

Token Economy Intervention for Early Childhood Children with Attention Deficit and Hyperactivity Disorder

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Keywords

Intervention, Token
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Abstract

This study describes the application of token economy intervention to an early childhood who has attention deficit disorder with hyperactivity. The method used is a qualitative case study, which involves in-depth observation and interviews with the child's parents and teachers. The research subject was a 5-year-old child who had difficulty in focusing attention accompanied by hyperactivity. The intervention was conducted for 23 days, during which the child was given tokens as rewards for positive behavior and certain achievements. The success of the intervention was measured by recording changes in the child's behavior. Interview techniques were also conducted to evaluate parents and teachers perceptions and provide education in helping to deal with children's problems. The results of the study showed a significant improvement in the child's ability to focus attention; this can be seen from the decrease in impulsive behavior and the increase in tasks that can be completed. In addition, parents reported positive changes in their child's daily interactions. The conclusion of this study is that token economy intervention can have a significant impact in improving the attention of early childhood with attention deficit disorder accompanied by hyperactivity, as well as providing insights for intervention practices in educational settings.

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INTRODUCTION

Attention Deficit disorder is a common condition in childhood, and it impacts their social, emotional and academic development. Children with attention deficit disorder often face difficulties in focusing, impulse control and following instructions, which can result in challenges in educational settings and social interactions. The effect is that children are unable to complete assigned tasks and some cases are accompanied by hyperactivity. Attention Deficit Disorder is characterized by a persistent pattern of inattention accompanied by impulsivity in the individual. These symptoms can be noticed before the age of 7 years and can occur in a variety of situations such as home, school, play or other social situations. The behavior of children with attention deficit disorder tends to be arbitrary, often causing them to have difficulty establishing interpersonal relationships with others, whether parents, peers or the surrounding environment. Their behavior is actually not fully realized by the child. This is more due to internal factors where they never think long and easily switch their attention to stimuli that attract them (Ridwan, 2017). In addition, ADD children tend to be unable to control themselves, making them seem ignorant of existing norms (Dobson, 2005).

In Indonesia, the prevalence of attention deficit disorder in children shows an increasing trend. According to some studies, around 5-10% of children under the age of 12 have this disorder, which requires special attention from parents, educators and healthcare professionals. Not only does this disorder affect a child's academic performance, but it also causes behavioral problems, low self-esteem, and difficulties in social relationships. ADHD is one of the most common childhood disorders, affecting approximately 7% of children worldwide, and research evidence suggests that there are various comorbid mental disorders that can occur in pediatric ADHD patients in later life. It is estimated that the world prevalence of ADHD in children is 8.4%.⁴ Research in major cities in Indonesia found that the prevalence of ADHD ranged from 4.2 - 26.4%. Estimates of ADHD prevalence vary worldwide, as it increases over time. (Al Ahmadi, 2023). Therefore, effective interventions are needed to help these children improve their concentration skills especially when completing tasks and following instructions.

One approach that is quite effective is the use of the token economy method, which involves a reward system to motivate positive behavior. By giving tokens as rewards for certain achievements, children are expected to be more motivated to behave well and show greater attention. Hadi (in Rianti, Jampe, & Ujianti, 2017) revealed that token economy is one of the combination procedures that can increase, reduce, and maintain various behaviors. Token economy is one of the behavior modification techniques by giving one piece of sticker as soon as possible every time the desired behavior appears. These pieces can later be exchanged for the reward desired by the person (Purwanta, 2012).

The token economy system has been shown to be effective in various contexts, especially in educational settings and behavioral therapy. However, its application in early childhood with attention deficit disorder is limited, especially in in-depth qualitative research. Through this token economy, it is hoped that the desired behavior will itself become rewarding enough to maintain new behavior (Corey, 2010). This is also in line with Rohmaniah et al. (2016) who revealed that token economy is a form of behavior modification designed to increase desired behavior and reduce unwanted behavior by using tokens (signs) where someone will get a token quickly after showing the desired behavior. Through a qualitative approach, this study focuses on one child to gain a more in-depth and holistic understanding of how this intervention can affect a specific child's behavior and attention. This study aims to explore the application of token economy intervention in early childhood with attention deficit disorder accompanied by hyperactivity through qualitative case study method. By identifying and analyzing behavioral changes and the impact of token economy interventions on children, it is hoped that this research can contribute to the development of more

effective and applicable intervention methods for children with attention deficit disorder, as well as add insight for parents and educators in supporting children's development.

