

Meeting the Needs of the Optometry Student with ADHD

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Abstract

This paper summarizes a presentation given at the 2009 American Academy of Optometry annual conference in Orlando, FL. Students with Attention Deficit Hyperactivity Disorder (ADHD) represent the largest group of students seeking disability services in college. The literature is only beginning to recognize the specific needs of these students in the college setting. While a portion of these students also pursue graduate degrees, the current literature examining the impact of graduate study on a person with ADHD is extremely limited. This paper expands the knowledge base regarding the challenges faced by the graduate student with ADHD, specifically those in an optometry program. Recommendations for educators that can be applied to the classroom as well as the clinical setting are explored.

Key Words: ADHD, graduate students, optometry students, academic needs, accommodations

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Introduction

Imagine sitting in a classroom, trying to complete an exam or take lecture notes. No matter how diligently you try to focus, other thoughts continuously interfere. You really want to focus, but your brain is just not cooperating. This is what it is like for students with Attention Deficit Hyperactivity Disorder (ADHD). Once believed to affect only children, ADHD is now understood to be a pervasive disability that continues into adulthood in 55%-75% of cases.¹ This translates to ADHD affecting up to 6% of the adult population.² Although ADHD can be associated with academic underachievement,³ the number of students with ADHD seeking post-secondary education is increasing due to special education laws,⁴ improved diagnostic procedures and increased awareness of the impact of this disorder on adults.⁵ It is estimated that up to 5% of U.S. college students have ADHD.⁶

A portion of college students with ADHD also seeks graduate education. A literature search using the terms "graduate student" and "ADHD" in the Education Resources Information Center (ERIC) and Education Research Complete databases found no research that cited the prevalence rates of graduate students with ADHD. At this point, the literature regarding this population is limited to acknowledging that graduate students with ADHD continue to face challenges in the education setting and how the Americans with Disabilities Act (ADA) applies to these students.⁷ Although educational researchers have not yet focused on optometry students, they have identified graduate students in other health professions, including medical students⁸ and more specifically psychiatry residents with ADHD.⁷ As these groups represent students in a health profession training program that includes both intense classroom instruction and clinical practice,⁷ it is likely that their experiences are comparable to those of optometry students with ADHD. Considering the prevalence rates of ADHD in adults as well as the existence of students with ADHD in other health professions, it is expected

that a percentage of optometry students will have ADHD and will subsequently be at risk of having academic difficulty.

It is imperative that optometric educators understand how ADHD may affect students. Researchers suggest that professors and administrative personnel take a more active role in promoting the academic success of students with ADHD^{3,9-12} by understanding the challenges that these students face as well as what role they can play in improving their success rate.¹⁰ The ADA states that individuals with disabilities, including ADHD, must be afforded reasonable accommodations that allow them to perform at an acceptable level. To maximize outcomes, a collaborative approach between the student, administration and faculty, working within the boundaries of the ADA, should be sought.⁷ The purpose of this paper is two-fold: 1) to inform optometric educators how ADHD manifests in students and impacts a student's education and 2) to provide practical recommendations that can be used to help optometry students in their success both in the classroom and in clinical settings.

Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is characterized by a pattern of inattention, and/or hyperactive/impulsive behavior that manifests across multiple settings.¹³ It causes significant impairment in the ability to filter out irrelevant information, sustain focus, delay gratification, think before acting and problem-solve.¹⁰ ADHD currently is divided into three subtypes: 1) Predominantly Inattentive Type; 2) Predominantly Hyperactive/Impulsive Type; and (3) Combined Type. Inattentive symptoms include difficulty concentrating, poor attention to detail, difficulty completing tasks and forgetfulness. Hyperactive/Impulsive symptoms include significant motor agitation, difficulty awaiting turns and excessive talking.¹⁴ While diagnostic criteria emphasize mainly the behavioral manifestations of ADHD, it should also be conceptualized as a cognitive disorder with implications for academic impairments. Strong evidence exists to support that ADHD affects the neurobiology of the prefrontal cortex,⁵ spe-

cifically leading to deficits in executive functioning.^{5,15} Executive functioning deficits include difficulty with time management, organization and planning.¹⁵

