

Attention Deficit Hyperactivity Disorder (ADHD): Awareness, Attitudes, and Behavioural Responses among Aspiring Teachers in North East India

R. D. Padmavathy

Abstract

The global rate of attention deficit hyperactivity disorder (ADHD) among school-aged children, ranging from 3 to 17 years, is gradually increasing. Despite this growing prevalence, previous studies have highlighted a gap in research specifically related to ADHD and aspiring teachers. The present study aims to address this gap by examining the awareness, attitudes, and behavioural responses towards ADHD among aspiring teachers in North East India. The study seeks to assess their level of awareness, attitudes, and behavioural responses concerning ADHD. To gather data, the researcher employed a descriptive survey research design and a convenience sampling method, involving 88 aspiring teachers. Data collection utilised a self-constructed Knowledge and Awareness towards ADHD tool, in addition to the “attention deficit hyperactivity disorder (ADHD) Tool” developed by Jain and Gunthey (2013). The findings indicate that the aspiring teachers’ levels of awareness, attitude, and behaviour response towards ADHD are generally average. Specifically, 65% of the aspiring teachers demonstrated good knowledge, 77% exhibited a desirable attitude, and 75% showed good behaviour related to ADHD. Overall, 53% of the participants displayed an acceptable level of awareness, attitude, and behaviour towards ADHD. While aspiring teachers possess above-average knowledge about inattention, hyperactivity, and impulsivity, they struggle to clearly distinguish the specific characteristics of ADHD.

Keywords: Attention Deficit Hyperactivity Disorder, Awareness, attitude, behaviour, aspiring teachers, North East India

Introduction

Attention-Deficit Hyperactivity Disorder is a “neurodevelopmental disorder that presents significant challenges for individuals and their educators. It is characterised by persistent inattention, hyperactivity, and impulsivity, which can significantly impact an individual’s academic, social, and behavioural functioning” (Liang & Gao, 2016). The extant literature suggests that teachers’ knowledge and perceptions of ADHD can have a significant influence on the support and interventions provided to students affected by this disorder (Youssef et

al., 2015, Liang & Gao, 2016). Understanding the current state of awareness and attitudes among aspiring teachers in the North East Indian region is crucial, as their perspectives and actions can substantially impact the educational and social outcomes of children with ADHD (Norvilitis & Fang, 2005, Hong, 2008).

Although research on ADHD has been extensive, particularly in developed nations, there is a notable lack of understanding and awareness surrounding this condition in certain regions, and understanding how aspiring teachers perceive and respond to

ADHD is crucial, especially in regions like North East India where awareness may be limited. This study aims to investigate aspiring teachers' awareness, attitudes, and behavioural responses toward ADHD in the North East Indian context, as they play a crucial role in identifying, supporting, and advocating for students with such needs (Norvilitis & Fang, 2005; Youssef et al., 2015; Hong, 2008). It aims to shed light on their understanding of the disorder, their attitudes towards affected students, and their anticipated approaches to supporting these students within the classroom setting. This study is particularly significant as it explores a critical gap in the literature and provides valuable insights into pre-service teacher preparedness to support neuro-diverse learners in the North East Indian context.

Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder that greatly influences children's social skills, academic achievement, and overall well-being. It is characterised by recurrent patterns of impulsivity, hyperactivity, and inattention that hinder functioning or development (American Psychiatric Association, 2013).

Diagnostic and Statistical Manual of Mental Disorders (5th ed.) (DSM-5) defines "attention deficit hyperactivity disorder is characterised by a pattern of behaviour, present in multiple settings (e.g., school and home), that can result in performance issues in social, educational, or work settings. As in DSM-IV, symptoms will be divided into two categories of inattention and hyperactivity and impulsivity that include behaviours like failure to pay close attention to details, difficulty organizing tasks and activities, excessive talking, fidgeting, or an inability to remain seated in appropriate situations". Presented below a concise summary of the three categories detailed in the "Attention

Deficit Hyperactivity Disorder Tool" handbook authored by Jain and Gunthey (2013):

