

Identifying Knowledge Gaps in ADHD Research

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Introduction

Attention-deficit hyperactivity disorder (ADHD) is a chronic and often life-long condition [1] marked by symptoms of inattention and hyperactivity-impulsivity, which affects approximately 5% of children and 2.5% of adults (American Psychiatric Publishing, 2013). For many years, ADHD has been cited as one of the most extensively researched conditions in modern medicine [2], and those like Campbell [3] assert that we likely know more about ADHD than any of the other childhood onset conditions.

Yet, despite the prolific amount of research carried out, many questions remain unanswered about the true nature of ADHD, and there are numerous areas which are underexplored—especially in relation to the experiential aspects of living with the condition. This short editorial will attempt to outline the key gaps and explain why these areas also require our consideration.

Knowledge Gaps

Gender

One of the most significant knowledge gaps related to ADHD is in the area of gender, as the vast majority of previous studies have been conducted largely with samples of young males. Indeed, as Nadeau and Quinn [4] assert, "Most of our understanding of ADHD, to date, is based on the study of males," and as a result, females are underrepresented in the present body of ADHD research [5]. While this characteristic is true of all ages, it is particularly representative of adolescent and young adult women, whose inclusion in research has been minimal to date.

Although researchers debate the issue of gender differences in ADHD [2,6], the Diagnostic and Statistical Manual for Mental Disorders (DSM-5) reports prevalence rates in males and female children of 2:1; in adults the ratio reduces to 1.6:1 (American Psychiatric Publishing, 2013). However, even the diagnostic criteria for ADHD contained in the DSM-5, which are the standard by which most cases of ADHD are diagnosed, have been criticised because they were developed from clinical trials conducted with samples consisting largely of school-age boys [7]. Therefore, some assert these criteria may not adequately account for the unique ways in which females with ADHD may be affected by the condition [8] and Sassi [5] maintains there may be millions of young girls and women affected by ADHD who are

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"misdiagnosed and undertreated." If this is true, then prevalence rates as reported in the DSM, may be incorrect, and it is clear that the inclusion of females with ADHD in future ADHD research is greatly needed and warranted.

Personal voice

Another gap in our knowledge of ADHD regards a substantial lack of direct input by persons living with ADHD. It is important to recognise that the vast majority of ADHD research has taken place within the clinical setting, and has largely employed quantitative methods of enquiry. As a result, the "voices" of persons living with ADHD are rarely heard within research, as studies commonly "speak about" them, but often fail to "listen" and give equal consideration to the value of their perspectives and experiences of living with ADHD. As Kendall and colleagues [9] maintain, we rarely hear "the voices of the children and adolescents who are most directly affected" by the condition, and the same could also be said of adults as well. This is true, despite the fact that children and adolescents have been recognised as valuable partners in research, particularly when they are engaged in topics which directly relate to and affect their lives. Therefore, it can be argued that these groups can also provide meaningful and valuable information about living with ADHD, and therefore, we must increasingly seek input from young people who are directly affected by the condition. Failing to do so would be both unethical and unwise, as their perspectives could be beneficial in advancing our knowledge and potentially improving the lives of others living with ADHD.

School context

It is widely accepted that ADHD can negatively influence the educational outcomes of those who are affected by the condition (American Psychological Publishing, 2013). Among other issues, ADHD is associated with a host of difficulties such as poor grades, low standardized test scores, increased rates of detention and expulsion, and low rates of high school graduation and postsecondary education [10]. Yet, although a significant amount of research has taken place within the educational context to address these areas, many gaps remain.

Firstly, much of the research which considers ADHD within the academic realm has been conducted within primary schools, and fewer studies have explored ADHD within the second and third-level contexts. This lack of exploration in higher levels of education is worrisome considering that ADHD can impose a life-long impact, and the condition is clearly not limited to childhood. Therefore, increased research is required within second and third-level institutions.

Secondly, given the potentially negative impact of ADHD on academic performance, a significant number of studies have considered and assessed the effectiveness of school-based interventions for persons with ADHD [11,12], but rarely have researchers directly sought the perspectives of students with ADHD in determining the best and most appropriate educational supports they require. Those like Griffin and Shevlin [13] readily acknowledge the benefits of involving students with special educational needs in their own learning, which they maintain is an effective means of moving students “out of the failure cycle.”

Therefore, it seems reasonable to infer that the perspectives of students with ADHD could also be helpful in moving this population out of this cycle, and towards increased academic success. As such, their perspectives are greatly needed in this area.

