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Behavior Management to Improve Social Skills and Academic Achievement of Children With Attention Deficit/Hyperactivity Disorder (ADHD)

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Abstract

Attention Deficit-Hyperactivity Disorder (ADHD) is one of the most common neurobehavioral disorders of childhood. It is usually first diagnosed in childhood and often lasts into adulthood. Children with ADHD commonly lack social and academic skills. Being aggressive, overly talkative, domineering, impulsive, immature and highly tempered will cause academic problems, such as lower academic achievement, an elevated incidence of learning difficulties, high incidence of remedial and retention, failing grade, and school drop-out. These problems may be a by-product of primary symptoms of inattentiveness and/or hyperactivity/impulsivity. Social skill is a significant indicator of a student's success in and out of the classroom. Today, the number of children with ADHD in the world and particularly in Indonesia continues to increase. The evidence-based intervention for school-aged children with ADHD is behaviour management. Behaviour management program involves positive reinforcement, token reinforcement, contingency contracting, response cost, time out for positive reinforcement and daily report card.

Keywords: behavior management, academic achievement, social skills, children, ADHD.

1 INTRODUCTION

Attention Deficit-Hyperactivity Disorder (ADHD) is one of the most common disorders of childhood in the world. ADHD is characterized by developmentally inappropriate levels of inattention and/or hyperactivity/impulsivity (American Psychiatric Association, 2000). ADHD has 50% to 80% symptoms that continue into adolescence, and in about 40% of the symptoms will continue into adulthood (Austerman, 2015). Children with ADHD are at risk of becoming adults with the antisocial and criminal disorder, substance abuse (alcohol and drugs), emotional problems, social mal-adaptations, educational and occupational failure, interpersonal disorder and personality disorder (Young, 2000).

The number of school-age children with ADHD in the world is constantly increasing. According to Diagnosis and Statistics Manual (DSM-IV) the prevalence of ADHD in school-age children is approximately 3-5% in the world (Judarwanto, 2009) while the prevalence of ADHD in the world is nearly 8-12% (Faraone et al., 2003: 104). In Indonesia, the number of school children with ADHD is 2-4%. However, in major city, such as Jakarta, the percentage is even higher, reaching 10%, and it is estimated there will be about 7,000 new cases each year (Hadriani, 2004).

ADHD is associated with significant deficits in academic and social functioning (Barkley, 2006; DuPaul& Stoner, 2003). The deficits in academic functioning of children with ADHD had been widely stated in many studies (Masetti, et al., 2008). Deficits in academic function related to high risk of academic complications, such as lower academic achievement (lower score on standardized tests of achievement), high incidence of learning difficulties, higher incidence of remedial, failing grades, elevated of grade retention, and schooldrop-out (Harrison et al, 2009; Frazier et al., 2007).

Many studies have suggested that children with ADHD often have deficits in social skills (Solanto, et al., 2009: 27; Merrel&Boelter, 2001; 260). Barkley, et al. (1996) revealed approximately 60%

of children with ADHD have a low social skill. Social skills are a very important indicator for the success, either in schools or outside schools (More, 2008). It provides a significant long-term effect on the adaptive behavior, academic, and psychological functions (Solanto, Pope-Boyd, andStepak, 2009). Children with ADHD tend to be aggressive, dominant, impulsive, immature, talkative, and too excited. It may have an impact on the emergence of depression, low self-esteem, anxiety, and low achievement academic (Wehmeier, et al., 2010:207; Solanto, Pope-Boyd, and Stepak, 2009). Social skills in children with ADHD are predictive of various problems in the future like social, academic, employment, marriage, psychological conditions, and matters related to legal issues (Solanto, et al., 2009).

Studies support the partnership between the school and the parents (Negreiros & Miller, 2014). The collaboration has provided a positive benefit in improving student learning and social deficits. Family involvement in children's education process becomes a predictor of a child's learning success. Cooperation between the school and the family is a representation of family therapy, school counseling; school psychology and educational literature supporting the idea that schools should serve students as a whole (Snyder in Negreiros& Miller, 2014).

Since 1990, the use of evidence-based treatment has been emphasized for handling a variety of psychological problems, including ADHD. Research by DuPaul and Eckert (1997) and Pelham &Fabiano (2008), states behavior management or behavior modification is one of the evidence-based treatments in the treatment of children with ADHD. Chronis, et al. (2006) in Toplak, et al. (2007: 3) stated that behavioral school-based intervention and behavior-based parent training can be classified as an empirically validated treatment, and the use of the principles of behavioral approaches are based on the principle of social learning, the use of specific targeted behaviors, such as use of praise, positive attention, and gifts to increase positive behavior, and the use of neglect (ignoring), time-out, and a non-discipline strategy physical to reduce negative behavior.