- **"Inattention"** in individuals with ADHD can manifest in several ways. They often fail to pay close attention to detail, resulting in careless mistakes in schoolwork or other activities. They may have difficulty sustaining attention on tasks or play activities and frequently do not seem to listen when spoken to directly. Following instructions and completing schoolwork, chores, or job duties can be challenging, and they often struggle with organizing tasks and activities. Additionally, they might avoid or dislike tasks that require prolonged mental effort, frequently lose items needed for tasks, and are easily distracted and forgetful in daily activities.
- **Hyperactivity** is characterised by behaviours such as fidgeting with hands or feet or squirming in their seat. They may get up from their seat when remaining seated is expected, run or climb inappropriately, and have trouble playing or engaging in leisure activities quietly. Individuals with ADHD are often described as being "on the go" or acting as if driven by a motor, and they may talk excessively.
- **Impulsivity** in ADHD is evident when individuals blurt out answers before questions are completed, have difficulty waiting their turn, and frequently interrupt or intrude on others".

Etiology and Risk Factors

ADHD has a complicated etiology that includes neurological, environmental, and hereditary components. According to genetic research, the heritability of ADHD ranges from 70% to 80%, indicating that the disorder is strongly heritable (Thapar et al., 2013). Low birth weight and environmental variables including stress, alcohol, or cigarette use during pregnancy have also been linked to a higher chance of having ADHD (Froehlich et al., 2011). According to Thapar and Cooper (2016), environmental factors like stress in the early years of life and prenatal exposure to chemicals may

also have an impact on its development. Neuroimaging studies have identified structural and functional abnormalities in brain regions related to attention and executive function, including the prefrontal cortex and basal ganglia (Cortese et al., 2012). Hoogman et al. (2017) have reported that the condition is associated with both structural and functional abnormalities in the brain, particularly in regions that are involved in reward processing, executive function, and attention. Comparing people with ADHD to controls in neuroimaging studies has revealed smaller volumes in the cerebellum, basal ganglia, and prefrontal cortex (Valera et al., 2007).

Role of Teachers in Supporting Students with ADHD

Teacher's role is very crucial and multifaceted; they are the ones who work with children closely for many hours. Teachers play a critical role in detecting, managing, and providing assistance for students with ADHD because they can spot probable signs and suspect whether a child is having ADHD. They foster an atmosphere in which children with ADHD can flourish intellectually, socially, and emotionally since they are important characters in their daily lives. Their engagement goes beyond scholastic teaching to include behavioural treatments, social-emotional support, and working in tandem with families and medical professionals. Concern about diagnosis and management next to parents; teachers play a key role in a student's life. In addition to doctors, medical professionals, psychologists, mental health providers, and educators play a pivotal role in diagnosing, intervening, and developing remedial strategies to support individuals' overall well-being and academic success. Educators are the one who recognise the symptoms of ADHD disorders first and bring notice to parents and others.

So, teachers must be given sound knowledge about ADHD and the intervention strategies. In consonance with lines Sax &

Kaut (2003) highlighted that teachers and other personnel in the school environment were the first persons who diagnosed ADHD problems in children. Kypriotaki & Manolitsis (2010) revealed that "teachers detect far more students with ADHD than the number expected from the norms based on the standardised ADHD rating scale".

Aspiring teachers are uniquely positioned to shape the future of education for students with ADHD, bringing fresh perspectives and innovative teaching strategies to the classroom. However, their effectiveness largely depends on their understanding of and attitudes towards the disorder (Mulholland et al., 2015). Many enter the field with misconceptions or limited knowledge about ADHD, which can lead to ineffective teaching strategies and potentially harmful attitudes (Bekle, 2004). Research has shown that teachers' attitudes significantly influence their classroom behaviour and interactions with affected students, with positive attitudes associated with more supportive practices and better outcomes (Ohan et al., 2008). To create inclusive environments, aspiring teachers need a comprehensive understanding of ADHD, including its symptoms, causes, and effective interventions (Martinussen et al., 2011). Their attitudes also influence their willingness to implement necessary accommodations and modifications, with open-mindedness more likely to result in the adoption of evidence-based strategies that improve student outcomes (Sherman et al., 2008). Recognizing the impact of their attitudes on students' self-esteem and self-efficacy is crucial, as supportive teachers can significantly enhance the overall well-being and academic success of students with ADHD (DuPaul & Weyandt, 2006). To ensure adequate preparation, teacher education programs should incorporate comprehensive training on ADHD and other neurodevelopmental disorders, addressing both factual knowledge and attitudes (Zentall & Javorsky, 2007). It is possible to establish more inclusive and supportive learning environments for all students, especially

those with ADHD, by encouraging aspiring instructors to have accurate knowledge and good attitudes.

