AUSTIN BEHAVIORAL HEALTH CENTER
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VOLUME 2, ISSUE 2

One Hand On The Door

(Answers to questions patients like to ask as they are leaving, with one hand on the door!)

When To Refer For A Psychological Assessment

We expect to see fluctuations in a child's daily functioning. Changes in schedule, lack of sleep, illness, and temperament can all impact everyday academic performance, a child's mood, and their behavior.

To determine the appropriateness of a referral for a Psychological Assessment it is useful to look at the *intensity* and *frequency* of a problem. If a child is has been struggling all semester with their reading, or having tantrums daily for the last two weeks then the frequency criteria may be met. However, if the tantrums last for less than a minute, or the child's reading skills are on grade level, then the intensity criteria may not be met. On the other hand, if the tantrums last for several minutes (or hours in some cases), or the child's reading level is below grade placement, than both the frequency and intensity criteria are met.

When in doubt it is usually better to refer than wait for a problem to worsen. We always conduct an initial interview before initiating a full Psychological Assessment battery.

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Video Game Addiction

"Once they become addicted, pathological gamers were more likely to become depressed, have increased social phobias, and increased anxiety. And they received poorer grades in school. Therefore, it looks like pathological gaming is not simply a symptom of depression, social phobia or anxiety. In fact, those problems seem to increase as children become more addicted. In addition, when children stopped being addicted, depression, anxiety and social phobias decreased as well," Douglas Gentile, Ph.D., University of Iowa, Associate Professor.

In a news release from the University of Iowa Dr. Gentile reported: "We're starting to see a number of studies from different cultures -- in Europe, the U.S. and Asia -- and they're all showing that somewhere around 7 to 11 percent of gamers seem to be having real problems to the point that they're considered pathological gamers."

Dr. Gentile recently co-authored a study on the topic of video game addiction. He and his fellow researchers gathered data from students attending 12 Singapore schools, including five boys' schools. The subjects were surveyed annually on their video game play and behavior between 2007 and 2009. Surveys were conducted in classrooms by teachers who had been trained by the research team. The study had a 99 percent response rate. Using the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders" as a guide to define the addictive condition, the researchers found between 7.6 and 9.9 percent of the student sample could be defined as pathological gamers over the two-year period. Eighty-four percent of those subjects who were first classified as pathological gamers were found to still be classified that way two years later. Yet in that same two-year window, only one percent of the sample became new pathological gamers.

Through their analyses, the researchers conclude that video game addiction is a serious behavioral problem that is separate from other afflictions.

Among this sample, pathological gamers started with an average of 31 hours of play per week, compared with 19 hours per week for those who never became pathological gamers. But Gentile says those thresholds don't necessarily translate across all cultures, particularly in American children.

"In general, Singaporean children spend more time playing video games than American children," he said. "In the U.S., we didn't follow the kids across time, so we don't know where that threshold is across each culture or if there is a certain amount that is too much. We do know, however, that playing a lot is not the same as being a pathological gamer -- the gaming must be causing problems for it to be considered pathological."

The study was published in the February 2011 issue of Pediatrics.

ADHD and Motivation

Parents, and occasionally misguided professionals, sometimes assert a child cannot have ADHD because they can pay attention just fine when they're engaged in an activity that they value. Those who work with ADHD children know this is completely untrue. A recent study provides some insight into the motivational challenges observed in children who have ADHD. Previous studies have shown that children with ADHD have difficulty in 'switching off' the default mode network (DMN) in their brains. This network is usually active when we are doing nothing, giving rise to spontaneous thoughts or 'daydreams', but is suppressed when we are focused on the task before us. In children with ADHD, however, it is thought that the DMN may be insufficiently suppressed during 'boring' tasks that require focused attention.

Using a video game format researchers at the University of Nottingham found evidence that children with ADHD require much greater incentives – or their usual stimulant medication – to focus on a task. When the incentive was low, the children with ADHD failed to 'switch off' brain regions involved in mind-wandering. When the incentive was high, however, or when they were taking their medication, their brain activity was indistinguishable from that of a typically developing child without ADHD.

The University of Nottingham researchers compared brain scans of 18 children with ADHD, aged between 9 and 15 years old, to scans of a similar group of children without the condition as both groups took part in a task designed to test how well they were able to control their behavior. The children with ADHD were tested when they were taking their methylphenidate and when they were off their medication. While lying in a magnetic resonance imaging scanner, which can be used to measure activity in the brain, the children played a computer game in which green aliens

were randomly interspersed with less frequent black aliens, each appearing for a short interval. Their task was to 'catch' as many green aliens as possible, while avoiding catching black aliens. For each slow or missed response, they lost one point, and they gained one point for each timely response. To study the effect of incentives, the reward for avoiding catching the black alien was then increased to five points, with a five-point penalty incurred for catching the wrong alien.

By studying the brain scans, the researchers were able to show that typically developing children switched off their default mode network (DMN) whenever they saw an item requiring their attention. However, unless the incentive was high, or they had taken their medication, the children with ADHD would fail to switch off the DMN and would perform poorly. This effect of incentives was not seen in children without ADHD – activity in their DMN was switched off by items requiring their attention regardless of the incentive on offer. The researchers concluded, "For the first time we are beginning to understand how in children with ADHD incentives and stimulant medication work in a similar way to alter patterns of brain activity and enable them to concentrate and focus better. It also explains why in children with ADHD their performance is often so variable and inconsistent, depending as it does on their interest in a particular task."

This study was published in the Journal of Child Psychology and Psychiatry.