ADHD in Adults

While ADHD does not have an adult onset, many people are not diagnosed until adulthood. Hyperactive symptoms typically attenuate, but symptoms of inattention and impulsivity continue into adulthood.^{1,16} In Adult ADHD, symptoms of inattention include difficulty sustaining attention to reading or paperwork, managing time, completing tasks and focusing and keeping track of important items. In adults, symptoms of hyperactivity include an inner sense of restlessness, a sense of overwhelm, excessive talking and fidgeting while seated. Impulsivity manifests as impulsive job changes, speeding while driving, frequent traffic accidents and a quick temper.¹⁶ Other typical behavioral manifestations of ADHD in adults include missing appointments or deadlines, difficulty unwinding and more subtle motor agitation such as pacing or leg shaking,¹ cluttered workspaces, misplaced paperwork and difficulty prioritizing. Problems with organization create difficulties completing complex tasks at work.¹⁶ Relationship problems and social skill deficits are also common.¹⁴

ADHD in the Higher Education Environment

Regardless of age, the education setting is challenging for individuals with ADHD.¹¹ In addition to the difficulties associated with ADHD, additional learning problems are common.³ Despite these challenges, many seek post-secondary education.¹⁷ Research indicates that college students with ADHD represent a unique subset of adults with the disorder who are likely to have higher cognitive abilities, a better academic record and more compensatory skills than the general population of adults with ADHD.^{3,4} Nevertheless, these students continue to face significant difficulties with inattention, which lead to problems with note-taking, outlining and completing lengthy reading assignments.⁴ Additionally, they face

executive functioning deficits, including problems with time management, organization, follow-through, self-monitoring and problem-solving.^{4,18} While these are not academic skills, per se, they are all necessary skills to be successful in the academic environment.¹⁸ The college environment has minimal structure, requires a large amount of independent learning and gives students a large amount of autonomy.¹² This can be difficult to manage for students with ADHD as they must rely heavily on self-discipline to manage their time wisely.⁶ Academic performance often depends on students' ability to complete long-term projects and educate themselves using multiple sources such as texts, lecture notes and library reference materials.¹² They must maintain focus during lengthy lecture classes and make appropriate decisions with minimal guidance from professors.⁶

These same skills are necessary in graduate school. While students may have been able to compensate for their deficits in an undergraduate program, the increased intensity and volume of graduate education may lead to new challenges. Students may find that previous compensatory measures are no longer effective.⁷ Dr. DeDe Wohlfarth, a clinical psychologist and professor in the School of Professional Psychology at Spalding University, has been teaching both undergraduate and graduate students for 10 years. One of her areas of specialty is ADHD in college students. She maintains that ADHD manifests itself through academic work as well as interpersonal skills.¹⁹ When asked about typical issues for graduate professional students with ADHD, she commented, "In graduate school, there is even less structure and even larger projects than an undergraduate program."

Graduate students are not only expected to learn basic concepts and information but also to think critically about this knowledge and apply it to patient care.¹⁹ In addition to the academic side of graduate training, the clinical component can also be challenging for the student with ADHD. This includes working within a system of other healthcare professionals, being compassionate and appropriate with patients and communicating effectively with both patients and other professionals.⁷ In the inter-

personal domain, Dr. Wohlfarth noted that social skill deficits, which are often disregarded in the undergraduate classroom, become an area for professional development for the graduate student.¹⁹ She explains that blurting out or not focusing can lead to negative reactions from peers.¹⁹

In adherence with the ADA, institutions of higher education must provide a fair and equal education opportunity for students with documented disabilities, including ADHD. This is accomplished by providing students with appropriate accommodations. These accommodations allow students to complete their program requirements adequately but do not alter the requirements or take responsibility away from the student to demonstrate core competencies.⁷ Accepted classroom accommodations for students with ADHD include extended time for testing, testing in distraction-free environments and note-taking assistance.⁵ Since the graduate school population has not been well-studied, researchers can only speculate about what may be appropriate accommodations for graduate students. Researchers suggest close monitoring of student's performance, facilitation of learning strategies and providing a structured curriculum. To address possible challenges in the clinical setting, suggestions include direct observation, regular feedback, review of documentation and mentoring.⁷

