

## **ADHD IN INDIAN ELEMENTARY CLASSROOMS: UNDERSTANDING TEACHER PERSPECTIVES**

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*ADHD in India is culturally viewed as a school specific condition. Parents perceive accessing child psychiatric services as stigmatizing and prefer educational interventions for ADHD. There is a crucial need for research that restructures information and intervention paradigms about ADHD within a school context. The objectives of the present study were to understand teacher perspectives in relation to ADHD behaviours as they present in mainstream elementary classrooms. Located in Bangalore Urban district, India, the purposive sample consisted of teachers and students from the elementary section of 5 regular schools. Data was obtained through in-depth interviews, classroom observations and responses to vignettes. Responses were qualitatively analysed for themes and main concepts. Results indicate that teachers use a framework model to locate the construct of ADHD in a developmental context. ADHD behaviours are attributed to parent disciplining styles and environmental factors such as over exposure to electronic media. Teachers respond to classroom challenging behaviours using directive and heuristic strategies. The study highlights the need to recognize cultural complexities in understanding the ADHD construct.*

### **Introduction**

A common childhood developmental disorder diagnosed among the elementary school going population is Attention Deficit Hyperactivity Disorder (ADHD). Estimates of ADHD across the world range from 2.2 to 17.8 percent (Skounti, Philalithis & Galanakis, 2007). ADHD as defined by the American Psychiatric Association (2000) is a persistent pattern of inattention and /or hyperactivity- impulsivity that is more frequently displayed or more severe than is typically observed in individuals at a comparable level of development. Typically a triad of difficulties in the areas of attention, activity levels and impulsive behaviours form the core diagnostic features of ADHD.

Students with ADHD exhibit a variety of difficulties with school functioning. Hyperactive-impulsive behaviours that may comprise ADHD often lead to disruptive behaviours in the classroom including walking around the classroom when staying seated is expected, talking out of turn, intrusive verbalizations, not following through on instructions and interrupting teacher instruction (DuPaul, Weyandt & Janusis, 2011). Children with this disorder also have difficulties in sustaining attention and exhibit significantly higher rates of off-task behaviour when passive classroom activities (e.g. listening to teacher instruction and reading silently) are required relative to their non-ADHD classmates (Abikoff, et al., 2002; Junod, DuPaul, Jitendra, Volpe & Cleary, 2006).

Once regarded as a condition that was mostly prevalent in Western contexts, studies conducted on a range of ethnic cultures indicate symptom similarities and the existence of ADHD type behaviour clusters. These suggest that ADHD does exist as a fairly stable behavioural construct (Malhi & Singhi, 2000; Ghanizadeh, Bahredar & Moeini, 2006; Hong, 2007; Karande, et al., 2007; and Einarsdottir, 2008). However, etiological and diagnostic polarised debates surround ADHD and stem from the recognition that there exist problematic boundaries between 'normal' and 'pathological' behaviours (Singh, 2008). Children and their behaviours are located in cultural contexts that frame how behaviours are interpreted and determine what behaviours are considered developmentally appropriate. Cultural frameworks also influence tolerance levels and responses to behaviours that are viewed as inappropriate.

Urban epidemiological studies conducted on school going children and adolescents in India indicate prevalence rates of 10-30% for emotional and behavioural disorders (Kapur, 2005). However the social stigma associated with seeking psychiatric help and low levels of awareness amongst pediatricians, general physicians, teachers and parents about the occurrence of these conditions, translates into child mental health and disability issues going undiagnosed and largely ignored (Khandelwal, Jhingan, Ramesh, Gupta & Srivastava, 2004). There is hence a need to address issues of ADHD identification and treatment from culturally sensitive paradigms (Bussing, Schoenberg, Rogers, Zima & Angus, 1998; Dwivedi & Banhatti, 2005; Wilcox, Washburn & Patel, 2007).

#### *ADHD- Indian Context*

Research on ADHD in India is in its nascent stage and initial epidemiological studies indicate that prevalence rates for ADHD vary from 5-10 percent of the general population (Malhi & Singhi, 2000). The incidence is reported to be higher in boys than girls in the ratio of 7:4 (Chawla, Sahasi, Sundaram & Mehta, 1981). Studies conducted have been mostly based on clinic presentations of ADHD and are epidemiological in nature. Problems in school performance as opposed to specific symptoms of ADHD are common reasons for referral to child development centers and clinics (Karande et al., 2007; Wilcox, Washburn & Patel, 2007). Clinic presentations of ADHD reflect a higher level of severity. There is an absence of Indian research studies available on children who may be experiencing sub-clinical or mild levels of ADHD. These children are challenged in classroom settings yet are unlikely to receive any formal or consistent intervention.