METHODS

This research uses a descriptive method with a qualitative approach, which is research that seeks to reveal problems and answer problems faced at the present time. According to Nasution (1992: 18) states that: Qualitative research is also called naturalistic research. It is called qualitative because the nature of the data collected is qualitative rather than quantitative because it does not use measuring instruments. It is called naturalistic because the research field situation is natural or natural, as it is arranged with experiments or tests. Qualitative research emphasizes more on things that are natural, spontaneous and natural, data is collected by going directly to the field, so that researchers can be more free to collect the data and information needed in accordance with the research objectives.

The assessment techniques used were observation of the subject, interviews with parents and teachers, and psychological tests using the Binet test tool to see the subject's cognitive abilities. In addition, data from the assessment is integrated to see the subject's psychological dynamics towards the problems experienced. The intervention technique uses a token economy model that is used based on the results of the integration of assessment data and prognosis obtained from the subject. The purpose of token economy is to change extrinsic motivation into intrinsic motivation. Pujiati & Dahlan (2017) in which he revealed that the use of behavior modification programs through token economy is effective for increasing responsibility behavior in children and not only in responsibility behavior that increases but this token economy technique is also proven effective in improving all aspects of responsible behavior in children. Djiwandono (in Handayani & Hidayah, 2014) states that token economy can be in the form of numbers, checks, money-shaped toy cards, and others. These pieces can later be stored by children, for example in wallets, report cards, whiteboards, cards attached to the study table, and posters attached to the classroom wall (Amelia, Bagaskorowati, & Sarkadi, 2017). In addition, counseling techniques are used to intervene with parents and teachers in providing psychoeducation on children's problems.

RESULT AND DISCUSSION

The results of the assessments that have been carried out show that the subject has difficulty in focusing on the tasks given by the teacher. Often the tasks given are not completed. When compared to his friends, the subject completed only a few tasks. This is influenced by his mood. The subject shows difficulty in focusing attention at school and at home when doing tasks or following instructions so that the results obtained become untidy and incomplete. Children who cannot pay attention have difficulty focusing their attention on something and may feel bored with a particular task after only a few minutes (Santrock, 2007).

Signs of ADHD appear in the preschool years. Parents and preschool or kindergarten teachers may notice that the child has a very high level of activity and a limited attention span (Santrock, 2007). The subject is complained by teachers and parents that the subject cannot focus and sit still, when given instructions, the subject does not seem to listen. Many children with ADHD are difficult to discipline, have the lowest tolerance for frustration and lack maturity (Santrock, 2007). Because the subject has difficulty in focusing attention, it has an impact on his behavior which likes to walk around in class, feels restless, has difficulty following instructions and disturbs his friends. The characteristics of subjects who are still preschool age can lead to ADHD disorders if their behavior continues to be maintained.

The subject is physically able to perform tasks involving gross and fine motor skills. However, the subject's attention span is very less on tasks that require fine motor skills. Regarding

independence and emotional readiness, the subject can be left in class without being monitored by his parents. He can sit alone and does not depend on anyone, but is less able to follow the teacher's orders. Regarding cognitive readiness, the subject is able to do the tasks given by the teacher, but it does not last long and often the task is not completed. Socially, the subject was able to adjust to friends and the new school environment, but he had difficulty recognizing new rules and listening to lessons from teachers while learning with his friends.

The subject's identity as an only child also affected the subject's emotions and behavior. The popular concept considers only children as spoiled children who have traits such as dependence, lack of self-control, and self-centered behavior (Santrock, 2007). As an only child who is often noticed, the subject needs more attention at school than he gets at home. So that the behavior shown at school also often overwhelms teachers such as incomplete and perfunctory work, attention that is often distracted, and limited concentration. The subject often comes and looks at the teacher's work and goes to his friends' seats after finishing the tasks given by the teacher. Whenever the subject did not pay attention to the teacher and walked around in class, the teacher reprimanded the subject by calling him and scolding him. However, if the teacher feels overwhelmed, the subject is left alone.

Parenting provided by parents can also affect the subject's behavior. A mother who is too strict with the subject even though she often spoils him can affect the subject's emotional stability. In addition, the mother also does not appreciate the subject's work and often compares the subject's work with other children, such as the subject's cousin's brother. When a child's work is not appreciated, this will affect the child's emotions and mood in doing something. The subject cannot be motivated to do good work by his mother because often the subject's work is not appreciated by his mother. Every child has different interests, needs and abilities, so the teaching approaches and strategies used must be tailored to their individual needs (Pramono et al., 2020). This can help increase children's interest and motivation to learn as they feel valued and understood. In addition, successful learning in early childhood is also strongly influenced by a positive and supportive learning environment (Julaiha et al., 2023).

