

The Role of Psychological Intervention to Improve Attention ADHD Child

Novil Cut Nizar

Master of Psychology

University of Muhammadiyah Malang

novil13cut.ncn@gmail.com

Abstract. Children with ADHD (Attention Deficit Hyperactivity Disorder) have problem with attention that are very difficult to maintain on a particular task. Children with ADHD have problem when in a social institution such as a public school. Patients diagnosed with ADHD are increasingly prescribed with drugs such as methylphenidate (ritalin, concerta), dexafetamine, atomoxetine (strattera), tricyclishe, anati depressive, nortiplyline, pemoline, or imipramine usage of stimulant medication may result in side effects such as insomnia, loss of appetite, abdominal pain, headache, anxiety, stress, and nervousness. stimulant medication works only short-term and symptoms return once medication is stopped. The purpose of this study was to determine the role of psychological interventions that are widely used in ADHD children in increasing their attentiveness. The method used is journal literature or literature review. And the result is a token economy is a much-conducted intervention and gives significant results to the increased attention of children with ADHD. Then play therapy is also able to increase attention to ADHD children by combining with other therapeutic techniques. While Music and Tone also mmemberikan significant results only still lack of researchers to do this research.

Keywords: Psychological Intervention, Attention, ADHD

INTRODUCTION

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common behavioral health concerns in children and adolescents, with a prevalence rate of 2% to 9% worldwide. Children with ADHD present with executive functioning impairments and behavioral challenges that negatively affect their daily functioning across everyday settings. These difficulties place them at greater risk for suffering adverse outcomes throughout the life span, including disruptions in relationships (with parents, peers, and teachers), academic problems, chronic behavioral difficulties, and delinquency and substance abuse in adolescence. ADHD is more common in men than women in the general population, with a ratio of about 2: 1 in children and 1.6: 1 in adults. Women are more likely than men to experience *inattentive* (Curtis, et al, 2013; APA, 2013). ADHD begins in childhood. The requirement that several symptoms be present before age 12 years conveys the importance of substantial clinical presentation during childhood.

ADHD in the Bahasa is gangguan pemusatan perhatian dan hiperaktivitas (GPPH) which is difficult to concentrate on the tasks assigned to them. Even if they have good motivation, they are harder to do, and even if they do they spend a lot of energy when compared to other children. ADHD has symptoms of attention disorders and concentrations, impulsivity and hyperactivity (Paternotte & Buitelaar, 2010).

Hyperactivity and impulsivity symptoms: squirms in seat, talk excessively, blurts out an answers before a question has been completed, etc. Inattention symptoms: doesn't not seem to listen when spoken to directly, doesn't follow through on instructions and fail to finish schoolwork, avoids,

forgetful in daily activities, etc (Gehan & Samiha, 2011; Schultz. et. al, 2011; Månssonl. Et. al, 2017).

Children with ADHD have less attention resulting in difficulties when in a social institution such as a public school when absorbing a lesson at school (Dupaul, Weyandt, O'Dell & Varejo, 2009). And children who have ADHD usually have time to concentrate that is about 6-10 seconds depending on the severity.

Research on individuals with ADHD has been widely practiced. Researchers are doing more research on the effect of treatment on individuals with ADHD by performing various approaches either by providing stimulant drugs or with various psychological therapies. Patients diagnosed with ADHD are increasingly prescribed with drugs such as methylphenidate (ritalin, concerta), dexafetamine, atomoxetine (strattera), tricyclishe, anati depressive, nortiplyline, pemoline, or imipramine. Many clinical trials have found the core symptoms of hyperactivity, impulsivity, and lack of attention indicate statistically significant cure and better academic achievement, association with family and peers and behavioral problems, and drugs can even reduce the risk of subsequent psychiatric comorbidities .

Other researchers have found that side effects mean that pharmacological intervention is not always acceptable for parents, children, or even some clinicians. Negative effects such as loss of appetite, weight loss, difficulty falling asleep, trembling, dry mouth, nausea, abdominal pain, low energy, irritability, diarrhea, muscle tension, grinding teeth, and rare but important cases of sudden death due to pre-existing hidden cardiovascular problems may prevent continued use of psycho-stimulants (Curtis, 2013).

The token-economy system is one of the most widespread for managing and measuring dysfunctional behavior. Children's parents and other

caregivers keep a record of daily or weekly occurrence of target behaviors initially formulated together with the child or teen. For children with ADHD, some researchers have suggested printing out these predetermined behaviors (rules) on cards. This technique uses as consequence strategy awards of points or tokens for desirable behavior (positive contingency reinforcement) and may condition significant impairments to display of inappropriate behaviors such as withdrawal of a previously gained token (response cost). DuPaul et al. reported efficacious strategies for behavioral interventions applicable in the school setting using the token economy system as a strategy that may lead to improved behavior for task completion, and found clinically significant improvements in task-related attention as well as productivity and accuracy of work done in class, especially when combined with the cost response system (Dupaul, 2011; Reitman, 2011; Andez de la Cruz. et. al, 2017; Hedges. et. al, 2013).

