

ADD-vantage



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Attention Deficit/Hyperactivity Disorder

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Newsletter

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Dear Members,

Regretfully it has been a long time since our last Newsletter although most of you who attend our monthly meetings have been kept up to date with what has been going on, we know that there are a number of members who for one reason or another, cannot attend.

This is why this Newsletter is so important and we have been trying to continue with it but time is no man's friend.

We are still in the ridiculous situation where the Slow Release Methylphenidate, either in the form of Ritalin or Concerta has not been imported into Malta. Lots of excuses from everyone do nothing to help us. We have appealed to the Minister, Director General of Health and the Drug Therapeutic Committee themselves but to no avail. Please don't think we have stopped trying.

The situation vis a vis the administration of medication in schools has also been shelved despite appeals to the Ministry of Education. The Ministerial Committee for Inclusive Education has also proved impotent in the face of this dilemma and put the ball in the court of the Attorney General. We know the law needs to be changed before teachers will be allowed to administer medication, the question is when is this going to happen? Like the old rhyme from our childhood days "this year, next year, some time, never". Again I appeal to all those parents who are having problems with the administration of medication to their child during school hours to contact me. Unless we show a united front, we will get nowhere!

Whereas St. Luke's Hospital is proving competent at diagnosing AD/HD, the after sales service remains nil. When are we going to see a counselling service set up for parents and siblings? When are parent training sessions going to be started?

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THE RELATIONSHIP BETWEEN ADHD SYMPTOMS IN PARENTS AND THEIR PARENTING BEHAVIOUR

Although researchers and clinicians have noted difficulty that adults with ADHD are likely to experience in their interpersonal relationships, little attention has been paid to how the disorder might affect their behaviour as parents.

Some researchers have suggested that ADHD symptoms may place a parent at risk for engaging in parenting practices that could contribute to the development of behavior difficulties in their child. For example, parents who are impulsive may have difficulty inhibiting the strong expression of anger and other negative emotions when disciplining their child. Impulsivity may also contribute to a parent being overly permissive by increasing likelihood that the parent will "give in" to a child's coercive behavior because this can provide an immediate "reward" (i.e. reducing/eliminating a child's whining), even though this typically creates more problems in the long-term.

The inattentive symptoms of ADHD may also create difficulties in parenting. For example, parents who are highly inattentive may have trouble engaging in consistent monitoring of a child's behavior. Being consistent and enforcing rules requires attending to what the child is doing and remembering what the consequences are for different behaviors. This may be more difficult for parents who are highly inattentive themselves.

It has been found in prior research that as many as 25-30% of parents who have a child with ADHD have ADHD themselves. In many cases, ADHD in parents has never been diagnosed, and some parents do not become aware that they have ADHD until it becomes apparent when having their child evaluated.

Because ADHD is so common in parents of children with ADHD, and may contribute to difficulties in parenting, it is important to learn how ADHD in parents may impact their

parenting. It is also important to study whether ADHD symptoms in parents affects the benefit they derive from parent training programs designed to teach parenting skills and strategies that are helpful for a child who has ADHD. This knowledge could potentially contribute to the development of more effective parenting programs for parents who have ADHD themselves.

Despite the importance of this issue, there has been only one prior study in which ADHD symptoms in parents were related to the effectiveness of parent training. In this study mothers with high levels of ADHD symptoms had children who showed no improvement following parent training, while mothers with few ADHD symptoms had children who benefited strongly from the intervention. Participants in this study were limited to parents of preschool children, however, and no fathers were included.

A recent issue of the Journal of Attention Disorders - <http://parentsusubscribers.c.tep1.com/maabP3Vaa3s18b3aZCHb/> - includes an interesting study on the association between ADHD symptoms in parents and their parenting behavior (Harvey, E.J., et al [2003]. Parenting of children with ADHD: The role of parental ADHD Symptomatology. Journal of Attention Disorders, 7, 31-43). In this study, the authors examined the relation between parents' self-reported ADHD symptoms and their parenting behavior both before and after participating in a behavioral parent-training program. The authors predicted that parents who reported more ADHD symptoms would demonstrate less effective parenting strategies before parent training and would show less improvement in their parenting skills after parent training.

PARTICIPANTS

Participants in the study were 46 mothers and 26 fathers who were recruited through advertisements in local newspapers and schools. All were parents of a child (age range 4-12) with ADHD, the vast majority of whom were boys. The age of mothers and fathers in the study ranged from the mid-20s to the late 50s, with an average age of approximately 37.

STUDY PROCEDURE

Prior to participating in the parent training intervention, parents completed a number of measures intended to assess their level of ADHD symptoms and their parenting practices. Parents' ADHD symptoms were assessed via their self-report on the Adult Attention Deficit Disorder Evaluation Scale. As would be expected in a sample of parents of children with ADHD, parents reported more ADHD symptoms than is typical for the general adult population. Interestingly, mothers tended to report slightly higher levels of ADHD symptoms than fathers.

Parenting behavior was assessed in several ways. Parents completed a 30-item Parenting Scale in which they rated their tendency to employ a variety of specific disciplinary strategies. Responses to individual items were used to compute a summary score for each parent that indicated their tendency to be overly reactive/punitive in their disciplinary style and overly lax/permissive. Parents also completed a second measure designed to assess their general level of nurturance and restrictiveness with their child.

Finally, parents were asked to audiotape their interactions with their child for 3 hours over the course of a week during times when they typically had difficulty with discipline (e.g. getting ready for school in the morning, getting chores completed, etc). These audiotapes were subsequently evaluated to determine the frequency of the following parent behaviors: 1) using negative tone towards child; 2) repeating a command/directive in an effort to get the child to comply; 3) arguing with the child to get the child to do something or to stop doing something; and, 4) praising the child or verbalizing some other form of affection.