Review on Prevalence of ADHD and its Comorbidities

ADHD is a neurodevelopmental condition that affects individuals worldwide, with prevalence rates demonstrating significant regional variability. This review synthesizes current literature on the prevalence of ADHD and its comorbidities, with a focus on global and regional trends, including insights from India.

Global Prevalence of ADHD

The prevalence of ADHD varies across regions due to differences in diagnostic criteria, cultural norms, and healthcare accessibility. In the United States, ADHD prevalence among children and adolescents ranges between 4% and 9.4% (Schoeman & De Klerk, 2017; Danielson et al., 2018). Higher rates are reported in the Middle East, including the United Arab Emirates (29.7%) and Saudi Arabia (16.4%) (Al-Ahmed, 2008). In Asia, Korea demonstrates ADHD prevalence rates of 7.1% to 71.9% in 2018 (Soe et al., 2022), while studies in China report a prevalence of 6.26% (Wang et al., 2017). In Japan, ADHD prevalence ranges from 0.1 to 8.1%, in Europe, ADHD affects approximately 7.2% of children and adolescents (Thomas et al., 2015), reflecting significant variability across countries. These statistics underscore the global impact of ADHD and the need for tailored interventions.

ADHD in India: Prevalence and Regional Variations

India presents a unique landscape for ADHD research due to its diverse population and socio-economic conditions. Research highlights the prevalence of ADHD and regional disparities, among children in Kashmir was recorded at 4.31% by Dar

(2015) and Sharma et al. (2020) reported 6.34% in Jammu. In North India, Bansal and Barman (2011) reported a prevalence of 6%, specific in New Delhi was reported as 6.4% by Yewatkar (2015). In Rajasthan, Suthar (2018) found a prevalence of 5.7%, while studies in Mumbai by Ajinkya et al., (2012) highlighted a higher prevalence of 12.3%, Nawabzada et al., (2022) documented the highest prevalence of 17.6%. In Tamil Nadu, research by Venkata and Panicker (2013) found a prevalence of 11.33%, with subsequent studies by Catherine et al. (2019) estimating rates at 8.8%. Bangalore studies varied, with Mannapur (2016) reported ADHD increased from 2.3%, to 7%, and Ramya (2017) noting a lower rate of 1.3%. Manjunath et al., (2015) reported a notably higher prevalence of 14.4% in Karnataka, with Joshi & Angolkar (2018) documenting 5.29%, in Kerala Jaisooriya found 7.52 % school going students affected by ADHD and Sukanya & Vikraman (2021) finding revealed a prevalence rate of 6% among children aged 4-5 years. In Odisha, Naik (2015) identified a prevalence of 3.66%, while studies in Andhra Pradesh by Kiranmayi (2018) recorded 5.9%. Lastly, In Assam, Ghosh (2016, 2018) recorded a prevalence of 12.66%. These findings underscore the variability in ADHD prevalence across India, necessitating region-specific approaches to diagnosis and intervention. Estimates of ADHD prevalence vary widely across regions, ranging from 1.6% to 17.9% (Srinath et al., 2005; Malhotra & Pradhan 2013).

ADHD Comorbidities and Regional Insights

ADHD frequently co-occurs with other psychiatric conditions, with comorbidity rates ranging from 60% to 100% globally (Reale et al., 2017). Oppositional Defiant Disorder (ODD) is the most common comorbidity, affecting 40% to 60% of children with ADHD (Noordermeer et al., 2017). The mixed subtype of ADHD is particularly associated with higher comorbidity rates compared

to the inattentive subtype (Biederman et al., 1991, as cited in Ghosh et al., 2017). In India, comorbidity rates range from 40% to 86.3% and the most common was learning disability (Venkatesh et al., 2012). Geographical differences in comorbidity rates reflect environmental, cultural, and systemic factors influencing ADHD diagnosis and management. For instance, a meta-analysis highlights a prevalence of 5.9% among European children and adolescents (Faraone et al., 2021), while in Asia, lower rates among adults (2.58%) are reported (Song et al., 2021). Higher rates were observed in North America, while lower rates were reported in Asia, highlighting the need for further research into the factors contributing to these geographical differences. Understanding these variations is crucial for developing culturally sensitive diagnostic and treatment strategies.

