Play Therapy for Improving Interaction and Communication in Autism: Systematic Review

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Abstract
Early childhood children use a play-based approach to learning, which includes elements of communication and interaction with the environment. Unfortunately, autistic children experience problems interacting and require special treatment. This research is a literature review and uses descriptive analysis techniques. Data was taken based on journals published in 2013–2023. The aim of writing this article is to identify play therapy methods applied by teachers and therapists to improve the development of interaction and communication in autistic children. The research results show that there are eight play therapy types that are applied to young autistic children. Play therapy consists of associative games, games with squishy media, Child-Centered Play Therapy (CCPT), Short Play and Communication Evaluation (SPCE), games with flashcard media, group play, and symbolic games.

Keywords: interaction; communication; autism; play therapy

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Introduction
The period of growth and development in early childhood should ideally be a fun time when children can develop and grow without experiencing problems that arise from outside the child (Dista, 2020). Every child's development can develop optimally if given the right stimulus. This requires proper and intense stimulation from the people closest to the child, namely parents, so that children have potential that can be seen from an early age (Baiti, 2021). The Golden Age is the age when all the advantages of the privilege’s children owned at this time will not be repeated for a second time, so this period is often referred to as the determining period for the next life (Chapnick, 2008). At an early age, children's curiosity grows. They also have a desire to do something that attracts their attention, which means that children at this age need to be guided in the right way to stimulate their curiosity.

The development of interaction and communication is the important stage in their age. Interacting means that individuals can mingle with others and the surrounding environment, respond to other people's conversations, communicate, start conversation topics, have curiosity, ask questions, and respond (Agus Setyonegoro, 2013). One of the efforts to make children learn to interact socially can be done in schools, where teachers must realize how important social interaction is for children in the environment around them (Dinawati et al., 2019). There are many children with communication disorders. The creation of disturbances in the development of communication causes obstacles to the creation of communication and social interaction through language, which functions as an information-seeking tool.
As social creatures, humans need communication for social activities in their surroundings. Communication brings together the communicant and the communicator, which the communicant receives while the communicator conveys the message (Rafidhah, 2017). Communication itself is divided into two categories: receptive and expressive communication. However, in some cases, there are many developmental delays in aspects of communication and interaction in autistic children, including in early childhood. Autism is a symptom of total self-closing and the person do not want to relate to the outside world which is a complex developmental disorder, that affects behavior, with the result of a lack of communication skills, social and emotional relationships with others (Kurniawan, 2021).

The characteristics of autistic children include no eye contact, nor are they sensitive to the surrounding environment. In the DSM-V, symptoms of autism are seen in the lack of interaction and communication, limited and repetitive patterns of behavior, usually appearing at an early age and the symptoms are limiting and functionally disruptive where autistic children usually experience deficient behavior, ecolia, and excessive behavior (Widiastuti, 2014). Children with autism disorders can be seen in the characteristics of having communication problems such as difficulty speaking, writing, reading, and understanding sign language, such as pointing and gesturing, often repeating or hearing the same word some time ago, speaking in a certain tone or as if humming, or often having tantrums (Ishartiwi et al., 2023). In addition, individuals with autism also do not show any interest in interacting in the social environment, as measured by the absence of facial expressions and eye contact (Kaplan & Sadock, 2010). Autism is a pervasive developmental disorder that inhibits a child's functioning in three areas: social interaction, communication, and restrictive interests and repetitive behaviors (Suprena et al., 2020).

Data from the Centers for Disease Control and Prevention (CDC) in the United States reports that cases of autism are increasing. In 2002, 1 in 150 children was estimated to have autism. Then, in 2006, the case experienced an increase to 1 in 110 children. In 2008, cases of children with autism reached 1 in 100 children; in 2012, this number increased to 1 in 88 children; and in 2013, it again increased to 1 in 50 children (CDC, 2013). In Indonesia, the Director of Mental Health Development at the Ministry of Health stated that BPS data for 2010 predicted that at least 112,000 children were diagnosed with autism, namely in the age range of 5–19 years, of the total number of children aged 66,000,805 (BPS, 2010; Mulyadi & Sutadi, 2014). Then in 2016, statistical data on BPS soared to one in 54 children experiencing autism (Maenner, 2020).