Karande et al., (2007) studied children with ADHD and Specific Learning Disability in Mumbai. The study observed that the average age at which children were identified was 11.36 years. There was a gap of 5.8 years between noticing learning and behavioural difficulties and actually making a diagnosis. This delay could be attributed to the observation that teachers and parents in India often take a maturational perspective especially with boys who display behavioural difficulties.

A qualitative study by Wilcox et al., (2007) aimed at analyzing the explanatory models employed by parents whose children have an ADHD diagnosis. It also addressed the relevance of the ADHD diagnostic construct in the Indian setting. The key findings indicated that the majority of referrals were related to problems in academic performance. Parents recognized that their child had difficulties but did not primarily consult with doctors. Most attributed their child's difficulties to learning and memory difficulties, models which emphasized either volitional or non-volitional nature of the condition or blamed themselves or their spouse. Most parents rejected the biomedical model that they were introduced to at the time of the diagnosis being conveyed to them. The study supported the hypothesis that a biomedical psychiatric label may not be an acceptable strategy for meeting mental health needs in Indian culture (Patel & Prince, 2001; Rodrigues, Patel, Jaswal & De Souza, 2003).

Parents were most likely to pursue educational and religious treatments. Educational interventions were perceived as more helpful than other interventions, suggesting the important role that schools in India and teachers specifically play in identifying and providing appropriate intervention for ADHD. Indian society, considers education to be the primary tool to advance one's socio-economic status (Desai, 1972). Education is hence viewed seriously right from early childhood and the emphasis is on engaging in formal scholastic rather than play based learning experiences and demonstrating academic competence (Anandalakshmy, 1998). Parents are hence more likely to respond to academic rather than behavioural concerns their child may have.

Findings about ADHD in the Indian context appear to share certain similarities with Western research literature on the subject. Sayal, Goodman and Ford, (2006) reported that a majority of parents in the UK discuss their concerns with professionals based in education services and stressed on the need to support teachers in their contact with parents. Another UK based study concluded that schools appeared to be under-resourced in coping with ADHD-type behaviours as teachers possessed limited knowledge about the diagnosis and behavioural/educational methods of treatment (Sayal, Hornsey, Warren, MacDiarmid & Taylor, 2006).

Despite the high visibility that ADHD receives in the US media, research studies on ADHD indicate that while teachers are knowledgeable about the typical characteristics of ADHD, they were far less certain about causes, treatment and long-term prognosis (Sciutto, Terjesen & Frank, 2000). Low levels of teacher awareness find resonance in Holst's (2007) qualitative study on early childhood teachers in Denmark. The study focused on how teachers experience and manage challenging behaviour and ADHD. Results

indicated that in general teachers did not have much knowledge about ADHD. Low levels of awareness were attributed to the diagnostic confusion and teachers' concerns about framing environmental conditions as individual child problems which they felt was medicalising what were essentially social and educational problems.

Most available research done across various cultures on ADHD, regards as 'resistance', parent, cultural or teacher views that are not in consonance with the biomedical model. This has probably diluted the focus from engaging at deeper levels with practical issues of education, pedagogy, child rearing and their influence on child mental health models. The review of literature underlined the need for research that acknowledges the influence of cultural interpretations of ADHD in contemporary contexts to ensure that mental health professionals design collaborative interventions of relevance to the populations they serve.

#### *Need for school based interventions*

Schools play important roles in the psychosocial development of the child as they constitute frames where developmental domains engage and transform (Noam & Hermann, 2002). Studies suggesting parent preferences for educational interventions over psychiatric interventions for ADHD coupled with stigma associated in accessing psychiatric services strongly indicated the need for research that would help mental health professionals restructure information and early intervention paradigms about ADHD within a school context.

Adding support to this perceived need is Reddy's, (2009) meta-analytic review that compares the efficacy of school-based prevention and intervention programs for children at-risk for or with emotional disorders. This review offers initial support for the idea that prevention and intervention programs implemented in schools are generally effective in alleviating the early onset of emotional and behavioral symptoms.

Research indicates that classroom contexts are a challenge for children with ADHD and their teachers. A key aspect of improving the behaviour of children and young people in schools involves the classroom practice of individual teachers (Hart, 2010) and engaging actively with issues of school mental health. (Reinke, Stormont, Herman, Puri & Goel, 2011). With over 184.7 million pupils at the primary level, India now has the largest elementary student population in the world (Ministry of Human Resource and Development, India, 2006). Teacher implemented mental health interventions are relevant to the Indian context where the number of children who require mental health services far exceed available professionals who can deliver these services and in settings that are not considered stigmatizing.