Optometry Students with ADHD

Transitioning from an undergraduate student to an optometric graduate student can be challenging for many students because of the added volume and intensity of coursework. Time management and juggling the increased workload are two areas that were reported to be the biggest adjustments for first-year optometric students.²⁰ Since time management is a chronic problem for persons with ADHD, it is reasonable to posit that optometry students with ADHD will have difficulty in this area. As in undergraduate programs, these students may struggle with completing lengthy readings and other assignments on time or being able to synthesize a large amount of information in a short period of time. Additionally, optometry

students report that a major difference between undergraduate and graduate training is the need to arrange time on the weekends to practice clinical techniques.²⁰ Again, the difficulties in time management that commonly interfere with daily life for a person with ADHD may affect an optometry student's ability to find time for practicing clinical techniques. Lastly, students will often be in a lecture class for four to five hours at a time.²⁰ The student with ADHD will likely have difficulty focusing for such an extended period of time.

As students progress through optometry school, their training becomes more focused on clinical practice.²⁰ Inattention as well as executive functioning deficits (e.g., problem-solving, planning and organization) may cause new challenges in the clinical setting. Critical thinking skills, including the ability to synthesize knowledge about optometric concepts and apply it to assessing patients' problems, are important for success in an optometry program.²¹ To apply these skills, the clinician will likely need to ask appropriate questions to extract relevant information. The difficulties inherent to ADHD may cause problems for clinicians with ADHD, as they may become distracted by irrelevant information and/or may ignore important aspects of the patients' stories. The associated problems of ADHD thus indirectly affect critical thinking.

Documentation also requires tedious attention to detail, which can also be a weakness of a person with ADHD. The eye exam itself has the potential to become repetitive and understimulating for the clinician with ADHD, which may lead to errors in assessment and/or recording results. Executive functioning deficits also affect time management, a problem cited by many medical professionals.²² It is likely that a student with ADHD will experience difficulties with time management, including problems with ending patient exams on time, completing documentation and staying focused and aware of time spent on activities. Organizational problems may manifest as incomplete or lost paperwork.

Lastly, interpersonal skills are necessary for working effectively with patients as well as other professionals. This includes appropriately demonstrating

compassion, clearly explaining presenting problems or effectively gathering information. This also includes effectively navigating the larger healthcare system.⁷ Persons with ADHD often interrupt others when they are talking, talk excessively and miss nonverbal cues.¹⁶ This leads to frequent interpersonal relationship problems, which may translate into the clinical setting and potentially lead to difficulty building rapport with patients, working effectively with a supervisor and/or communicating effectively with other professionals. Additionally, the associated difficulties of poor time management and poor organization may negatively impact relationships with other professionals.

The Role of Educators and Administrators in Promoting Academic Success

Research has identified social support as an important factor in the academic success of the student with ADHD. Within the domain of social support is sensitivity from professors^{9,10} as well as various disability support services.⁴ First, becoming more aware of how ADHD manifests in college students will assist professors in being able to identify these students in their classrooms. This is not to say that it is the job of the optometric educator to identify students. However, the likelihood of college or graduate school being the first time a student encounters significant difficulty is high.^{11,17} Therefore, an educator's awareness of how ADHD manifests may lead to an early diagnosis and an appropriate referral for evaluation.

