



## The Effect of Play Therapy Among Children with Autism: A Scoping Review

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### ABSTRACT

In 2015 in Indonesia was estimated that one per 250 children had autism. Children suffering from autism will experience a variety of developmental disorders, one of which is social and motoric subtle abilities. One of the efforts to reduce uncontrolled child behavior and developmental disorders in children with autism is with play therapy. The goal of the study was to identify the variety of play therapies and their effects on children with autism based on literature studies. The research design used in this study is a literature study with a sample of 14 journals, Pubmed (n = 3), Google Scholar (n = 10) and science direct (n = 1) then conducted a quality assessment with JBI tools getting 15 journals that did data extraction and data analysis. The results of this study are that there are various play therapies that have an effect on. Out of a total of 14 atikels that have been reviewed, various play therapies were obtained on the social ability and subtle motooric abilities of children with autism. There are 7 articles with 4 types of play therapy on the social abilities of children with autism, namely Cognitive Behavioral Play Therapy (CBPT), Child-Centered Play Therapy (CCPT), Filial Therapy and Theraplay. In addition to the types of play therapy that affect social ability, there are 7 articles with two types of play therapy that have an influence on fine motor skills in children with autism, namely Autplay and Child-Centered Play Therap (CCPT)

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### Kata kunci:

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### ABSTRAK

Pada tahun 2015 di Indonesia diperkirakan satu per 250 anak menderita autisme. Anak yang menderita autisme akan mengalami berbagai gangguan perkembangan, salah satunya adalah kemampuan sosial dan motorik halus. Salah satu upaya untuk mengurangi perilaku anak yang tidak terkontrol dan gangguan perkembangan pada anak autis adalah dengan terapi bermain. Tujuan dari penelitian ini adalah untuk mengidentifikasi variasi terapi bermain dan pengaruhnya terhadap anak autis berdasarkan studi literatur. Desain penelitian yang digunakan dalam penelitian ini adalah studi literatur dengan sampel 14 jurnal, Pubmed (n = 3), Google Scholar (n = 10) dan science direct (n = 1) kemudian dilakukan penilaian kualitas dengan tools JBI mendapatkan 15 jurnal yang melakukan ekstraksi data dan analisis data. Hasil penelitian ini terdapat berbagai terapi bermain yang berpengaruh. Dari total 14 tikels yang telah ditinjau, diperoleh berbagai terapi bermain terhadap kemampuan sosial dan kemampuan motorik halus anak autis. Terdapat 7 artikel dengan 4 jenis terapi bermain terhadap kemampuan sosial anak autis yaitu Cognitive Behavioral Play Therapy (CBPT), Child-Centered Play Therapy (CCPT), Filial Therapy dan Theraplay. Selain jenis terapi bermain yang mempengaruhi kemampuan sosial, terdapat 7 artikel dengan dua jenis terapi bermain yang berpengaruh terhadap motorik halus anak autis, yaitu Autplay dan Child-Centered Play Therap (CCPT).

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## INTRODUCTION

Developmental disorders in children have several types. One type of developmental disorder that occurs in children is Autism or *Autism Spectrum Disorder* (ASD) is a common neurodevelopmental disorder that is genetic and heterogeneous with underlying cognitive traits and usually occurs in conjunction with other conditions (Alfinna et al., 2019). Autism can usually be diagnosed in childhood with many of the most obvious signs appearing at age 2-3, but some autistic children develop normally until toddlerhood then begins to decrease in development (Avolio & Hannah, 2008). According to the *Centers for Disease Control and Prevention* (CDC) in 2016 About 1 in 54 children have been identified with autism spectrum disorder (ASD) and the incidence is more common in boys than girls and about 1 in 6 (17%) of children ages 3-17 were diagnosed with developmental disabilities in 2009-2017 including autism. There are approximately 12,800 children with autism and 134,000 people with autism spectrum and an estimated one in 250 children have autism disorder. Children suffering from autism will experience a variety of developmental disorders, namely disorders in communicating both verbal and non-verbal (communicating with strange language), disorders in social interaction (disorders of refusing or avoiding face-to-face), disorders in play (playing very monotonous), ritualistic behavior, hyperactivity (happy to repeat certain movements), disorders of feelings and emotions (tantrums not controlled), impairment in sensory perception and impaired cognitive development (Navarro-Pardo et al., 2021). Emotional behaviors and disorders experienced by people with autism will then have an impact on the child's daily life (Wiwik Pratiwi, 2017).

