Research Article

Prevalence And Socio-Demographic Profile Of Attention-Deficit/Hyperactivity Disorder (ADHD) Children In Southern Tamil Nadu: A Three-Stage, Multi-Informant Screening Study

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Abstract

Despite being one of the most common childhood neurodevelopmental disorders, ADHD prevalence remains poorly documented in semi-urban and rural school settings across Tamil Nadu. This study aimed to determine the prevalence and socio-demographic profile of doctor-diagnosed ADHD among Grade III children in English-medium primary schools of Southern districts of Tamil Nadu. A cross-sectional, three-stage sequential screening design was used with 438 Grade III children from 12 English-medium State Board primary schools. In Stage 1, classroom teachers completed the Vanderbilt ADHD Diagnostic Teacher Rating Scale (VADTRS) for all children. Children who screened positive proceeded to Stage 2, in which parents completed the Vanderbilt ADHD Diagnostic Parent Rating Scale (VADPRS). Children who screened positive on both informant ratings (n = 92) were referred to Stage 3 for psychiatric evaluation using the DSM-5 checklist. Of the 92 children referred for doctor's diagnosis, 71 children (16.2% of the total population; 77.2% of the referred sample) were confirmed as children with ADHD, comprising of Predominantly Inattentive (n = 30, 42.3% of confirmed cases), Predominantly Hyperactive/Impulsive (n = 20, 28.2%), and Combined (n = 21, 29.6%) presentations. Males accounted for approximately 73% of confirmed cases across all three presentations, a marked increase from the near-even gender split (50.2% male) in the total population. Referred and confirmed cases also showed a consistent, modest over-representation of higher-income, employed-mother, and more highly educated households relative to the total population, while representation by birth order and locality remained broadly proportional. The observed prevalence is consistent with the wide range reported across Indian school-based studies and underscores the value of multi-informant, sequential screening for early identification of ADHD in resource-limited primary school settings, while also highlighting the need to guard against participation-related bias at the parent- and clinician-screening stages.

Keywords: attention-deficit/hyperactivity disorder; ADHD; Vanderbilt ADHD Rating Scales; prevalence; primary school children; socio-demographic factors; Tamil Nadu; DSM-5; school-based screening.

1. Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a persistent, neurodevelopmental pattern of inattention and/or hyperactivity-impulsivity that interferes with a child's functioning across two or more settings, such as home and school (American Psychiatric Association [APA], 2013). Because its core symptoms overlap with ordinary childhood exuberance and inattentiveness, ADHD is frequently under-recognised in classroom settings unless structured, standardised screening is used. Grade III has been identified as a developmentally meaningful stage for screening, since academic demands for sustained attention and self-regulation increase sharply at this level, making inattentive and hyperactive-impulsive symptoms more functionally impairing and more visible to teachers than in earlier grades. Most existing Tamil Nadu studies concentrated in major urban areas. This study was undertaken to address this gap by determining the prevalence and socio-demographic correlates of doctor-diagnosed ADHD among Grade III children in English-medium primary schools in two southern districts, using a rigorous three-stage, multi-informant screening and confirmation protocol.

2. Review of Literature

2.1 Global Studies

International estimates of ADHD prevalence vary considerably with diagnostic criteria, informant type, and study design. An early influential meta-regression by Polanczyk et al. (2007) estimated a worldwide pooled prevalence of approximately 5.29% among children and adolescents, and subsequent reviews have generally placed the global estimate in the 5–8% range (Ayano et al., 2023; Thomas et al., 2015). A more recent systematic review and meta-analysis by Salari et al. (2023), which pooled data from 53 cross-sectional studies comprising of nearly 97,000 children aged 3–12 years across four continents, estimated a global childhood ADHD prevalence of 7.6% (95% CI:

6.1–9.4%), with a lower estimate of 5.6% among adolescents aged 12–18 years. Reported prevalence continues to differ substantially by country and region — for example, studies in Sweden have reported rates as low as about 3%, while few studies in the United States report rates above 10% — a spread attributable in large part to differences in screening instruments, number of informants used, and diagnostic thresholds applied (Ayano et al., 2023; Salari et al., 2023). Across these reviews, the Predominantly Inattentive presentation is consistently reported as the most frequently identified subtype, a pattern this study's own findings echo.