Early intervention research also suggests that simpler and less intensive interventions may be required for children who are identified early (Sonuga-Barke, Thompson, Abikoff et al. 2006) rather than the more intensive programmes that may be required if problem behaviours escalate in middle childhood.

#### *Present study*

As Kurupparachchi and Wijeratne, (2004) rightly observe, ADHD was unheard of in developing countries a few decades ago. The low prevalence of child psychiatric disorders in developing countries was attributed to the presence of extended families which acted as a protective factor. The few published Indian studies are indicative of the nascent quality of research in the area.

The present study was part of a research project that sought to understand perspectives of teachers in elementary school towards ADHD type behaviours and incorporating them in designing a suitable classroom intervention programme. A review of relevant literature revealed a near absence of published Indian studies on teacher perspectives in relation to children with emotional and behavioural difficulties and the crucial need to attend to this gap. The study aligned with the view that the teacher is part of the child's complex, ecological system and does have an influence in maximizing potential or in mediating the effects of a stressor (Bronfenbrenner, 1979; Pellegrini & Horvat, 1995).

Teachers in elementary school are the first adults to see children in formal group settings and can identify developmentally inappropriate behaviours in the classroom context. Identification can help initiate early intervention moderating the intensity of ADHD type behaviours. The research questions that this study sought to answer were:

1. What were teachers' understandings of the term ADHD?
2. What were teacher attributions of ADHD behaviours?

3. What ADHD behaviours did teachers report as challenging?
4. How do teachers respond to ADHD type behaviours?
5. How do teachers' differentiate between problematic and pathological behaviour?

### **Method**

The present study was located in Bangalore Urban district. Bangalore is the capital city of Karnataka- a state in Southern India and is often referred to as the IT capital of India. The city's population is more cosmopolitan in nature owing to the meteoric growth of the IT industry in the past decade and the educated, upwardly mobile work force that it has attracted. Currently Karnataka's literacy rate is 75.5% (Education in Karnataka, 2011 Census). This exploratory study adopted a qualitative research design which allowed for teacher voices to be heard and gather data that represented the complex world of the classroom.

### *Participants*

Through purposive sampling, a group of teachers (n=15) and students (n=15) that met inclusion criteria were chosen from the elementary section (Grades 1-5) of schools (n=5). The schools were all privately owned, used English as the language of instruction and covered a range that catered to families from low to upper middle income groups. Class sizes across schools ranged from 35 to 47 (mean= 38 students). The school size in terms of number of students ranged from 600 to 3500 at the upper end. All the teacher respondents were female. The average age of teachers in this group was 37 years and the average number of years of professional experience was 8.7 (minimum 5 years and maximum 18 years) With the exception of one respondent, all teachers in the group were married and had children.

Regarding teacher training and educational qualifications; 3 teachers in the group had completed their 12th grade school leaving exam in addition to a 2 year teacher training certificate course, 12 teachers had completed a graduation degree. While most (n=11) teachers in the group had received a minimum of 1 year of formal teacher training, there were 4 teachers who were graduates but had no professional training inputs.

The average age of students in this group was 8 years, ranging from 6 years to a maximum of 11 years. 14/15 students identified by teachers were male and matched the vignette description of a child with Hyperactive Type ADHD. Only 1 student (female) in the sample matched the vignette description of a child with Inattentive type ADHD. 2 students in the group had received a formal diagnosis of ADHD from a child psychiatrist. There were 4 students and teachers from Grades 1 and 4, 2 students and teachers from grades 2 and 3 and 3 students and teachers from grade 5 respectively. The use of the term ADHD type behaviour in this study for a child is indicative that he/she is exhibiting behaviours that may indicate the presence of ADHD (SDQ hyperactivity score:7). While this in itself is not indicative of a definite diagnosis, it is a fairly robust indicator that behaviours exhibited by the child are at a level that would qualify for a comprehensive formal assessment and a possible future diagnosis of ADHD. Research ethics were adhered to in obtaining informed consent for interviews and observations and in reporting data.

### *Instruments*

The primary respondents were teachers and data was obtained through in-depth interviews, responses to vignettes and questionnaires and classroom observations. Field notes of visits to the schools were also maintained. The use of multiple methods in qualitative research is desired and accepted practice as it adds a sense of depth and rigour to the research process.

