

## Preschool Children with Attention Deficit Hyperactivity Disorder (ADHD) in Inclusive Settings: Challenging but Not Problematic

Supiah Saad<sup>1\*</sup> and Geoff Lindsay<sup>2</sup>

<sup>1</sup>Special Education Department, Ministry of Education, 62000 Putrajaya, Malaysia

<sup>2</sup>Faculty of Education, University of Warwick, United Kingdom

\*E-mail: supiahsaad@yahoo.com

### ABSTRACT

This paper describes mainstream preschool teachers' perceptions and attitudes towards students exhibiting Attention Deficit Hyperactivity Disorder ADHD characteristics. An ADHD checklist (ADHDC), specially developed for studying Malaysian preschool children with ADHD, was used in screening children with ADHD-like behaviours. Based on teachers' rating on the ADHDC, ten children from eight different preschool classrooms were chosen from eight different schools: four schools in the rural areas and four in the urban areas. All the eight teachers who were involved in the rating process became samples for exploring their perceptions and attitudes towards students with ADHD. Classroom observations and interviews were used as methods for gathering information. The results showed that all the ten selected children exhibited core features of ADHD symptoms, either inattentiveness or hyperactivity/impulsiveness or both, as rated by their teachers. In general, the teachers' perceptions and attitudes were positive towards these ADHD children's conditions.

**Keywords:** Attention Deficit Hyperactivity Disorder (ADHD), preschool children

### INTRODUCTION

*".....preschool teachers should know the various ways in which they can assist those who are very active and to overcome their emotional outburst through activities which will benefit the child" (MOE, p. 7, Book 1)*

Attention Deficit Hyperactivity Disorder (ADHD) is a disorder which is characterized by serious and persistent difficulties in specific areas, namely attention span, impulse control, and hyperactivity in some cases. ADHD is one of the new categories of children with

special educational needs (SEN), which is grouped under Learning Disabilities (LD) in the Malaysian educational classification.

Children with ADHD respond best to motivation and positive reinforcement and perform relatively better on high-interest tasks (Carlson and Tamm, 2000). Therefore, teaching strategies will influence the children's ability in controlling ADHD-related behaviours in the classroom. Effective teachers know their students. Therefore, building a positive relationship with ADHD students will help teachers understand them better, and this will also show them that their teacher(s) really want them to succeed.

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\*Corresponding Author

## **ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)**

ADHD is a developing subject. Its nature is complex and many aspects of this disorder are still under investigation. The research on ADHD is mostly from the USA as well as other developed countries. ADHD has its roots in the medical domain, which has subsequently been widened by researchers from other fields, especially psychology and education. However, its medical origins had influenced the conceptualization that led to the use of the ADHD terminology. Multiple changes have taken place in the diagnostic criteria for ADHD since the 1980s as researchers tried to develop a more appropriate explanation of ADHD. The development of ADHD definition and diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders (DSM) can be found with the American Psychiatric Association (APA: 1980: 1987: 1994: 2000).

### **SUB-TYPES OF ADHD**

The debate on the dimension of ADHD diagnosis is whether it is conceptually a uni- or a multi-dimensional disorder (Barkley, 1997a; Chhabildas, Pennington and Willcutt, 2001; Marks *et al.*, 1999). For example, the theory of poor executive function relates ADHD with poor self-control and self-regulation. However, the idea is more applicable to individuals with symptoms of hyperactivity/impulsivity, in addition to inattentiveness, but those with inattention problems alone are not catered by this particular theory.

#### *Children with ADHD Inattentive Type (ADHD/IA)*

Children in this group exhibit multiple inattentive symptoms with a few, or without, hyperactive/impulsive symptoms. They have great difficulties getting focused on task or activities although they may be able to sit still. The common risk in this particular sub-type is the teacher may

overlook these children's needs (Cooper and Ideus, 1996; Lovey, 1999). Lovey (1999) argued that the needs of children with ADHD without hyperactivity were easily overlooked by their teachers as they went through their school life without disrupting the class and remained undiagnosed (until later in their life). Lovey further stated that:

*“Attention deficit without hyperactivity is as detrimental to a child's education and subsequent mental health as the type with hyperactivity but is less likely to be referred for diagnosis” (p. 180)*

In terms of 'behavioural activity style,' they are likely to show 'underactivity' and are frequently described as lethargic, day-dreamy and sluggish. This sub-type is more frequently associated with girls (Taylor *et al.*, 1998).