Second, being sensitive to the issues related to the student's ADHD is helpful. Research has shown that a professor who is sensitive and understanding to the needs of the student with ADHD positively influences academic success. Conversely, students often sense a negative attitude from faculty regarding their ADHD. This leads to feeling unwanted and unaccepted and creates an additional burden for the student. Conveying empathy as well as encouraging students to seek disability support services is strongly recommended. The professor's respect and understanding for a student's need for accommo-

dations is an important factor in that student's success.¹⁰ Students may have additional ways of compensating other than typical accommodations. For example, the student may doodle, fidget with a small object or even eat during a lengthy lecture to help maintain focus. The instructor's flexibility and tolerance of these methods also conveys understanding to the student. Dr. Wohlfarth strongly recommends that professors be flexible and willing to make accommodations in their classrooms.¹⁹ "ADHD is a real diagnosis that requires accommodations to be on a level playing field," advised Dr. Wohlfarth.¹⁹

Due to the lack of available data on optometry students with ADHD, no set of accommodations has been defined at this point. However, other medical fields have identified accommodations that can impact the educational experience of students with ADHD. These include closely monitoring a student's progress through review of written work and direct observation.⁷ This can be accomplished through mentoring, a positive relationship between the professor and student specifically geared toward becoming a successful optometrist. Within this relationship, the mentor can facilitate the development of learning strategies and provide direct feedback to the student. Determining appropriate accommodations should be a collaborative process specific to the individual student.⁷ An ideal way to assess the individual needs of students is to provide individual meetings where the professor can truly listen to the student. These meetings can serve several purposes, such as creating built-in timelines and accountability systems for major projects, reviewing the student's performance and giving specific examples of behaviors that may be problematic. Dr. Wohlfarth suggests conducting formative evaluations, done on an ongoing basis instead of summative evaluations.¹⁹ "Students need ongoing feedback given in a timely manner that allows students to improve," said Dr. Wohlfarth.¹⁹

Ongoing and frequent evaluations are also helpful in the clinical setting. As the purpose of clinical training in graduate school is to prepare students for the professional world, it is reasonable to provide these students with clear feedback

throughout their learning experiences. This will add to the student's awareness of the problem as well as provide an opportunity for improving performance. As in the classroom setting, individual meetings in the clinical setting allow for clear expectations to be outlined and detailed feedback to be provided based on short-term performance. For example, the student may be unaware that his/her poor organization is reflecting negatively on overall performance. The student will likely need direct and straightforward feedback regarding this issue. The willingness of the supervisor or clinical faculty to help make a plan for remediating this issue can be very effective. One way to possibly minimize the difficulties that will arise in the clinical setting is to prepare the student for potential problems prior to beginning a clinical rotation. Talking with a student, walking him/her through a typical day and reviewing responsibilities can make a big difference. Role-playing a patient interview or doing mock examinations is another way to help the student with ADHD get a clear picture of what to expect.

The overarching role of the institution is to understand the ADA and to have a clear set of guidelines for handling students with disabilities. Per the ADA, reasonable accommodations provide the student with fair access to examinations and courses (when compared to nondisabled students) but do not cause undue burden on the institution or fundamentally alter the academic program.⁷ As symptoms and severity of ADHD differ from individual to individual, the needs for specific accommodations will vary across individuals.¹⁸ Therefore, meeting the specific needs of an individual student with ADHD requires collaboration between the student, faculty and administration.⁷ The previously discussed accommodations should be considered a general guide that can be used to determine the needs of students on a case-by-case basis.

Conclusion

The education setting is the environment that prepares students for their future in the professional arena. Students with ADHD face a variety of difficulties in the academic setting that the average student does not. Although

college students with ADHD are likely to have higher cognitive abilities and compensatory skills than the average adult with ADHD, they have more difficulties than the average student.⁴ Even students who have learned to be successful in the undergraduate setting may find themselves struggling in the graduate arena.⁷ Optometry school can be a difficult adjustment. The student with ADHD may face even more challenges and difficulties. Understanding and being sensitive to the specific difficulties these students face are key factors in promoting their academic success. Informed educators have the distinct advantage of being able to aid these students in gaining insight into their deficits and developing strategies that improve their performance. This is best achieved through a collaboration between the institution and the student. These efforts can make a significant difference in the academic performance of a student with ADHD and ultimately will positively impact his/her career as an optometrist.

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