These studies collectively indicate that ADHD affects children and adults worldwide, with prevalence rates varying across regions and age groups. The global burden of ADHD appears to be substantial, highlighting the need for continued research, early detection, and effective interventions. These findings emphasise the importance of comprehensive assessment and individualised treatment approaches. The significant geographic variations in prevalence underscore the need to consider cultural and environmental factors in ADHD research and clinical practice. Furthermore, there is a growing need for increased awareness, accurate diagnosis, and effective management strategies to address ADHD and its broader implications on mental health and development across the lifespan. There needs further research to understand the prevalence of region-specific ADHD and its factors that challenge the environment, diagnosis and remedial interventions too.

Rationale for the Study

The Attention-Deficit/Hyperactivity Disorder (ADHD) research in India reveals

a complex and multifaceted understanding of neurological diversity and healthcare challenges. A comprehensive review of ADHD prevalence across Indian states demonstrates remarkable regional variations, with rates oscillating between 1.3% and 17.6%, as documented by pioneering researchers like Nawabzada et al. (2022) in Mumbai and Manjunath (2015) in Karnataka. Geographically, research has encompassed 15 diverse states and regions, with a pronounced focus on South and West Indian territories, reflecting nuanced regional research priorities and methodological approaches. The temporal trajectory of ADHD research from 2010 to 2022 illuminates a consistent and evolving scientific interest in understanding prevalence and neurological diversity. Most studies converge on an average prevalence range of 5-12%, underscoring the intricate neurological profiles within the Indian population. These variations are not merely statistical anomalies but profound reflections of divergent diagnostic methodologies, complex cultural perspectives, and variable healthcare infrastructures across different regions.

While Western countries have extensively advanced ADHD research in diagnosis, prevalence, and management, Indian research remains comparatively nascent but demonstrates a promising growth trajectory. The emerging discourse highlights significant disparities and the critical need for localized, context-sensitive intervention strategies. The observed variability emphasizes the importance of developing consistent diagnostic standards and region-specific approaches that acknowledge the unique socio-cultural and medical contexts of different Indian states.

A pivotal research gap emerges in understanding the preparedness of aspiring teachers, particularly those specializing in inclusive education. Despite growing ADHD awareness, limited research has systematically explored the knowledge, attitudes, and behaviors of future educators

who will be instrumental in supporting students with neurodevelopmental disorders. India's persistent teacher shortage further accentuates the importance of equipping aspiring educators with comprehensive understanding and practical skills to address diverse learning needs.

The current study aims to bridge this critical research gap by meticulously examining aspiring teachers' knowledge, attitudes, and practices concerning ADHD. By focusing on educators specializing in inclusive education, the research seeks to uncover their readiness to identify, understand, and support students with ADHD. This investigation is strategically positioned to influence future educational policies, develop targeted training programs, and foster greater awareness and competence among prospective teachers.

Ultimately, this research represents a significant step towards creating more responsive, understanding, and effective educational environments. By addressing the multifaceted challenges of ADHD identification, understanding, and support, the study promises to contribute substantively to the evolving landscape of inclusive education in India, potentially transforming educational experiences for neurodivergent students and setting new benchmarks for teacher preparation and support.

Operational definitions of the terms

- **Awareness:** Awareness refers to the extent of knowledge that aspiring teachers possess about attention deficit hyperactivity disorder. It includes their understanding of ADHD's symptoms, causes, impact on learning, and available interventions. In this study, awareness is operationalised by a survey questionnaire consisting of 15 items that assess general information about ADHD's nature, causes, potential outcomes, and the strategies used for its treatment and management. A higher score on the awareness scale indicates a greater level of understanding of ADHD.