Lastly, teachers have commonly been engaged in ADHD research, perhaps as recognition of the valuable role they play in identifying students with special educational needs and providing personalised support within the classroom. Much research has focused on assessing teachers’ knowledge and understanding of ADHD [14-16], as well as their attitudes towards students with the condition [17-19]. However, significantly fewer studies have engaged students with ADHD, particularly in relation to their wider educational experiences within schools, and here too, this gap points to a clear need for increased research with this population, especially as a means of determining the impact of ADHD in the educational setting which extends beyond academic outcomes and performance.

Conclusion

As this paper has illustrated, there are numerous gaps in our present knowledge and understanding of ADHD, particularly as related to engaging individuals diagnosed with the condition in qualitative research which seeks their perspectives and explores the experiential aspects of life with ADHD. Given the chronic and pervasive nature of ADHD, it is crucial that we not neglect these areas in our research—as greater understanding and knowledge can result in direct improvements and increased outcomes in the lives of those who are personally affected by ADHD.

References

- 1 Waite R (2007) Women and attention deficit disorders: a great burden overlooked. *J Am Acad Nurse Pract* 19: 116-125.
- 2 Arnold L (1996) Sex differences in AD/HD: conference summary. *J Abnorm Child Psychol* 24: 555-569.
- 3 Campbell S (2000) "Attention-deficit/hyperactivity disorder: a developmental view." In: Sameroff A, Lewis M, Miller S (eds.) *Handbook of Developmental Psychopathology* (2nd edn.) New York: Kluwer Academic/Plenum Publishers, pp: 383-401.
- 4 Nadeau K, Quinn P (2002) "Rethinking the DSM-I." In: Nadeau K and Quinn P (eds.) *Understanding Women with ADHD*. Silver Spring: Advantage Books, pp: 2-23.
- 5 Sassi R (2010) Attention-deficit hyperactivity disorder and gender. *Arch Womens Ment Health* 13: 29-31.
- 6 Gaub M, Carlson C (1997) Gender differences in ADHD: a meta-analysis and critical review. *J Am Acad Child Adolesc Psychiatry* 36: 1036-1045.
- 7 Lahey B, Applegate B, McBurnett K, Biederman J, Greenhill L, et al. (1994) DSM-IV field trials for attention deficit hyperactivity disorder in children and adolescents. *Am J Psychiatry* 151: 1673-1685.
- 8 Nussbaum N (2012) ADHD and female specific concerns: a review of the literature and clinical implications. *J Atten Disord* 16: 87-100.
- 9 Kendall J, Hatton D, Beckett A, Leo M (2003) Children's accounts of attention-deficit/hyperactivity disorder. *Adv Nurs Sci* 26: 114-130.
- 10 Loe I, Feldman H (2007) Academic and educational outcomes of children with ADHD", *J Pediatr Psychol* 32: 643-654.
- 11 DuPaul G, Eckert T, Vilardo B (2012) The effects of school-based interventions for attention deficit hyperactivity disorder: a meta-analysis. *School Psych Rev* 41: 387-412.
- 12 DuPaul G, Weyandt L, Janusis G (2011) ADHD in the classroom: effective intervention strategies. *Theory Pract* 50: 35-42.
- 13 Griffin S, Shevlin M (2011) Responding to special educational needs: an Irish perspective (2nd edn.) Dublin: Gill & Macmillan.
- 14 Kos J (2008) "What do teachers know, thing and intend to do about ADHD?" Paper presented to the European Conference on Educational Research.
- 15 Ghanizadeh A, Bahredar M, Moeini S (2006) Knowledge and attitudes towards attention deficit hyperactivity disorder among elementary school teachers. *Patient Educ Couns* 63: 84-88.
- 16 Vereb R, DiPerna J (2014) Teachers' knowledge of ADHD, treatments for ADHD, and Treatment Acceptability: an initial investigation. *School Psych Rev* 33: 421-428.
- 17 Mulholland S, Cumming T, Yup Jung J (2015) Teacher attitudes towards students who exhibit ADHD-type behaviours. *Australas J Spec Educ* 39: 15-36.
- 18 Rush C, Harrison P (2008) Ascertaining teachers' perceptions of working with adolescents diagnosed with attention-deficit/hyperactivity disorder. *Educ Psychol Discipline* 24: 207-223.
- 19 Kirby P (2003) Attention deficit hyperactivity disorder in the mainstream primary school: investigation of teachers' perceptions. M.A. Thesis. University College Dublin.