

The Pharmaceutical Treatment of ADD, Weight Gain, and Zombies

In June of 2010, Joint Conference on Theoretical and Clinical Optometry, a discussion-oriented educational meeting sponsored by OEPF and hosted by Pacific University, addressed ADD/ADHD. Organized in large part by Dr. Wid Bleything, Dean Emeritus of Pacific's College of Optometry, various experts, including Jack Richman, OD and David Willis, MD spoke on different aspects of ADD/ADHD. As an introduction to that program, I gave a brief presentation on ADD/ADHD cases I had selected from a Job Corps study.^{1, 2} I had reviewed about eighty Job Corps student records looking for references to ADD/ADHD or stimulant medication use. The more I researched the responses of these Job Corps students to their prescribed ADD/ADHD medications, the more I questioned the effectiveness of those medications. I found an unsettling proportion of apparently ineffective prescriptions of stimulants for ADD/ADHD. Or, perhaps they were not effective enough in the opinions of the Job Corps students to command continued use of the medications.

Although, not part of the group reported on at Joint Conference, an eighteen year-old male Job Corps student I examined a month after Joint Conference might be representative of what I found in these cases. During the history, he reported that Job Corps testing placed his reading proficiency at the 5.4 grade level (Tests of Adult Basic Education^{®3}), certainly below expected for eighteen years old. My vision examination showed him to have intermittent central suppression, a primary binocularity defect. His COVD QOL checklist score was elevated at 45. He also answered a simple

ADD/ADHD medication question we placed at the end of our checklist form: It asks, “If yes [i.e., the student took ADD/ADHD medication] what did the medication do to you or for you?” This student with defective binocularity, well-below age level reading scores, and an elevated visual symptom score, answered that the medication “didn’t work, but I lost a lot of weight.”

Of course, it would be an error to categorically state that medications are never useful in the treatment of ADD/ADHD. One of the important speakers at this Joint Conference was Priscilla Lowery who gave a chronicle of her son Liam’s life. She clearly recounted his early behavior challenges and how his life was changed by ADD medications. Yes, sometimes stimulant medications are important. The question is, how often are they effective enough to be taken versus how often are they actually prescribed?

ADD/ADHD was not the primary concern at the beginning of the Job Corps study, so information from the first few years’ subjects had to be voluntarily offered on their written health history. Those medical histories that voluntarily listed stimulants or listed ADD as a prior diagnosis interested me enough to add specific questions for incoming Job Corps students asking if the student had been diagnosed with ADD/ADHD, what stimulants were prescribed, who diagnosed the ADD/ADHD (Doctor? Teacher? Parent?), and what the result of any pharmacological treatment was.

Twelve of the eighty students reported being diagnosed with ADD/ADHD. Nine of these reported a primary physician was involved in the diagnosis. The other three did not report who diagnosed the condition. Also listed with the primary care physician was a “psychologist with a computer program,” a parent, and a teacher-and-parent combination. Apparently the diagnoses were not entirely medical, but those non-physician contributions might easily parallel the diagnostic information that parents and teachers contribute to our histories concerning the children we see with learning problems.

The described responses to the stimulants fueled my unease about the medications. Two of the students stopped the medications because (both students using this specific language) they made them “feel like a zombie.” Two stopped because they became depressed. Two said the medication didn’t work. One never found one that worked. One student and his mother refused the recommendation for ADD/ADHD medication.

Eight of the twelve were not successful with the prescribed medications. Of the four who reported that the medication helped, three chose to discontinue the stimulants anyway. For this admittedly small, strictly clinical sample, only one student (less than 10% of the subjects) found that the medications worked well enough to continue taking them. For some students the medications had significant side effects: Depression and perceptual changes apparently disconcerting enough to be reported as zombie-like.

This outcome of my records search was troubling enough that I tried exploring a scientifically sketchier route, using the records of twenty-six Job Corps students on whom I have (and have reported) pre- and post-vision therapy data.² My therapy staff picked out COVD-QOL questions they considered, based on their experience, as indicative of ADD/ADHD; that is, items that seemed particularly prevalent in ADD/ADHD patients, or that parents of ADD/ADHD children frequently reported. Those COVD QOL questions identified were:

11. Difficulty copying from the chalkboard
12. Avoids near work and reading
19. Trouble keeping attention on reading
20. Difficulty completing assignments
25. Clumsy, knocks things over
26. Doesn't use time well
28. Loses things
30. Forgetful, poor memory

Next we compared the staff-chosen COVD-QOL items to an online World Health Organization (WHO) Adult ADD/ADHD six-question screening checklist.⁴ We tried to match the WHO screener questions to the previously chosen behavioral characteristics from the COVD checklist. This imperfect matching produced, by WHO checklist number:

1. Trouble wrapping up details, (QOL 20: Difficulty Completing Assignments)
2. Trouble getting things in order, (QOL #12: Avoids near work/reading; and #26: Doesn't use time well)
3. Problems remembering, (QOL #28: Loses things; and #30: Forgetful, poor memory)
4. Delay starting tasks, (QOL #11: Difficulty copying from the chalkboard)
5. Fidgets, (QOL #25: Clumsy, knocks things over)
6. Overly active, (QOL #19: Trouble keeping attention on reading)

The pre- and post-therapy QOL scores for these ADD/ADHD-diagnosed students, using this imperfect matching, could then be calculated into the WHO screener. Interestingly, pre-therapy, using this WHO ADD screener-COVD QOL symptom match-up, the Job Corps students would have self-reported as symptomatic of ADD/ADHD. Post-therapy they would not.

These Job Corps students, diagnosed with the primary binocularity defect of intermittent central suppression, averaged a pre-therapy full COVD-QOL score of 46. If we use the common 20-point cutoff score that implies concern,⁵ this group has a high level of visual symptoms. Does this high level of symptomatology have anything to do with the ADD/ADHD diagnoses? It's not a new idea to optometric literature that a person with a binocularity problem might not sit quietly and read, but instead would fidget and look for something more rewarding or entertaining to do.⁶⁻¹⁰ That sort of behavior is something

that others (teachers and parents?) could identify as a problem with impulse control, putting the student at risk for an ADD/ADHD diagnosis.

All of this taken together, then, suggests a question to explore: “If we can reduce visual symptomatology, would a simultaneous reduction in the symptomatology of ADD/ADHD occur?” A carefully planned and executed study using a more comprehensive diagnostic checklist such as the Connors ADHD Scale¹¹ (suggested after much research by Wid Bleything at Joint Conference) paired with treatment of binocularity with vision therapy, and with COVD QOL scoring might be interesting.

A full-fledged study takes time to put together. In the meantime, VT practitioners might be able to add to the knowledge base on this subject. Consider it. Keep track in your records and see if you see similar trends. Maybe you’ll find some kids with binocularity problems and lots of visual symptoms who are “losing weight.” We might even find a way to limit our contact with zombies.

References

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Eric S. Hussey, OD, FCOVD
spacegoggle@comcast.net

(509)326-2707

25 W. Nora, Suite 101

Spokane, WA 99205

*A more complete reference for references #1 & 2: Hussey, ES. Remote treatment of intermittent central suppression improves quality of life measures. *Optometry, Journal of the American Optometric Association* 2012; 83(1):19-26.