One of the behaviors selfharm which according to (Sharma et al., 2018) will have a bad impact on children such as injury, affect brain function, paralysis or disrupt the surrounding environment (Samsam et al., 2014). Difficulties and delays in social interactions that children with autism according to (Hossein Khanzadeh & Imankhah, 2017) will lead to unique stressors including social isolation and stigma. Children with autism who are treated well, do not rule out the possibility of gaining the same abilities as children in general and conversely if the child with autism is late handling success in reducing or eliminating the disorder is very difficult to obtain (Salter et al., 2016)

If autism is not treated immediately will also have an impact on the child's development and threaten the child's intelligence in the long run which will cause them to become unproductive (Yusuf et al., 2020). Some studies show that research results with different play therapy interventions can significantly improve a child's cognitive development abilities and most experience improvement from sufficient category to good. Based on the background above shows that the many types of play therapy in children with autism that have different influences so that researchers are interested in identifying the variety of play therapy in children with autism with the literature study method "Identification of The Variety of Play Therapy in Children with Autism: Literature Studies".

## METHOD

### Search Strategy

This literature is reviewed using 4 databases namely google scholar, pubmed, and ebscohost. The search keyword consists of, "children with autism AND play therapy." Search for articles related to the variety of play therapy in autistic children.

### Inclusion Criteria

Journal inclusion criteria consist of 1) Journal published in 2015-2019. 2) International and national 3) journals with RCT research designs design, Quasi Experiment and Comparative Study. 4) Journals that discuss the variety of play therapy in children with autism. 5) Journal that can be accessed in full (Full text).

### Study Selection and Data Extraction

*Screening* in this study was carried out through the title and abstract that resulted from the search strategy. Journal articles that are not relevant are issued while other fully accessible journals are screened with predetermined inclusion criteria. The journals obtained are then extracted into tabular form to make it easier to describe the contents of the research journal. The data analysis table contains the author (author), the year the journal was published, the country of the journal publisher, the journal research design, the quality score, the research population/research sample, and the outcome (the results of the journal research).