#### *Children with ADHD Hyperactivity/ Impulsivity Type (ADHD/HI)*

ADHD/HI is a category created in DSM-IV to identify children who are extremely active but they do not display gross inattention. Children from this sub-type display multiple hyperactive/impulsive symptoms. They do not display significant attentional problems. They are able to pay attention to a task but lose focus because of hyperactivity or impulsiveness and frequently have trouble in controlling impulse and activity. This sub-type is more typical in boys (Taylor *et al.*, 1998). Burns and Walsh (2002) studied the influence of hyperactivity and impulsivity symptoms in the development of other disorders in 752 children. From the longitudinal study, they found that the hyperactivity/impulsivity (HI) factor was able to predict a higher level of Oppositional Deviant Disorder (ODD) factors in subsequent years, whereas ODD factors did not predict HI factors across the 2-years interval. They concluded that hyperactivity and impulsivity aspects of ADHD might influence the development of ODD behaviours.

#### *ADHD Combined Type (ADHD/C)*

Children from this cluster of sub-type have both conditions (a) and (b). According to Fowler (1999), this sub-type is the most common amongst the ADHD cases. A key characteristic is physical impulsivity. Children with this sub-type are likely to be at greater risk for other psychiatric disorders such as Oppositional Deviant Disorder (ODD) and Bipolar Disorder (BD). A child with hyperactivity is more likely to be rejected by peers owing to anti-social behaviours and be at a risk of suspension from school or referral to SEN provision (Barkley, 1997b).

#### **CHILDREN WITH ADHD IN SCHOOL**

Children with ADHD have problems complying with both school and classroom demands. They are unique and no two of them present themselves in the same way; in other words, different children experience different complications and have different characteristics, reacting differently in different environments. As children's attention is a crucial factor in managing their behaviour and social skills, those with behavioural problems need to learn techniques to monitor and control their attention. Hence, ADHD classification involves educational issues as the disorder is associated with the types of learning difficulties or academic impairments (Marshall, Hynd, Handwerk and Hall, 1997).

#### **THE PREVALENCE OF ADHD IN PRESCHOOL AND YOUNG CHILDREN POPULATION**

Psychiatric and paediatric disorders frequently emerge in preschool years (Wilens *et al.*, 2002). There are a number of studies focusing on the prevalence rates of ADHD among very young children. A checklist directly based on the DSM-IV was assumed by some researchers as dependable in determining the ADHD symptoms in children from this group (Pineda *et al.*, 1999). Buitelaar (2002) suggested that ADHD is relatively lower among preschool children compared to children at older age.

Wilens *et al.* (2002) also investigated the clinical characteristics of children referred for clinical care from 1991 to 1999. In comparing ADHD with other disorders, they found that 80% of 200 youngsters aged equal or less than 6 years could be described as having ADHD.

ADHD is less diagnosed in certain countries. Achenbach, Dumenci and Rescorta (2003) pointed out the different rates of ADHD might be explained as the studies used different methods or case definitions. Hence, the figures are not directly comparable. The changes in the diagnostic criteria such as in DSM have also contributed to the diversity in the prevalence rates of ADHD, for instance, between the criteria in DSM-III-R and DSM-IV. Nevertheless, some consistent findings had been identified; ADHD symptoms were more frequently found in school-aged children, more in boys, and more cases appeared to occur in children from low SES families. From an educational perspective, prevalence rates are important for planning preventive interventions and treatment programmes.

#### *Preschool Children with ADHD in Malaysia*

As mentioned earlier, ADHD is classified under the learning disabilities group in the Malaysian education system. The screening and diagnostic procedures used in identifying children with ADHD are based on the criteria used internationally, particularly the guidelines proposed by the APA in the DSM-IV, and the one proposed by WHO in ICD-10. Legally, the procedure is done by a medical professional or endorsed by medical practitioners. Only children with severe hyperactivity or behaviour problems were included in special education programmes, either studying in special schools or integrated special programmes in regular schools. However, undiagnosed children with behavioural problems remained in mainstream classrooms. Most of them perform poorly in classroom activities as well as in academic due to their conditions.