2.2 Studies from India

Indian prevalence estimates span an unusually wide range, from below 2% to nearly 29%, reflecting substantial heterogeneity in sampling frames, screening tools, and urban–rural setting (Chauhan et al., 2022; Mahin et al., 2026). Within Tamil Nadu specifically, a community-based study in Coimbatore district reported an overall ADHD prevalence of 11.32%, rising to 16.33% among children from lower socio-economic backgrounds (Venkata & Panicker, 2013), while a school-based study in Kancheepuram district using the Conners' Teacher–Parent Rating Scale reported a prevalence of 8.8% (as cited in Mahin et al., 2026). Using the same teacher-rating Vanderbilt instrument adopted in the present study, a descriptive cross-sectional study of 700 primary school children in Hyderabad reported an ADHD prevalence of 9.57%, with the Combined presentation most common and a male-to-female ratio of roughly 3:1 (Pathan et al., 2024). A hospital- and school-based study in Chennai similarly reported a comparatively high prevalence among schoolchildren, with the Predominantly Inattentive and Predominantly Hyperactive presentations occurring with near-equal frequency and the Combined presentation somewhat less common (Catherine et al., 2019). Taken together, the Indian literature consistently reports a male predominance and highlights sizeable gaps in specialist access and diagnostic capacity outside major metropolitan centres (Mahin et al., 2026), reinforcing the need for the kind of school-based, multi-stage screening protocol used in the present study, particularly in semi-urban and rural districts that remain comparatively under-studied.

3. Objectives of the Study

The objectives of the study are:

1. To determine the prevalence of doctor-diagnosed ADHD among Grade III children in English-medium primary schools in Southern districts of Tamil Nadu, using a three-stage, multi-informant screening protocol.
2. To determine the distribution of ADHD presentations (Predominantly Inattentive, Predominantly Hyperactive/Impulsive, and Combined) among children confirmed with ADHD.
3. To describe the socio-demographic profile — gender, birth order, parental educational qualification, parental occupation, annual family income, and locality of school — of the total population, the referred sample, and the doctor-confirmed cases.
4. To compare the socio-demographic profile of doctor-confirmed ADHD cases with that of the total population, in order to identify patterns of over- or under-representation at successive screening stages.
5. To draw out educational and policy implications of the findings for school-based ADHD screening and early support in resource-limited primary school settings.

4. Methodology

4.1 Research Design: The study employed a cross-sectional, population-based, three-stage sequential screening design. This design combines a universal first-stage screen with progressively more resource-intense second- and third-stage assessments restricted to children who screen positive at the preceding stage, allowing a large population to be screened efficiently while reserving specialist clinical time for children most likely to meet diagnostic criteria.

4.2 Population and Sample: The total population comprised 438 children studying in Grade III across 12 English-medium primary schools following the Tamil Nadu State Board syllabus in Tirunelveli district. All 438 children in the identified schools were included at Stage 1, so the sample is best characterised as a population-based census of eligible Grade III children rather than a probability sample drawn from a larger sampling frame. Children who screened positive on teacher rating were carried forward to Stage 2 only if their parents were willing to complete the parent rating scale, and children who screened positive on parent rating were carried forward to Stage 3 only if their families were willing to proceed to a doctor's diagnosis; children excluded on these grounds were not included in the referred or confirmed samples.

4.3 Instrumentation: Three instruments were used in sequence. The Vanderbilt ADHD Diagnostic Teacher Rating Scale (VADTRS; Wolraich et al., 1998) was completed by classroom teachers at Stage 1 and operationalises DSM-aligned inattentive and hyperactive-impulsive symptom criteria in a standardised teacher-report format. The

Vanderbilt ADHD Diagnostic Parent Rating Scale (VADPRS; Wolraich et al., 2003) was completed by parents at Stage 2 and mirrors the teacher scale's item structure to allow direct multi-informant comparison. The DSM-5 checklist (APA, 2013) was administered by a psychiatrist at Stage 3 and provided the final diagnostic confirmation and subtype classification (Predominantly Inattentive, Predominantly Hyperactive/Impulsive, or Combined presentation).