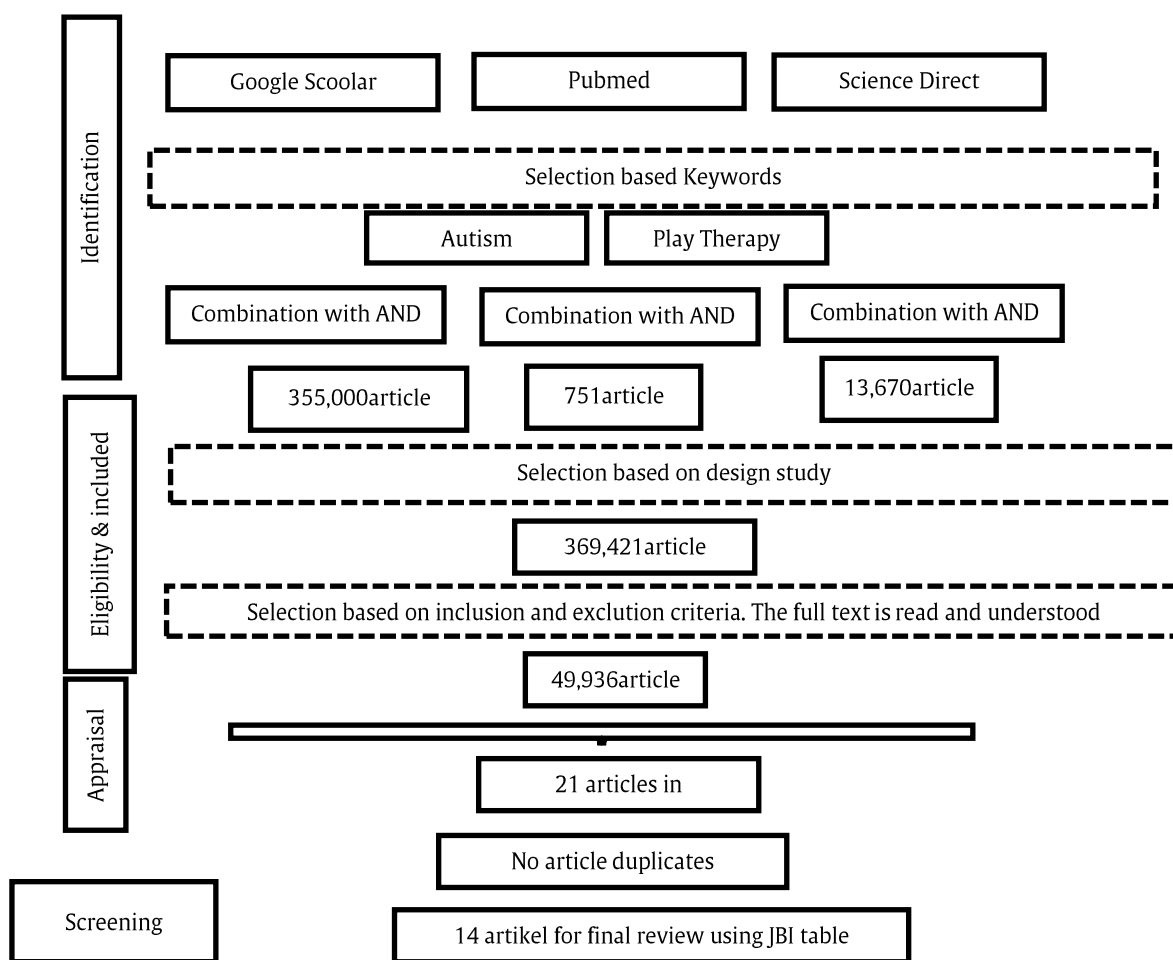
### Quality Assessment

Quality assessment of the article using the Joanna Briggs Institute (JBI) instrument. The JBI instrument was chosen because it can assess the quality of the journal with randomized controlled trial (RCT) and quasi-experimental study design. JBI's Randomized Controlled Trial (RCT) checklist consists of 13 items and JBI's Experimental Quasi-Study checklist consists of 9 items.

Several research stages were done so the literature study results credibility is legit and credible. The steps applied are shown in figure 1.

## RESULT AND DISCUSSION

Review literature search resulted in 369.421 journals, and 49.936 journal include criteria in the 2015-2019 time frame, journals with RCT research designs, quasi-experiments and discuss about play therapy in autism. This journal that can be accessed in full (full text). The screening step of journals by titles and abstracts according to PICO (Problem, Intervention, Compare, Outcome) which resulted in 14 journals inclusion criteria.



(Figure 1) The applied stages were the literature study results

**Table 1**  
**Early Identification of Potential Hazards in Medical Waste Management Officers**

No.	Title, Author, Publication year	Study Design	Sample	Intervention	Outcomes
1	Influence Playing Therapeutic Coloring Against Fine Motor Children Need n Special Autistic School Age At Extraordinary School Pelita Hati Jakarta (Marina Siregar et al., 2017)	Quasi Experiment	Sample It was taken in total sampling of 12 children.	In the intervention group were given picture books and crayons. Children allowed to color images that have been given images of marine animals on pre-test and post test for 30 minutes. Children are observed the ability to grasp, coloring techniques (gradation), colored areas, cleanliness and smoothness on time.	There's a difference which means fine motor during pretest or post test with p Value 0.0465 and 0.0005 (p < 0.05)
2	Therapy Associative Play Against Motor Skills in Autistic Children	Quasi experiment	The sample This is a total sampling of 9 people.	Participants were divided into 3 groups and plasticine and cardboard images. The intervention was given for 1 month with 12 therapeutic treatments.	Results show an increase the average motor skills of an autistic child before Play therapy p value = 0.000
3	Effect of Lego Play Therapy On Autistic Children's Social Interactions In SDLB 017700 Naga Kecamatan Eastern Range of Asahan Regency in 2019 (Barus et al., 2020)	Quasi experiment	Sample In the study of children aged 7-10 years	Lego play therapy	The results showed changes in social interaction before and after lego play therapy although the minimum in this study was p-value 0.005.