Child behaviors during the audiotaped interactions were coded as: 1) noncompliant - used when child did not comply with their parent's request; 2) ignore - used when the child did not respond to parent or produced a response unrelated to their parent's statement; 3) verbal misbehavior - used when the child talked back, argued, swore,

or nagged; and 4) compliance - used when the child complied with a request made by the parent.

The parent-training program consisted of 8-weekly sessions that lasted for 75 minutes. The program provided parents with instruction on giving effective commands, and how to use praise, reprimands, and time outs. Parents were also provided with strategies to use when their child refused to comply with the timeout procedure. Modeling and role-playing of effective and ineffective parenting practices were used as teaching techniques and parents were encouraged to practice what they learned between sessions.

After completing the parenting program, parents completed the parenting measures for a second time, including audiotaping interactions with their child. This enabled the researchers to examine whether any changes in parenting behavior had occurred.

RESULTS

Is there a relationship between parents' ADHD symptoms and their self-reported parenting practices?

For mothers, higher levels of inattentive symptoms were associated with a more lax parenting style (i.e. being more permissive) both before and after parent training. This is problematic because overly permissive parenting tends to be associated with higher levels of child behavior problems. After parent training, higher levels of impulsivity were also related to greater maternal laxness. There was no indication that mothers' ADHD symptoms were related to their general level of nurturance.

For fathers, associations between self-reported ADHD symptoms and self-reported parenting style were stronger. Fathers who reported high impulsivity and high inattentiveness were more lax in their parenting and also reported being more emotionally reactive with their child. These relationships were found both before and after parent training. The combination of high reactivity and high permissiveness may be especially problematic, as it suggests a parenting style in which one frequently loses

one's temper but fails to follow through on enforcing consequences. As with mothers, there was no indication that fathers' ADHD symptoms were related to their general level of nurturance.

Is there a relationship between parents' ADHD symptoms and their interactions with their child?

Before parent training, maternal reports of impulsive and inattentive symptoms were not associated with their own or their child's behavior. After parent training, however, mothers who were more impulsive and more inattentive showed more repetition of commands and higher levels of arguing. Their children were more noncompliant, engaged in more verbal misbehavior, and were more likely to ignore their mothers' commands.

These results appeared to reflect the fact that highly inattentive mothers were helped least by the parent training - i.e., parent training produced little if any change in their parenting behavior. Mothers who reported lower levels of ADHD symptoms, in contrast, showed significant change in their parenting behavior after training.

For fathers, higher levels of impulsivity and inattentiveness were associated with more arguing with their child prior to parent training. After parent training, none of the relationships between fathers' ADHD symptoms, fathers' behavior, or child behavior were significant. There was also no indication that fathers with high levels of ADHD symptoms failed to benefit from parent training.

Was the parent training program effective?

Although the central focus of the study was to examine the association between parents' ADHD symptoms and their parenting behavior, it is also interesting to examine the impact of the parent training program on parent and child behavior overall.

Analysis of the audiotaped interactions indicated that mothers reduced their use of a negative tone with their child, reduced their use of repetition, and also reduced the frequency of arguing. As noted above,

however, these changes were substantially greater among mothers without high levels of inattentive symptoms. Among children, noncompliance, verbal misbehavior, and ignoring parental commands were reduced.

Among fathers, reductions in the use of negative tone and arguing were found. Significant changes in child behavior, however, were not evident.

SUMMARY AND IMPLICATIONS

Results from this study are consistent with the hypothesis that ADHD symptoms in parents tend to be associated with less effective parenting practices.

Fathers' who reported more symptoms of inattention and impulsivity were more permissive and reactive with their child before and after parent training. Fathers' impulsivity was also associated with more arguing with their child before parent training.

For mothers, inattention was associated with lax parenting before and after parent training, and with more problematic child behavior after parent training. In addition, mothers with clinically elevated levels of inattentive symptoms benefited less from the parent-training program. This is consistent with a prior finding that mothers with high levels of ADHD symptoms showed the least response to parent training.

Results from this study have several important implications. First, they highlight the potential value of assessing ADHD symptoms in parents when their child is being evaluated for ADHD. ADHD is known to be more common in parents who have a child with ADHD and may not have previously been diagnosed. This study indicates that in such situations, parents' ADHD symptoms can undermine the effectiveness of their parenting and the benefit they derive from working on their parenting skills. Treating ADHD symptoms in parents may thus be an important component of effectively managing ADHD in children, not to mention the benefits such treatment may have for parents independent of their parenting role.

Second, for mothers in particular, high levels of ADHD symptoms appear to limit the benefits they derive from participating in parent training programs. This suggests that research on how parent-training programs can be modified to provide greater benefit to mothers with ADHD would be important to pursue.

This study has several limitations that the authors acknowledge.

First, the sample size, particularly of fathers, was relatively small. Replicating the study with a larger sample would thus be important.

Second, it is problematic that parental ADHD symptoms were assessed only via self-report, rather than by conducting more extensive diagnostic assessments with parents.

Third, this study does not enable one to determine whether parents' ADHD symptoms caused the parenting behavior that was observed. Thus, the parenting behavior that characterized parents with high levels of ADHD symptoms may be related to other factors beside their ADHD symptoms.

Despite these limitations, results from this from this study highlight:

- 1) The adverse impact that ADHD symptoms in parents may have on their parenting behavior;
- 2) The value of assessing parents for ADHD when evaluating their child, or, when parents have persistent difficulty implementing parenting suggestions that are offered as part of their child's treatment; and,
- 3) The potential benefits to children's treatment of providing effective treatment for ADHD to parents who have ADHD themselves.
- 4) The need to consider how parent training programs can be modified so that they may be more effective for parents who may have ADHD themselves.

