



**A Review on the Importance of Impulsive Behaviors and its Relation to Early Diagnosis of
Attention-Deficit/Hyperactive Disorders and Treatments**

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Abstract

Impulsivity is a key symptom of Attention-Deficit/Hyperactive Disorders (ADHD), and often presents before diagnosis. This early presentation highlights the importance of identifying early impulsive behaviors to increase the likelihood of early diagnosis. Understanding the connection between impulsivity in early childhood and ADHD symptoms in early adolescence has been shown to better treat symptoms and increase the likelihood of early diagnosis. The purpose of this review paper is to demonstrate the importance of impulsive behaviors as a predictor of ADHD. Through a literature review, this paper found that early intervention, through identifying signs of impulsivity, helped to increase control over ADHD symptoms in later years. Comprehending these impulsive behaviors early on will allow clinicians and parents to adapt their tools and better assist children with high impulsive behaviors throughout childhood development.

Introduction

Impulsivity is defined by the inclination for instant gratification, and an immediate reaction to stimuli (Bakhshani, 2014). In ADHD, impulsivity is often present before diagnosis. Impulsivity can lead to higher risk development, including self harming behaviors, addictions, and temperamental traits (Neto & True, 2011; NIGG, 2013). Impulsive behaviors are related to recklessness and risk. This can be problematic in youth because children may not have a full grasp on the safety of themselves and others. Early interventions when youths exhibit impulsive behaviors can reduce higher rates of indulgence in reckless behaviors. The relationship between impulsive behaviors and diagnosis of ADHD is significant to better treating the symptoms. Early intervention with impulsivity is incredibly helpful in minimizing the symptoms that come with ADHD, which will ultimately help the children do better in school and be more

focused. Clinicians and parents, through understanding the ways impulsive behaviors can link to ADHD, can better understand their children, and teach them different coping strategies to decrease impulsive behaviors. It is paramount to identify impulsive behaviors early in development as impulsivity can be a predictor of ADHD in the future (NIGG, 2013).

Among the myriad facets, there is also information on the development of impulsivity missing. One example that could aid parents and clinicians alike is the ability and the resources to diagnose impulsive behaviors and ADHD early. It's a challenge to establish whether a kid has a cognitive disorder, or simply gets preoccupied easily, and it can be worrisome for parents who can't discern the reasons for various behaviors in their children. We understand the link between impulsive behaviors and ADHD, however we are yet to be informed of the best treatment options or the best way to go about identifying various behaviors as impulsive or not.

This review highlights the connection between impulsivity and ADHD, as well as various ways to intervene and recognize behaviors early in development. This literature review is focused on helping parents and clinicians best treat children who exhibit impulsive behaviors, and identify those that are at higher risk during development. By doing this, we will be able to address the gap in the literature on the development of impulsivity to better inform clinicians. In this way, clinicians can intervene before diagnosis and better help children use strategies to minimize various symptoms of ADHD in the future.

Method

This paper completed a literature review because of the lack of knowledge between early diagnosis of impulsive behaviors and ADHD. Using Google Scholar this paper searched for words such as "Impulsivity""Attention-Deficit Disorders""ADHD/ADD." While previous literature

reviews have investigated impulsive behaviors and ADHD individually, to this author's knowledge, there has been no literature review that has integrated the connection between the two. During this literature review, 8 papers were used to research this topic.

Results

Current findings on early impulsive behavior throughout development

Impulsive behaviors in early adolescence tend to continue through the lifespan and are relatively consistent (Funder et al., 1983; Funder & Block, 1989). Children who often engage in impulsive behaviors can show symptoms regarding aggressive behavior, lack of attention and lower grades. Youth who struggle with self control also seem to test lower than their classmates and are more inclined to engage in various high-risk activities (Block et al., 2002). This is important for early identification of impulsive behaviors as impulsivity leads to higher developmental risk.

Current status of ADHD diagnosis

ADHD coincides with symptoms of inattention and high levels of hyperactivity. They are the most common diagnosis for school aged children (Leblanc et al., 2008). According to a study done in 2007, around 3% to 7% of all children in the United States have symptoms of ADHD. This equates to 2 to 5 million school aged children (Ramsay, 2007). As this is a common diagnosis, identifying early symptoms of ADHD is important for adequate treatment and care throughout development.