Seeing the prognosis of the subject who really likes gifts, it was decided to handle the intervention using the token economy technique by giving transformer stickers every time the subject does good behavior such as completing tasks. And given the prize he wants if he has collected some of his favorite transformer stickers. The purpose of token economy is to stop unwanted behavior and replace it with desired behavior by using reinforcement or rewards (Boeree, 2016). According to Armai (in Madiyanah & Farihah, 2020), there are two advantages of rewards, namely rewards are very influential for doing good and positive things, and rewards can be a motivation to do well followed by teacher praise. Rewards or awards are divided into two types, some are non-physical and some are physical. Non-physical rewards such as smiles and praise from teachers to children while physical rewards are one of them using token economy (Mufidah, 2012).

The results of the intervention showed an increase in behavior where before the intervention, the four tasks done by the subject were often incomplete and even if they were completed, only one was done. After the intervention, the subject completed at least two tasks in one day. His focus defense in doing the task also increased. The subject was able to stay on task for ± 10 minutes or more where previously for certain tasks the subject's focus defense in doing the task for 2-3 minutes only. After the intervention process, the behaviors that were also reduced were walking around in class and not paying attention to the teacher, although sometimes it still happened but it had started to decrease. At the beginning of the intervention, the subject always remembered whether the sticker was given or not. However, at the end of the intervention, the subject rarely remembered the stickers given and only occasionally asked. During the intervention process, the subject showed more pleasure if given transformer stickers than promised a reward.

Table 1.1 Behavioral changes in subjects before and after intervention.

Aspects	Before Intervention	After Intervention
Focus Range	2-3 minutes	10 minutes
Task completion	0-1 task	At least 2 tasks completed
Walking around in class	Frequently	Occasionally
Following instructions	Rarely	Often
Reward	Interested in reward achievements collected from multiple stickers	Prefer to get token stickers rather than rewards
Parents	Do not appreciate subject's achievement	Realize the importance of giving reinforcement when there is subject's achievement
Teacher	Often gives reprimands, rarely gives praise	Gives reprimands when the subject makes mistakes, and often gives reinforcement when there are achievements on the subject.

CONCLUSION

The planned intervention program can be implemented well and there have been changes in behavior. Parents and teachers really appreciate the improvement in the subject's behavior. The next thing to change is the behavior of walking around in class and paying attention to the teacher when the teacher explains in front of the class by advising and giving consequences for his behavior. The teacher can continue the token program but the provision of points can gradually be reduced so that the behavior improves without having to be promised a reward. Parents are advised to continue to monitor the subject's behavior and always provide positive reinforcement in the form of praise to increase his motivation to complete tasks. Teachers are expected to continue to provide positive reinforcement in the form of praise so that the subject can learn in an orderly manner. Teachers in the classroom can provide a token economy program for all children so that children are motivated to excel. The application of token economy can also increase active learning in early childhood (Prima, 2020). Of course, the provision of this reward is assessed based on a number of behavioral indicators that need to be changed, consistently and by providing an understanding that the behavior is less pleasant and not according to the norm (Utari et al., 2023). Not only that, even in the scope of work, token economy has been used to increase safety behavior, reduce tardiness and absenteeism, and improve work performance (Martin & Pear, 2015). This means that the application of token economy can have an effect on increasing motivation to do more tasks and do tasks well. This research is expected to be applied to various aspects of life by involving a positive and conducive environment in improving individual work performance.

Research on the application of token economy in improving adaptive behavior in ADHD children has contributions in educational psychology and behavioral science. Token economy is quite effective in increasing the motivation and engagement of children with ADHD in completing tasks. It is quite helpful for teachers and parents in assisting children to improve their adaptive behavior. In addition, by exploring how token economy can influence the behavior of children with ADHD, society is more familiar with the unique characteristics and needs of children with this disorder. The results of the study can also be used to design intervention programs at school and home, helping educators and parents to create a supportive environment for children with ADHD by using positive reinforcement to influence their behavior patterns. This research could also involve collaboration between psychologists, educators, and mental health professionals, facilitating a holistic approach in supporting children with ADHD to lead better lives. The findings from this

study can serve as a basis for further research into variations in the application of the token economy, as well as its effects on different age groups and contexts.

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