The characteristics of children with autism include difficulties in aspects of language and communication, difficulties with social interaction and understanding the environment, and a lack of flexibility in thinking and behaving (Ariani et al., 2017). Some people with autism need the help of others in their development (Sari & Rahmasari, 2022). Children with Autism Spectrum Disorder (ASD) have neurodevelopmental disorder attitudes and are bound by limited social communication deficits along with repetitive behaviors (Ousley & Cermak, 2014). The appearance of these characteristics causes autistic children to require different behavior and treatment from typical children. Usually, therapy is carried out routinely to form adaptive behavior patterns. Various types of therapy that can be applied to children with autism can be started with behavioral therapy, occupational therapy, medical therapy, speech therapy, sensory integration therapy, biomedical therapy, therapy using music, or play therapy (Fernando, 2021). Play therapy can be applied to children at an early age because their essence at an early age is learning through play (Ainun et al., 2021).

Play therapy is a natural method that can be applied to children to help them express inner turmoil without their knowing it (Wong, 2009). With play, children will have the opportunity to explore their world, namely by exploring feelings, the work of thought, and logic, so that they can make something new, create differences, and feel satisfied. The abilities that children already have can later divert their creative interests to situations outside the world of play (Zellawati, 2011).
The application of play therapy to autistic children can also improve interaction and communication, as has been shown in several previous studies. Based on research that has been conducted by Septiasih, Prastiwi, and Setyono (2014), it has been proven that activities carried out with games have an impact on the ability of autistic children to socially interact, as well as the impact of playing approaches and strategies on the mutual relations of autistic sufferers, and there is no influence of the approach to play on the relationship level of autistic children. Meanwhile, research conducted by Suryati and Rahmawati (2016) stated that only 11% of children have eye contact. After applying play therapy, the results increased to 64.7% of children looking into their eyes and 58.8% of children turning their heads when called. Along with the success of the research conducted by Iskandar and Indaryani (2020), associative play therapy has a significant influence on the social skills of autistic children, with a percentage of 25% to 75%. This writing aims to explore the application of play therapy in efforts to increase interaction and communication in autistic children with the research question, "What play therapy methods are used to develop the communication and interaction of autistic children?"

Methodology
This research is a literature review, namely in the form of a written summary of a presentation, classification and evaluation, previous and current findings, and the need for proposed studies from journal articles, books, and documents (Creswell, 2005). In searching for data sources, the author used three databases, namely Garuda, Sage Journal, and Google Scholar. The author took this database because it has a complete and up-to-date collection of research journal articles, especially research related to science and education.

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<th>Tabel 1. Search results on Garuda (N= 1)</th>
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<td>Database</td>
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<th>Tabel 2. Search results on Google Scholar (N= 5)</th>
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The eligibility criteria are research articles published between 2013-2023 that are limited to the specificity of autism without any other accompanying disabilities. Researchers use Boolean search using the keywords "AND", "OR", and quotation marks ("). The keywords are; "autism" OR "ASD" AND "play therapy" AND "communication" AND "interaction" in the SageHub database search. Meanwhile, the Google Scholar and Garuda databases use keywords in Bahasa Indonesia; “Autisme” ATAU “Autis” DAN “terapi bermain”, DAN “komunikasi”, DAN “interaksi”.

The inclusion criteria in this article are; 1) articles focused on the population of early childhood (0-6 years), 2) articles explaining play therapy in formal and informal education 3) not limited to certain studies. While the exclusion criteria in this article are research results that focus on autistic children with more than one or multiple disabilities, and research published less than 2013. The data obtained is presented in writing: 1) objectives, 2) methods, 3) samples, 4) findings, 5) similarities, and 6) uniqueness (Rahayu et al., 2019). The following are details of the article search results listed in tables 1, 2, and 3. Based on the appropriate search results and what is needed, eight articles are obtained. Simplify the search method, it can be seen in Figure 1.