4.4 Screening Protocol: In Stage 1, the classroom teacher of each of the 438 children completed the VADTRS for every child in the class. In Stage 2, the parents of children who screened positive at Stage 1 were asked to complete the VADPRS; 92 children screened positive on both the teacher and parent scales and were referred for doctor's diagnosis. In Stage 3, these 92 children were evaluated individually by a psychiatrist using the DSM-5 checklist, which confirmed ADHD in 71 children and classified each confirmed case as Predominantly Inattentive, Predominantly Hyperactive/Impulsive, or Combined presentation. This sequential, dual-informant-plus-clinician design was intended to minimise both false positives (by requiring agreement across teacher and parent ratings before clinical referral) and unnecessary burden on families and clinicians (by reserving the psychiatric evaluation for the subset of children most likely to meet diagnostic criteria).

4.5 Data Collection and Ethical Considerations: Data were collected in collaboration with the participating school administrations and with the clinical support of the multidisciplinary team at the Amy Carmichael Child Development Centre, a unit of CSI Jeyaraj Annapackiam Mission Hospital, Tirunelveli, Tamilnadu. Prior permission was obtained from school authorities to administer the teacher rating scale, and parental cooperation was sought at each subsequent stage; children whose parents were unwilling to complete the parent rating scale or to proceed to psychiatric evaluation were excluded from the corresponding stage rather than assigned a default outcome. All data were handled with due regard for the confidentiality of children's and families' information, with individual identities not disclosed in the reporting of results, and the psychiatric evaluation and diagnostic confirmation at Stage 3 were conducted by qualified specialists using standard DSM-5 diagnostic procedure.

4.6 Statistical Analysis: Descriptive frequency and percentage analysis was conducted at each stage of screening — the total population, the referred sample, and the doctor-confirmed presentations — cross-tabulated by gender, birth order, parental educational qualification, parental occupation, annual family income, and locality of school. Percentages for the total population and the referred sample were computed as a proportion of that stage's own denominator (N = 438 and N = 92, respectively), while percentages for each confirmed ADHD presentation were computed within the psychiatrically evaluated sample (N = 92), consistent with the presentation of the results below. No inferential statistical tests were applied; the analysis is descriptive and comparative across stages, in line with the study's exploratory, population-profiling objective.

5. Results

Table 1: Frequency and Percentage of the Total Population by Socio-Demographic Variables (N = 438)

Socio-Demographic Variable	Category	Frequency (N=438)	Percent (%)
Gender	Female	218	49.8
	Male	220	50.2
Birth Order	First-born	164	37.4
	Second-born	221	50.5
	Third-born	53	12.1
Father's Educational Qualification	Primary (1–5)	78	17.8
	Secondary (6–10)	61	13.9
	Higher Secondary (11–12)	113	25.8
	Undergraduate Degree	106	24.2
	Postgraduate Degree	19	4.3
	Professional Qualification	23	5.3
	Illiterate	38	8.7

Socio-Demographic Variable	Category	Frequency (N=438)	Percent (%)
Mother's Educational Qualification	Primary (1–5)	152	34.7
	Secondary (6–10)	103	23.5
	Higher Secondary (11–12)	67	15.3
	Undergraduate Degree	37	8.4
	Postgraduate Degree	2	0.5
	Professional Qualification	4	0.9
	Illiterate	73	16.7
Father's Occupation	Private	71	16.2
	Self-Employed	60	13.7
	Daily Wages	277	63.2
	Unemployed	2	0.5
	Not Applicable	4	0.9
	Government	24	5.5
Mother's Occupation	Engaged with Occupation	112	25.6
	Home Manager	326	74.4
Annual Income of the Family	₹2,00,001–₹4,00,000	44	10
	₹4,00,001–₹6,00,000	23	5.3
	Above ₹6,00,000	7	1.6
	Below ₹2,00,000	364	83.1
Locality of School	Urban	237	54.1
	Semi-urban	182	41.6
	Rural	19	4.3

Interpretation: The total population was almost evenly splited by gender (49.8% female, 50.2% male). The large majority of families fell in the lowest annual income bracket (below ₹2,00,000; 83.1%), and fathers were most commonly engaged in daily wage work (63.2%), while nearly three-quarters of mothers were home managers (74.4%). This distribution forms the baseline denominator against which the referred and confirmed samples in Tables 2–5 are compared.