2 ATTENTION DEFICIT-HYPERACTIVITY DISORDER (ADHD)

Attention Deficit-Hyperactivity Disorder (ADHD) is a developmental disorder that occurs in childhood and may last until adolescence or adulthood (APA, 2000). ADHD diagnosis is determined and based on the Diagnostic Statistical Manual IV-Text Revision.

There is a growing evidence that this disorder is at least partially caused by genetic factors. The brain of individual with and without ADHD may differ with respect to the balance of certain chemicals, referred to as a neurotransmitter, as well as the size and the operation of specific brain component such as the prefrontal complex. Further, other biological factors such as pregnancy and birth complications and environmental toxins (e.g. early lead exposure and prenatal exposure to alcohol and tobacco smoke) are related to causing ADHD symptoms (DuPaul& White, 2004).

Both epidemiological and clinical studies indicate that ADHD is associated with significant co-morbidity. The research found that comorbidity is in ADHD; rates for anxiety disorder are in the range of 25-35%, mood disorder 9-32%, Oppositional Defiant Disorder/Conduct Disorder 45-84%, and learning disabilities 25% (Sowerby and Tripp, 2009).

3 SOCIAL SKILLS

Research over the past 20 years' states that lack of social skills in children will often have more learning difficulties, obstacles in relationships with peers, adjustment problems, behaviour problems, conduct problems, and more eventually to obtain a diagnosis of a psychiatric disorder in life span (Merrel,1998). Successes in social relationships are determined by many factors related to the individual, the response to other people and social situations. Social skills describe upon an ability to display behaviors that are important and enable a person to achieve social competence. These skills include verbal and non-verbal responses that influence perceptions and responses of others during social interactions. Social skills are a tool to get successful into the social environment (Gresham, 1995). Combs and Slaby (1977) define social skills as the ability to interact with others in a social context in specific ways that can be accepted by the environment. Social skills enable individual to benefit from others or are mutual beneficial while Libet and Lewinsohn (1973) define social skills as a

complex ability to perform acts that will be accepted and avoid behavior that would be rejected by the environment. Morgan (1980) emphasizes the importance of social skills not only for the ability to initiate and maintain positive interaction with other people but also to achieve goals in the interaction with others. A child who does not have the social skills will find it difficult to initiate and establish a positive relationship with the environment, even likely to be rejected by the environment (Cartledgeand Milburn, 1995).

4 ACADEMIC ACHIEVEMENT

Academic achievement refers to the achievement by individuals of objectives related to various types of knowledge and skills. Children with ADHD have a host of academic difficulties, on a continuum of intensity from unremitting aggravation and underachievement to debilitating impact on daily functioning. Children with ADHD exhibited academic under achievement, failing report card grades, and higher grades of retention than do typically developed peers (Barkley et al. (1991).

The academic deficit or poor performance in school for children with ADHD may relate or result from deficient of self-regulation. When children engage in academic, or school activities requiring self-regulationsuch as maintaining on-task behaviour, following instruction, and planning goals directed action, their poor performance is enormously evident. Difficulties with being able to continue to participate in activities that require persistence may also result in the lower average mark, more failed grades, more expulsions, increased drop-out rates, and a lower rate of an undergraduate college completion (Chang, 2008: 2).

5 BEHAVIOR MANAGEMENT

Behavior management skills are essential components of any treatment method for children with ADHD. Furthermore, they appear to be the only treatment to which school personnel have direct access (Reiber& McLaughlin, 2004).

Behavior management (contingency management) is based on learning theory, involves the principles of classical conditioning, operant conditioning of Skinner, cognitive-behavioral theory, and social learning theory. Behavior techniques or behavioral management generally base its activities on the psychological thought of behaviorism.

The theoretic underpinnings for practices in behavior management treatment are grounded in contingency theory. Consistent with this theory, child behavior can be increased by following it with rewarding stimuli (i.e., positive reinforcement), or by removing aversive stimuli (i.e. negative reinforcement). Behavior also can be decreased by following it with aversive stimuli (i.e. punishment) or by removing rewarding stimuli (i.e. extinction) (Pfiffner&Haack, 2014).