There were eight articles selected that met the criteria for study discussion articles. The articles included in the discussion are associative games, games with squishy media, Child-Centred Play Therapy (CCPT), Short Play and Communication Evaluation (SPCE), games with flashcard media, group play, and symbolic games. All participants in this article are young autistic children. These various games can be applied by teachers, therapists and parents to improve the interaction and communication skills of autistic children.
The next stage is the narrative synthesis analysis process on the articles collected by summarizing the reading of the entire article. The findings in the article will be recorded and summarized as the results of the analysis, which are then written systematically in the analysis results table contained in the research results section.

Results and Discussion

Autistic children have different interaction and communication skills from typical children. They have problems interacting with their surroundings because they have their own world. In terms of communication, children with autism can communicate verbally and non-verbally. Not infrequently, autistic children also use assistive technology to communicate. In the learning process, teachers and therapists need to modify models and innovate learning so that children's self-confidence can increase. The play approach is one model that can be applied to autistic children. This play approach can be packaged into play therapy. Play therapy is a play approach that is very useful for psychological, social, and emotional children (Saputro et al., 2017). The purpose of play therapy is to create an atmosphere that is constructive and self-expressive for children, to increase understanding of something that is happening, and to increase children's curiosity (Supartini, 2014).

The results of the reference searches obtained in implementing play therapy in the children with autism were carried out to obtain answers to the research questions presented in the previous points. A complete description of the research characteristics can be seen in Table 4 (attached).

In the realms of both education and health, play therapy has also been applied several times to improve the communication and interaction of children with autism. In the research carried out by Siska Iskandar and Indaryani in 2020, they applied associative play therapy and divided the subjects into several groups. Associative play is a game that emphasizes cooperation and interaction between children, for example, by exchanging toys. With group games, this research can improve their interaction and communication. The media used in this study are plasticine and picture cardboard. In this case, the researcher observed how the child behaved while being given play therapy. Points when assessing children's progress in interacting are very important in order to find out what their strengths and weaknesses are. The results of this study showed that associative play therapy can improve interaction skills by 50% compared to before the intervention.

Learning planning by educators needs to prioritize what students need, which can be started with children's games using learning media that attract children's attention, as well as what activities children will do. It is hoped that the activities that the teacher implements in class can adapt to the conditions and needs of the child (Palupi, Mering, and Yuniarni, 2018). During teaching and learning activities, the teacher acts as a facilitator who monitors the activities carried out by students. If necessary, autistic children can use Special Assistance Teachers during learning. Special Assistance Teachers are teachers who participate in learning activities for students with special needs, assist in the teaching and learning process in inclusive schools, and are competent in activities dealing with children with special obstacles. Special Assistance Teachers have such a broad role because they have the duty to provide learning processes for children with special needs, one of whom has autism. Collaboration between class teachers and special supervising teachers is needed for the implementation of maximum service to students with special needs, both in learning activities and in aspects of social and emotional interaction.

Besides that, there is also play therapy using squishy media. Squishy is an English word for a porous medium similar to a sponge that has a soft and supple texture. Besides that, squishy can also return to its original shape. Due to its unique shape and texture, it can attract children's attention and be used as a play medium. By playing with squishy, children can be creative, either alone or with their peers. The roles of teachers, therapists, and parents are also needed in this squishy game. Squishy game media can be used for role-playing media, where
this can improve children's interaction and communication with their playmates. Research conducted by Widiarti et al. (2021) used squishy toys to improve the interaction and communication skills of autistic children. Autistic children play squishy by squeezing and holding the squishy for 15–30 minutes at each meeting. This continues for up to three months. In playing squishy, children are accompanied by teachers and companions so that they can be directed to interact with peers or with teachers or companions.