- **Attitudes:** Attitudes refer to the beliefs, perceptions, and emotional responses that aspiring teachers have towards students with ADHD. This includes their feelings of empathy, perceived competence in teaching ADHD students, and their level of comfort in managing ADHD-related challenges in the classroom. Attitudes are operationalised through a set of 10 items in the survey questionnaire, which assess whether aspiring teachers hold positive or negative views about ADHD and their readiness to work with students with ADHD. Responses are rated on a Likert scale to measure the strength and direction of their attitudes.
- **Behavioural Responses:** Behavioural responses refer to the actions or strategies that aspiring teachers are likely to adopt when interacting with students diagnosed with ADHD. This includes the willingness to implement specific teaching interventions, adjust classroom environments, or provide additional support tailored to ADHD students' needs. In this study, behavioural responses are operationalised through 10 items that assess participants' intended behaviours in response to ADHD-related scenarios. These items capture the extent to which aspiring teachers plan to adopt inclusive practices and interventions for ADHD students in their classrooms.
- **Aspiring teachers** in this context refer to individuals currently enrolled in education degree or certification programs with the intention of entering the teaching profession.

Research Objectives of the study

- To assess the level of awareness, attitudes, and behavioural responses towards attention deficit hyperactivity disorder among aspiring teachers in Northeast India.
- To evaluate aspiring teachers' understanding of the three core categories of ADHD—impulsivity, hyperactivity, and inattention

Research Design

The study adopted a descriptive survey research design to systematically investigate the awareness, attitudes, and behavioural responses among aspiring teachers regarding ADHD. This design was chosen for its effectiveness in gathering comprehensive data about the current state of aspiring teachers' understanding and preparedness for handling ADHD in educational settings.

Population of the study

The target population consisted of aspiring teachers in North East India who were enrolled in education degree or certification programs, specifically those pursuing inclusive education courses as part of their curriculum.

Sampling Technique and Sample of the study

The study utilized convenience sampling in the Department of Education at Tezpur University, a rural institution situated 15 kilometres east of Tezpur along the Brahmaputra River. The sampling approach prioritized participant accessibility, time efficiency, and resource optimization. From 88 voluntarily recruited aspiring teachers, the sample consisted of 22 males (25%) and 66 females (75%), distributed across two age ranges: 35 participants (39.77%) aged 23-25 years and 53 participants (60.23%) aged 26-28 years. Despite facilitating data collection for Inclusive Education course participants, the method inherently limits representativeness and generalizability. The single rural institutional context demands cautious interpretation of findings, recognizing potential sampling biases when exploring ADHD awareness, attitudes, and behavioral responses among North East Indian aspiring teachers. Participant selection involved course instructor permissions, study announcement, and voluntary informed consent, strategically balancing research feasibility with methodological constraints.

Research Instrument

The study was guided by two primary objectives, each aligned with specific assessment tools. These complementary tools were selected to provide a comprehensive assessment of both the broad understanding of ADHD and the specific knowledge of its core manifestations among the study participants. In this study, two tools were used. They are

- "Awareness, Attitude and Behavioural Responses towards ADHD Scale," specifically constructed by the researcher for this purpose.
- The standardised "Attention Deficit Hyperactivity Disorder Tool" developed by Jain and Gunthey (2013).

Description of the Research Instrument

The ADHD Awareness, Attitude, and Behavioral Responses tool consists of 35 items across three dimensions: awareness (15 items), attitudes (10 items), and behavioral responses (10 items). Using a three-point scoring scale (agree: 2 points, don't know: 1 point, disagree: 0 points), the tool allows for a total possible score range of 0 to 70. Dimensional score ranges include awareness (0-30), attitudes (0-20), and behavioral responses (0-20). Higher scores indicate more comprehensive understanding, positive attitudes, and supportive behavioral responses towards ADHD, providing a nuanced assessment of participants' perspectives on the neurodevelopmental disorder. The tool's content validity was established through expert review and validation, ensuring that the items adequately represent the intended constructs and dimensions of ADHD understanding among aspiring teachers. Test-retest reliability, which was measured at 76.6%, indicates a substantial level of consistency over time, demonstrating the tool's reliability in capturing stable and repeatable responses regarding ADHD awareness, attitudes, and behavioral responses.

A comprehensive 48-item diagnostic instrument “Attention Deficit Hyperactivity Disorder Tool” by Jain and Gunthey (2013) meticulously designed to examine ADHD symptoms across three critical dimensions: inattention, hyperactivity, and impulsivity. The scoring methodology involves three-point categorical responses: Never (0), Sometimes (1), and Often (2), with a maximum possible score of 112. Test-retest reliability and criterion-related validity were calculated for individual subscales and total scores, ensuring comprehensive psychometric evaluation of the ADHD diagnostic tool. By providing a structured, systematic framework, both the tools enable researchers to comprehensively analyze the complex manifestations of ADHD, offering nuanced insights into the multifaceted

behavioral and cognitive characteristics associated with the neurodevelopmental disorder. The instrument’s comprehensive approach facilitates a deeper understanding of symptom variations, supporting more precise diagnostic assessments and research investigations (Jain and Gunthey, 2012, 2013).