*In-depth interview* While conducting the in-depth interview, a semi- structured interview schedule was used as a guide. The interview guide was designed by adhering to the question framework of specific issues that needed to be explored. Teacher respondents were interviewed individually across 3 sessions of 50 minutes duration each. All interview sessions were audio-recorded and later transcribed.

*Vignettes* Two vignettes were constructed that described the symptoms of attention difficulties with and without the presence of hyperactivity. These were based on ADHD symptoms as listed out in the Diagnostic and Statistical Manual (DSM-IV) and from the researcher's clinical experiences of typically reported ADHD type behaviours in teacher and parent diagnostic interview sessions. Expert validity was established for these vignettes prior to them being used with the final teacher sample. The purpose of using vignettes in the study was to aid in the quick recognition of a child displaying ADHD type behaviours in a classroom setting.

Teachers were asked to carefully read the two vignettes and indicate whether they had students in their class who would fit either of the descriptions best.

*Strength's and Difficulties Questionnaire (SDQ- Goodman, 1997)* Teachers rated students they had identified using the vignettes, on the SDQ. This is a brief behavioural screening questionnaire used for children in the age range 4-16 years. Scale specific scores in the range of 7-10 on the Hyperactivity scale are considered abnormal. This questionnaire also has a supplement that measures impact of behaviour problems. The scale has been used effectively to screen children for ADHD and it has been recognized to have good sensitivity for psychiatric caseness.

*Classroom Observations* These were non-participant and semi structured. Observations were recorded in a narrative manner and in chronological sequence. Each of the teacher respondents had two classroom observations of 45-50 minutes each. These were scheduled on different days at different periods. Actual observations of teacher classroom practices offered opportunities to gather 'live' data thus contributing to the ecological validity of the data given its sensitivity to context.

#### *Procedure*

Heads of school chose teachers from their elementary section who in their view fitted the study requirements. Teachers chosen were met in a group in their respective schools and attended a brief explanation about the purpose of the study. Informed consent to participate in the study was sought from teachers following this. Respondents were initially presented vignettes, if the teacher was able to identify a student in her class who displayed a similar set of behaviours as mentioned in the vignette; she was given the SDQ to complete for that student. If a student's scores on the questionnaire met inclusion criteria requirements (score of 7 and above on the hyperactivity scale) that teacher and identified student formed part of the sample. In-depth interviews and classroom observations were conducted with the final sample. Data obtained was recorded and transcribed.

#### *Analysis*

Working within the research structure provided by the objectives and the conceptual framework, transcribed data was qualitatively analysed. The analysis utilized open coding to establish themes and main concepts (Miles & Huberman, 1994). Recurring motifs in the text were recognized as themes and sub-themes. An index of central themes and sub-themes was constructed; data was ordered, synthesized and subsequently represented in a matrix. This conceptually ordered matrix aimed to categorize and contextualize data which allowed for cross case analysis and a deeper understanding and explanation of issues that were being studied.

#### **Results**

This study adopted a qualitative design. The context provided by SDQ scores and teacher responses to the vignettes indicated presence of hyperactivity and the impact it created in the classroom. Significant themes and categories that emerged from interview data and classroom observations has been presented under the following heads: *Awareness of ADHD, Challenging behaviours, Teacher responses, Attributions and Differentiating normal from pathological behaviours.*

Identified students were screened on the SDQ. Results obtained on the SDQ indicate that while all students scored had scored 7 or above, 53% (n=8) had a score of 10 indicating fairly high levels of ADHD type behaviours as assessed by the teacher. A majority, 66.7% (n=10) of teacher respondents felt that the student's behavioural difficulties were interfering with learning- quite a lot, 26.7% (n=4) described it as interfering 'a great deal'. 53% (n=8) of respondents described the identified child's behaviours interfering with peers only a little while 33.3% (n=5) perceived such behaviours as interfering quite a lot with peers. The majority of teachers (53%, n=8) felt that the student's behaviours placed quite a lot of burden on them and on the class as a whole.

*Awareness of ADHD* Teacher respondents were asked if in their years of teaching practice they had heard the term ADHD read about it or attended a workshop. With the exception of one teacher, none of the other teachers (n=14) reported any level of familiarity with the term. Teachers were asked about their familiarity with the term 'Hyperactivity' or its popular colloquial usage- 'Hyper'. All the teachers (n=15) reported familiarity with the term and used it in context of children and their classroom behaviour. Most teachers offered multiple explanations for their understanding of the term hyperactive. In response to a probe question of what classroom behaviours suggested its presence, teachers provided behaviour descriptors that appeared to tally with the core clinical diagnostic indicators of ADHD as specified in the

DSM-IV. These behaviours were classified as falling under 3 broad categories: Motoric behaviours, Classroom/Academic functioning and Peer functioning (Table 1).