Some studies also indicate that methylphenidate can ease most of the time deficits and normalize the functioning of networks involved in ADHD, yielding to an improved performance in cognitive tasks. In this sense, we think of music, as an eminently temporal and rhythmic art that displays lively, spontaneous, emotional, and motivational dimensions that could possibly be of great help in studying aspects of time processing in children with ADHD. Our study investigated how the perception of time is related to the modulation of attention, executive, and inhibitory control of impulsive behaviors related to self-regulation, planning, and control of motor actions through sound and music (Carear, 2015).

Treatment with behavioral therapy with or without medications leads the children to do well at school and college and become productive adults. Multimodal behavioral programs integrating play therapy, exercise, and reward systems using psychologists have been shown to help the majority of children with ADHD. Yoga with meditation modified for children was chosen as the physical exercise component. Yoga also needs limited space, no equipment, is easy to learn, and also culturally well accepted. There is strong belief but limited evidence to show that yoga and meditation help focus and attention (Metha., et al, 2012).

Individuals with ADHD are at risk for a variety of negative outcomes including poor peer relationships, higher rates of delinquency and substance abuse, low self-esteem, lower educational attainment, and educational underachievement (Miller & Lee, 2013).

Based on the above description, the growing treatment and interventions developed to increase attention to ADHD children. Therefore, researcher want to study the role of various intervention programs through the results of previous research by experts.

LITERATURE REVIEW

Attention ADHD Child

Children with ADHD have problems fails to gives close attention to details. This difficulty is not caused by disturbing external stimuli to maintain attention. Unable to concentrate or make careless mistakes in many activities, difficulty maintaining attention to tasks or play activities, seeming not listening when spoken to directly, not completing tasks, difficulty organizing tasks and activities, avoiding, disliking or being reluctant to engage in tasks that demand ongoing mental endeavor (such as schoolwork or homework), loss of objects essential to a task or activity (for example, toys, stationery, schoolwork), disturbed by unrelated stimuli, and forgetfulness in daily activities (Flanagan, 2005; Paternotte & Buitelar, 2010).

Unlike hyperactive-impulsive or combined type ADHD patients, adults who are primarily inattentive often do not report as many behavioral problems at home or at school when they were. Rather, inattentive adults were likely to have experienced academic problems and received feedback from teachers noting their need for more supervision in completing work, to pay better attention in class, and to develop better study skills. Their grades were likely to suffer from turning in assignments late, incomplete, or forgetting to turn them in altogether. Because their difficulties generally were internalized and did not lead to disruptive behaviors that would capture the attention of teachers, these patients' difficulties often were not identified until college or later in adulthood. Not surprisingly, predominantly inattentive symptoms are often associated with comorbid internalizing disorders, such as anxiety or depression (Ramsay & Rostain, 2008).

Psychological Intervention

The results of many studies reveal that psychological intervention has significant effect on children with ADHD. Psychological interventions such as token economy and play therapy.

Token economy

This therapy is used to increase attention organizing tasks and activities because individuals with ADHD often loses things necessary for tasks or activities (Robert, Alexander & Michalla, 2005). Token economy technique has been widely used for operant conditioning in children showing inappropriate and disruptive behavior cases presenting behavioral problems with lack of empathy, guilt, and self-monitoring difficulties (callous – unemotional) may present resistance and even behavioral deterioration if interventions involve cost of response or punishment. Interventions that maximize rewards with positive reinforcers appear to be most effective (Tarbox, Ghezzi, Wilson, 2006).

The token-economy system is one of the most widespread for managing and measuring dysfunctional behavior. Children's parents and other caregivers keep a record of daily or weekly

occurrence of target behaviors initially formulated together with the child or teen .

Content analysis technique consists of three main stages: (1) pre-analysis – organ-izing materials to systematize initial ideas, demarcating what will be used, formulating hypotheses and goals, and finally compiling indicators to be analyzed; (2) exploration of material – categories are defined by coding and identifying in recording units for the categorizing and frequency counts; (3) results are processed for interpretation (Coelho, et al., 2015).

Combination of Other Therapeutic Techniques and Playtherapy

Yoga with meditation modified for children was chosen as the physical exercise component. Yoga also needs limitedspace, no equipment, is easy to learn, and also culturally well accepted. There is strong belief but limited evidence to show that yoga and meditation help focus and attention. Pilot studies using this as family based therapy for ADHD in 8 boys have been reported to show promise. Additional theoretical basis may be the increase in dopamine release in the CNS from yoga. In ADHD, reduced dopamine levels are seen in the CNS, and strategies to regulate these levels are suggested as possible therapies (Metha., et al, 2012).

When doing play therapy, play time is also considered because it relates to the development of attention and ability to learn. Dynamic temporal patterns, such as the rhythm of speech, can be important to learn. In addition, performance improvements with exercises involving the transition from reactive to predictive time, so different types of time need to be done.

Furthermore, the Adventure-based counseling (ABC) technique can make ADHD children complete their tasks combined with Adlerian play therapy. Adlerian's play therapy focuses on four delinquency goals: attention, power, revenge, and disability (Portrie-Bethke, Hill & Bethke, 2009).