Table 2: Frequency and Percentage of the Sample Referred for Doctor's Diagnosis by Socio-Demographic Variables (N = 92)

Socio-Demographic Variable	Category	Frequency (N=92)	Percent (%)
Gender	Female	24	26.1
	Male	68	73.9
Birth Order	First-born	34	37
	Second-born	49	53.3
	Third-born	9	9.8
Father's Educational Qualification	Primary (1–5)	7	7.6
	Secondary (6–10)	28	30.4

Socio-Demographic Variable	Category	Frequency (N=92)	Percent (%)
	Higher Secondary (11–12)	23	25
	Undergraduate Degree	9	9.8
	Postgraduate Degree	10	10.9
	Professional Qualification	9	9.8
	Illiterate	6	6.5
Mother's Educational Qualification	Primary (1–5)	35	38
	Secondary (6–10)	17	18.5
	Higher Secondary (11–12)	16	17.4
	Undergraduate Degree	12	13
	Postgraduate Degree	1	1.1
	Professional Qualification	4	4.3
	Illiterate	7	7.6
Father's Occupation	Private	15	16.3
	Self-Employed	13	14.1
	Daily Wages	52	56.5
	Unemployed	2	2.2
	Government	10	10.9
Mother's Occupation	Engaged with Occupation	33	35.9
	Home Manager	59	64.1
Annual Income of the Family	₹2,00,001–₹4,00,000	25	27.2
	₹4,00,001–₹6,00,000	13	14.1
	Above ₹6,00,000	3	3.3
	Below ₹2,00,000	51	55.4
Locality of School	Urban	52	56.5
	Semi-urban	34	37
	Rural	6	6.5

Interpretation: Relative to the total population, males were disproportionately represented among referred children (73.9% vs. 50.2% in the population), and the referred sample skewed further toward higher-income and higher-parental-education households than the population as a whole, foreshadowing the participation-related pattern examined further in the Discussion.

Table 3: Prevalence and Distribution of DSM-5 ADHD Subtypes in the Confirmed Sample (N = 92)

ADHD Subtype	Positive (N)	Positive (%)
Predominantly Inattentive	30	32.6
Predominantly Hyperactive/Impulsive	20	21.7
Combined Presentation	21	22.8
Total ADHD Diagnosed	**71**	**77.2%***

Note: Percentages are computed within the psychiatrically evaluated sample (N = 92). *The total of 77.2% reflects

cases positive on any subtype within the referred sample; overall population prevalence = 71/438 = 16.2%.

Interpretation: Of the 92 children referred for psychiatric evaluation, 71 (77.2%) were confirmed with ADHD. The Predominantly Inattentive presentation was the single most common subtype (32.6% of the referred sample), followed closely by the Combined presentation (22.8%) and the Predominantly Hyperactive/Impulsive presentation (21.7%), indicating that inattentive symptoms — often less disruptive and therefore easier to overlook in the classroom — were nonetheless the most frequently confirmed presentation once structured screening was applied.

Table 4: Frequency and Percentage of Doctor-Positive Predominantly Inattentive Presentation by Socio-Demographic Variables (N = 92)