Data Analysis and Interpretation of the Results

The research objectives are analysed using SPSS 25 and the results are presented below:

- **Objective 1: To assess the level of awareness, attitudes, and behavioural responses towards attention deficit hyperactivity disorder (ADHD) among aspiring teachers in Northeast India.**

Table 1: Showing the relative distribution of aspiring teachers’ mean of various levels of Awareness, attitude, and behaviour towards ADHD

ADHD		Above Average	Average	Below Average	Total
Awareness	N (%)	13(14.7)	55(62.5)	20(22.8)	88(100)
	Mean	22.35	26	13.30	20.83
Attitude	N (%)	9(10)	68(77)	11(13)	88(100)
	Mean	8.18	17.58	12.71	12.64
Behaviour	N (%)	7(8)	66(75)	15(17)	88(100)
	Mean	12.20	17.43	14.92	14.66
Overall ADHD	N (%)	31(35)	47(53)	10(12)	88(100)
	Mean	36.70	54.52	46.34	48.13

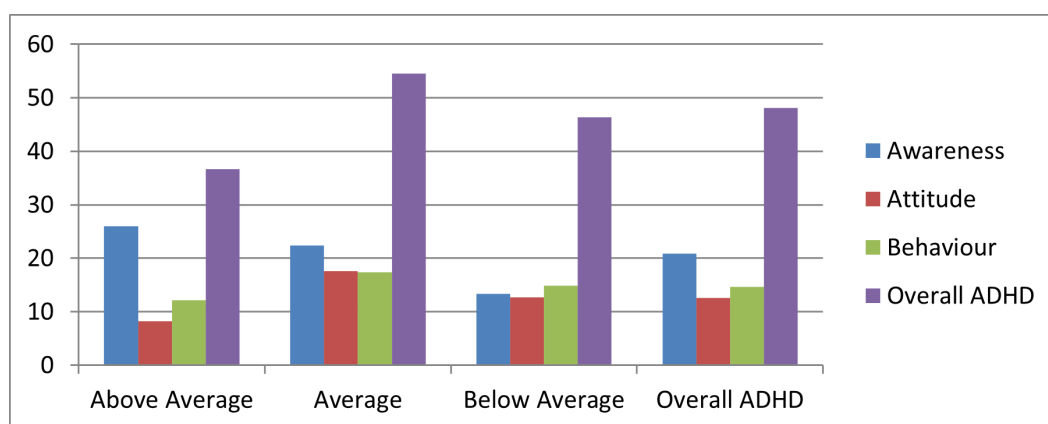


Figure 1: Showing the relative distribution of aspiring teachers’ mean of various levels of Awareness, attitude, behaviour towards attention deficit hyperactivity disorder

As inferred from Table 1 and Figure 1, the data analysis reveals varying levels of awareness, attitudes, and behavioural responses among the 88 aspiring teachers studied. In terms of awareness, the majority (62.5%, n=55) demonstrated average levels with a mean score of 26.0, while 14.7% (n=13) showed above-average awareness with a mean score of 22.35, and 22.8% (n=20) displayed below-average awareness with a mean score of 13.30. The overall mean awareness score was 20.83.

Regarding attitudes towards ADHD, a substantial majority (77%, n=68) showed average levels with a mean score of 17.58. Only 10% (n=9) demonstrated above-average attitudes with a mean score of 8.18, while 13% (n=11) showed below-average attitudes with a mean score of 12.71. The overall mean attitude score was 12.64.

In behavioural responses, 75% (n=66) of participants demonstrated average levels with a mean score of 17.43. A smaller proportion showed above-average (8%, n=7)

and below-average (17%, n=15) behavioural responses, with mean scores of 12.20 and 14.92 respectively. The overall mean behavioural score was 14.66.

