# THE EFFECT OF PLAY THERAPHY ON FINE MOTOR DEVELOPMENT IN AUTISM CHILDREN AT AZZAMUL AL-IKHLAS FOUNDATION AUTISM INCLUSIVE SCHOOL OF BUKITTINGGI CITY

## Marlina Andriani<sup>1</sup>, Rizka Armenda<sup>2</sup>

STIKes Yarsi Sumbar Bukittinggi Email : marlina.andriani@gmail.com

## **Abstract**

Children with autism was difficult in imitating the skills taught by the therapist, and also have difficulties to express their imagination. When they playing, most children with autism are not focus to the game and the development of fine motor skills, they have difficulty in grasping, opening and closing the first two hands, fighting finger, thumb fighting, and wiggled her fingers. One of the factors that influence the development of fine motor stimulation is given such play activities because playing is afun activity and can stimulate the child's fine motor development. The purpose of this study was to determine the effect of therapy on the development of fine motor skills in children with autism. This type of study is pre experiment with one group pretest and posttest design without control. The population is children with autism aged 4-6 years in the Azzamul Al Ikhlas foundation Bukittinggi as many as 25 children, and Samples were taken by using purposive sampling as many as 10 childred. The research instrument is the observation sheet. Analysis of research data using univariate and bivariate analysis, with paired sample test method. The average of univariate fine motor development of children with autism, before therapy was 8.50 and after play therapy is 12.40 while the results of the bivariate analysis was p = 0.000 (p value of It shows that there is effect of play therapy to the development of fine motor skills of children with autism. It suggested to the therapists and parents to always motivate the children, so that children are not forced to do so and and do it comfortably. Cooperation therapists and parents in the treatment of children with autism will further enhance the fine motor skills of children with autism. The therapist should be able to provide direction, motivation and guidance so that parents can follow the program and the stages are given by the therapist.

**Keywords**: fine motor skills, play therapy, autism

## **BACKGROUND**

Aspects of growth and development in children is one of aspects that is taken seriously by experts, because it is an aspect that explains the process of forming a person, both physical and psychosocial. Most parents do not understand about it. They assume that as long as the child is not sick means children do not have health problems including growth and its development. Often parents have an understanding that growth and development have the same meaning (Setiawati, 2006).

But in reality, not all 0f children can through a period of growth with optimal due to a disruption in the growth process. Children who have a disorder called also with children who have special needs. Children with special needs school age are still very few who enjoy educational services. Moreover, the attitude of the people who still regard it as a disgrace defect also causes many families that do not allow children with special needs to access educational services (Kosasih, 2011).

One Of an example is the special needs of children with autism. Autism also called Autistic Spectrum Disorder (ASD) According Dr. Hardiono, autistic disorder characterized three main symptoms are impaired social interaction, impaired communication, and behavior stereotopik. According to Mudjito, children with autism are impaired social interaction and communication and impaired sensory, play patterns, and emotions. The reason for the inter-tissue and brain function are not in sync. There are thriving, while others are mediocre (Kosasih, 2012).

Autistic behaviors different from normal behavior. Autism have excessive behavior (excessive) or needy behavior (deficient), to the extent there is no behavior. Behavior is everything done or said, can be seen, felt, and heard from someone or done alone (Wikipedia, 2014).

According to data from UNESCO in 2011, there were 35 million people with autism around the world. An average of 6 from 1000 people in the world have autism (citydirectory, 2011) In the United States, autism is owned by 11 out of 1000 people. In Canada and Japan, this increase reached 40% since 1980. In California itself in 2002 concluded there were 9 cases of autism per day. The literature of other states generally 10-20 autism cases among 10,000 people, some even say about 1 in 1,000 children in the UK in early 2001 even reported the incidence of autism is increasing very rapidly, suspected of 1 in 10 children suffering from autism (Huzaemah, 2010). While in Indonesia in 2007 there was estimated number of children with autism reach 150-200 thousand people, and in 2011 the ratio 8 out of every 1000 people (Citydirectory, 2011).

Children with autism have delays in developing fine motor skills such as difficulty in grasping, opening and closing his hands fists, kicks forefinger, kicks up, and wiggled his fingers. To help children with autism develop fine motor starts by creating an environment as comfortable as possible and it requires hand and eye coordination that develops gradually over time (Indonesia Autism Foundation, 2007).