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
Gender	Female	8	8.7
	Male	22	23.9
Birth Order	First-born	9	9.8
	Second-born	17	18.5
	Third-born	4	4.3
Father's Educational Qualification	Primary (1–5)	4	4.3
	Secondary (6–10)	10	10.9
	Higher Secondary (11–12)	8	8.7
	Undergraduate Degree	2	2.2
	Postgraduate Degree	4	4.3
	Professional Qualification	1	1.1
	Illiterate	1	1.1
Mother's Educational Qualification	Primary (1–5)	9	9.8
	Secondary (6–10)	10	10.9
	Higher Secondary (11–12)	7	7.6
	Undergraduate Degree	2	2.2
	Postgraduate Degree	0	0
	Professional Qualification	0	0
	Illiterate	2	2.2
Father's Occupation	Private	3	3.3
	Self-Employed	9	9.8
	Daily Wages	16	17.4
	Unemployed	1	1.1
	Government	1	1.1
Mother's Occupation	Engaged with Occupation	9	9.8
	Home Manager	21	22.8
Annual Income of the Family	₹2,00,001–₹4,00,000	12	13
	₹4,00,001–₹6,00,000	2	2.2
	Above ₹6,00,000	0	0
	Below ₹2,00,000	16	17.4

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
Locality of School	Urban	17	18.5
	Semi-urban	11	12
	Rural	2	2.2

Note: F = frequency of "Yes" responses; % = percentage of the referred sample (N = 92). Total confirmed Predominantly Inattentive = 30 (32.6% of referred; 42.3% of all confirmed cases).

Interpretation: Boys represented nearly three-quarters of confirmed Predominantly Inattentive cases (22 of 30). Children of fathers with secondary or higher-secondary education, and children from the lowest income bracket in absolute numbers (though proportionally under-represented relative to the population), made up the largest single sub-groups within this presentation.

Table 5: Frequency and Percentage of Doctor-Positive Predominantly Hyperactive/Impulsive Presentation by Socio-Demographic Variables (N = 92)

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
Gender	Female	6	6.5
	Male	14	15.2
Birth Order	First-born	8	8.7
	Second-born	10	10.9
	Third-born	2	2.2
Father's Educational Qualification	Primary (1–5)	1	1.1
	Secondary (6–10)	6	6.5
	Higher Secondary (11–12)	5	5.4
	Undergraduate Degree	3	3.3
	Postgraduate Degree	1	1.1
	Professional Qualification	2	2.2
	Illiterate	2	2.2
Mother's Educational Qualification	Primary (1–5)	8	8.7
	Secondary (6–10)	1	1.1
	Higher Secondary (11–12)	3	3.3
	Undergraduate Degree	3	3.3
	Postgraduate Degree	1	1.1
	Professional Qualification	2	2.2
	Illiterate	2	2.2
Father's Occupation	Private	3	3.3
	Self-Employed	2	2.2
	Daily Wages	13	14.1
	Unemployed	0	0
	Government	2	2.2
Mother's Occupation	Engaged with Occupation	6	6.5

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
	Home Manager	14	15.2
Annual Income of the Family	₹2,00,001–₹4,00,000	2	2.2
	₹4,00,001–₹6,00,000	3	3.3
	Above ₹6,00,000	1	1.1
	Below ₹2,00,000	14	15.2
Locality of School	Urban	10	10.9
	Semi-urban	8	8.7
	Rural	2	2.2

Note: F = frequency of "Yes" responses; % = percentage of the referred sample (N = 92). Total confirmed Predominantly Hyperactive/Impulsive = 20 (21.7% of referred; 28.2% of all confirmed cases).

Interpretation: This was the least common of the three confirmed presentations. As with the other subtypes, boys were more frequently represented than girls (14 vs. 6), and daily-wage households accounted for the largest occupational sub-group in absolute terms, consistent with their large share of the underlying population.

Table 6: Frequency and Percentage of Doctor-Positive Combined Presentation by Socio-Demographic Variables (N = 92)

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
Gender	Female	5	5.4
	Male	16	17.4
Birth Order	First-born	9	9.8
	Second-born	10	10.9
	Third-born	2	2.2
Father's Educational Qualification	Primary (1–5)	0	0
	Secondary (6–10)	5	5.4
	Higher Secondary (11–12)	6	6.5
	Undergraduate Degree	3	3.3
	Postgraduate Degree	2	2.2
	Professional Qualification	5	5.4
	Illiterate	0	0
Mother's Educational Qualification	Primary (1–5)	5	5.4
	Secondary (6–10)	5	5.4
	Higher Secondary (11–12)	4	4.3
	Undergraduate Degree	5	5.4
	Postgraduate Degree	0	0
	Professional Qualification	2	2.2
	Illiterate	0	0
Father's Occupation	Private	6	6.5
	Self-Employed	2	2.2

