

Role play: An intervention for increasing development in children with autism

Running title: Intervention for Development of Autism Children

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Abstract: Background: Autism is a complex neurobiological development disorder that includes disorders of aspects of social interaction, communication, language, behavior, emotions and sensory perceptions. Children with autism who experience developmental delay will feel difficulty in the ability to socialize with the environment. Some therapies that can be done are behavioral, speech, occupational, physical and play therapy. Role play therapy in early childhood can improve social ability. Role play can cultivate empathy, sympathy and enhance cooperation with others.

Purpose: This study aims to determine the influence of role play on the development of autistic children in SLB Negeri Semarang.

Methods: The research design was pre experiment with pre-post test design approach. Sample study was 34 children with autism. Pretest was done by assessing child development. Intervention was done on the second, fourth and sixth days after the pretest. Post test was done on the eighth day. Developments were observed based on Gilliam Autism Rating Scale. Role play was done by asking the child to play a role with the theme of health in pairs. Intervention was done 3 times in 1 week for 5-10 minutes. Wilcoxon test was used for Data analysis.

Finding: The results showed that there was an influence of role play on the development, before the role play 11.8% of good development and after the role play showed 20.6% good development. When children perform role plays, interaction occurs with others, practice improving speech and listening skills and the ability to express feelings.

Conclusion and Recommendation: An Influence of role play on the development. Role play can be used as a therapy for children with autism.

Key words: Role Play, development, autism

1. INTRODUCTION

Children with autism have developmental disorders such as impaired social interactions, language or communication, and repetitive behaviors.^[1] Children are usually less able to feel social contact, tend to be alone and avoid contact with people, regard people as objects rather than subjects that can interact.

Communication disorders in children with autism is characterized by children rarely communicate with others, facial expressions are not in accordance with feelings, body movements do not match what is being said.^[2] Children with autism do not pay attention to what others say, children tend to use language that is only understood by themselves and children often imitate the words of others.

In behavioral disorders, children with autism often repeat what is done. Children with autism who experience behavioral disorders often perform ritualistic behavior, the child looks hyperactive eg running to and fro, spin and hitting objects repeatedly.^[3] In perceptual and sensory disorders, children tend to close their ears when they hear a certain sound, lick things and do not understand the dangers, children also often laugh alone and angry without cause.^[4] Children with autism who experience developmental delay will feel difficulty in the ability to socialize with the environment.^[5] There needs to be a lot of effort so that children can improve its development. Some efforts can be done to optimize the development of children with autism.

Some therapies may be performed such as behavioral therapy, speech therapy, occupational therapy, physical therapy, play therapy.^[3] Play therapy can teach children to learn through fun. One model of play therapy is role play. Role play helps children train to express their feelings, experiences and wishes to others. Role Play will be able to improve the ability of cooperation in solving problems. Through this game is expected to improve socializing with others and increase self-confidence.^[6] The child's imagination will increase if the child plays and appreciates the character of the role played.^[7] That children have high social skills after being given role play treatment.^[7] Children with autism who were given cutting therapy showed improvement in fine motor. Play techniques are needed to improve the various disorders experienced by children with autism.

Sekolah Luar Biasa (SLB) Negeri Semarang is a school devoted to children with special needs one of the autistic children school. The number of autistic children who follow the learning in the school in 2019-2020 amounted to 52 students. There were 17.3% of children experiencing communication development problems and 82.6% of children were able to speak but experienced delays in language and personal social. Based on the background of the problem, the authors are interested to conduct research on "role play role on the development of children with autism in SLB Negeri Semarang".

2. METHODS

Subjects

34 autistic children in Sekolah Luar Biasa (SLB) Negeri Semarang were allowed by parents to be respondents for the research like children not sick, not speechless and not deaf.

Questioners

Assessment of the development of children with autism is done by using a questionnaire that was adopted from Gilliam Autism Rating Scale (GARS) which consists of 56 items that describe, among them the social Interaction, Communication, and stereotyped Behavior and typical behavior. To complete the questionnaire by answering each question with a choice answers of "never", "rare", "occasional", and "often" answers.^[8]

After the observation sheet is filled, the sum or the number of autistic children's development score is calculated on each observation sheet. If the score has been found, then interpreted using GARS to determine the child's autism level and see the child's development according to the child's autistic standard.

Treatment

Intervention of this research is the provision of role play in children with autism. Role play can also be called pretend and imagination. Role play is very important for the development

of cognition, social and emotion in children aged 2.5-7 years. Role play is not a game without meaning, but it is very important for emotional, mental, intellectual and physical development.^[9] Role play can encourage children to socialize with others. The child can solve the problem, give each other and receive and will learn from the mistakes made and responsible for his actions.^[10] The benefits of role play include building children's confidence, developing language skills, enhancing creativity, opening opportunities to solve problems, building socialization and empathy skills, and giving children positive outlooks.^[9] Role play in this research is done in accordance with the terms of role play.^[11] That is, done by two autism children, determine theme of health, provide the necessary tools that are set of health game tools, divide each role played, which is appropriate to play a role.