**Table 1: Teacher Descriptors of Student ADHD Type Behaviours**

Motoric behaviours	Classroom/Academic functioning	Peer functioning
<ul style="list-style-type: none"> <li>•restless</li> <li>•can't sit still</li> <li>•fidgeting with stationery</li> <li>•making noises</li> <li>•talking out of turn</li> <li>•out of seat frequently</li> <li>•making inappropriate noises</li> <li>•wandering</li> <li>•laughing loudly-out of context</li> </ul>	<ul style="list-style-type: none"> <li>•incomplete work</li> <li>•easily distracted</li> <li>•difficulties concentrating</li> <li>•disturbs others</li> <li>•wastes time</li> <li>•frequent supervision</li> <li>•repeated instructions</li> <li>•does not like written work</li> <li>•hurry to finish</li> </ul>	<ul style="list-style-type: none"> <li>•no true/good friends</li> <li>•plays class clown</li> <li>•gets into arguments</li> <li>•aggressive at times</li> <li>•difficulties in apologizing</li> <li>•difficulties in resolving fights</li> <li>•receives frequent complaints</li> <li>•meddlesome</li> </ul>

A few sample responses that teachers provided regarding their understanding of hyperactivity have been listed:

*Hyperactive students are more curious, they can never sit in their place, always mobile- but I don't find anything wrong in that, they are active, ask a lot of questions...- Grade 04 teacher*

*Some parents tell me – their child is hyperactive and I tell them there is no such word- no children are hyper in my class, all of them are fine. Maybe you can use the word mischievous- these are normal children but a little more naughty. Let's say there are 2 children in class one whom we call hyperactive and the other who is this obedient boy- the only thing that is different is that in this hyperactive boy there is a worm or something in his body that heats up his chair and makes him jump like pop-corn.- Grade 01 teacher*

*Hyper children are normal- just more naughty and playful. If they were so abnormal then I don't think they would be in a regular school.- Grade 02 teacher*

Semantically hyperactivity was described variously as naughty, playful, mischievous, more active, less attentive, and more curious- essentially reflecting common descriptive terms for a range of typical childhood behaviours. ADHD type behaviours were also described by 47% (n=7) of the respondents as the 'intelligent' child's response to feeling under stimulated in class. Most teachers (13/15) also appeared to share the belief that the child's behaviours would improve as a function of age, a belief based on their personal and/or professional experiences.

*Challenging behaviours* Themes that appeared in terms of ADHD type behaviours that teachers reported as challenging, pertained to: *Behaviours that impact on the other, Challenging teacher authority and Teacher age/grade expectations* (Table 2).

**Table 2: Challenging ADHD Type Behaviours**

Behaviours that impact on the other	Challenging teacher authority	Teacher age/grade expectations
<ul style="list-style-type: none"> <li>•distracting students by taking away their stationery items</li> <li>•making noises</li> <li>•engaging in arguments/conversations with peers while the teacher was giving instructions</li> <li>•answering out of turn</li> <li>•making irrelevant comments</li> <li>•shaking desk or chair,</li> <li>•fidgeting, wandering around class</li> <li>•being aggressive</li> </ul>	<ul style="list-style-type: none"> <li>•talking back to the teacher</li> <li>•not complying with instructions</li> <li>•delays in following through on instructions</li> <li>•breaking class rules</li> </ul>	<ul style="list-style-type: none"> <li>•pouting when given feedback, crying easily,</li> <li>•difficulty in sorting out an argument,</li> <li>•slow pace of written work-not at class expected level,</li> <li>•academic difficulties-gaps in basic concepts, difficulties with writing, spelling and math-current skills in these are below the normal class level</li> <li>•easily irritated or frustrated</li> </ul>

Behaviours that a student exhibited in a classroom context that impacted on another's learning, physical or emotional safety were considered the most problematic. Teachers perceived behaviours to be

challenging if it required that they spend more time on an individual basis with the child- a requirement that was often difficult to cater to in the regular classroom.