Children with autism also had difficulty in imitating the skills taught and imagination that are difficult to express. Events that often appears in children with autism for example, they would make a move like switching to and fro, clapping, running without being told. One of the factors that influence the development of fine motor is given stimulus such as play activities (Indonesia Autism Foundation, 2007).

The world is the world of children's play, through play all 0f aspects of child development grown so that children become healthier as well as intelligent. Aspects of child development can be grown in an optimal maximum through play activities and (Adriana, 2011). According to Elizabeth Hurlock (1194), the play is any activity undertaken for pleasure generated regardless of the final result. For children, physical, intellectual, emotional and social. Growth and physical development of children can also be viewed while playing, children unconsciously find good posture, strength training, balance, and motor train (Kurnia, 2011).

Playing therapy is a healing effort to achieve the development of physical, intellectual, emotional, and social development optimally. The intention of treating or curing the physical is to develop muscle strength, motor, increasing the resilience of the organs (heart and lungs), prevents and corrects poor posture (Kurnia, 2011).

At the time of autistic children do not play with the existing focus in front of him and they can not emulate or use an existing game. While playing such objects are often not used as they should be. Activities and games that autistic children sometimes rigid, often repeated and monotonous. Children with autism often rerun, slamming, and line up objects and attached to the inanimate objects (Autismadiun, 2013).

Preliminary studies by MajaJasmin Knudsen in Norway about the subtle differences in motor development of children with autism with normal children. According to the research the results concluded that the fine motor skills of children with autism were significantly lower compared to normal children.

According to research AchmadChusain in Surabaya, which discusses the influence of

social play therapy to improve ability, social skills for children with autism disorders using experimental study with 11 subjects so that of these experiments results considered effective with the value Z = -2.940means that there is a significant difference between the mean score of ability and social skills before and after the administration of playing therapy. This therapy is carried out intensively and every day at least 3 hours and is done during 1-6 weeks. According to research on the influence of HelmiAndrian playing therapy for children with autism communication skills, of the study concluded that there was a significant effect of playing therapy in children with autism.

According to data in West Sumatra have the 151 special schools and 5,000 students exceptional. while the number of children with autism has been no specific official data due to the presence of children with autism do not settle each semester (edudoc.padangpariaman, 2011). In the New York City area, according to TKSD Head of the department of Education, Youth and Sports that the current Dublin city has only five SLB SLB private and one public. The number of children with special needs who entered SLB in London reached 409 people. While children with special needs that had public schools amounted to 289 people. But specifically not recorded how many people with autism.

One SLB SLB Foundation surveyed are Azzamul Al-souled specifically to accommodate children with autism located in JalanPaninjauanGaregeh, there autistic children numbered 105 people. At the foundation of educators are as many as 18 people. This type of therapy that is d Extra Ordinary School is in the form of behavioral therapy, speech therapy, academic therapy, playing therapy and music therapy.

Playing therapy followed by children with autism from the age of 4-6 years amounted to 25 people. Conducted from Monday to Friday for 2 hours a day. At the time of play therapy, there are still some children with autism are not the focus of the

game, nothing looked stiff when playing, there are visible hyperactivity and some have increased during play. In the fine motor development of children with difficulty in grasping, opening and closing his hands fists, kicks forefinger, kicks up, and wiggled his fingers. Examples of games associated with fine motor skills such as puzzles, drawing, arrange blocks and finger painting (finger painting). For each child play therapy was accompanied by a teacher assistant. Each teacher is always observing and recording the progress of children with autism.

Based on the phenomenon that is the writer interested in conducting research on the effect of play therapy on the development of fine motor skills in autistic children aged 4-6 years. This research was conducted at the Foundation Azzamul SLB Al sincere because there are many students from other private Extra Ordinary School in Bukittinggi

### **METHODS**

The study design used is pre experiment with the approach of one group pretest and posttest. The population in this study is an autistic child in Special SLB Autism Azzamul Al-IkhlasBukittinggi Foundation amounted to 105 children. By using purposive obtained a sample respondents based on inclusion criteria as follows: Autistic children aged 4-6 years, type games are provided in accordance with the existing games in Extra Ordinary School, an autistic child who has been given the previous play therapy for 6 months.

Independent variables used in this study is that playing puzzle play therapy and dependent variables used in this research is the development of fine motor skills of children with autism. Data collected by using observation sheet form AP assessment to determine and measure fine motor development of children with autism before and after treatment. Fine motor development assessment consists of: children were asked to hold hands or gripping objects such as clay, clenched both tanggannya, closed fist hands,

pitting the two thumb, forefinger and second pitting the fifth wiggle his fingers.