Play therapy for autistic children can use Child-Centered Play Therapy (CCPT). Child-Centered Play Therapy (CCPT) is the application of therapy in the form of games and includes procedures for communicating for children in order to explore their world as a place to share thoughts and feelings and learn to describe their experiences (Novitawati, 2017). The therapist acts as a facilitator, namely by recognizing and welcoming in a soothing way if there is aggressive behavior and also developing children's ability to express their feelings in a way that is acceptable in the social realm (Ray et al., 2009). CCPT therapy can use a lot of media games that are tailored to the interests of each child. CCPT also uses the principles of a student-centered approach and acceptance of children so that feelings of security and comfort can be attached to them. In addition, children also do not feel forced when playing. However, because autistic children have a personality and a pattern of behavior that is repetitive and rigid, they tend to play with monotonous objects. This can be overcome by learning innovations, handling children, and involving the creativity of therapists.

Many autistic children have an advantage in terms of remembering things in visual form. They like bright and flashy colored objects. Therefore, the next medium in play therapy for autistic children can be flashcards. Flashcard media, commonly also called picture cards, is a medium in the form of cards that is used in the learning process and contains images, text, and symbols in the process of improving and directing children to a thing or situation (Rahman & Haryanto, 2014). How to use picture card media can be started by giving picture cards of objects that children like. For example, if a child likes vehicles, the media for playing picture cards or flashcards can be started by introducing the child to the vehicle picture cards. After introducing cards, motivate children to be able to speak using pictures, and then children can be trained to take pictures according to instructions, for example, taking the picture he likes the most.

When playing, children need to develop their imagination. One way is to use symbolic play. Symbolic games are a medium that can be used to improve children's cognitive development (Piaget in Bretherton, 1984). The symbolic playing technique is a symbolic game that allows children to express all their negative emotions (anxiety) and pressure through play (Mashar, Riana, 2005). Children have the freedom to imagine whatever they want and thus can adequately solve all their worries (Habibi, 2022). This type of game can use various media, such as shadow puppets, dolls, squishy, slime, and so on. Children can develop various academic and social skills needed in the future with symbolic games. Symbolic games are one of the best ways to hone a child's brain by pretending, which can train a child's imagination, especially at an early age. Children with autism spectrum disorder (ASD) may not develop symbolic play skills, so these skills need to be taught specifically. "Object-substitution" symbolic play behavior occurs when a child labels a common object with a substitute name and uses that object to perform a play action (for example, when he puts a bowl on his head, he calls it a hat). In this case, it can also improve the child's way of generalizing. Another type of game that can be applied to children to improve their interaction and communication skills is functional play. For children at an early age, the form of functional play that is usually carried out is that they like to run around the field or playground just for fun. The stage of functional play is very important because children are introduced to the physical world and the effects it causes. So it can be concluded that functional games are games in the sensorimotor period with physical and repetitive forms of play (Samsiah, 2018). Functional games can also be combined with interaction and communication between students and with the teacher so that, when playing activities, students' interaction and
communication skills can be properly stimulated. Examples of functional games that involve interaction and communication are using game media such as cars, playing cooking, throwing and catching balls, and so on. Functional games can take the form of role-playing games that train children's imaginations. When playing, children must be accompanied by parents, teachers, and therapists so that interaction and two-way communication occur and children's communication and interaction skills can increase.

Conclusion

Children with autistic disorders have developmental disorders, especially in aspects of interaction and communication. They tend to have a world of their own. One method that can be used is play therapy. The application of play therapy is of many kinds, some of which are associative games, games with squishy media, Child-Centred Play Therapy (CCPT), Short Play and Communication Evaluation (SPCE), games with flashcard media, group play, and symbolic games. In playing activities, children are given directions to socialize with the surrounding environment, namely peers, teachers, therapists, parents, and other people around them. Introducing autistic children to ways of socializing can improve their ability to interact and communicate, because it includes aspects of questioning and answering, two-way communication, interacting, and responding to an event.