**Teacher Responses** Teacher responses to a student's ADHD type behaviours were grouped under the themes of behavioural, environmental and instructional teacher responses (Table 3)

**Table 3: Teacher Responses to ADHD Type Behaviours**

Behavioural responses	Environmental responses	Instructional responses
<ul style="list-style-type: none"> <li>• warning</li> <li>• threatening</li> <li>• ignoring problem behaviours</li> <li>• non- verbal cue</li> <li>• physical punishments</li> <li>• response cost</li> <li>• rewarding appropriate behaviour</li> <li>• calling out name</li> <li>• confrontation query</li> </ul>	<p>Seating arrangements- closer to teacher's table, next to a good student, on the floor near the blackboard</p> <p>Removing the student from class, seating him in another class, the staffroom, outside Principal's office</p>	<ul style="list-style-type: none"> <li>• frequently calling on the child to answer a question</li> <li>• providing a range of activities within a period</li> <li>• keeping the student constantly occupied</li> <li>• playing a quiz/game spontaneously in class</li> <li>• structured responsibility that allowed for movement- e.g. child is responsible for collecting the books from all the rows and depositing</li> <li>• brisk pace of teaching</li> </ul>

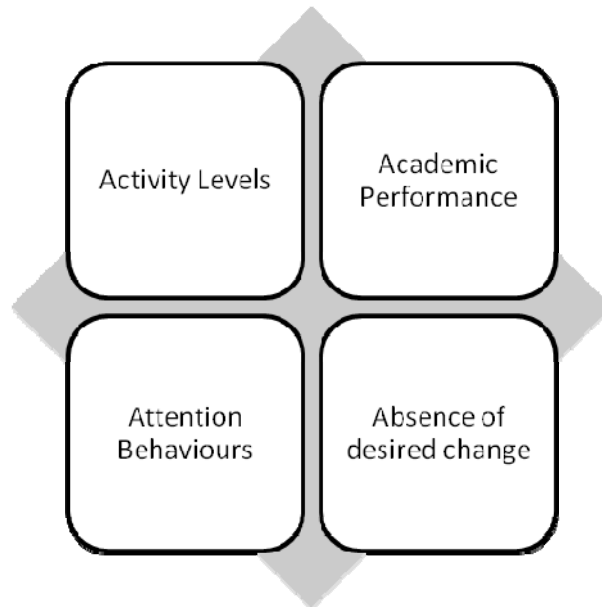
Responses teachers employed represented a range; these were not used consistently or over a sustained period of time and were heuristic strategies largely based on what teachers had gathered through their years of experience in managing classrooms.

*Attributions* All teachers attributed a combination of causes they believed were responsible for these behaviours presenting themselves in children. Only two teachers (13.3%) in the study suggested a biological causal factor. Both these teachers also provided other attributions and did not consider biological factors as acting in isolation in causing ADHD type behaviours. Teachers' attributions of ADHD behaviours were discussed under parent, child and environment factors. A child's ADHD behaviours were most commonly (n=15) attributed to parenting related factors; inconsistencies in parent disciplining practices, limited time that parents spend with their children, absence of extended family members and poor supervision. Approximately half the group (47%, n=7) attributed ADHD type behaviours to the child's temperament which was regarded as transitory in nature.

Among the Environmental Factors, the ethos of the school, its views and practices demonstrated about discipline were regarded as significant by 4 teachers. The majority of teachers (73%, n=11) mentioned the influence of the electronic and entertainment media. Unsupervised television viewing, video games and access to the internet were held as responsible for influencing the way children thought and spoke. Other environmental attributions were to peer group affiliations (n=2) and parent religious affiliation (n=2).

*Differentiating Behaviours* Teachers' responses to the query on how they would differentiate a student who was being naughty from a student they thought had a more significant difficulty such as that mentioned in the vignette, were examined for themes. These have been visually represented in Figure 1. The core differentiating features that teachers used to identify students with ADHD behaviours in regular classrooms were classified under four specific areas that have been collectively referred to as the *Four A*

*Framework.* In describing how they used the framework, teachers stressed the comparison of the identified child in the context of observed classroom behaviour norms. The core features of this framework included: *Activity Levels:* Students who were restless, constantly shifting in their places, fidgeting with stationery items, rocking or seen to be walking in class when being seated was expected were viewed as having significant difficulties. Teachers reported that in comparison to other students, those who displayed ADHD type behaviours had higher physical energy levels.



**Figure 1: Differentiating Problematic Behaviours-The Four A Framework**

*Attention Behaviours:* Students who were easily distracted by classroom interruptions, had a dreamy or glazed look, did not attend or participate in a class that others found interesting, did not respond immediately to name being called out and needed frequent reminders to stay focused were perceived as displaying attention difficulties .