## MAINSTREAM TEACHERS' PERCEPTION TOWARDS CHILDREN WITH ADHD

*“Teachers’ perceptions of children’s problems are crucial, because teachers are the gatekeeper of psychological treatment in the schools” (Savener, 2005)*

The detection of children’s behaviour and learning problems is usually initiated by school teachers and in many cases, the problems are treated solely in an educational setting. According to Savener (2005), if teachers misperceive symptoms, the child is not likely to receive adequate treatment.

Every child has something that they find exciting or interesting. Nevertheless, children with ADHD usually do not complete assignments, walk around, and they become easily irritated and frustrated. As mentioned in the earlier section, some of them are passive, day dreamy and do not succeed socially as well as academically. Therefore, children’s behavioural management is one of the teachers’ important roles in an inclusive classroom. According to Haniz (1998), Malaysian primary teachers generally have negative attitudes towards the placement of children with special educational needs in mainstream classes and they are of the view that the structure of primary schooling will need to change in order to support the implementation of inclusive education.

### *Research Design*

Considering the appropriateness of a method of investigation for a particular research study and the theoretical and substantive problems involved (Burgess, 1985), and based on the definition and properties of a qualitative case study offered by various researchers, case study was thought to be the best general approach for answering the research questions of the present study.

### *Research Questions*

- What are the teachers’ understanding of SEN and ADHD and how do they use this understanding in working with children with ADHD characteristic behaviours in the classroom?
- What are the factors associated with teachers’ approaches to teaching children with ADHD and planning of tasks or activities for children with ADHD?

### *Research Methods*

#### **ADHD screening**

The ADHDC, a checklist specially developed for studying Malaysian preschool children with ADHD, was used to screen children with ADHD-like behaviours. The ADHDC forms were distributed to twenty selected teachers in the Federal Territory of Kuala Lumpur and the state of Kedah. The teachers were requested to rate each student in their preschool class using the form. The ADHD students were identified following the scrutiny of the data. The psychometric properties of the ADHDC were described in another paper.

#### **Observations and interviews**

Classroom observations were carried out and interviews were also conducted with the teachers and the identified students, as a result of the rating forms analysis. The classroom observations allowed three types of data to be collected using two dimensions of task direction through normal teaching. The off-task behaviours related to inattentiveness, impulsivity and hyperactivity, as well as the negative social behaviours presented by the students with ADHD and the comparison peers were scored using an observation coding sheet during the structured observation (details of the study were described in another paper). Unstructured observations were carried out to disclose the other facts related to every teacher and student being studied.

Every teacher was interviewed and the duration of the discussion between 25 to 55

minutes. The teachers were requested to respond to the questions based on their observations and experiences in teaching the particular pupil/s as they have had comprehensive interactions with the students for at least eight months prior to the interview. The discussions were tape-recorded. The sessions followed the same pattern and the teachers were encouraged to talk about the particular students in their classes. Other than the pupil's background and behaviour, the questions led the teachers to talk about their perceptions on the strengths of the students as well as their expectations.

*The Participants*

The participants involved in this study were the preschool teachers from the preschool programmes run by the MOE of Malaysia and their students. The reason for choosing these groups was because this study hoped to obtain insights on the needs as well as the constraints affecting educational provision for young Malaysian children with symptoms of ADHD.

**Students with ADHD**

In total, 533 pupils were rated by 28 preschool teachers. They were included in the quantitative

data analysis which was described in another paper. The highest scores on the ratings from each school were scrutinized for the case study inclusion. Finally, ten pupils, five from four schools in Kuala Lumpur and the other five from four schools in Kedah (rural areas) were selected based on the rating done by their teachers. Out of the ten students, nine were males and one was female. They were chosen in such a way that they represented all the sub-types of ADHD. Comparison peers from the same gender and age were chosen for every student scrutinized as with ADHD.

**Mainstream preschool teachers**

There were eight qualified female preschool teachers involved as the key informants for this study. Their age ranged from 23 to 42 years old. In term of their teaching experiences, it was found to widely vary. The youngest teacher had only 10 months of experience, whereas the oldest had 20 years of experience. It is important to note that none of the teachers had formal training in dealing with children with special needs. The general description of the students and teachers who were directly focused on behaviour observations and interviews is given in Table 1.