Acknowledgment

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References


Kaplan, H.I., Sadock, B.J. (2010). Retardasi Mental dalam Sinopsis Psikiatri. Tangerang: Binarupa Aksara


### Table 4. Results of Literature Systematic Review of Increasing Interaction and Communication Skills of Autistic Students

<table>
<thead>
<tr>
<th>Writers</th>
<th>Games Type</th>
<th>Subjects</th>
<th>Characteristics</th>
<th>Results</th>
</tr>
</thead>
</table>
| Siska Iskandar, Indaryani (Iskandar & ., 2019) | Associative play therapy | 9 autistic children | **Purpose**
Associative play therapy was effective in increasing the social interaction of autistic children.  
**Time**
Intervention given  
**How it is played**
The game media used plasticine and picture cardboard. | There was an increase in aspects of social interaction in autistic children by 50% with the application of associative play therapy using plasticine media and picture cardboard. |
| Dinar Rapmauli D, Andik Matulessy. | Education flashcard | 6 autistic children, 2-5 years old | **Purpose**
Games with flashcard media had an impact on the social interaction processes of autistic children.  
**Time**
Intervention given  
**How it is played**
Flashcards were presented in the form of picture cards measuring 25 cm × 30 cm. The images displayed hand drawings, photos, or existing drawings pasted on card sheets. | Flashcard play therapy influenced improving eye contact. However, on the receptive language aspect, this game had less influence, namely on imitation skills (imitating) and expressive language skills. |
| Nursita, D., Hamid, L., dan Nurhidayah, N. (Nursita et al., 2020) | Flashcard | 6-year-old autistic child | **Purpose**
The flashcard media used to improve the expressive communication of autistic children.  
**Time**
Intervention given  
**How it is played**
By using flashcards, the teacher showed something what students like and do not like. Then students were able to point and name the objects on the card. | The use of flashcard media used to train expressive communication in children with autism. |
| Gabrielle T. Lee, Hua Feng, Sheng Xu, and Shao-Ju Jin (Lee et al., 2019) | “Object-Substitution” Symbolic Play | 3-6 years old autistic children. | **Purpose**
By using symbolic games autistic students were able to improve their communication skills | The use of flashcard media used to train expressive communication in children with autism. |
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<tr>
<th>Writers</th>
<th>Games Type</th>
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<th>Characteristics</th>
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<tr>
<td>Stephanie Y Shire, Wendy Shih, Ya-Chih Chang, Connie Kasari (Shire et al., 2018)</td>
<td>Short Play and Communication Evaluation (SPCE)</td>
<td>68 autistic children</td>
<td>This was a pretend game that used gestures.</td>
<td>Symbolic games improved the interaction and communication skills of autistic children and caregivers.</td>
</tr>
<tr>
<td>Rossyana Septyasih, Swito Prastiwi, Djoko Setyono</td>
<td>Group play</td>
<td>2–6-year-old 10 autistic children</td>
<td>It provided many games, such as puzzles, blocks, dolls, etc., by observing and interacting.</td>
<td>The use of the SPCE model improved the communication and interaction of autistic children</td>
</tr>
<tr>
<td>Astri Widiarti, Angelina Novia Toemon, Dian Mutiasari, Dedy Baboe (Widiarti et al., 2021)</td>
<td>Squishy</td>
<td></td>
<td>Children are given the opportunity to hold and squeeze squishy until they can play with peers or companions within 15–60 minutes.</td>
<td>Providing games with Squishy had a positive influence on aspects of the development of good communication for autistic children.</td>
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<tr>
<td>Writers</td>
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| Veronika Leni, Megawati, Yulvia Sani, Ossy Firstanti Wardany (Megawati et al., 2021) | Child-Centred Play Therapy (CCPT) | 6-year-old, three autistic children | **Purpose** To increase student eye contact by using play therapy  
**Time** Intervention given  
**How it is played** Balloons and other toys were played with by the therapist. | The ability to make eye contact with autistic children improved after therapy with Child-Centred Play Therapy |