*Academic Performance:* Being unable to keep pace with the other students while completing written work in class and poor performance on tests and exams, were crucial indicators as to whether the teachers would call in the child's parents. Academic concerns in combination with behavioural difficulties indicated definite areas of difficulty.

*Absence of desired change:* If teachers perceived that in response to correction or feedback, there were no lasting observable changes in the student's behaviour, it was viewed as indicating a significant problem.

### **Discussion**

The present study is a significant contribution to child mental health research in India as it attempts to understand how ADHD type behaviours present themselves and are understood in elementary classrooms. Though a majority of students(87%, n=13) had not received a formal diagnosis of ADHD, the study findings indicate that even the presence of ADHD type behaviours were sufficient to be regarded as interfering with a student's learning and peer related social functioning. Earlier research lends credence to these findings and highlights the difficulties children with ADHD experience in social relationships and academic functioning (Semrud-Clikeman et al., 1992; DuPaul & Stoner, 2003; Hinshaw, 2002; Maedgen & Carlson, 2000; Merrell & Boelter, 2001; Landau & Moore, 1991). Impaired functioning across social and educational settings domains represent significant developmental risk factors and can have long term implications on the educational attainment, quality of life, and health status of these children (Mannuzza , Klein, Bessler, Malloy & Hynes,1997).

The overwhelming majority (93.3%, n=14) of teacher respondents in this study had no awareness of the term-ADHD. Teachers used the term Hyperactivity instead to describe ADHD type behaviours. The prefix of hyper in its common sense connotation of representing 'more/extra' - appeared to characterize



their understanding of the term in its entirety. Steering clear of biomedical child mental health models, teachers' appear to have located the construct of ADHD in a child developmental context. Hyperactivity was viewed as a mixed set of volitional and age specific behaviours that deviated from classroom norms for behaviour. The perception that children with ADHD are also possibly endowed with higher cognitive abilities allowed some teachers to frame it as a positive trait/ability and for others to locate problem classroom behaviours in a child specific context.

More boys than girls were identified as displaying ADHD behaviours. This is in line with research that suggests that gender impacts on symptom manifestation of ADHD (Abikoff, et al., 2002), and that ADHD behaviours are more frequently observed in boys than in girls (Kypriotaki & Manolitsis, 2010). While teachers were unfamiliar with the term ADHD, they provided behaviour descriptors that tallied fairly accurately with the core clinical diagnostic indicators of ADHD as specified in the DSM-IV. The implications of this finding suggest that the set of behaviours symptomatic of ADHD exist as a fairly stable construct in cross cultural contexts (Ghanizadeh, Bahredar & Moeini, 2006; Hong, 2007; Karande et al., 2007; and Einarsdottir, 2008).

However, norms prescribed by a particular culture represent and express core cultural values, tolerances for specific child behaviours and largely determine whether behaviours become classified as abnormal or not (Waxler, 1974; Edgerton, 1976; Murphy, 1976; Kleinman, 1988; Chandra, 1993). Teachers in this study believed that displaying ADHD type behaviours did not necessarily predict a negative developmental trajectory for a child because of the perception that problem behaviours were limited to a childhood period. A possible academic contextual explanation for this belief could be that teachers in elementary sections are just beginning to see deficits in the child's classroom and academic functioning. These however tend to be more defined in middle school and high school contexts when the academic and social demands challenge deficits in executive functioning skills (Brown, 2008).

A child displaying ADHD type behaviours did place demands on a teacher's time and resources and most teachers experienced being burdened at individual and class levels in managing hyperactive behaviours. This is in accordance with research that establishes higher stress levels for teachers who cope with students who display externalizing behaviours (Raschke, Dedrick, Strathe & Hawkes, 1985; Greene, Beszterczey, Katzenstein, Park & Goring, 2002; Reinke et al., 2011) as compared to students who have predominantly inattentive difficulties. Prior related research indicates that behaviours least tolerated by teachers are those that are disruptive in nature; they originate in the student but have an observable, tangible effect on other pupils (Saffran & Saffran, 1984; Arbuckle & Little, 2004). The presence of these behaviours often interferes with establishing and maintaining positive relationships with peers and teachers (DuPaul and Stoner, 2003; Barkley, 2006).

In the present study, teachers were most challenged by behaviours that impacted on the other. The importance teachers assigned to behaviours impacting on the other can be viewed in the larger socio-cultural phenomenon of holism or intersubjective sharing (Clark, 2001). In a classroom context this translates into the teacher being mindful of group processes and the need for regulation amongst its members to ensure a certain degree of functioning. This emphasis on the group as a whole entity and not on individual concerns constructs ways in which the teacher rates the severity of a particular inappropriate behaviour and also determines the nature of her response.