The first step in a good behavior management plan is to identify target behaviours. These behaviors should be specific (so everyone is clear on what is expected), observable, and measurable (so everyone can agree whether or not the behaviors happened). An example of a poorly defined behavior is "acting up," or "being good."A well-defined behavior would be running around the room (bad) or starting homework on time (good).

Strategies for bahavior therapy (behavior management) for children with ADHD:

5.1 Positive Reinforcement

Positive reinforcement a process whereby consequences strengthen the behavior on which it is contingent. Increases in the strength of a behavior are reflected in its reduced latency or its increased frequency, duration, or magnitude. When reinforcement occurs, it always strengthens the behavior on which it is contingent (Sarafino, 2001).

Types of positive reinforcement (Sarafino, 2001) are:

1) Tangible and consumable reward. Tangible things such as toys, clothing, musical recording, etc. Consumable things are everything that we can eat or drink such as candy, fruit, ice cream, cookies or soft drinks. Although food can be a useful reward, it isn't used very often in behavior intervention for this reason because of consumable reinforcer which is often difficult and messy to carry around and dispense in everyday settings.
2) Activities, such as leisure activities: watching TV/movies, attending performances of sports/music, drama, listening to the music, doing hobbies, gardening, hiking/camping, exercising, playing athletics, playing games, etc.
3) Social reinforcers as consequences of behavior that involved interpersonal acts, such as smiling, nodding, praising, and giving attention or affectionate touch.

5.2 Token Reinforcement Program

Developed from the token economy program, token reinforcement is very successful in improving the academic productivity and improved the behavior of children with ADHD. Token reinforcement systems are usually highly successful in improving the academic productivity and appropriate behavior (DuPaul, 1991):

5.3 Contingency Contracting

The technique involves the negotiation of a contract agreement between teachers and students in a class that sets the desired behavior and its consequences. Academic goals should be specific, as well as behavioral objectives so that the child must achieve to obtain a reward. As in a token economy program, specific academic and behavioral goals are identified that child must attain to gain access to preferred activities or reward. Alternatively, contracting involves a direct connection between target behaviors and primary contingencies (e.g. privileges), rather than using intermediary reinforcement or tokens.

5.4 Response Cost

Positive reinforcement procedures are sometimes difficult to maintain the level of expected behavior. Several studies illustrated the need for joint implementation of a mild punishment that follows the emergence of unexpected behavior. Enforced token or privilege that followed the emergence of unpredictable behavior, combined with the positive reinforcement technique turned out to be quite successful.

Three points are important in implementing a response cost program: (a) the punitive aspect of response cost must be downplayed to the student to prevent the program from being perceived as a "negative experience"; (b) some of the children with ADHD will initially 'test the system' by deliberately engaging in off-task behavior to see whether they will lose points; to prevent it, teacher should be instructed to deduct points only once per minute and ignore further inappropriate behavior during the rest of a time interval; (c) if a child's point total fall to zero, all additional off-task behavior should be ignored and/or criteria for point reduction should become more lenient (DuPaul, 1991).

5.5 Time-Out for Positive Reinforcement

Time-out for positive reinforcement should be implemented: (a) consistently, only when there is reinforcing environment to be removed from; (b) swiftly following a rule infraction; and (c) for the smallest amount of time (e.g. one to five minutes) that most effective. The place should be located in a relatively dull corner of the classroom rather than a separate room or hallway (to allow monitoring of the child's activities). The criteria for terminating the time out periods are: (a) serving a "sentence" that sufficient enough to be aversive (e.g., five minutes); (b) calm, non-disruptive behavior prior to the period elapsing; and (c) the students's expressed willingness to correct or compensate for the misbehavior (DuPaul, 1991).

5.6 Daily Report Card (DRC)

The DRC has been used effectively to treat ADHD and open an everyday line of communication between teachers and parents. Targeted behavior usually included functional outcome such as completing work accurately, following classroom rules, and interacting appropriately with adults or peers (Fabiano, et.al, 2010). DRCs work this way: each day, the teacher monitors and records the student's ability to meet selected positive behavioral goals and marks them on the report card. The child then brings the report card home for his parents to sign.

6 CONCLUSION

In conclusion, behavior management are the evidence-based treatments for school age children with ADHD and should be trained both for parent and teachers. Behavioral parent training can be delivered with classroom-based intervention and/or child components to extend results across home, school, and social settings. Another research is needed to better treatment to families with multiple stressors and parent mental health concerns (e.g., ADHD, depression, anxiety)

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