Critically Appraised Topic
The use of behavioral modification therapy for the treatment of
Attention Deficit Hyperactivity Disorder.

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Clinical Scenario: A.J. is a 11 year old female that presents with Attention Deficit Hyperactivity Disorder (ADHD), inattentive type. She has recently started stimulant medication for control of her symptoms but her and her parents feel there is more that can be done with her treatments and disease management. They are interested in treating her ADHD with a focus on behavioral modification therapy, in combination with pharmacologic methods.

Clinical Question: Would the use of behavioral modification therapy, such as independent therapy, and/or parent therapies be as effective as the use of stimulants in the treatment of ADHD in children and adolescents?

Articles:

Bjornstad, G. (2010). Family Therapy for Attention-Deficit Disorder or Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *Cochrane Database of Systematic Reviews*, (3), Retrieved from EBSCO*host*.

Hooffdakker, B.J., Veen-Mulders, L., Sytema, S., Emmelkamp, P., Minderaa, R.B., & Nauta, M. H. (2007). Effectiveness of Behavioral Parent Training for Children with ADHD in Routine Clinical Practice: A Randomized Controlled Study. American Academy of Child and Adolescent Psychiatry, 46 (10). Retrieved from MD Consult.

Summary and Appraisal of Key Evidence:

Bjornstad (2010) studied the effects of Family Therapy for the treatment of ADHD-ADD, without medication, as compared to no treatment or the standard treatments. This study included randomized controlled trials that investigated the efficacy of behavioral therapy, cognitive behavioral family therapy, or functional family therapy for children with ADHD or ADD. The Studies were evaluated for methodological quality and to determine whether they met the inclusion criteria. This assessment yielded two studies. Data was taken from both studies. The finding from Jensen1999 (N=579) indicate that no difference can be detected between the efficacy of behavioral family therapy and treatment as usual in the community. The finding from the available data from Horn 1991 slightly favors treatment over medication placebo.

The level of evidence 4 B due to the fact that this study was a literature review of the research that was available at the time it was conducted. There for there was poor quality prognostic and cohort data and there was also not proper follow-up. Horn 1991, was a

randomized, researchers were blinded to participants medication condition and assessors were blind to treatment status at all times. There were controls in place in this group, medication placebo with no other treatment. Follow –up measures given nine months after termination of treatment. Behavioral treatment, included parent training plus child self-control training including at home practice and reinforcement of skills, other groups received high or low doses of stimulant medication with or without family therapy, and controls received medication placebo only. The Jensen 1999 was randomized, observational raters were blinded, and treatment was usual in community. Behavioral treatment included parent training, child-focus treatment, and school-based intervention. Controls: Community care group received various treatments in their communities, often including medication.

Hoofdakker et. al (2007), the purpose was to further investigate the effectiveness of behavioral parent training (BPT) as adjunct to routine clinical care (RCC). The method used for this study was after the first phase of RCC, 94 children with ADHD ages 4-12, were all referred to a outpatient mental health clinic, where they were randomly assigned to 5 months of BPT plus concurrent RCC (n=47) or to 5 months of RCC (n=47) alone. BPT consisted of 12 weeks in group format; RCC included family support and pharmacotherapy when appropriate. Exclusionary criteria were minimized, and children with and without medication could participate. Parent reported behavioral problems, ADHD symptoms, internalizing problems, and parenting stress were assessed before and after treatment. Follow-up assessment of the BPT+RCC group was completed 25 weeks post BPT intervention. Repeated-measures analyses of variance were carried out an intention-to-treat basis. Results: Both groups showed improvements over time on all measures. BPT + RCC was superior to RCC alone in reducing behavioral problems and internalizing problems. No outcome differences were found in ADHD symptoms and parenting stress. These results were equal for children with and without medication. Children allocated to RCC alone received more polypharmaceutical treatment.

Level of evidence in this study 1B, this was highly valid study, with a few limitations noted. But it was randomized, with a good cohort to study, test standards were in place, and one clinical center was used, and good follow-up was used.

Clinical Bottom Line:

1. Adjunctive Behavior parent training enhances effectiveness of the routine treatment of children with ADHA, particularly in decreasing behavioral and internalizing problems, but not in reducing ADHD symptoms or parenting stress. Furthermore, adjunctive BPT may limit the prescription of polypharmaceutical treatment.
2. Providing treatments for the families of patients with ADHD who cannot or prefer not to use medications and want to be more behaviorally oriented, a family therapy program may be as effective as a normal treatment strategy for some children and their families, and possibly more effective than placebo.
3. But when including behavioral therapies in addition or standing alone in the treatment of ADHD it is important to know the differences in the structure function and types of therapies available and also the different providers than can offer these types of options for these families.

More and more parents are looking for alternatives to medication to treat their children, due to many different reasons or beliefs. As practitioners we need to be aware

of possible therapies and their efficacy in the treatment of a particular disease process or problem. It is vital as providers to be able to determine quality studies from poorly preformed studies in order to find the best treatment for the patient. This understanding will help me use this information in my clinical practice when assisting parents and patients who wish to pursue complementary and alternative medications, such as behavioral modification therapy to help treat a disorder such as ADHD.

Resources

Bjornstad, G. (2010). Family Therapy for Attention-Deficit Disorder or Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *Cochrane Database of Systematic Reviews*, (3), Retrieved from EBSCO*host*.

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Levels of evidence – March 2009. (2009). Retrieved from http://www.cebm.net/index.aspx?o=1025.