4	Shelter House Play Therapy For A Child With Autism (Yahaya et al., 2018)	Quasi experiment	Sample of 27 Child.	Shelter House Play Therapy consists of four therapy sessions conducted on autistic children by setting up shelter house and placing fuzzy balls near the shelter house. The first stage includes two sessions and for each session, researchers introduce one halfway house (one color; blue)	The results found that shelter therapy affects social responsiveness and communication. Social in autistic children.
5	The Effect of Music Therapy Along With Play Therapy on Social Behaviors and Stereotyped Behaviors of Children With Autism ( Abbas et al., 2017)	Quasi experiment	Sample The study included 30 autistic children between the ages of 6 and 12.	Group The experimenter underwent a total of 15 music therapy training sessions along with 7 minggugplay therapy using a taperecorder to play music, two types of musical instruments (belz and flute recorder), balls, and a number of therapy toys for autistic children.	Research results Show that training with therapy with play therapy increase pro-social subscales (P = 0.001)
6	The Effect of Training Play Therapy to the Mothers of Autistic Children to Improve the Verbal and Nonverbal Skills of their Children (Rahmadani et al., 2017)	Quasi experiment	Sample It consists of 30 autistic children.	The intervention was carried out withan initial Penalan with a play tool such as a small ball, the doll continued interaction through hand puppets and eye contact with the dolls, greeting, and asking their names through dolls to draw people who smiled, cried, and angry. Children are also asked to practice a variety of feelings.	Results obtained There's a difference verbal communication skills of control groups and experimental groups (P = 0.000
7	The intervention of effective playdough activity on the increase of cognitive development of autistic children (Yusuf et al., 2020)	Quasi experiment	Sum Samples taken as many as 16 Respondents	Respondents are given playdough activity intervention with the technique of rolling to make a circle model, mention and know colors and be able to make model of the ball from small size to medium, introducing various forms Fruits (grapes, strawberries, and oranges) use available molds.	The results showed a significant association between activity interventions. Play dough with Cognitive development with p= 0.014
8	Maintainability An Komunika of the Child With Autism After Giving Squisy Toys (Widiarti et al., 2021)	Quasi experiment	31 children with autism	Squisy play therapy squishy with all sorts ofshapes. The activity is to allow the child to hold and squeeze the squishy until he can play squisy with a friend or companion.	From the results showed that Squisy players are able to provide changes in not only communication skills but ability in terms of social interaction. P Value < Alpha (0.001 < 0.05). There's a difference the fine motor development of children with autism before with after play therapy cutting with P=0.000 < 0.05
9	Therapy Playing Cutting Therapy Against Fine Motor Disabilities in Children with Autism Age 11 – 15 Years at Semarang State Extraordinary School (Nova et al., 2020)	Quasi experiment	Sample of 32 children	Child cutting with movement from the simplest to the more complex in forming patterns, following straight lines, curved, circles etc. using small bullat-tipped scissors supervised with parents.	Interventions are given stimulation verbally playing puzzles, children composing, holding and picking up puzzle pieces, putting in puzzle board
10	Influence Stimulation of Playing Puzzles Against the Development Child Fine Motor Autistic At Autis Mulia Mandiri Yogyakarta School (Badi'ah, 2017)	Quasi experiment	A sample of 16 autistic children		Bigpart after being given stimulation of puzzle play most of the categories of enough 10 autistic children (62,5 %). At control group before

11	Influence Playing puzzles On The Development of Fine Motor In Autistic Children And ADHD Children In SLB (Xanda et al., 2018)	Quasi experiment	Children and ADHD 4-6 years old.	according to the existing image Intervention given puzzle geometry and puzzles with images of people.	mostly less than 12 autistic children Results show that the development Fine motor motor after playing puzzles in autistic children is better than ADHD child
12	Effect of Approach Play With Finger Painting on Social Interaction Ability among Autism Childrens's (Marina Siregar et al., 2017)	Quasi experiment	A sample of seven children with autism.	In this research Finger painting activities are made in the form of standard operational procedures so that play activities become more structured and systematic so that autistic children can learn to interact with each other.	Research results Demonstrate the influence of the approach of playing with finger painting on the ability to interact social in children with autism with a value of $\rho = 0.025 < \alpha = 0,05$ .
13	Influence Role Playing (Pretend Play) In Children with Autism Spectrum Disorder to Ability Socialization (Bunda & Aziz, 2020)	Correlation	Achild with autism aged 3-7 years	At the beginning of the session, the child Encouraged to play with objects freely then demonstrate five acts of playing with "stuffed" toys. Akid is encouraged to play with the object they want. a set of imaginative game tools	That's it it is understood that pretend play in children with GSA has an influence. This can significantly improve socialization skills in children.
14	Effectiveness of game play Playdough To Improve The Ability to Identify Primary Color in Autistic Children In Tk Special Hope Mulia Kota Jambi (Nadirah & Raudhoh, 2019)	Quasi experiment	Children who attend behavior analysis (ABA) therapy sessions	The intervention was carried out for 10 days to train the ability to identify red. Anak is given a playdough game to practice blue identification skills.	The results showed a significant improvement in color identification ability in autistic children. with p value obtained $0.008 < 0,05$ ,