Intervention done within 1 week. The child was given a pretest to know early developments. Pretest was done two days before the intervention. After the pretest, on the day three, five and seven performed role play. The child was asked to play a role, one child becomes a doctor and the other becomes a patient.^[12]

Role play was done in three sessions: the first session is an introduction. The child was asked to introduce himself including his name and role. In the second session, the child has a conversation with the theme of health. The third sessions are termination, the child was asked to leave. At one meeting, the children perform the three sessions with a period of 5-10 minutes; a week conducted three meetings with the same theme.

Analyses

Wilcoxon test conducted to analyze the role play against the development of children with autism. The wilcoxon test was performed because the data is not normally distributed.

3. RESULTS

Characteristics of the sample

Most respondents were 61.8% male, mean time 13 years with respondent answer between 10-19 years old, duration of school respondents between 2-8 years with 5.5 years old school average.

Effect role play on development

The development of autistic children before the intervention showed a value between 73-132 with an average of 112 if classified 11.8% of good development and 88.2% of poor development. Based on the autism quotient score before the intervention was showed a very high 2.9%, 14.7% high, 35.3% above average, 35.3% on average, 5.9%, below average and 5.9% low.

The development of autistic children after the intervention showed a value between 60-114 with an average of 102 if wages indicate 20.6% of good development and 79.4% poor development. Based on the autism quotient score after intervention showed 5.9% above average, 73.5% on average, 8.8% below average, 2.9% low, and 8.8% very low.

Different test results using the wilxocon test showed that there was a difference of developmental mean before and after given role play intervention (p value 0,001) so that it can be stated there are influence giving role play intervention to autistic child development.

Development

Table 1

Table 2

4. DISCUSSION

The development of autistic children prior to the intervention showed mostly bad. This bad category was obtained because the autistic children's quotient score is still high. The higher the autistic child quotient indicates the higher the level of autism of the child. Components in the observation sheet refer to the characteristics or signs that often appear in children with autism so that if more and more signs that appear in children the higher the level of autism in the child. At the time of pre-test there are many autistic traits shown by the child, such as children often imitate others and do not want to eye contact with the other person.

Children with autism are difficult to respond to the task because of the difficulty of understanding the concept and convey the message to others.^[10] Autistic children have echolalia problem is repetition of words from others. Communication disorders cause children to have problems with social behavior. Children tend to move here and there, voicing themselves, biting, and scratching.

Playing is one therapy that can be used for children with autism because it can explore and can express self-expression.^[13] Children with autism have difficulty in understanding the meaning, so that visual help will help the process of expressive and receptive communication. Visual help is a tool used to show what we expect and say, for example when saying food, showing food images so the child can immediately understand what is being discussed. An average difference was observed between the two aspects of interaction before and after a play approach.^[14] The approach in this context is to use play with peers to improve the child's ability to socialize with others.

The development after intervention has increased, which was originally 88.2% to 79.4% of children in the bad category. Improved developments are shown by children already able to communicate and interact. At first the child is just silent but after doing the role plays the child begins to express his feelings and ideas. Children who do not want to talk to others become able to interact after playing the role of being a doctor and patient. Playing the role encourages the child to imagine himself future. When playing the role, the child seems to enter into his own world full of wonders and adventures.^[15]

The effectiveness of social play is making improvement the ability and social skills in children with autism.^[14] Serial drawing media has a positive effect on speech in children with autism.^[16] Play therapy improves the ability of autistic children to perform social interactions.^[17] In the study mentioned that the average ability of social interaction of children before the therapy 15.67%.

When done pre test on the observation sheet there are some items most dominantly owned by autistic children in SLB Negeri Semarang, that is children often repeat the word (echo) verbally or by gesture, repeating the word out of context (word just heard), always repeating a word or phrase and repeating a meaningless speech unclearly. The four components are most commonly owned by the child during the pre test assessment on the observation sheet. On the observation sheet, the above component has the most points that most children are in the score.^[3] After the therapy and assessment of the observation sheet in the post test the four components have started to be in the score of 2 or 1.

Role play are one therapy that can be used to improve communication and social interaction, which when the child plays the child will express his feelings. Role play can provide an affective meaning that children can imagine and imagine everything.^[10] Acting out the various events of everyday children can learn to practice roles in family or society.

