Choices and Preferences, 4. Environmental Opportunities. Responses are recorded on a five-point Likert scale. In addition to closed-ended questions, the questionnaire includes two open-ended questions, where both groups of respondents (parents and professionals) list the toys and games that the child likes and dislikes. The results are calculated separately for each dimension, and the total score for each dimension is summed and then divided by the number of items.

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Procedure

After obtaining permission from the authors of the My Child's Play – Parent Questionnaire (MCP; Schneider & Rosenblum, 2014), the instrument was translated from English to Serbian following the double-blind translation procedure. Some schools and kindergartens were contacted in person, while others were approached via email, with a request for conducting the study attached. After receiving approval from the directors of the contacted institutions, printed versions of the questionnaires were distributed to professionals and parents, along with written explanations regarding the study's aim and content, the procedure for providing consent to participate in data collection, and instructions for completing the provided instruments. The study was conducted only with individuals who provided written consent for participation.

Professionals completed a general demographic questionnaire and the Gilliam Autism Rating Scale – 3rd Edition (GARS-3; Gilliam, 2014), while both parents and professionals completed the My Child's Play – Parent Questionnaire (MCP; Schneider & Rosenblum, 2014).

Results

Play Questionnaire – Overview of Mean Scores

Table 1 provides an overview of the scores on all four subscales of the My Child's Play Questionnaire. The scores are presented in terms of minimum, maximum, and mean values, standard deviation, and standard error of measurement. The data are displayed for both subsamples of respondents.

Table 1

Play Performance According to Parents' and Professionals' Ratings

	Profesionals					Parents				
	Min.	*Max.*	*mean*	*SD*	*SE*	*Min.*	*Max.*	*mean*	*SD*	*SE*
1. Interpersonal Relationships and Social Participation	6	39	23,48	6,61	0,85	15	43	27,32	6,43	0,83
2. Executive functions	20	49	30,47	6,43	0,83	18	51	32,93	7,19	0,92
3. Play Choices and Preferences	21	46	34,02	5,50	0,71	24	49	37,37	5,56	0,71
4. Environmental Opportunities	27	44	36,53	3,82	0,49	25	43	35,75	4,43	0,57

Differences in the Perceptions of Parents and Professionals

To test differences in scores on the subscales of the My Child's Play Questionnaire, the Mann-Whitney U Test was used (Table 2). Observing the table, we can see that a statistically significant difference in the perception of play exists within the first (Interpersonal

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Relationships and Social Participation), second (Executive Functions), and third (Play Choices and Preferences) subscales.

Parents have a more positive perception of their child's ability to join play, adapt to new play partners, and overcome frustrating situations that may arise during play. Compared to professionals, parents also rate their child's focus, interest, and organization in play without adult assistance more positively. Additionally, parents have a more optimistic view than professionals regarding their child's persistence in play and ability to find play opportunities in any environment.

Table 2
Differences in the Perceptions of Parents and Professionals

		Med	*Man Vitnijev U Test*	*Vilkinsonov rang test*	*Z*	*p*
1. Interpersonal Relationships and Social Participation	Parents	27	1183,00	3013,00	-3,243	**0,001**
	Professionals	23				
2. Executive functions	Parents	32,5	1426,00	3256,00	-1,966	**0,049**
	Professionals	30				
3. Play Choices and Preferences	Parents	38	1169,500	2999,500	-3,315	**0,001**
	Professionals	33				
4. Environmental opportunities	Parents	35	1986,500	3816,500	0,982	0,326
	Professionals	37				

Choice of Toys and Activities

At the end of the questionnaire, there are two open-ended questions where parents and professionals listed three toys or three play activities that children enjoy and three that they avoid. Individual activities were grouped into categories based on their similarities. Table 3 presents an overview of the activity categories in which children with autism most frequently engage. The presentation is hierarchically organized, with rank 1 representing the most common group of activities, while rank 5 represents the least common group.

By examining the table, it can be observed that parents and professionals identified four of the same activity categories, although they do not appear in the same ranking positions.

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Table 3

Most Commonly Reported Activities According to Parents and Professionals

	Parents		Professionals
1.	Outdoor activities	1.	Building blocks, shape sorters, puzzles
2.	Swinging, sliding, jumping on a trampoline	2.	Outdoor activities
3.	Building blocks, shape sorters, puzzles	3.	Swinging, sliding, jumping on a trampoline
4.	Ball games and balloon games	4.	Ball games and balloon games
5.	Flipping through books and picture books	5.	Playdough, dough, kinetic sand

Table 4 presents activities, grouped into categories, that children with autism dislike or avoid, based on the responses of parents and professionals to the given question. A similarity in the perception of parents and professionals can also be observed in this category.