TABLE 1  
Preschool teachers and their students with ADHD (pseudonym is used)

Teacher's name and age (years)	Teaching experience	Student's name	Student's predicted ADHD type
Hana (23)	10 months	Rizam (boy)	inattentive
Irah (29)	8 years	Mahdi (boy)	combined
Mizan (29)	8 years	Justi (boy)	inattentive
Sally (30)	9 years	Abdul (boy)	combined
		Hafzi (boy)	hyperactivity/impulsivity
Zuyah (32)	10 years	Malik (boy)	hyperactivity/impulsivity
Kasma (42)	20 years	Kefli (boy)	combined
Tasha (31)	8 years	Bidin (boy)	inattentive
Alin (35)	12 years	Narmi (boy)	combined
		Rozi (girl)	hyperactivity/impulsivity

## DATA ANALYSIS

As the data collection followed the same format pattern of coding and jotting notes, the findings related to the teachers' views were discussed according to the cases. In order to present the findings comprehensively, the related findings with ADHD pupils were blended with the information from the observations and interviews with other pupils. Due to space limitations, however, the current paper only reported on five of the ten students included in the qualitative study. The sub-headings in the following sections carry the pseudonyms of the teachers and their respective pupils with ADHD; for instance Miss Hana in 5.2 was the first teacher being studied, whereas Rizam was her pupil with ADHD characteristics (refer to Table 1).

*Ms. Hana – Rizam*

### **Rizam from Ms. Hana's perceptions**

Rizam was behind in some aspects of learning owing to many reasons. One reason Miss Hana believed, was the approach to upbringing. She claimed that the boy was 'ruined' by the way his family 'spoiled him', stating that:

*"Rizam is not totally problematic. Please do not misunderstand me, but I strongly believe that the way his mother pampers him has made him dependent on others, so much so, he lost confidence to be independent. His mother used to wait at the door (pointed to the classroom's door) and put his shoes on almost every day when she fetched him at 11.30 am"*  
IH(M1:9)

Miss Hana used the term 'offhand' to describe Rizam's impulsivity behaviours and 'moody' to illustrate the boy's habits in choosing the class activities and selection of friends. A few incidents at the beginning of the school year where Rizam was really difficult to handle were revealed and she used to lock the classroom door

so Rizam could not simply go out of the class and hang around the school compound at any time he wanted. Rizam used to be violent and destroyed teaching aids and teaching materials. As she was a fresh graduate teacher, and unable to manage his behaviours, she requested his parents' involvement and finally the parent (mostly the father) was to be with Rizam in the class until he settled with his new experience in school life. His difficult behaviour decreased after some time but some behaviour still occurred such as grabbing materials from others, using abusive words to peers, and bringing some irrelevant things to schools. 'Only five minutes at most he could stay on a task' was the phrase she used to explain Rizam's learning conditions for something new or he has interest in, or 'he would just enter his "day dream affinity" or just explore the outside or request another task.' Nevertheless, Miss Hana was confident that the condition would improve as Rizam became more mature in the future, based on the progress he had achieved in eight months.

### **Rizam from the unstructured observations**

In line with his teacher's comments, Rizam was picky as he could not get along with two of his peers in the class for any known reasons. There was a boy who seemed to captivate Rizam most, as he was tolerated by him more than others. On one occasion, he brought his father's car keys to school and just placed them on his desk. He left toys and books unkempt and when the teacher asked, he would blame others. He frequently forgot his belongings.

Despite being placed in front of the teacher's eyes in group activities or for individual work, he was not enthusiastic as he was keener with outdoor activities. He was in his seat for a very short time before he started moving around leading him off-task almost all the time. He would hang around the class, staying on one activity for a short while. He hardly put any effort in starting a task unless someone made a move to lead him through the task. Sometimes, he was very moody, and ignored his teacher's questions.

In terms of communication, he was very selective and responded only to topics such as animals and foods. However, he frequently changed the topic whenever he thought of something else during the conversation. He also frequently shouted out answers and sometimes produced irritating sounds in between lessons. He liked calling others' names and rarely responded to questions that did not interest him, yet was never aggressive.

In general, Rizam was impulsive in answering questions, frequently commented on unrelated peripheral noises or objects, and he frequently asked when the task (game) would be over, or what would be the next. In line with Miss Hana's perceptions, Rizam sometimes did the work given for a short while or start the task only after being pushed by an adult, but never finished it.