On 9 June 2014, assess the development of fine motor skills, after which the child is given a puzzle play therapy in accordance with the SOP as 1x a week, then play therapy was given on June 14, 17 June and last July 1, 2014. Sunday. After the play therapy given

back the development of fine motor skills measured by the AP assessment.

Data were analyzed to determine the effect of fine motor development before and after therapy puzzles Data analysis was done with parametric test with t test with significance level = 0.05.

## **RESULT**

1. Univariate Analysis

Fine motor skills development before being given Puzzle Play Therapy

Table 1

Distribution of Average Development of Fine Motor Skills Before Awarded Play Therapy in Particular SLB Autism Foundation Azzamul Al-IkhlasBukittinggi 2014

Motorik Halus	N	%	Me an	Media n	Mo de	Stand ar Devia si	Mi n	Ma k	95 % Ci
Tercapai	1	1 0	8,50		6	2,506 6	6	13	6,71- 10,29
Dengan Bantuan	5	5		8,50					
Tidak	4	4						10,27	
Tercapai	4	0							

According to the table 5.2.1 can be seen that out of 10 respondents, the average fine motor development of children with autism before therapy play puzzle is 8.50 and obtained the highest results in the development of fine motor skills with the help of which 5 people (50%), while growth Fine motor is reached only 1 person (10%) and a standard deviation of 2.506.

Table. 2
Fine motor skills development is given after Puzzle Play Therapy in Particular SLB Autism Foundation Azzamul Al-IkhlasBukittinggi 2014

Motorik Halus	N	%	Mean	Median	Mode	Standar Deviasi	Min	Mak	95 % CI
Tercapa i	5	50	12,40	12,00	11	2,011	10	15	10,96 -
Dengan Bantuan	5	50							13,84

According to the table 5.2.2 can be seen that out of 10 respondents, the average fine motor development of children with autism after therapy is given puzzles are 12.40 and showed half of respondents, 5 (50%) had fine motor development with categories achieved and 5 people (50%) with the assistance category and a standard deviation of 2.011.

# 2. Bivariate Analysis

Effect of Fine Motor Development Before and After Therapy Play Puzzle

To determine the influence of the development of fine motor skills at the 10 respondents before and after the play therapy is given, can be determined by using the test T-Test. Illustrates the effect of play therapy on the development of fine motor skills of children with autism before and after therapy in particular Extra Ordinary School Autism Foundation Azzamul Al-IkhlasBukittinggi comparison can be seen in the following table:

Table 3
Frequency distribution of fine motor development Autistic Children Playing Before and After Treatment in Autism Foundation Special SLB Azzamul Al-IkhlasBukittinggi 2014

No	Perkembangan	Pretes	Pretest		Postest	
	Motorik Halus					
		n	%	n	%	
1.	Tercapai	1	10	5	50	
2.	<b>Dengan Bantuan</b>	5	50	5	50	
3.	Tidak Tercapai	4	40	0	0	

Table 4
Average Effect Fine Motor Development of Autistic Children Playing Before and After Treatment in Autism Foundation SpecialExtra Ordinary School Azzamul Al-IkhlasBukittinggi 2014

Perkem bangan Motorik Halus	n	Mean	SD	Lower	Upper	Pvalue
Pretest	10	8,50	2,506			
Posttest	10	12,40	2,011	-4,687	-3,113	0,000

Based on the table after a 5.4 out of 10 respondents statistical test p value = 0.000. This means that the value of p value 0.05, so that the value of Ha accepted, meaning that therapy plays an effect on the development of fine motor skills of children with autism in particular Extra Ordinary School Autism Foundation Azzamul Al-IkhlasBukittinggi 2014

## **DISCUSSION**

Univariate analysis

Fine motor skills development before being given therapy Playing

Research results in Table 1 shows that of the 10 respondents, the average fine motor development of children with autism before being given play therapy was 50% (with assistance) and of estimated average interval fine motor development before playing therapy was 6.71 - 10.29 with an average of 8.50.

The results are consistent with research AchmadChusairi (2008) showed that with a given play therapy can improve his skills. Skill here can also be associated with the fine motor skills.

Fine motor movement has a very important role, is a fine motor movements that involve only certain body parts are made by small muscles. Therefore, in fine motor movements requiring no power but require careful coordination and thorough. (MONE, 2007)

Fine motor skills are the ability to move with the child using the smooth muscles (small) like writing, squeezing, grasping, drawing, draw up the beam and enter marbles (Yudha and Rudyanto, 2005). Iefine motor aspects related to the child's ability to conduct a movement in certain parts of the body have been done by small muscles but requires careful coordination (Lindya, 2008).