The overall ADHD understanding shows that more than half of the participants (53%, n=47) demonstrated average levels with a mean score of 54.52. About one-third (35%, n=31) showed above-average overall understanding with a mean score of 36.70, while 12% (n=10) displayed below-average overall understanding with a mean score of 46.34. The overall mean score across all dimensions was 48.13.

These findings suggest that while the majority of aspiring teachers demonstrate average levels across all dimensions, there is considerable room for improvement, particularly in raising awareness and enhancing behavioural responses to ADHD.

- **Objective 2: To evaluate aspiring teachers' understanding of the three core categories of ADHD—impulsivity, hyperactivity, and inattention**

Table 2: Showing the relative distribution of aspiring teachers' mean of various levels of inattention, hyperactivity and impulsivity

ADHD		Above Average	Average	Below Average	Total
Inattention	N(%)	69(78.4)	19(21.6)	0	88(100)
	Mean	32.47	23.75	0	25.64
Hyperactivity	N(%)	78(88.7)	10(11.3)	0	88(100)
	Mean	25.90	18.40	0	25.05
Impulsivity	N(%)	48(54.5)	17(19.3)	23(26.1)	88(100)
	Mean	24.33	18.18	13.61	20.34

This table 2 presents data on aspiring teachers' distribution across different levels of ADHD-related symptoms: inattention, hyperactivity, and impulsivity, as well as their mean scores in each category. Here's an interpretation of the findings:

Inattention:

A significant majority (78.4%) of aspiring teachers scored in the "Above Average" range, while 21.6% scored in the "Average" range. None scored "Below Average." The

mean scores for inattention are 32.47 for the "Above Average" group and 23.75 for the "Average" group, with an overall mean score of 25.64 across all participants. This suggests that inattention is relatively high among these aspiring teachers.

Hyperactivity:

88.7% of aspiring teachers fall in the "Above Average" range for hyperactivity, with only 11.3% in the "Average" range, and no participants in the "Below Average" category.

The mean scores for hyperactivity are 25.90 for the “Above Average” group and 18.40 for the “Average” group, resulting in an overall mean of 25.05. This indicates a high level of hyperactivity within this group.

Impulsivity:

The distribution for impulsivity is more varied: 54.5% are in the “Above Average” range, 19.3% in the “Average” range, and 26.1% in the “Below Average” range. The mean scores for impulsivity are 24.33 (“Above Average”), 18.18 (“Average”), and 13.61 (“Below Average”), with an overall mean of 20.34. This variability shows that impulsivity levels differ more significantly compared to inattention and hyperactivity.

Aspiring teachers show higher tendencies for inattention and hyperactivity, as reflected in their predominantly “Above Average” scores and higher mean values, while impulsivity scores are more spread across different levels, indicating a wider range of impulsivity tendencies among the group.

Major Findings and Discussion

The study provides insight into aspiring teachers’ awareness, attitudes, and behavioural responses towards attention deficit hyperactivity disorder (ADHD). The results indicate that while a majority of aspiring teachers exhibit general awareness and favourable attitudes toward ADHD, their understanding of specific ADHD characteristics remains limited, echoing findings from previous research.

Awareness of ADHD

The study findings reveal that the overall mean awareness score among aspiring teachers was 20.83, indicating moderate awareness levels. This aligns with the findings of Al-Ahmad et al. (2008) investigated ADHD prevalence among male primary school children, reporting significant factors associated with the disorder. However, this result contrasts with earlier studies, such as

Amiri et al. (2017) and Jimoh (2014), which documented lower awareness levels among aspiring teachers. This disparity could signify improvements in awareness over time, possibly influenced by increased emphasis on neurodevelopmental disorders in educational policies or cultural shifts toward recognizing diverse learning needs. It also highlights regional differences and suggests that enhanced teacher training programs in certain areas may have contributed to this positive trend.

Attitudes Toward ADHD

The overall mean attitude score of 12.64 reflects moderate but predominantly positive attitudes toward ADHD among aspiring teachers. Such favourable attitudes are a positive development, as previous research by Ghanizadeh et al., (2006) and Al-Omari et al., (2014) highlighted less supportive attitudes among educators, often rooted in stigma and misconceptions about ADHD. The current findings suggest that recent advocacy efforts, awareness campaigns, and educational reforms focusing on inclusivity might be shifting attitudes in a positive direction. These improved attitudes are significant, as they influence the willingness of teachers to provide equitable support for ADHD students, which is critical for fostering an inclusive classroom environment (Trimmer, 2013).

