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Evidence-Based Behavior Interventions for Children with ADHD: A Systematic Review

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STATEMENT OF PURPOSE

To systematically review empirically supported behavior interventions currently being used to manage and reduce symptoms of ADHD in children.

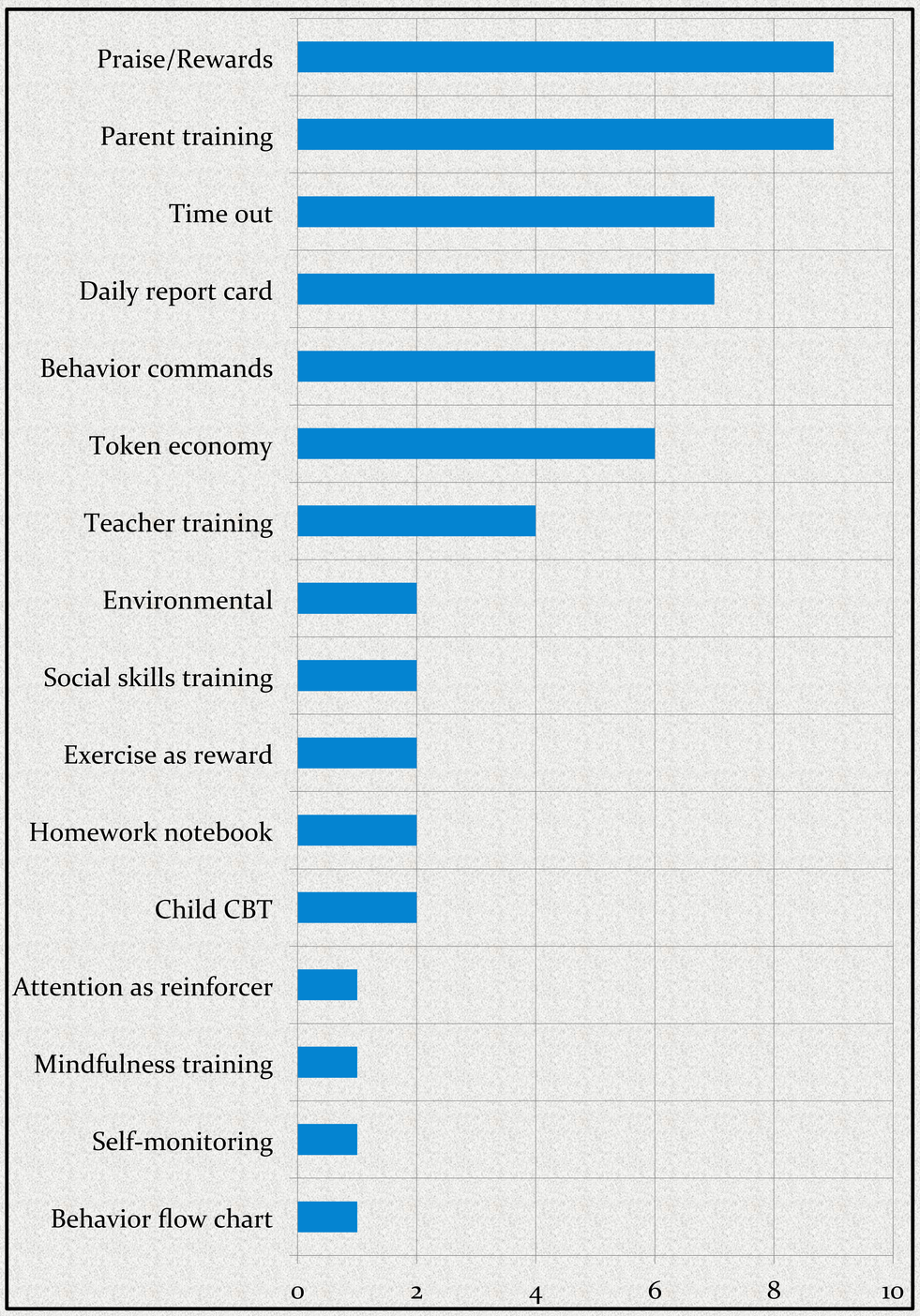
METHODOLOGY

- Fourteen studies were found using scholarly journal databases available through Minnesota State University, Mankato.
- Searches narrowed to include studies published between 2005 and 2012.
- Social Services Abstracts, ERIC and Psych INFO were used.
- Keywords used for the search of the literature on behavior interventions for children with ADHD included: Children, ADHD, Attention Deficit Hyperactivity Disorder, Behavior Interventions and Behavior Treatment.