The authors have done the field a service by initiating work in this important area. Hopefully, additional research on this topic will soon become available.

****ATTENTION RESEARCH UPDATE****
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YOUR CHILD HAS SCHOOL PROBLEMS: WHO IS TO BLAME?

by Pamela Darr Wright, M.A.,
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*I know they think Brian's problems are **my fault**. When I said that I thought he needed more individual help from the LD teacher, they shook their heads. They only "do collaborative" now. They told me I shouldn't use the word "dyslexia" because it sounds so hopeless. Then they asked how my husband and I were getting along! (Denise, mother of a boy diagnosed with emotional problems, later found to have severe dyslexia.)*

*The school psychologist said that all these school problems were **Shannon's fault**. He said that she was lazy and unmotivated and that we needed to pressure her to work harder. We didn't allow her to watch television. We didn't allow her to go out with friends. She got terribly depressed. Homework took hours to complete, even when we helped her. We didn't know what else to do. We didn't want to raise a lazy child. (Emory and Elaine Carter, Shannon's parents, before they learned that their daughter had dyslexia and ADHD. See [Florence County School District Four v. Shannon Carter](#), 510 U.S. 7, (1993).*

The Blame Game

Parents of special ed kids often say that they are intimidated, patronized and made to feel guilty and inadequate by staff at their children's school. These parents feel helpless, frustrated, and defensive. Not surprisingly, parents behave exactly like

other human beings when they are blamed or attacked. Feeling threatened and uncomfortable, most parents try to explain and justify their position, in hopes that they will be understood. A few go on the offence, firing volleys of blame back. Many parents find these experiences exquisitely painful and humiliating. If they withdraw and try to avoid school functions, they find that they've been labelled as "uninvolved parents." Again, they are blamed for their children's learning problems.

Sometimes, emotions get out of control. Feelings of anger, bitterness, and betrayal consume parents and school personnel - who are then unable to work together to make educational decisions. In these cases, everyone loses. The child is usually the biggest loser if the parents and educators cannot work together effectively.

What is the basis for these negative experiences? Are parents too sensitive? Do they misperceive and misunderstand what happens in their contacts with educators? Or are parents just over-protective of their children, as many educators claim?

If you are a "special ed" parent, you know that it's hard to fight - and almost impossible to bail out. If your child receives special education services, you have to attend school meetings and you have to cooperate in developing your child's IEPs. How can you do this?

And here's another question: If the school staff believes that you or your child are responsible for your child's problems, how can you work with them so your child's interests are protected? How can you ensure that your child gets a good quality education?

If you have run into a "brick wall" of resistance when you tried to obtain changes in your child's educational program, **you need to understand how schools really work.** You need to understand "school culture" and the beliefs held by many educators, school psychologists, administrators, and guidance counselors.

Dr. Galen Alessi, Professor of Psychology at Western Michigan University, conducted a fascinating study on school psychologists.

Dr. Alessi's study illustrates why so many parents have problems dealing with schools. Dr. Alessi's article is "Diagnosis Diagnosed: A Systemic Reaction" published in Professional School Psychology, 3(2), 145-151.

(Since this study is based on practices in the USA I have not included it but if anyone is particularly interested in reading it, please contact me. The problems described here, however, apply to any country. The Editor)

HELPING CHILDREN WITH ADHD DEVELOP FRIENDSHIPS

A consistent finding in studies designed to identify children at risk for negative developmental outcomes is that peer relationship difficulties predict a number of subsequent problems. Rejected children (particularly those who act aggressively towards peers) fare significantly worse in adolescence and adulthood than children who can establish harmonious peer relations. One reason this may occur is that rejected children often gravitate towards one another during adolescence, and then reinforce/escalate each other's antisocial behavior. Rejection by peers can also have a negative affect on children's self-esteem and contribute to the development of loneliness and depression.

An unfortunate aspect of ADHD for many children is difficulty with peer relations. Because of their impulsive behavior and difficulties reading social cues that may result from attention deficits, many children with ADHD have problems getting along with peers. In fact, prior research has shown that many children with ADHD begin to be rejected by unfamiliar children after only a single day of contact. And, once a negative reputation with peers has been established, it can be difficult to change even if a child's social behavior improves.

Because developing positive peer relations can be so difficult for children with ADHD, there have been several studies in which efforts to peer relations in children with ADHD have been examined. Although standard ADHD treatments (i.e. psychostimulant medication and behavioral

therapy) can be somewhat helpful, these interventions do not generally normalize the social standing for children with ADHD. In addition, efforts to directly teach social skills to children with ADHD have so far yielded results that are less positive than one would hope.

One limitation of research on improving peer relationships for children with ADHD is that researchers have typically focused on improving children's overall standing in the peer group, rather than trying to help them develop a single close friendship. Although the former is certainly important, the presence vs. absence of even a single close friendship is important as well.

Whether or not a child has a close friendship can be relatively independent of the child's social standing within the wider peer group, and may be just as important for both current and future adjustment. For example, research has shown that even if a child is disliked by many peers, having a close friend is associated with less loneliness, more positive family relationships, and higher feelings of general self-worth. Thus, it appears that having a close friend can help compensate for the negative effects of being rejected by the larger peer group.

Some ADHD researchers have suggested that social interventions for children with ADHD should include efforts to help them develop and maintain a close friendship rather than focusing exclusively on improving their overall level of peer acceptance. These researchers have argued that helping a child establish a good friendship should be easier than trying to overcome a child's negative reputation in the larger peer group. And, the known benefits of having a close friend suggest that this could improve the social outcomes for children with ADHD. Of course, not all children with ADHD are disliked by peers or lack friends, but for those who do, helping them make and keep a friend could be very important.