Current findings about intervention for impulsive behaviors and symptoms of ADHD

There are many different ways to intervene with impulsive behaviors. This includes proactive interventions, targeting academic and organizational skills, as well as reactive

intervention focusing on social behavior and classroom decorum (G. DuPaul & Weyandt, 2006). Along with this, parents can participate in behavioral parent training (BPT). This intervention has parents encouraging desired behaviors at home by modifying environmental events (G. J. DuPaul et al., 2018). Intervening using proper treatments in line with developmental periods has shown to be beneficial for children with ADHD (see Figure 1 for conceptual model).

Figure 1: Conceptual Model for the Importance of Targeting Early Impulsive Behaviors.

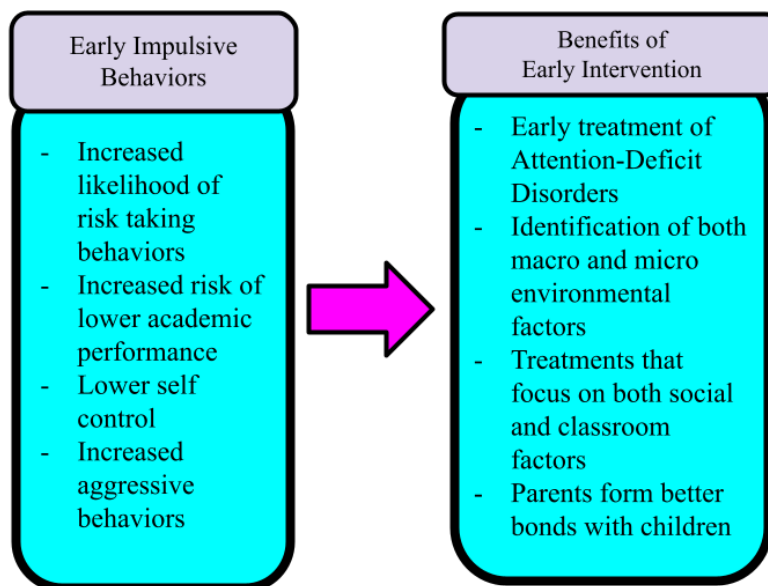


Figure 1: This figure represents a conceptual model of how diagnosis and prevention of early impulsive behaviors has targeted benefits for early intervention.

There are various ways to aid a child with their ADHD symptoms. This includes behavioral conditioning methods, as well as pharmaceuticals that can both activate the nervous system and calm it. With much research, scientists have been able to find many treatments for various symptoms. However, the problem lies in the usage. Only 31% of families with a child

who has ADHD use BPT, and only 32% receive Behavioral Classroom Management (BCM).

Among other treatments, scientists found that these strategies would be most successful.

Along with BPT and BCM, other clinical interventions include Behavioral Peer Interventions (BPI) and Organizational Training Programs (OTP). These training programs can help condition families on how to better assist their child with their various symptoms. Along with that, strategies such as identifying and leveraging mechanisms of change, enhancing access to evidence based treatment, and optimizing implementation fidelity can help strengthen the effects of the training programs. Finally, parents can manipulate punishments and reinforcements in a way that shows the child the desired behavior in a clear and consistent way. All of these resources and strategies can help better the development of a child and lessen the symptoms of ADHD (G. J. DuPaul et al., 2019).

Discussion

As a next step, more research has to go into impulsive behaviors as it relates to ADHD treatments and how best to help children with their symptoms, and more action has to be taken to utilize interventions. One path for increasing adoption of intervention methods should be focused in school systems where early signs of impulsive behaviors are often present. Authority figures such as teachers and local governments need to start implementing policies that bring awareness to ADHD and how to properly implement treatments into daily life. There needs to be more awareness of the causes and effects of ADHD, and the link between impulsive behaviors and diagnosis. By doing this, parents and clinicians alike can better help children understand their diagnosis and how to manage their symptoms.

Conclusion

This paper investigated through a literature review on how impulsivity often showed signs of ADHD. It went over the various symptoms of ADHD and how they played a part in a child's development. Through using various impulsive behaviors, one would be able to predict the diagnosis of ADHD. Finally, the topics of intervention and the research behind various strategies to help a child manage their symptoms through development were covered.

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