Socio-Demographic Variable	Category	Frequency (F)	Percent (%)
	Daily Wages	8	8.7
	Unemployed	0	0
	Government	5	5.4
Mother's Occupation	Engaged with Occupation	10	10.9
	Home Manager	11	12
Annual Income of the Family	₹2,00,001–₹4,00,000	5	5.4
	₹4,00,001–₹6,00,000	5	5.4
	Above ₹6,00,000	2	2.2
	Below ₹2,00,000	9	9.8
Locality of School	Urban	11	12
	Semi-urban	9	9.8
	Rural	1	1.1

Note: F = frequency of "Yes" responses; % = percentage of the referred sample (N = 92). Total confirmed Combined Presentation = 21 (22.8% of referred; 29.6% of all confirmed cases).

Interpretation: The Combined presentation showed the strongest male skew of the three subtypes (16 of 21 confirmed cases, 76.2%). Unlike the other presentations, professional and government-employed parental sub-groups made up a comparatively larger share of Combined-presentation cases relative to their small share of the total population, echoing the broader over-representation of higher-education and higher-occupation households discussed below.

6. Findings, Interpretation, and Discussion

6.1 Overall Prevalence and Presentation Distribution

Of the 438 children screened, 92 (21.0%) screened positive on both teacher and parent rating and were referred for doctor's diagnosis, and 71 (16.2% of the total population; 77.2% of those referred) were confirmed with ADHD. This overall prevalence is broadly consistent with the wide range reported for Indian school-based samples (Chauhan et al., 2022; Mahin et al., 2026) and is somewhat higher than the 11.32% reported in Coimbatore district (Venkata & Panicker, 2013), the 9.57% reported in Hyderabad (Pathan et al., 2024), and the 8.8% reported in Kancheepuram district (as cited in Mahin et al., 2026). This may partly reflect genuine regional variation, and partly the use of a three-stage, dual-informant confirmation protocol, which differs methodologically from single-informant or single-stage designs used in some earlier studies.

Among the 71 confirmed cases, the Predominantly Inattentive presentation was most common (42.3%), followed by the Combined presentation (29.6%) and the Predominantly Hyperactive/Impulsive presentation (28.2%). The relatively high proportion of Inattentive presentation is noteworthy because inattentive symptoms are typically less disruptive in the classroom than hyperactive/impulsive symptoms and may otherwise be under-referred by teachers; its prominence here suggests that the structured VADTRS screening was sensitive to less overtly disruptive symptom patterns, in contrast to some Indian studies (e.g., Pathan et al., 2024) in which the Combined presentation predominated.

6.2 Gender

Gender was the most consistent socio-demographic correlate observed across all stages of screening. Although the total population was almost evenly split (49.8% female, 50.2% male), males accounted for 73.9% of the referred sample and 73.2% of confirmed cases, a pattern that held across all three presentations (73.3% male among Predominantly Inattentive, 70.0% among Predominantly Hyperactive/Impulsive, and 76.2% among Combined presentation). This male predominance is consistent with the broader literature indicating that ADHD is identified more frequently in boys than girls in community and clinical samples (APA, 2013), and it emerged as early as the teacher-screening stage, suggesting that identification bias, true prevalence differences, or both may be contributing

factors that this design cannot fully disentangle.

6.3 Birth Order and Locality

Birth order distribution among confirmed cases (36.6% first-born, 52.1% second-born, 11.3% third-born) closely mirrored the total population distribution (37.4%, 50.5%, and 12.1%, respectively), suggesting no meaningful association between birth order and ADHD identification in this sample. Locality of school likewise showed only minor variation between the population (54.1% urban, 41.6% semi-urban, 4.3% rural) and confirmed cases (53.5% urban, 39.4% semi-urban, 7.0% rural), with a small over-representation of rural children among confirmed cases that warrants further investigation in a larger, rural-focused sample.