Although this is a compelling and logical idea, there has not been prior research on this topic. A study published in the April 2003 issue of the Journal of Attention Disorders

<http://parentsubscribers.c.tcl.net/maabmaAaaZTPOb3aZCHb/> - however, provides an interesting preliminary examination of efforts to help children with ADHD develop friendships (Hoza, B. et al., A friendship intervention for children with AD/HD: Preliminary findings. Journal of Attention Disorders, 6, 87-97).

Participants were 209 5-12 year old children (188 boys and 21 girls) with ADHD who participated in an intensive summer treatment program (STP). The STP is an intensive 8-week behavioral treatment program that children attend all day, 5 days/week.

A variety of child-focused interventions are implemented during the program including a behavioral point system, social skills training, social problem solving training, and sports skills training. Children also spend part of each day in a structured classroom environment where regular academic lessons are taught. All interventions are embedded in a summer day camp context that includes ample time for recreational activities. Children attending the STP typically do not know each other before the program begins.

In addition to the interventions mentioned above, a program called "the buddy system" was implemented to promote the development of dyadic friendship skills. This involved pairing each child with an age and gender matched "buddy". Whenever possible, children were paired according to friendship preferences they expressed 2 weeks into the program. Buddies were also paired based on similarities in behavioral, athletic, and academic competencies and on whether children lived close enough together that play dates could occur outside of camp.

Parents were encouraged to talk with the parents of their child's buddy's to arrange play dates outside of the STP. Children and their buddies were also given special privileges within the STP in order to optimize the chance for children to get to know one another and form a friendship. In addition, a camp counselor served as a friendship coach for each buddy pair. Each morning, the coach checked in with members of the

pair to learn how the child and his/her buddy were getting along, and to suggest ways to handle any problems that were reported. At the end of each week, the coach met with both children together to help them work out any difficulties in their friendship that emerged during the week. Through these efforts, it was hoped that each child would have the experience of developing and maintaining a good friendship during the STP.

As part of the STP, extensive information was collected on all children. This included behavior ratings by counselors, teachers, and parents, and teacher ratings of academic performance during classroom activities. Ratings were obtained at the beginning and end of the program so that change could be evaluated on a variety of different dimensions.

Counselors, teachers, and children also rated the quality of each child's relationship with his or her buddy. This allowed the researchers to evaluate factors that influenced the quality of children's buddy relationship, as well as factors the predicted improvement in behavioral and academic functioning during the STP.

RESULTS

The authors first examined factors that predicted the quality of children's relationship with their buddy. Children who engaged in more antisocial behavior during the program were seen by their teachers as achieving a relationship of lower quality with their buddy. Children whose parents were more supportive of the buddy intervention - i.e. those who parents arranged frequent meetings outside of the STP -tended to show better relationship quality according to counselors. And, when parents supported the buddy program, children tended to be seen as more positive and adaptive by counselors at the end of the program.

Importantly, parents' support of the buddy program also predicted children's perception of the quality of their buddy relationship: when parents were more supportive children were more satisfied with the friendship they developed.

A final noteworthy finding concerns the impact of the buddy's antisocial behavior on children's outcomes in the program. The more antisocial behavior a child's buddy displayed, the less likely teachers were to see academic or behavioral improvement in the child. Conversely, when a child's buddy was less antisocial, children were more likely to be regarded by teachers as making academic and behavioral gains.

SUMMARY AND IMPLICATIONS

This study represents an initial effort to evaluate an intervention designed to help children with ADHD establish and maintain a friendship. The results of this preliminary work are both instructive and encouraging, and have potentially important implications for helping children with ADHD.

First, it is noteworthy that the antisocial behavior of a child's buddy influenced how teachers perceived the child. Specifically, when a child's buddy was highly antisocial, teachers rated the child as less successful both academically and behaviorally.

Although teachers' may have rated children with an antisocial buddy in a more negative manner than was truly warranted, children with an antisocial buddy may also have been negatively influenced by their buddy's behavior. It is well established that children who associate with disruptive and antisocial peers tend to become more antisocial themselves, and the finding in this study is consistent with this. This highlights how important it is for parents to monitor who their child is spending time with, and to work hard to keep their child from associating with antisocial peers. This can be critically important in preventing a child from traveling down an antisocial path him or herself.

Second, it was encouraging to learn that when parents worked hard to support the buddy program by arranging play dates for their child and his/her buddy, child developed higher quality friendships. Furthermore, there was some indication that parent support of the buddy program was associated with more positive behavior in their child by the end of the STP.

These findings highlight the important role parents can play in helping children with ADHD develop a close peer relationship. Because many children with ADHD struggle to make and keep friends, and having a close friend can compensate for the negative effects of being rejected by the larger peer group, parents who help their child develop a good friendship are providing an enormous benefit for their child.

Although research to guide parents' efforts to assist their child develop a friendship is needed, it appears that this is an area where parents can make an important difference in their child's life. Teachers and professionals can help support parents' efforts in this regard, perhaps by acting as a "buddy coach" as counselors did in this study.

Helping children with ADHD build close peer relationships is an important goal to focus on, and is one that may often be overlooked when concerns about behavior and academic performance are prominent. Results from this study indicate that parents have an important role to play in achieving helping their child accomplish this important social goal, and one hope that additional research in this area will be forthcoming. ****ATTENTION RESEARCH UPDATE****
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A Comparison of Atomoxetine (Strattera) and Methylphenidate treatment in children with ADHD

Although stimulant medication has been shown to be a helpful treatment for many children and adolescents with ADHD, there remains considerable interest in developing other medicinal options. This is because not all children with ADHD respond positively to stimulants and some experience adverse reactions that preclude their use. In addition, although stimulants are generally believed to be extremely safe medications, they are classified as controlled substances and many parents have concerns about the long-term effects of their use.