**Factors** that affect fine motor according Rumini and Sundari (2004)suggests that the factors that accelerate or slow the development of fine motor skills include: genetic factors, health factors in the period, the difficulty in childbirth, health and nutrition. premature, disorders stimulation in the form play therapy.

Characteristics of children with autism include poor motor development, movement is less flexible, resulting in difficulties in writing skills that involve fine motor skills of hands. Events that often appears in children with autism for example, they perform movements such as turning here and there, applause, ran on tiptoe without being told (autismadiun, 2013).

Delays in the development of fine motor skills in children with autism showed resistance to learning and interaction with peers. Difficulty in imitating autistic children are taught the skills and imagination skills that are difficult to express (amazine, 2014).

Learning fine motor skills in children with autism is grasping, opening and closing the hands fists, kicks forefinger, kicks thumb, fingers wobble. To help autistic children learn to anticipate and plan in

formerly a physical activity may be assisted by stretching the muscles, can also help children with autism to speak better (Indonesian Autism Foundation, 2007)

According to our analysis, in this study the respondents before being given play therapy experience fine motor development assistance. Factors that affect fine motor according Rumini and Sundari (2004) suggests that the factors that accelerate or

slow the development of fine motor skills include: genetic factors, health factors in the period, the difficulty in childbirth, health and nutrition, premature, k7elainan and stimulation in the form play therapy.

It is desirable role of parents and therapists to provide therapy always routine in playing therapy for example in order to fine motor development of children with autism is increasing.

Fine motor skills development is given after Play Therapy

Research results in Table 2 shows that of the 10 respondents on average fine motor development of children with autism after therapy is given half play is the result of 50% (with the help and achieved) and of estimated average interval after the development of fine motor therapy play is from 10.96 to 13.84 with an average of 12.40.

This line can be attributed to research DwiIndahwati (2005) about playing therapy with the use of educational games, can improve concentration ability of children with autism during the process of learning and interacting with accompanying teachers who can be seen from the increase in the time before and after the intervention given.

Playing therapy given to autistic children to enrich their skills. This therapy much an element of fun. However, the way to play for children with autism is different from the normal way of playing children. Given game should pay attention to children's intelligence (Sintowati, 2007).

The playing can enhance the basic ability to move in conjunction with the use of vision. Another important thing, that the activity of this therapy should be applied easily, as appropriate, meet the requirements of an economical, environmentally friendly, and in accordance with the autistic child's heart desires. Play therapy, such as playing with a simple tool can help parents to interact actively with children with autism. Play therapy increases the child's ability to socialize, communicate, movement and

cognition, imagination, and sensory integration (Febrina, 2010).

Factors that influence the success of the recovery of children with autism, among others, the severity of the degree of abnormality that is more severe degree of abnormality and the type of behavior disorders, the more difficult to return to normal, the child's age when first handled properly and appropriately handled ideally the age of the first child is 2-3 years old, at this age the most rapid brain development. But that does not mean the age of three years left. They still require proper handling even goes beyond age idea, the intensity of the treatment patterns of 40 hours per week is the minimum pattern for handling children with techniques and methods are correct, the IQ of children more intelligent a child more he quickly caught the material provided. But keeping in mind that the emotional intelligence of the child should always be considered in view of the emotional control in children with autism is very minimal. It is estimated that 20-25% of children with autism have normal IQ or even above average, and Integrity in Brain Language Center, Language Center is located in the left parietal lobe, when damaged, the child will have difficulty speaking.

In the view of researchers, having given playing therapy that playing puzzle. In one week showed the majority of respondents experienced an increase as in grasping an object, open and close both hands fists, kicks and thumb and wiggled his fingers. factors that influence the success of the recovery of children with autism, among others, the severity of the degree of disorder, the child's age when first handled properly and appropriately, and the IQ of children.

Therefore, it is desirable for Parents and therapists should always motivated to always pay attention and provide learning and therapy is very useful for children with autism. Due to the particular therapy given play therapy may improve fine motor development of children with autism.