Behavioral Responses to ADHD

The study indicates that aspiring teachers exhibited predominantly positive behavioral responses to ADHD, reflecting their readiness to engage with ADHD students effectively. This is a notable improvement compared to the findings of Jimoh (2014), who observed inadequate behavioral responses among teachers in similar contexts. The current findings suggest that aspiring teachers in this study may have been better equipped with practical strategies for managing ADHD in the classroom. Such readiness might be attributed to the growing emphasis on

experiential learning in teacher training, where prospective educators are exposed to case studies, simulations, and practical interventions designed for students with special educational needs.

Understanding ADHD-Related Symptoms

The findings revealed that aspiring teachers demonstrated a higher-than-average tendency to recognize inattention and hyperactivity symptoms, with most participants scoring in the “Above Average” range for these categories. However, their ability to identify impulsivity symptoms was more varied. This discrepancy mirrors the observations of Ghosh et al. (2018), who noted that teachers often struggle to differentiate between specific ADHD symptoms, even when general awareness is adequate. Such challenges highlight a gap in targeted training, as an inability to distinguish among ADHD symptoms could limit the ability to implement effective classroom strategies or provide tailored support for individual students.

Gap Between General and Specific Knowledge

The study underscores a critical gap between general awareness and specific knowledge about ADHD. While aspiring teachers showed an overall awareness of ADHD tendencies, they struggled to identify and differentiate specific symptoms such as inattention, hyperactivity, and impulsivity. This finding is consistent with Ghosh et al. (2018), who argued that general awareness does not always translate into practical competence in recognizing or managing ADHD behaviours. This discrepancy calls for a more applied approach in teacher education programs, incorporating hands-on training, case-based learning, and exposure to real-life classroom scenarios involving ADHD students. Enhancing this experiential aspect could bridge the gap between theoretical

knowledge and practical application, enabling teachers to respond more effectively to the diverse needs of students with ADHD (Trimmer, 2013).

These findings collectively emphasize the importance of evolving teacher education curricula to integrate both theoretical and experiential learning components, ensuring that aspiring teachers are not only aware of ADHD but are also equipped to address its multifaceted challenges in the classroom.

Implications and Recommendations

The findings suggest an encouraging shift towards positive attitudes and enhancing specific awareness of ADHD among prospective teachers, which is a foundational step in creating inclusive classrooms. However, the limited understanding of specific ADHD symptoms highlights the need for targeted interventions within teacher education programs. More practical experiences, such as case studies, role-play, and hands-on interactions with students with ADHD, could better equip aspiring teachers to distinguish ADHD symptoms and respond more effectively in real-world scenarios.

Future research could examine how prospective teachers’ knowledge gaps impact their confidence in managing ADHD-related behaviours and explore methods to integrate symptom-specific training into the curriculum, perhaps through workshops or collaborative projects with special education professionals. Enhancing both general awareness and specific knowledge will be crucial to fostering a classroom environment where students with ADHD can thrive.

Conclusion

To conclude, ADHD is a neuropsychiatric disorder prevalent in society, particularly among school students and causes damage to the development of the individual quality of life and social functioning. It affects the school

students more because it starts in the early ages of life and continues throughout the life of an individual and leads to poor academic achievement too. If it is not identified, attended and provided intervention at the right time it may impact the Inclusive education policy. In this study, aspiring teachers' awareness, attitude, and behavioural responses towards attention deficit hyperactivity disorder is assessed. Many students have conducted in the past to understand the ADHD of in-service and pre-service undergraduate teachers, knowledge, and awareness about ADHD. However, researchers have not come across any studies that examine teacher education pursuing inclusive education as a

course as a sample. One of the current study's shortcomings is convenience sampling and the sample size is restricted to only 88 aspiring teachers who willingly participated in this study. More studies to be conducted to know the awareness and misconceptions about the general people too. The aspiring teachers need considerable training in understanding the process of diagnosis and symptoms. So, in future research, more samples should be taken to obtain a deeper understanding of the disorder and ways to overcome the ADHD issues. In addition to that, how teachers' knowledge about ADHD impacts the psychological, behavioural and educational aspects of the learners.

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