Although other medications are sometimes prescribed for ADHD (e.g. tricyclic antidepressants, clonidine, bupropion), until recently, the FDA had not yet approved any non-stimulant medication as a treatment for ADHD. On November 26, 2002 however, it was announced that Strattera (the brand name for atomoxetine) had received FDA approval as an ADHD treatment for children, adolescents, and adults. In fact, although stimulant medications have also been shown to be effective for adults with ADHD, Strattera is the only FDA approved medication clinically proven effective for adults.

Unlike stimulants, which are believed to reduce ADHD symptoms through their impact on the availability of dopamine in the central nervous system, Strattera exerts its effect on the neurotransmitter known as norepinephrine. Like some of the longer acting stimulants (e.g. Concerta, Adderall XR), Strattera offers the convenience of once a day dosing. Because it is not classified as a controlled substance, more convenient phone-in prescription refills will be possible as well.

Even though medication is generally regarded as only one component of an overall treatment program for ADHD, the introduction of an effective new medication for treating ADHD represents an important addition to the range of available treatment options. Because Strattera works through an entirely different neurochemical mechanism, individuals for whom stimulant medications were not effective, may derive significant benefits from this new treatment. And, individuals who experienced intolerable side effects from stimulants may not experience those same effects with Strattera. Finally, some parents who had been unwilling to consider stimulant medication for their child may be amenable to considering treatment with Strattera because it is not classified as a controlled substance.

An important question regarding the use of this new medication, however, is whether it will generally be as effective as the currently available stimulant medications. In two prior studies comparing atomoxetine to methylphenidate (methylphenidate is the

generic form of Ritalin) no differences in efficacy was reported, although too few patients received methylphenidate in these studies to draw any firm conclusions. Thus, additional investigation of how this new medication compares to the stimulants is needed. This was the issue addressed in a study published recently in the *Journal of the American Academy of Child and Adolescent Psychiatry* (Kratovich, C.J., et al. Atomoxetine and methylphenidate treatment in children with ADHD: A prospective, randomized, open-label trial. *JAACAP*, 41, 776-784).

Participants were 211 boys and 17 girls between the ages of 7 and 15 (all girls were younger than 9) who had been diagnosed with ADHD using a structured psychiatric interview and standardized behavior-rating scales. Approximately 75% of participants were diagnosed with the combined subtype of ADHD (i.e. they displayed both inattentive and hyperactive-impulsive symptoms) and almost all others were diagnosed with the inattentive subtype. (Note: For a complete discussion of diagnostic go to www.helpforadd.com/criteria.htm. Approximately half of all participants had a co-occurring diagnosis of oppositional defiant disorder (www.helpforadd.com/oddcdd.htm), and about 7% had been diagnosed with [depression](#).

Participants were randomly assigned to receive an open-label trial of either atomoxetine or methylphenidate. (Note: In an open-label trial participants and those evaluating them are aware of what medication is being received). Because this study was primarily intended to establish the efficacy of atomoxetine, approximately 4 times as many children received atomoxetine than methylphenidate (i.e. 184 vs. 44). Participants receiving each medication were started on a low dose and titrated upwards based on the investigator's assessment of clinical response. Unlike the [MTA study](#), where all participants on methylphenidate received 3 doses per day regimen, children receiving methylphenidate in this study were dosed 1 to 3 times per day based on the investigator's assessment of what was optimal.

Prior to beginning medication treatment, investigators completed the ADHD Rating Scale on each child to assess the severity of the child's symptoms. Parents completed the Conners Parent Rating Scale, a widely used instrument in the assessment of ADHD. These measures were completed during weekly follow up visits over a 10-week period. Because not all participants remained in the study for the entire 10 weeks (see below), the final set of rating scales obtained was considered the treatment outcome measure for each child. Comparing these ratings with those obtained prior to treatment was then used to determine each child's treatment response.

Results

Ten of the 184 children given atomoxetine had their medication discontinued prior to the conclusion of the 10-week trial because of adverse side effects. Twenty-nine children were discontinued because the parent and/or the physician did not believe the medication was helping. This non-response rate of about 16% is roughly comparable to what is generally reported for stimulant medications. In the current study, the percentage of children on methylphenidate who were discontinued because of adverse events or lack of effect was very similar.

For children in both groups, investigators' ratings of ADHD symptom severity declined substantially from the pre-treatment rating to the final rating obtained. These declines were clinically meaningful in addition to being statistically significant, and were evident for both hyperactive-impulsive and inattentive symptoms. The magnitude of the decline in ADHD symptoms was roughly equivalent for children treated with the 2 medications. And, these substantial declines were obtained even though children who had stopped treatment early because of poor response were included in the group averages.

Parent ratings followed a similar course. Prior to treatment, average ADHD symptom ratings for children in each group were in the top 1% based on age and gender norms. This indicates exceptionally high levels of

difficulty. Following treatment, average scores in both groups dropped significantly and approached - but did not quite reach - normal levels. Once again, these declines occurred for both inattentive and hyperactive-impulsive symptoms, and were roughly comparable in each group. Similar reductions in parents' report of children's cognitive problems were also evident.

In general, both medications were well tolerated by participants and there was little difference in adverse reactions reported. Two adverse reactions - vomiting and drowsiness/sleepiness - were more common among children taking atomoxetine. Small reductions in weight occurred both groups. The authors note that although this is unlikely to be of importance during short-term treatment, medication effects on weight gain during long-term treatment may be more substantial, and that data on weight change associated with ongoing treatment are currently under study. Information on this issue has not yet been published for any ADHD medication.

Summary and Implications

Results provide initial evidence that atomoxetine (i.e. this medication will be marketed under the brand name Strattera) produces comparable benefits to methylphenidate in reducing core ADHD symptoms in children. Each medication was well tolerated by most children, although 2 adverse reactions - i.e. vomiting and drowsiness - occurred more frequently among those receiving atomoxetine.