6.4 Parental Education, Occupation, and Family Income

A more complex pattern emerged for parental education. Fathers with only primary education were under-represented among confirmed cases relative to the population (7.0% vs. 17.8%), as were fathers with an undergraduate degree (11.3% vs. 24.2%), while fathers with secondary, postgraduate, or professional qualifications were somewhat over-represented. Maternal education showed a related but distinct pattern: illiterate mothers were markedly under-represented among confirmed cases (5.6% vs. 16.7% in the population), while mothers with an undergraduate degree or professional qualification were over-represented (14.1% vs. 8.4%, and 5.6% vs. 0.9%, respectively). Working mothers ('engaged with occupation') were also consistently over-represented, both among referred children (35.9% vs. 25.6% in the population) and confirmed cases (35.2%). A similar pattern was evident for family income: children from the lowest income bracket (below ₹2,00,000 per annum), who made up 83.1% of the total population, comprised only 54.9% of confirmed cases, while every higher income bracket was proportionally over-represented among confirmed cases relative to the population.

Taken together, these patterns do not describe a simple linear socio-economic gradient in ADHD identification. Instead, they most plausibly reflect differential participation in the second and third screening stages: completing the VADPRS and attending psychiatric evaluation both require parental time, literacy, and access that may be more readily available to more highly educated, employed, or higher-income families. This interpretation is consistent with the study's own exclusion criteria, under which children were removed from the sample specifically because their parents were unwilling or unable to complete the parent rating scale or attend doctor's diagnosis. As such, the socio-demographic patterns observed here is interpreted as patterns of referral and diagnostic completion rather than as evidence of differential underlying prevalence, an important distinction for both interpretation and intervention planning.

7. Recommendations and Educational Implications

- **Universal Stage 1 screening:** Teacher-administered VADTRS screening should be extended as a routine, universal practice from the early primary grades, enabling earlier identification of both hyperactive/impulsive and less visible inattentive symptom patterns.
- **Reducing participation-related bias:** Schools should provide structured support — such as facilitated completion of the VADPRS during parent-teacher meetings, and assistance in scheduling and accessing psychiatric evaluation — to reduce the risk that lower-income, less-educated, or single-working-parent families are systematically under-represented among diagnosed and subsequently supported children.
- **Teacher capacity-building:** Given the prominence of the Predominantly Inattentive presentation, in-service teacher training should place explicit emphasis on recognising inattentive symptom patterns, which are less disruptive and therefore more easily overlooked than hyperactive/impulsive behaviour.
- **Attention to under-identification in girls:** While boys were identified at consistently higher rates across all screening stages, schools and clinicians should remain alert to the possibility that girls with inattentive-type symptoms are under-referred, and should apply screening criteria consistently across gender.
- **Early school-based support pending diagnosis:** Children flagged as positive at Stage 1 or Stage 2 should be offered classroom-level behavioural and academic support through the school counsellor or special educator while formal psychiatric confirmation is pending, rather than waiting for full diagnostic completion.
- **Technology-based instructional support:** Given documented gaps in specialist access in non-metropolitan Indian settings (Mahin et al., 2026), scalable, technology-based instructional interventions — such as mobile application-based instruction — merit further development and evaluation as a classroom-level support for children with identified ADHD, particularly in resource-limited school settings.
- **Policy implications:** The 16.2% referral-confirmed prevalence observed in this sample supports the case for integrating structured, multi-informant ADHD screening into routine school health and inclusive-education programming at the district level.

8. Conclusion

This study found that 16.2% of Grade III children across 12 English-medium primary schools in the selected geographical area of study were confirmed with ADHD through a three-stage, multi-informant screening protocol, with the Predominantly Inattentive presentation being most common. Confirmed cases were consistently male-predominant and showed a modest but consistent over-representation of higher-income, higher-education, and working-mother households relative to the general population, a pattern most plausibly linked to differential participation in parent- and clinician-level screening rather than true differences in underlying prevalence. These findings support the value of universal, multi-informant screening for early ADHD identification in Tamil Nadu primary schools, while highlighting the need for deliberate strategies to ensure equitable participation across socio-economic groups, and provide an empirical foundation for subsequent classroom-based intervention research, including technology-assisted instructional approaches.

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