Music and Sound

ADHD involves cognitive and behavioral aspects with impairments in many envi-ronments of children and their families' lives. Music, with its playful, spontaneous, affective, motivational, temporal, and rhythmic dimensions can be of great help for studying the aspects of time processing in ADHD. In this article, we studied time processing with simple sounds and music in children with ADHD with the hypothesis that children with ADHD have a different performance when compared with children with normal development in tasks of time estimation and production (Carrer, 2015).

The development of psychological interventions for ADHD children

1. Token economy

Token economy is an approach that comes from behavioristik. This therapy has long developed along with the development of behavioristic theory itself. Which of these treatments by Skinner (1971) gives significant results in ADD children or those now called ADHD. There have been many studies that use this therapy to increase attention to ADHD children whose research conducted by Reitman and other colleagues title “The influence of a token economy and methylphenidate on attentive and disruptive behavior during sports with ADHD-diagnosed children” which is significant to the behavior of ADHD children.

Tarbox's research, et al (2006) token economy is one example of extrinsic reinforcement that makes a person do something to achieve that can increase attention both from the level of tenacity and from the level of vigility, the goal is to change the extrinsic motivation into intrinsic motivation, it is desirable that the desired acquisition of behavior can be rewarded for maintaining new behaviors.

2. Playtherapy

According to research conducted by (Hall, Kaduson, & Schaefer, 2002) for over 60 years, play therapy has been a trusted treatment in treating ADHD children in clinical practice. One reason for using play therapy is that it has proven to be a very effective approach for children when the abstract reasoning and verbal skills needed to articulate their feelings, thoughts, and behaviors have not developed optimally. This is also supported by previous researches in the journal psychology (Pykhitna, Balaam, Wood, Pattison, & Oliver, 2011) play therapy researchers with the title “Designing for attention deficit hyperactivity disorder in play therapy: the case of Magic Land” that play therapy can help children who have difficulty remembering, concentrating and concentrating on ADHD. Then research conducted by (Ray, 2008) play therapy researchers with the title “Impact of play therapy on parent-child relationship stress a mental healt training setting” states that play therapy empirically been validated as an effective intervention to mengtasi children's problems especially ADHD. In addition, research conducted by (Burtch, 1999) play therapy researcher with the title “The use of play therapy in the private clinical setting” states that play therapy is the most possible method to treat and also widely used and accepted in handling children's problems. child.

And research conducted by (Ray, Bratton, Rhine, & Jones, 2001) play therapy researcher with the title “A meta-analysis of the play therapy outcome research from 1947 to Present” stated that play therapy gives a large positive effect based on the results treatment across the population, sex, clinical and non-clinical populations, the environment and on

theoretical thinking. In addition, the positive effects of play therapy can be greater if there is a parent fully involved in child care. Some play techniques can be used to deal with ADHD children, playing “tower building” for example can be used to improve focus and concentration. Playing “where my house” for example can be used to control behavior in rough motor, so the child can increase the intensity of his attention more focus on game given by researcher.

3. Music and Sound

Russell A. Barkley (Benzon, 2002) argues that ADHD is essentially disoriented in time. This note explores the possibility that music, which is well tuned in favor of temporal cognition, may play a role in improving ADHD. However, given the fact that ADHD does involve problems with temporal cognition, and the music trains one's time ability, the use of music therapy as a way to correct ADHD should be investigated. Resercher also recommend doing an epidemiological study of the relationship between dance and music to interventions in ADHD children. Research on music and sound has not been much done because the researchers proved themselves to have difficulty in finding the literature on this therapy.

Psychological interventions in ADHD children have long been done. Based on the literature search that researchers do by limiting the three therapies above are token economy, play therapy and music therapy and tone.

Therapy for children with ADHD from the 1990s to the present is increasingly seeing better development. Most research by experts in the 1990s conducted research using only one therapy alone in solving problems in ADHD children such as one of the token economy is the most widely performed and gives significant results to the increased attention of children with ADHD. But after the 2000s researchers conducted comparisons or conducted research that is multimodal such as see the effectiveness of token economy and CBT, in addition to doing play therapy and Yoga, etc .. so from the results of research into the literature of researchers showed that increasing progress in terms of psychological intervention in children with ADHD.

Furthermore, among the three therapies mentioned above, the most widely used by researchers in providing intervention in ADHD children is a token economy that gives significant results to increase the attention of children with ADHD. In addition, play therapy is also widely used especially in Indonesia that matches the culture in Indonesia where play therapy is done by using traditional games. While Music and Tone itself is still rarely done which proved a lack of literature that researchers found. And Music and sound is associated with cognitive-related Neuropsychology in children with ADHD.

METHOD

The method used is journal literature or literature review.

CONCLUSION

Based on the above description it can be concluded that the researchers token economy is a much intervention done and provide significant results to increase attention of children ADHD. Then playtherapy is also able to increase attention to ADHD children by combining with other therapeutic techniques. While Music and Tone also give significant results only still less researchers do this research.

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