Although these results suggest that atomoxetine and stimulant medications may be equally effective, study limitations prevent a firm conclusion on this issue. There are several reasons for this.

First, as the authors appropriately acknowledge, this was not a double-blind, placebo-controlled study, which makes it impossible to completely rule out parent or investigator expectations as influencing the results.

Second, the absence of teacher ratings prevents any conclusion regarding the comparative impact of atomoxetine and

methylphenidate on children's behavior at school.

Third, because only data on core ADHD symptoms was presented, the impact on associated problems - e.g. oppositional behavior, academic functioning, peer relationships, etc. - is also unknown. It would not be prudent to assume that comparability on core ADHD symptoms necessarily translates into equivalent impact on associated difficulties, and this issue awaits further research. This is important, because to date, the positive impact of medication treatment on long-term academic achievement has not been clearly established for any medication.

Finally, short acting methylphenidate may not be as effective as newer and longer acting stimulants such as Concerta, Adderall-XR, and Ritalin-LA. Thus, demonstrating equivalent effectiveness between atomoxetine and methylphenidate does not necessarily mean that it will be as effective as these more recently introduced stimulants. It may be more effective, it may be less effective, or it may be equally effective. In the absence of direct comparative studies with these agents, however, this will remain an unanswered question.

It is important to note that even if these necessary comparative studies are done, and a particular medication is found - on average - to be superior to others, no single medication will be the best choice for all children. Thus, a terrific benefit of having Strattera become available is that many children who were not helped by stimulants may derive substantial benefits from Strattera. On the other hand, it cannot be assumed that a child who is doing well on a stimulant will do as well if switched to Strattera. This may or may not be the case. Thus, for a child who has been receiving stimulants and doing well, it is likely that physicians will be appropriately cautious about making a switch.

What about children beginning an initial trial of medication for ADHD treatment? Will physicians continue to regard stimulants as the initial treatment of choice or will Strattera become widely used as a first line

treatment. Recent treatment guidelines published by the American Academy of Pediatrics recommend that 2-3 stimulants be tried across a full range of doses before switching to another class of medications. These guidelines were written, however, before Strattera received FDA approval.

The stimulants have also been around for much longer, obviously, and several studies - including the MTA study - have documented their efficacy in symptom management over an extended period. Studies on the longer-term effectiveness of Strattera are ongoing, however, and should be available shortly. These will be very interesting and important results to know about, and will likely have a significant impact on physicians' decisions about which type of medication to try initially.

In summary, for parents considering medication for their child, and for physicians who treat children with ADHD, having another clinically proven option that works by a different mechanism and which is not a controlled substance represents a valuable addition to existing treatments. Research that documents the long-term benefits of Strattera in managing ADHD symptoms, and in helping with associated difficulties, will hopefully be published shortly. As with any medication, however, efforts to enhance functioning across a range of areas will continue to require additional behavioral and academic supports for many children. And, careful, systematic monitoring the ongoing effectiveness of treatment will remain essential.

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****ATTENTION RESEARCH UPDATE****
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FDA Approves Strattera™, First Noncontrolled Option For Treatment of Attention- Deficit/Hyperactivity Disorder

First New Class of ADHD Medication in Decades Gives Families, Physicians a New Choice

November 26, 2002 -- The U.S. Food and Drug Administration (FDA) today approved Strattera™ (atomoxetine HCl), judging it safe and effective for the treatment of Attention Deficit Hyperactivity Disorder (ADHD) in children, adolescents and adults.

Strattera, developed by Eli Lilly and Company, is the first FDA-approved treatment for ADHD that is not a stimulant under the Controlled Substances Act. Having a noncontrolled option, such as Strattera, reduces prescription hassles for patients, families and physicians by offering the convenience of phone-in refills and samples. Strattera is also believed to be a less likely candidate for abuse by patients than other attention deficit drugs because it is the only FDA-approved treatment for the disorder that is not a stimulant.

"Strattera is an important development in the treatment of ADHD, and we are excited about its future," said Sidney Taurel, Lilly's chairman, president and chief executive officer. "It gives patients, families and physicians an effective new tool for treating this complicated disorder."

The approval came roughly three months after the FDA issued an approvable letter for Strattera. Lilly expects to have Strattera available in pharmacies in January.

Clinical Studies

Lilly demonstrated Strattera's effectiveness in treating ADHD with data from six placebo-controlled clinical studies, involving children, adolescents and adults. So far, more than 4,000 patients have taken Strattera in all completed and ongoing clinical trials, some for as long as two-and-a-half years. Strattera comes in a capsule and can be taken once or twice a day. Strattera is the first ADHD medication proven clinically effective in adults.

"Strattera is unique, because of its different mechanism of action for ADHD; it's the first noncontrolled medication indicated for the treatment of ADHD. It provides full-day relief

of ADHD symptoms without causing insomnia in most children and adolescents," said Thomas J. Spencer, M.D., associate professor of psychiatry, Harvard Medical School, and assistant chief, Pediatric Psychopharmacology Research Program, Massachusetts General Hospital. Dr. Spencer is one of the initial investigators to conduct clinical trials with Strattera.

How Strattera Works

Strattera, a selective norepinephrine reuptake inhibitor, works differently than any other FDA-approved ADHD treatments. It's not known precisely how Strattera reduces ADHD symptoms. Scientists believe it works by blocking or slowing reabsorption of norepinephrine, a brain chemical considered important in regulating attention, impulsivity and activity levels. This keeps more norepinephrine at work in the tiny spaces between neurons in the brain.