LITERATURE REVIEW

- ADHD affects 7.8% of children aged 4 to 17 in the United States (Corcoran & Walsh, 2010), this is an average of one student in every classroom (Fabiano et al., 2007).
- Children with ADHD present with inattention, hyperactivity and impulsivity that can result in the demonstration of disruptive behaviors that interfere with their lives. Symptoms can lead to impairments at home, school and with peers (Kaiser et al., 2008).
- Behavior interventions have demonstrated efficacy for the short term reduction of ADHD symptoms since the 1970's (Pelham et al., 2005).
- Prescribed stimulants are less expensive than behavior interventions and thought of as the first line treatment (Abramowitz, 1991).
- More than 85% of children diagnosed with ADHD are prescribed stimulant medication (Kaiser et al., 2007).
- Medication is better researched than behavior interventions and its efficacy seems to have more universal acceptance (Coles et al., 2005).
- Some parents of young children are opposed to medicating their child, they prefer to try something else first.
- Medication is not recommended for children under five (Corcoran & Walsh, 2010) , yet children between the ages of 2 and 4 on Medicaid or managed care had a 1.7 to 3.1 fold increase in prescription of methylphenidate in the past ten years (Kern et al., 2007).
- Children of all ages can experience side effects from medication (Kaiser et al., 2008).
- About 20 to 30% of children with ADHD do not respond well to stimulant medication (Danforth et al.,2006), while 10 to 20% of children have no effects from the medication at all (Singh et al., 2010).
- Even when medications are considered effective, they do not typically resolve all of the child's ADHD symptoms.

FREQUENCY OF INTERVENTIONS



FINDINGS

- Studies included in this review were across multiple settings(5), used diverse and numerous interventions (33), and included several different variables (25).
- Thirteen of fourteen studies found favorable results for behavior interventions for most or all variables. Behavior interventions were found to be effective in decreasing problem behaviors and other ADHD symptoms regardless of medication or comorbid disorders.
- The van der Oord et al. (2006) study did not find parent, child and teacher behavior therapy enhanced the effects of optimally titrated stimulant medication in children with ADHD, while the Pelham et al. (2005) found parent training alone to be effective.
- Azrin et al. (2006) found physical exercise was an effective reinforcement in increasing attention of a child with ADHD.
- Fabiano et al. (2007) found low doses of behavior intervention can be effective in reducing classroom rule breaking & improving academic performance , they can also reduce doses of medication needed when used in combination.
- Grauvogel-MacAleese & Wallace (2010) found that peer attention for appropriate behavior can be used successfully as a reinforcement to children.

RECOMMENDATIONS

Studies show strong support for behavior interventions. A comprehensive treatment package should be tailored to the individual needs of a child and their family. Educational settings must have knowledge of effective behavior strategies because they are not able to depend on children with ADHD being medicated. At a minimum, schools should be using effective command strategies and praise/rewards for good behavior. These could be used with minimal time and effort. A token economy would also be beneficial if used consistently. Interventions between school and home are effective strategies for teacher and parents to work together to manage problem behaviors in a consistent way and thus a daily report card is recommended. Parent behavior training is a great addition to a comprehensive treatment package and the use of groups could be additionally therapeutic. Also, a child-focused component such as skills training or social skills training is needed. Training would be beneficial to help build skills to replace the maladaptive behaviors that interfere with the child's functioning. More research on behavior interventions for academics is needed. Academics are important and need to be considered in treatment planning for children with ADHD.

REFERENCES

Available from the author upon request.