## CONCLUSION AND RECOMMENDATIONS

### Therapeutic Play Intervention

Of the 14 articles that have been analyzed discussing the provision of play therapy in autistic children that can improve cognitive abilities, motor satisfaction, and social abilities. Children suffering from autism experience a wide variety of developmental disorders, namely disorders in communicating both verbally and nonverbally, disorders in social interaction, disorders in play, ritualistic behavior, hyperactivity (happy to repeat certain movements), impaired feelings and emotions (uncontrollable tantrums), disturbances in sensory perception and cognitive development disorders.

### Effect of Therapeutic Play Interventionon

Some types of therapies that can be applied to children with autism are cognitive behavioral play therapy (CBPT), child-centered play therapy (CCPT), filial therapy and theraplay (Lin et al., 2017). This therapy has the effect of improving the social ability of children with autism because the therapeutic approach that is done combines cognitive and behavioral interventions through play activities that can provide therapeutic models. This therapy uses toys and aims to change the child's mind, behavior directly and the selection of game materials based on existing problems and the needs

of each child (Monteleone & Scarth, 2019). CCPT has an effect in improving social and emotional interaction, social skills, communication, and prosocial behavior in children with autism that is done by facilitating the development of safe relationships for children (or people of all ages) to fully express and explore themselves (feelings, thoughts, experiences, and behaviors) through play, a natural medium of communication (Blanco et al., 2019).

Cognitive *Behavioral Play Therapy* (CBPT) is obtained by several types of games such as *pretend play* the form of finger painting and playing lego. shows improvements in the social interaction skills of children with autism and can train children in developing a sense of high solidarity. This is because playing *finger painting* and playing lego in research is done in groups so that it creates cooperation in playing, participation occurs and creates effective socialization (Ulumudin, 2019). Role playing gives the child space to perform and understand his social environment and with the medium of playing dolls children can express emotionally as well as individuals by using toys as a medium or changing behavior (e.g changing the tone of voice).

In addition to the types of play therapy that affect social skills, there are play therapies that have an influence on fine motor skills in children with autism, namely *Autplay* and *Child-Centered Play Therapy* (CCPT). In the type of therapy playing *Autplay* with a total of 4 articles, namely 2 articles in the form of playing puzzles, 1 article in the form of coloring play and 1 article in the form of associative play. This has an



effect on the child's social ability because children when play requires eye and hand coordination in holding pieces, arranging and adjusting the arrangement of puzzles. Then, coloring play by mentioning color can improve the fine motor development of children with autism. Playing *playdoughs* showed improvements in the fine motor skills of children with autism, particularly in color identification ability. and form a *playdough* and through the activity of cutting the muscles of the fingers becomes stronger and supple. ABA method uses the basic principles of operant conditioning, namely by giving positive reinforcement. Interventions that have been carried out on the subject show the results that the subject's eye contact increased from two seconds to three seconds (Resmisari, 2016).

Children can recognize colors or shapes and express their imagination in *playdough* shapes and interact while playing with friends. In addition, cutting play shows an increase in fine motor skills in children with autism. This is because playing *playdough and cutting*, the child is exposed many colors, making the fingers of the child trained in his strength in holding, pressing due to the development of small muscles such as the fingers of the hands and eye coordination with other limbs when the child plays. In addition, cutting skills require concentration and thoroughness so as to train the ability to follow instructions and have better hand and eye coordination.

## ETHICAL CONSIDERATIONS

### Funding Statement.

The author declares that no funding was received in connection with this research.

### Conflict of Interest statement

The author declares that there is no conflict of interest related to this research and that there are no ethical issues arising from this research.

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