Strattera should not be taken at the same time as, or within two weeks of taking, a monoamine oxidase inhibitor (MAOI), or by patients with narrow angle glaucoma. Patients with a history of high or low blood pressure, increased heart rate, or any heart or blood vessel disease should tell their doctor before taking Strattera. Strattera has not been tested in children less than 6 years of age. Some children may lose weight when starting treatment with Strattera. As with all ADHD medications, growth should be monitored during treatment.

Most people in clinical studies who experienced side effects were not bothered enough to stop using Strattera. The most common side effects in children and adolescents were decreased appetite, nausea, vomiting, tiredness and upset stomach. In adults, the most common side effects were problems sleeping, dry mouth, decreased appetite, upset stomach, nausea or vomiting, dizziness, problems urinating, and sexual side effects.

ADHD

ADHD affects 3-7 percent of school age children, making it the most-commonly diagnosed behavioral disorder of childhood. It manifests itself in levels of attention, concentration, activity, distractibility and

impulsivity that are inappropriate for the child's age. A growing body of evidence suggests a biological cause and a genetic link for the disorder, and experts estimate up to 60 percent of children with the disorder continue to have symptoms as adults.

"Left untreated, ADHD can have significant negative consequences, and not just at school or work. It also affects social and family situations, as well as self-worth," Dr. Spencer said.

Although ADHD in adults is not widely recognized, experts estimate 4 percent of adults, more than 8 million people, have the disorder. Most adults with ADHD go undiagnosed and/or untreated, in part because it is perceived as a childhood disorder, and in part because of concerns about giving controlled substances to adults.

"Adults with ADHD tend to have lower rates of professional employment, more frequent job changes and lower self-esteem. These serious consequences, both personal and professional, highlight the need for effective treatment of the disorder," said Lenard Adler, M.D. Dr. Adler is a psychiatrist and director of the Department of Neurology, Attention Deficit Hyperactivity Disorder Program, and associate professor of clinical psychiatry and neurology at the New York University School of Medicine.

DO BOYS WITH AD/HD OVERESTIMATE THEIR COMPETENCE?

Although it is generally assumed that children with ADHD tend to think poorly about themselves, there have actually been relatively few studies in which the self-concepts of children with and without ADHD have been compared, and the results of those studies have been mixed. Thus, some researchers have reported that children with ADHD regard themselves less favorably in a number of different domains than other children, while other researchers have not found these differences.

A related area of research has examined the appraisals that children make of their own performance immediately following their

participation in a laboratory task. Thus, in these studies, researchers have examined how the self-appraisals of ADHD children vary in situations where their actual level of performance is objectively known. Regardless of whether the tasks have involved academic or social activities, boys with ADHD tend to report they did better than what was shown to actually be the case. Boys without ADHD, in contrast, evaluate their performance more accurately.

Findings from these laboratory studies have led some researchers to speculate that boys with ADHD (unfortunately, girls with ADHD have not been included in this research) have "positive illusory self-concepts". It has been argued that holding unrealistically positive views about themselves may serve an important protective function for boys with ADHD, by allowing them to cope with repeated failures without adverse psychological consequences. Other psychologists have suggested, however, that this "self-protective" strategy may interfere with the remediation of their problems if it leads them to deny that they have problems at all.

Although these are interesting speculations, it is important to recognize that there has been no previous research in which the self-concept of children with ADHD has been examined in relation to their actual abilities and competencies. The laboratory studies mentioned above deal with children's appraisals of their performance on specific tasks, and findings from these studies may not generalize to the more enduring views children hold of themselves. Thus, the question of whether children with ADHD have inflated self-concepts has not been systematically examined.

Do boys with ADHD actually have "positively illusory self-concepts" as some have suggested? This question was examined in a study published recently in the *Journal of Abnormal Psychology* (Hoza, B. et al, 2002, 111, 268-278.) Participants in this study were 268 boys between the ages of 7 and 13. The majority of these boys (195) had been diagnosed with ADHD and was participating in an intensive summer treatment program. The remaining 73 boys did not have ADHD and were included as

comparison subjects. Unfortunately, as has often been the case in research on ADHD, females were not included as participants.

Participants' self-perceptions were assessed using the Self-Perception Profile for Children (SPPC), a widely used instrument that assesses children's views of themselves in five specific areas: academic performance, social competence, physical appearance, athletic competence, and behavioral conduct. In addition to these domain-specific ratings, the SPPC also includes items designed to assess children's general feelings of self-worth. The idea behind this measure is that children have domain-specific self-perceptions that can vary from one area to another, in addition to more general feelings about themselves that are not domain-specific.

To assess the boys' actual competencies in the different domains assessed by the SPPC, their teachers completed a teacher version of this measure. Teachers' responses to the same sets of items were regarded as providing an "objective" assessment of how the boys were actually doing in each domain, and provided a benchmark against which boys' self-ratings could be compared. When a child's self-ratings were higher than the ratings provided by his teacher in a particular domain, it suggests that the child's self-perceptions in that domain were inflated. Similarly, if a child's self-ratings were lower than those of his teacher, it suggests that the child was being unrealistically negative. When child and teacher ratings corresponded, it was assumed to reflect the fact that the child had an accurate perception of his competence. (Note: The teacher measure did not include items reflecting children's feelings of general self-worth because these reflect a child's views of self that are independent of specific areas of competence, and thus can not be compared to an "objective standard".)

The researchers predicted that, although the self-perceptions of ADHD boys might not differ from those of comparison boys in an absolute sense, they would be inflated relative to the "objective" ratings provided by teachers. In other words, they expected to find that ADHD boys had "positive illusory self-concepts". Furthermore, they expected

the greatest inflation would be found in those domains that were most problematic for the boys. Thus, for boys with ADHD who also had significant learning problems, their self-concept in the academic domain was expected to show the greatest inflation. For ADHD boys who were also highly aggressive, the greatest inflation was expected in the behavioral and social domains. For ADHD boys who were depressed, no domain-specific predictions were made. These boys, however, were expected to report the most negative feelings about themselves on the general self-worth scale.