Bivariate analysis

Effect of Fine Motor Development Autistic Children Playing Before and After Treatment in Autism Foundation Special Extra Ordinary School Azzamul Al-IkhlasBukittinggi 2014

Research results in Table 5.4 shows that out of 10 respondents, After statistical test obtained by value p = 0,000. This means that p value 0.05 so that it can be concluded that the therapy is playing an effect on the development of fine motor skills of children with autism in particular SLB Autism Foundation Azzamul Al-IkhlasBukittinggi. Fine motor development is caused by playing therapy is given in the form of a puzzle given in one week.

This is evidenced in the research Knudsen (2010) in Norway about the subtle differences in motor development of children with autism with normal children. According to the research results concluded that the fine motor skills of children with autism were significantly lower compared to normal children.

Theories that explain the child's motor systematics is developed Dynamic System Theory Thelen&whiteneyerr. The theory reveals that in order to build motor skills children must perceive something in the environment that motivates them to something and use it to move their perceptions. Represents the wishes children's motor skills. Misalnnya when a child sees a toy with variegated, children perceive in his brain that he wants to play. The perception motivate children to do something, to move to pick it up. Due to the movement, the child managed to get what is in the propose is taking an interesting toy for him.

Play is defined as doing something for fun. Whatever course of action, method, manner, or type if it is done to please themselves, can be called "play". Playing is an activity that can be done by everyone, from children to adults, not to mention people with disabilities. In the childhood, playing an integral part of life and tend to the basic needs essential (Thobroni, 2011).

Play therapy for children with autism is one attempt to optimize physical abilities. intellectual. emotional. and social development. Moreover, it also aims to develop motor muscle strength, improve endurance internal organs, and prevent and improve posture lacking in children. This therapy can also be a vehicle for releasing children from excess energy that can harm them selves. Play therapy for children with autism can be done with reference to the characteristics of the child, targets or objectives to be achieved (Sintowati, 2007).

Playing therapy for children with autism can be done with reference to the characteristics of the child, targets or objectives to be achieved. In general, play therapy has limitations as follows (Sintowati, 2007) namely sensory motor coach and train creativity, solve problems and foster confidence.

The existence of significant influence is evidenced that during the pretest showed 5 categories with help, 4 of them experienced an increase in the development of fine motor skills to be achieved after a given puzzle games and 4 categories is not reached to increase fine motor with the help. The study illustrates that the puzzles can improve fine motor skills of children with autism.

By doing exercises guided by experts the therapy of children with autism can make the motion and understand all the information that comes through his brain in a way that is exciting to play, meaningful and scientifically done. This meant that the attempt by the therapist can enhance adaptive responses that complicated. Emphasis form of this kind of therapy for the improvement of the functioning of an intimate relationship between a child with a family member (Febrina, 2010).

For therapists and parents in each exercise continue provide to encouragement so that children are not forced to do so and in a state of delight. Give continue the exercises are more varied and enjoyable so that children do not get bored with the same exercise. Cooperation therapists and parents in handling children with autism, will further enhance fine motor skills of children with autism. The therapist should be able to provide guidance. motivation and guidance that parents follow the program and the stages given by the therapist.

Thus, if an autistic child play therapy such as puzzles and given a regular basis, then fine motor development of children with autism can thrive.

#### CONCLUSION

Based on the results of research conducted on the effect of play therapy on the development of fine motor skills of children with autism in particular Extra Ordinary School Autism Foundation Azzamul Al-Ikhlas town of Bukittinggi in 2014 it can be concluded that:

- a. The average fine motor development of children with autism before being given playing therapy was 8.50.
- b. The average fine motor development of children with autism playing therapy is given after 12.40.
- c. Playing therapy effect on fine motor development of children with autism in particular Extra Ordinary School Autism Foundation Azzamul Al-IkhlasBukittinggi 2014 with a p value of 0.000 (p 0.05).

## **SUGESTION**

Referring to the conclusions of the above, there are some suggestions put forward and are expected to be used as material considerations:

For The Research

Suggested for therapists in the study in each exercise to continue to provide encouragement so that children are not forced

to do so and in a state of delight. Cooperation therapists and parents in handling children with autism, will further enhance fine motor skills of children with autism. The therapist should be able to provide guidance, motivation and guidance that parents follow the program and the stages given by the therapist.

# For Health Department

It is advisable for the Department of Health to be able to play an active role in monitoring the development of children with autism in particular the development of fine motor skills, as well as assisting the procurement of facilities and infrastructure in the implementation of therapy for children with autism.

For researchers and Further Research

Recommended for researchers and further research to examine the effect of play therapy on the development of fine motor skills of children with autism with other research methods, in order to study better.

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