



PHOTO BY JOEY HERNANDEZ

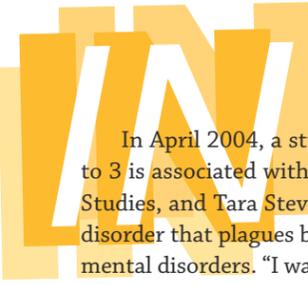
# DIS- COM NECT

BY LARISSA K. TRUE

DO TELEVISION AND ADHD HAVE A LINK?

## A CHILD WITH ATTENTION

Deficit Hyperactivity Disorder (ADHD) sits painstakingly through an hour-long class, mind wandering, thoughts vigorously bouncing from one subject to the next. The hour is torture for the child, whose attention span is considerably shorter than that of his peers. The child's work habits are disorganized; he is easily distracted; he has difficulty completing tasks that require concentration; he fails to complete his homework and he often is inconsistent with managing his chores. Since the conceptualization of the condition, the question of cause has long plagued parents, teachers, friends, and sufferers of ADHD, and although researchers have yet to pinpoint one exact cause for ADHD in children, researchers at Texas Tech University are sure of one thing that is not likely to cause the condition: television. *cont.*



In April 2004, a study published in *Pediatrics* led by Dimitri A. Christakis, M.D., concluded that early television exposure at ages 1 to 3 is associated with attentional problems at age 7. Miriam Mulsow, Ph.D., associate professor of Human Development and Family Studies, and Tara Stevens, Ed.D., assistant professor of Educational Psychology, took a different approach in search of a cause for the disorder that plagues between 4 and 12 percent of all children, and currently is one of the most commonly diagnosed childhood mental disorders. “I was very concerned when I saw the publication from Christakis. So many studies have been done that have examined what kind of parenting causes a child to have ADHD or what kind of teaching causes a child to have ADHD, and researchers have come up empty-handed. There is no telling how much money and how much time has been poured into doing this type of research. For one study to come up and say that television is a cause of ADHD—it’s very broad and unfair to the parents of children who have ADHD. The disorder has been around, not necessarily by that name, but it has been around much longer than television. The condition cannot be caused by television.”

Christakis’ study, conducted at Seattle’s Children’s Hospital and Regional Medical Center, used a nationally representative data set collected in 1979 of 2,623 toddlers. From the data set, Christakis and his team reported that they found that the 1-year-olds in the study watched an average of 2.2 hours of television per day, and that number expanded to 3.6 hours by the time the children were 3-year-olds. When the children reached age 7, the parents were surveyed on whether their children displayed linked symptoms related to ADHD, including poor impulse control, difficulty concentrating and restlessness.

According to Christakis, “What we found was each additional hour a day that children watched was associated with a 10 percent increase of having attentional problems at age 7.” While the study only suggests the link between television and ADHD and acknowledges that an abundance of other causes are associated with the condition, the study indicated that for every hour of television a young child watches, that child becomes 10 percent more likely to have ADHD by the time they enter school.

Controversy surrounding the article stems from factors lacking within the data set and variables used. When the group of children reached age 7, the data collected were based solely on the answers of parents without input from doctors, teachers or researchers. The children involved in the study never actually were observed—the representative longitudinal data set used was the National Longitudinal Study of Youth, a major government survey collected in 1979. Furthermore, no data on the parents’ histories of attentional difficulties were examined, and no data were available as to whether the children were predisposed to attention problems prior to the study.

Mulsow and Stevens’ research was published in *Pediatrics* in March 2006. The pair utilized the same type of large national data set as the Christakis study, but the Texas Tech scholars expanded the realm of the research by looking not just at the amount of television being watched by the children, but also at the type of television being watched as well as parental involvement. “The advantage of evaluating a data set like that is that you have a large sample. We were able to divide that sample and randomly select two groups



PHOTO ILLUSTRATION BY ARTIE LIMMER

from the larger sample that we could compare. We actually were able to replicate our own work in that same paper,” explains Mulsow. “Christakis was interested in the importance of television in the prediction of later ADHD symptoms; therefore, we expected an analysis concerning the importance of the contribution of the predictors he utilized in his study. Unfortunately, this information was not included in his *Pediatrics* publication. To address this issue in our work, we used a different analysis allowing us to look at all predictors simultaneously.”

“The most important thing that came from the study is the indication that watching television is not going to cause your child to develop ADHD,” emphasizes Mulsow. So what exactly causes the condition? Although one single element has yet to be proven as a cause, the Texas Tech research team believes that biological factors, such as genetics, are the most likely cause. In addition, some early environmental factors, such as maternal alcohol consumption during pregnancy, birth trauma, or lead exposure in early childhood, provide a link to the development of the condition. Some environmental factors linked to ADHD are associated with low socioeconomic status. In addition, Mulsow believes that when a parent has attention problems caused by ADHD, he or she will have more problems keeping a steady job, which in turn, causes the family to have a lower socioeconomic status. A parent with ADHD is likely to pass this condition along genetically to his or her child. Therefore, a consistent correlation exists between having ADHD and being of low socioeconomic status, she emphasizes.

“We found that socioeconomic status does have a really strong association with ADHD. Controlling for this variable, we established that the link between watching television and ADHD symptoms was statistically significant, but the relationship was so small that it was close to zero, indicating its lack of practical importance,” explains Mulsow. “Furthermore, we were able to cross-validate this finding, again linking a very small association between television and ADHD in the opposite direction (the more television watched, the less likely the child was to have ADHD), and this association was also close to zero, indicating a lack of importance.”

Regardless of an actual cause of the condition, Mulsow is adamant to spread the word that ADHD is not the result of television – or parenting – for that matter. “So far, the preponderance of evidence suggests that nothing that you do as a parent is going to cause your child to have ADHD, with the exception of drinking while pregnant or, possibly, exposing your child to high levels of environmental toxins such as lead. Parenting doesn’t cause ADHD. But it does make a huge difference in the outcome for the child.”

Currently, no cure exists for ADHD, but medications are available to alleviate the symptoms. This point is where parental involvement is key in providing the child with the same opportunities that a child without the condition would have. “A child with ADHD needs behavioral interventions, such as racing against a timer. They need immediate consequences, immediate rewards and immediate costs when they’re doing something wrong. Some kids with ADHD simply cannot handle the repetitiveness of page after page of homework and they need to stop once they have grasped the concept of the work.”

Physical activity also plays a big role in helping children to cope with the symptoms of ADHD. Research has shown that physical activity involving a tremendous amount of running can stimulate the brain and the body to perform some of the functions that it might not otherwise perform.

The Texas Tech researchers have since applied for permission to use a birth cohort, enabling the team to track children from very early childhood until they reach school age. With new data, the researchers may be able to find causes and ways to alleviate the disturbances that go along with having ADHD, ultimately allowing these once unfocused children to maintain a childhood equal to that of their peers. ■