Arguing that the concept of small class size in India is a construct of privilege and power, Gupta (2006) adds that the emphasis on students taking turns to talk, sharing materials, minimizing physical movement and limiting group activity in classrooms that are physically cramped brings in a degree of order in what could otherwise be a very chaotic environment. Teachers also expressed concern about behaviours that challenged their authority as this was in contrast to their traditional roles. Non-compliant behaviour that a student displays is hence likely to be viewed as the student being disrespectful of the teacher. Recognizing that the role of the teacher in India is culturally preserved (Clark, 2001; Gupta, 2003) has implications for how a teacher could effectively respond to such behaviours in the classroom.

From the responses that were employed in the classroom in response to ADHD type behaviours; it was evident that teachers used a variety of strategies. Teachers appeared to subscribe to an Interventionist view that predominantly uses a system of rules, rewards and punishments as opposed to a more child centered Non- Interventionist view (Wolfgang & Glickman, 1986). The need for teachers in Indian classrooms to be focused on class control and group disciplinary measures stems from working with large numbers of students where maintaining a sense of group order is a prerequisite for any instructional

activity (Gupta, 2006). The responses teachers employed were not necessarily consistent or long term in their approach; they dealt with the problem behaviour on hand and were largely heuristic, based on what teachers had gathered through their years of experience and informal consultations with their senior colleagues rather than exposure to formal training experiences.

Classroom preferential seating, engaging the student with work, close supervision, providing frequent reminders and cues and following up on feedback given to child and parent were listed as teacher initiated responses that could have a positive effect on reducing the severity of challenging behaviours. Teachers attributed ADHD type behaviours to a variety of factors. Parental disengagement with children and poor supervision were cited as significant contributing factors. Teachers believed that changes in present day family structures resulted in children functioning in home contexts with a poor sense of boundaries, inadequate consequences for their actions and a limited sense of differentiating appropriate from inappropriate behaviours. Interestingly none of the teachers attributed ADHD type behaviours to teacher- student interactions, teaching styles, pedagogy and classroom management strategies. The teacher appeared to be removed from the contributing matrix.

The findings about teacher attributions in the present study are supported by Arcia et al.'s (2000) study of teacher attributions of ADHD. Elementary teacher respondents in their study attributed ADHD to family environment, neglect, lack of discipline at home and an overprotective mother among others. The powerful role of the electronic and entertainment media- unsupervised television viewing, video games and access to the internet were perceived as responsible for influencing children's cognitions and behaviours in family, social and educational contexts.

In differentiating difficult from pathological behaviours, teachers referred to a child's activity levels, attention levels, academic, and absence of desired change, in comparison to group observed behaviours. These have been presented as the Four A Framework representing core ADHD features. Findings suggest that teachers in elementary classrooms are well placed to identify children who display ADHD like behaviours ( Sayal, Hornsey, Warren, MacDiarmid, & Taylor, 2006). In their study, Konantambigi and Shetty (2008), established that even in the absence of information obtained from formal assessments, Indian teachers get a fairly good insight into the learning difficulties and problems of children. This has positive implications in terms of enabling early intervention efforts.

The present study clearly defines the need for a greater appreciation of the cultural complexities and shared belief systems and values that influence how a condition like ADHD is conceptualized and the challenges it presents in terms of designing suitable interventions. Findings on understanding ADHD in this study are supported by previous research that requires clinicians and educationists to be sensitive to the complex cultural frameworks and influences embedded in addressing the condition (Havey, Olson & McCormick, 2005; Singh, 2008; Lee & Stacy, 2008).

#### *Implications*

Research findings indicate that school based interventions if timely and consistent can moderate the academic challenges a child with ADHD experiences (Murray, Rabiner & Hardy, 2011). The findings of this research categorically recognize the importance of teacher and cultural perspectives in understanding behavioural disorders and determining classroom practices. In addressing the relevance and need for addressing ADHD in school related contexts, the findings of this study also have implications for school mental health with specific reference to the Indian context. Creating a collaborative space between schools and child mental health professionals is a much needed requirement, defined however by complex challenges. Mental health professionals entering school spaces would need to display a greater sensitivity towards and an appreciation of the complex factors that govern daily classroom teaching practices. Findings of the research have implications for addressing issues of designing effective teacher training programmes, school mental health and enabling schools in supporting required teacher skill sets that can foster positive child mental health.

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