

A Pilot Study: Sample Population Selection For Investigating Adhd Symptoms In School- Aged Children From Hyderabad, Telangana

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Abstract

This pilot study delves into investigating ADHD symptoms in school-aged children in Hyderabad, Telangana, with a focus on potential gender differences. ADHD, characterized by persistent inattention and/or hyperactivity/impulsivity, profoundly impacts various life domains. The study employed a sample of 22 students, the sample for the present study was selected based on specific criteria. Diagnostic Test of Attention Deficit Hyperactivity Disorder (DT-ADHD) tool was administered for data collection, revealing noteworthy findings regarding inattention, hyperactivity, and impulsivity levels among boys and girls. The results suggest potential gender-based variations in ADHD symptom manifestation, warranting further research with diverse populations to validate and expand these insights. This study underscores the need for tailored interventions, comprehensive assessment approaches, and collaborative efforts to address the multifaceted challenges of ADHD and enhance individual's quality of life.

Keywords: adhd symptoms, school-aged children, hyderabad, telangana, inattention, hyperactivity, impulsivity, data collection, dt-adhd tool, gender-based variations, tailored interventions, comprehensive assessment, collaborative efforts, quality of life

INTRODUCTION

Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental condition characterized by persistent patterns of inattention and/or hyperactivity/impulsivity. This disorder significantly hinders an individual's ability to focus, control behavior, and manage hyperactivity. Attention-deficit/hyperactivity disorder (ADHD) is among the most common mental disorders in children, affecting approximately 5-7% of school-aged children and 2-5% of adults, according to the ¹American Psychiatric Association (2013). Over time, ADHD's conceptualization evolved through successive DSM editions, reflecting enhanced insights into its diverse clinical presentations ²Barkley, 2015. While there's no singular cause, certain risk factors like low birth weight, iron deficiency, head trauma, sleep apnea, lead exposure, and prenatal substance exposure heighten ADHD risks ³Cubillo et al., 2014. ADHD often co-occurs with Specific Learning Disabilities, affecting 30-50% of affected children ⁷DuPaul et al., 2013.

This overlap exacerbates academic struggles, lowers self-esteem, and increases frustration, necessitating comprehensive approaches for ADHD and learning difficulties.

ADHD's complexity stems from a multifactorial etiology, where genetic, biochemical, sensory-motor, physiological, and behavioral factors interplay ¹⁰Thapar et al., 2013. Initially termed "hyperkinetic reaction in childhood or adolescence" in DSM-II (American Psychiatric Association, 1968), ADHD's diagnostic criteria broadened in subsequent revisions. DSM-III (American Psychiatric Association, 1980) acknowledged inattention and impulsivity alongside hyperactivity. DSM-IV (American Psychiatric

Association, 1994) classified ADHD into subtypes: predominantly inattentive and predominantly hyperactive-impulsive, enhancing diagnostic accuracy. DSM-V (American Psychiatric Association, 2013) eliminated subtypes, emphasizing core symptom domains: Inattention and Hyperactivity-Impulsivity,

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highlighting ADHD’s continuity into adulthood and advocating early intervention.

ADHD profoundly impacts academic, social, and occupational facets, impairing attention regulation, motor control, and impulsivity management (American Psychiatric Association, 2013). Neurodevelopmental disorders like ADHD typically manifest in early childhood and profoundly impact personal, social, academic, and vocational capabilities. Children with ADHD often struggle with attention, memory, perception, language, problem-solving, and social interactions ¹¹Willcutt, 2012. Its widespread effects underline the need for targeted interventions.

Neuroimaging studies highlight structural and functional abnormalities in the prefrontal cortex and dopaminergic system, implicating hyperactivity’s neurobiological basis ⁴Curatolo et al., 2010. Prevalence varies, impacting academic performance, social interactions, and overall well-being ⁹Polanczyk et al., 2007; ⁵Danckaerts et al., 2010. Addressing impulsivity improves ADHD outcomes, emphasizing personalized interventions.

ADHD’s complexity encompasses diverse symptoms, etiological factors, and impacts across lifespan domains. Early recognition, comprehensive assessment, and tailored interventions are crucial for mitigating ADHD’s challenges and enhancing affected individuals’ quality of life.

OBJECTIVE

This study aims to investigate ADHD symptoms in school-aged children from Hyderabad, Telangana, focusing on potential gender- based variations in inattention, hyperactivity, and impulsivity levels.

HYPOTHESIS

There exists a significant difference in how ADHD symptoms manifest between genders, with boys exhibiting higher levels of inattention, hyperactivity, and impulsivity.

MATERIAL AND METHODS

The study included 22 school-aged children, from Hyderabad Telangana. For the data collection, the ‘DT-ADHD tool was used to assess inattention, hyperactivity, and impulsivity levels. It is a rating scale particularly designed for the use of school teachers to identify their wards with attention deficit hyperactivity disorder, and Conduct Disorder. The test has 56 items describing behavior and characteristics of person with ADHD and Conduct disorder reported in the guideline of ICD-10. Test-retest reliability for the DT-ADHD for the subtest of inattention is 0.929, for hyperactivity 0.925, for impulsivity 0.972 and for conduct disorder 0.945. It shows good test- retest reliability of the test. Cross validity has been found to be 0.749. It shows good cross validity. Teachers provided their observations, and the obtained data

was analyzed and the symptom severity was compared across genders.

FINDINGS

Table 1

Features of ADHD	Gender	N	Mean	SD
Inattention	Boy	11	2.2727	.64667
	Girl	11	1.1818	.40452
Hyperactivity	Boy	11	2.3636	.50452
	Girl	11	1.4545	.52223
Impulsivity	Boy	11	2.0909	.70065
	Girl	11	1.8182	.40452

The analysis from Table 1, reveals distinct differences in ADHD symptomatology between boys and girls. The obtained scores in inattention, indicate that boys displayed a substantially higher mean score of 2.2727 (SD = .64667) compared to girls, who had a mean score of 1.1818 (SD = .40452), signifying a notable difference in inattentive behavior. Similarly, in terms of hyperactivity, boys exhibited a mean score of 2.3636 (SD = .50452), significantly surpassing girls’ mean score of 1.4545 (SD = .52223), reinforcing the significant divergence in hyperactive tendencies between genders. Moreover, the analysis of impulsivity levels indicated that boys had a mean score of 2.0909 (SD = .70065), markedly higher than girls mean score of 1.8182 (SD = .40452), highlighting a clear gender discrepancy in impulsive behaviors as well.

These findings collectively support the initial hypothesis, demonstrating that boys, on average, exhibit markedly higher levels of inattention, hyperactivity, and impulsivity compared to girls within the context of ADHD symptom manifestation.

DISCUSSION AND CONCLUSION

In the present study Kolmogorov Smirnov test was used to find out the normalcy of the data. The data was evaluated using an independent sample t-test; to compare the mean scores between two groups. Boys consistently exhibited higher mean scores across all three features of ADHD, emphasizing the need for gender-sensitive approaches in understanding and addressing ADHD. These findings contribute valuable insights into the nuanced presentation of ADHD across genders, underscoring the importance of tailored interventions and comprehensive assessment strategies. In a related study by ⁸Gupta et al. (2020), conducted in a rural area among children aged between 6 to 12 years, and attending Government schools, the prevalence of ADHD was significantly higher in males (76.9%) compared to females (23.1%). The obtained results of the study reveals that there is significant difference between both the genders, hence accepting the hypothesis stated in the study.

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