Role play was done for 1 week, when the child role play are first performed it is still difficult to express the ideas that are in mind, the child are still guided and still a lot of silence. In the second role play, the child has begun to reveal what is on his mind. However, sometimes it is

still upside down with the characters played Children are able to talk with the opponent even though sometimes still guided. In the third role play, children are able to have their own conversation, already understand the role but still be guided. Role play influences language development in three aspects: non verbal speaking skills, skills, and skills. [6]

5. CONCLUSIONS

From the above discussion we found that there is an Influence of role play on increasing development in children with autism. Visual skills can be seen when children, children speak every word, check patient, and give medicine to the patient. The aspect is acceptable when the child play like receive the phone; the child is silent listening to what is being discussed. In non-verbal aspects that can be seen when a doctor and patient are talking, when doctors give advice, and the patient's nods. Role play can be used as a therapy for children with autism.

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6. REFERENCE

- [1] Ye BS, Leung AO, Wong MH. The association of environmental toxicants and autism spectrum disorders in children. *Environmental pollution*. 2017 Aug 1; 227:234-42.
- [2] Gittins S, Steel D, Brunklaus A, Newsom-Davis I, Hawkins C, Aylett SE. Autism spectrum disorder, social communication difficulties, and developmental comorbidities in Sturge–Weber syndrome. *Epilepsy & Behavior*. 2018 Nov 1;88:1-4.
- [3] Davies AM, Davies RE. *Children And Young People's Nursing: Principle For Practice.*; 2017. doi:10.1017/CBO9781107415324.004
- [4] Yuwono. *Memahami Anak Autis (Kajian Teoritik Dan Empirik)*. Alfabeta; 2012.
- [5] Mafulatun S, Mariyam M. Pengaruh Terapi Musik Klasik Jawa Terhadap Kreativitas Anak Autis di Slb Negeri Semarang. *Jurnal Keperawatan Anak*. 2014 May 15;2(1):52-7.
- [6] Whitebread D, Neale D, Jensen H, Liu C, Solis SL, Hopkins E, Hirsh-Pasek K, Zosh J. The role of play in children's development: a review of the evidence. *LEGO Fonden*; 2017 Nov.
- [7] Aulina CN. Pengaruh bermain peran terhadap kemampuan sosial anak usia dini. *PEDAGOGIA: Jurnal Pendidikan*. 2015 Jan 1;4(1):59-69. doi:10.21070/pedagogia.v4i1.73
- [8] Montgomery JM, Newton B, Smith C. Review of GARS-2: Gilliam autism rating scale.2008 doi:10.1177/0734282908317116
- [9] Madyawati L. *Strategi pengembangan bahasa pada anak*. Kencana; 2016.
- [10] Wilson D, Rodgers CC. *Wong's essentials of pediatric nursing-e-book*. Elsevier Health Sciences; 2016 Sep 1.
- [11] Surya H. *Kiat Membina Anak Agar Senang Berkawan*. Jakarta: PT. Elex Media Komputindo. 2006.
- [12] Matulessy A. Pengaruh Terapi Bermain Flashcard Untuk Meningkatkan Interaksi Sosial Pada Anak Autis di Miracle Centre Surabaya. *Persona: Jurnal Psikologi Indonesia*. 2015 Dec 16;4(1).

- [13] Weitlauf AS, McPheeters ML, Peters B, Sathe N, Travis R, Aiello R, Williamson E, Veenstra-VanderWeele J, Krishnaswami S, Jerome R, Warren Z. Therapies for children with autism spectrum disorder.
- [14] Novita M, Atmodiwirjo ET, Basaria D. The Effectiveness of Child Centered Play Therapy to Improve Joint Attention Skills in Children with Autism Spectrum Disorder.2017
- [15] Mastrangelo S. Play and the child with autism spectrum disorder: From possibilities to practice. International journal of play therapy. 2009 Jan;18(1):13. doi:10.1037/a0013810
- [16] SAĞLAM M, ARAL N. Child and Drawing. Developments in Educational Sciences.:91.
- [17] Kesehatan RI. Terapi bermain berpengaruh terhadap kemampuan interaksi sosial pada anak autis. Riset Informasi Kesehatan. 2017 Jun 15;6(1):41-51.

Table: 1

Distribution of autistic children's autism quotient score before and after role play (n=34)

| | Before role play | | After role play | |
|---------------|------------------|------|-----------------|-------|
| | % | n | % | n |
| Very high | 1 | 2,9 | 0 | 0 |
| high | 5 | 14,7 | 0 | 0 |
| Above average | 12 | 35,5 | 2 | 5,9 |
| Average | 12 | 35,5 | 25 | 73,5 |
| Below average | 2 | 5,9 | 3 | 8,8 |
| Low | 2 | 5,9 | 1 | 2,9 |
| Very Low | 0 | 0 | 3 | 8,8 |
| Sum | 34 | 100 | 34 | 100,0 |

Table: 2

Distribution of the development of autistic children before and after role play, (n=34)

| Development | Before role play | | After role play | |
|-------------|------------------|------|-----------------|------|
| | n | % | n | % |
| Good | 4 | 11,8 | 7 | 20,6 |
| Poor | 30 | 88,2 | 27 | 79,4 |