Table 4

List of Avoided Activities and the Number of Mentions by Parents and Professionals

	Parents	Professionals
Type of activity	*N*	*N*
Does not avoid activities	38	26
Structural and group activities	7	15
Writing and drawing	6	11
Self-care	2	0
Loud music, sounds (lawnmower and drill)	2	2
Avoidance of activities that may cause getting dirty (painting with tempera colors)	1	5
Playdough, dough, clay	1	10
Didactic activities	0	3

Discussion

This study was conducted to determine whether there are differences in the perceptions of parents and professionals regarding play in children with autism. The results indicate that parents believe their children adapt more easily and join new play partners more readily, as well as that they show better initiative or take on leadership roles in play. Parental perception provides insight into a child's behavior outside of kindergarten or school. We believe that children have more social contacts outside of educational institutions, feel more relaxed in the presence of their parents, and that parents encourage their children to engage in interactions with others, which may influence their perception. A more positive parental perception of their children's initiation of interactions compared to teachers was also noted by Murray et al. (2009).

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Furthermore, parents perceive their children's use of toys more positively, as well as their persistence in play even when difficulties arise, adaptability to change, and ability to create opportunities for play. These differences may also be associated with the environment and the characteristics of interactions that parents and professionals have with children. Professionals create structured environments, encourage cognitive development through play, and apply various methods to achieve specific goals. They focus more than parents on assessing whether a child has met set goals, how persistent they are in assigned activities, and how independent they are in play. On the other hand, parents engage in free play with their children, without excessive demands, and are emotionally connected to them to a greater extent than professionals, which may explain the observed results. This claim is supported by Pinchover et al. (2016), who highlight the role of emotional closeness, structured environments, and strategies for improving play.

Parents and educators perceive children's interest and focus on play, as well as access to toys or environmental resources, in a similar way. Within our study, we observed that parents and professionals agree on the types of toys and activities. Both groups listed similar activities in which children with autism participate. Swinging, sliding, jumping on a trampoline, outdoor activities (such as walking, cycling or scooter riding, running, jumping, crawling, and overcoming obstacles), building blocks, puzzles, as well as ball and balloon games, were identified as the four most common and favorite activities of children. As the fifth most frequent activity, parents mentioned flipping through books and picture books, while professionals highlighted the use of playdough, dough, and kinetic sand. A review of the literature shows that some of the activities identified in this study are also recognized by Gilmore et al. (2019) as the most common activities in which children with autism engage during recess and extracurricular activities.

The majority of parents and professionals reported that there are no activities that children dislike. The remaining respondents emphasized that children with autism tend to avoid structured and group activities such as board games, rule-based activities, long-lasting activities, and tasks requiring sustained attention. Since professionals focus on cognitive development, they noted that some children avoid didactic activities, while some parents stated that their children avoid personal hygiene activities (bathing, washing and combing hair, cutting nails) and tidying up toys. Both groups cited similar reasons for activity avoidance, including short attention spans, lack of interest, or periodically changing interests. Only one parent reported that their child does not know how to play and does not understand even simple rules due to autism.

We assume that the similarities in perception between these two groups are related to the amount of time they spend with the child. Looking at the Environmental Opportunities subscale, both groups reported that their daily routine includes designated playtime with the child, that they consider the child's preferences, and that they make efforts to adjust explanations of play rules to the child's needs. This highlights the importance of engagement and dedicating time to the child and their needs, as well as spending quality and meaningful time together (Ihmeideh, 2017).

Limitations

There are several limitations in this study that need to be noted. The first limitation is the sample size. We believe that a larger sample would provide a better insight into the

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perceptions of parents and professionals. It would also be beneficial to examine the extent of collaboration and communication between parents and professionals. A narrow age range may present another challenge. Additionally, all participants in this study required a high level of support, which could be a limitation. It would be valuable to include participants with lower autism index scores in future research.

Another limitation is the lack of data on parents' education levels, as we do not have insight into whether education influences parental engagement and perception. Furthermore, we were unable to explore whether fathers' perceptions differ from mothers' perceptions, as very few fathers were included in the sample. As a recommendation for future research, it would be useful to examine whether children have previously participated in any form of intervention and whether such participation influences the expectations and perceptions of parents or professionals.

Conclusion

The results indicate that parents and professionals perceive children's play similarly. Both groups emphasize the importance of properly utilizing free time for play and highlight that children are provided with various opportunities within their environment.

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