RESULTS

To determine whether boys with ADHD overestimate their competence relative to the comparison boys, the authors first compared the size of the discrepancy between self- and teacher-ratings for children in the two groups. Results indicated that boys without ADHD tended to rate themselves similarly to the way in which their teachers had rated them in all domains. Boys with ADHD rated themselves as more competent than their teachers had rated them in the academic, social, and behavioral domains. The discrepancy between self-ratings and teacher-ratings for ADHD boys was significantly higher than that for comparison boys in every domain. In other words, their ratings of their own competence were inflated relative to how their teachers regarded them.

It is interesting to note that the self-competence ratings for boys in the two groups did not differ in an absolute sense. Thus, the ratings made by boys with ADHD were equivalent to those given by comparison boys, indicating that ADHD boys did not regard themselves as either more or less competent than the other boys. As noted above, however, comparisons to the teacher ratings indicated that, for boys with ADHD, these views of themselves are overly positive and do not reflect the opinions of their teachers that are presumed to be more objective.

The researchers next examined whether ADHD boys who had additional problems

with aggressive behavior, academic achievement, or depression tended to overestimate their competence in these specific areas. It was predicted that boys with ADHD would overestimate their competence to the greatest extent in the domains that were most problematic for them.

As predicted, ADHD boys with aggressive-behavior problems overestimated their competence to the greatest extent in the behavioral and social domains. Not only was the discrepancy between self- and teacher-ratings for these boys greater than for non-ADHD comparison boys, it was also greater than the discrepancy for ADHD boys without aggressive-behavior problems. For ADHD boys with co-occurring learning problems, the greatest overestimate was found for ratings of academic competence. Compared to non-ADHD boys and ADHD boys without significant learning difficulties, these boys had significantly larger discrepancies between self- and teacher-ratings.

The situation for ADHD boys who also were depressed was somewhat different. These boys were the only group to underestimate their physical appearance, rating themselves as less attractive than their teachers rated them. Relative to comparison boys, they overestimated their competence in the behavioral domain, but to a lesser extent than ADHD boys without depressive symptoms. In the social and academic domains, their self-ratings were not inflated. On the global self-worth scale, they had significantly lower scores than boys without ADHD and ADHD boys who were not also depressed.

SUMMARY AND IMPLICATIONS

The major findings of this study were: ADHD boys overestimated their self-perceptions more than comparison boys in scholastic, social, and behavioral domains relative to how their teachers regarded them; and, examination of ratings provided by boys in the different subgroups indicated that they overestimated their competence the most in those domains in which they were most impaired. Thus, even though they did not rate themselves more favorably than

comparison boys in an absolute sense, boys with ADHD perceived themselves to be far more competent than their teachers did. The primary exception to this was for ADHD boys who were also depressed, as these boys regarded themselves negatively in several areas, including their feelings of global self-worth.

As noted earlier, some researchers have argued that these inflated self-perceptions serve a self-protective role for boys with ADHD, buffering them from the adverse psychological consequences associated with daily struggles and difficulties. This explanation suggests that ADHD boys may not be deliberately overstating their capabilities, but may be "deceiving themselves" in an effort to avoid feelings of inadequacy. Alternatively, the authors suggest these findings may represent either a conscious attempt at impression management (i.e. wanting to present themselves favorably to others), or the fact that they lack the necessary knowledge about what constitutes successful vs. unsuccessful behavior.

What are the implications of these results for treatment? There is a lack of clarity on this issue in the literature. Some have suggested that if ADHD boys overestimate their actual competence, their self-perceptions need to be altered to more accurately reflect the reality of their situation. Proponents of this view argue that, unless boys with ADHD develop an accurate appraisal of their abilities and how others perceive them, they will not be motivated to work on changing their problematic behavior. Others have expressed concerns that such "humility training" could be damaging to boys' self-esteem. Clearly, there is no simple answer to this question, and research that specifically examines the treatment implications of these findings would be important to conduct.

As with any study, it is important to be careful not to generalize the results of this research beyond what is reasonable. First, the findings obtained apply only to boys with ADHD, and whether ADHD girls show the same tendency to overestimate their competence is not known. Second, it should

not be assumed that these findings apply to all boys with ADHD. Thus, many boys with ADHD -- even those who are not also depressed -- will regard themselves quite negatively, rather than overestimating their competence as was reported here. This may be especially true as boys with ADHD move into adolescence, and replicating this study with a teenage population would be an important extension of this research.

We also do not know what the implications of these findings are for the immediate or longer-term adjustment of boys with ADHD. Does the tendency to overestimate one's competence create more trouble for these boys because it eliminates the motivation to work on their difficulties? Or, does it protect them from becoming discouraged and despondent? Questions like this can only be answered by following boys over time, and examining their ongoing adjustment in relation to the types of discrepancies between self-perceptions and ratings provided by others that were the focus of this study. This is difficult work, but the results of such a longitudinal study would be extremely interesting and informative.

****ATTENTION RESEARCH UPDATE****

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The medical profession is talking about genetic screening and counselling for families with children with intellectual impairment. How about counselling for families whose children have disabilities – before we enter any new areas? If we already have a human and financial resources problem, we should solve the one we have before we exacerbate it.

Having got all that off my chest, I hope you enjoy reading the articles in this Newsletter. We have included a number of articles about medication since we are getting a number of queries in that area. Naturally each person is an individual and you should always follow the advice of your doctor who knows you best. If you would like to see information about anything in particular, please contact us on our e-mail address.

Regards
The Editor