*Ms. Irah – Mahdi*

#### **Mahdi from Ms. Irah's perceptions**

Mahdi was considered as the worst student in the class in term of academic achievement and social skills compared to the other students in the class who were also very slow in learning or having specific difficulties. Ms. Irah predicted that the nature of Mahdi's family and education background compared to his peers was a disadvantage for his learning process. She rationalised her argument as below:

*I made the conclusion that Mahdi lacked the attention because there was a different effect when I gave him individual attention. I used to punish him when he did not do his work or he was slow in his reaction to my instruction, but I didn't see any improvements. I tried other strategies such as using a reward (for any good behaviour) and personal attention and gave him a small amount of task, and ... (tremendously) his behaviour improved and did much better in his work ... (although) slow, still slow. He started from zero..... His mother once*

*thanked me for the change in Mahdi's behaviour (at home) as she thought the improvement was due to my teaching approach. II(M1:6)*

On the other hand, Ms. Irah imagined that Mahdi's future in learning would be complicated since he was very slow in many things and the most difficult to manage was his lack of attention in doing or completing a task. Ms. Irah perceived Mahdi's behaviour in the class as 'playful' as he recurrently hugged his friend in front of him, played with things (objects) close to him or simply played with his clothes, while the term 'ligat' or very active was used in describing his condition during free play as he actively played; he was cheerful compared to his performance during the lessons. She rationalised her perception by considering him as not a problematic pupil, but rather having exceptional needs in teaching circumstances.

#### **Mahdi from the unstructured observations**

Mahdi usually arrived to school on time, frequently yawning before settling down in the "morning talk" sessions. It was obvious from the observations that he forgot his homework or books almost everyday. Academically, Mahdi had not acquired reading or writing skills, but still managed to identify some alphabetical letters in his name. As for the written work, he often spent a long time waiting for someone to lend him a pencil or eraser (as he lost his most of the time). Otherwise, during individual attention, he copied the words from the blackboard and repeatedly erased it in order to improve his writing. As he repeatedly wrote and erased many times, the pages became shabby and messy, and on some occasions, the page was torn resulting in grimy workbooks.

However, Mahdi was eager to compete, and showed that he followed the teacher's instructions, especially when a reward was promised to those that behaved. For example, on two occasions, when he was working on his own, he focused on writing something in his book as his peers did. In fact, he was drawing

or scathing something unrelated to the task, later explaining that he drew an aircraft that looked more like a patterned scribble.

Although he inexplicably lost his pencil and eraser almost everyday, he had no initiative to borrow it from others. He just stared at his friends' belongings, sometimes touched them while he was looking at his friend's face, then retreated when the owner said, "That's mine!!" Mahdi was frequently lost in class discussions as he daydreamed or looked away. Interestingly, despite his inattentiveness, he always volunteered to answer questions, although it was usually the wrong answer or something which was unrelated. Whenever the teacher asked for an opinion or idea, he was amongst the first to put up his hand. On a few occasions, the teacher gave him a chance, and then he stood up, smiled and looked at his friends' faces, answering with whatever words were uttered by his friends.

Throughout the observations, there were only a few times when Mahdi answered the questions correctly; when the teacher deliberately gave answerable questions, or after he was verbally punished for his behaviours. He was obviously cheered up by the teacher's good remarks.

In terms of interpersonal ability, Mahdi was vulnerable in interpreting verbal and non-verbal communication, as he did not respond accordingly to jokes or the teacher's punishments. He was easily distracted and lost his focus during lessons and it was typical of him to be engaged with something else, even playing with his own clothes or just simply fidgeting with his feet or hands.

Hamirul was the peer who always sat next to Mahdi on many occasions. The teacher separated them the moment she realised that they teased each other or played with something close to them, if not disturbing others. The teacher labelled Hamirul as in the same situation as Mahdi, i.e. "playful and forgetful".

The friends with whom he played and chatted most during the recess/meal times were those in his group, who were considered by the teacher as 'those having problems in learning.' However, in terms of devotion, he always

complied with the teacher's instructions, though doing it wrongly and needed close guidance from an adult. Mahdi also used very little verbal communication as compared to others and was never aggressive.

In general, Mahdi was weak in communication and off task most of the time. He moved around the class aimlessly, frequently playing with unrelated items, and pretended to show interest in activities by senselessly following his peers' actions.

*Ms. Mizam – Justi*

### **Justi from Ms. Mizam's perceptions**

Ms. Mizam described Justi's character as not interactive; he frequently pondered during class activities and the term 'melopong' or empty minded was used to express her observations on his typical behaviour during lessons. Ms. Mizam also stressed that the problem was more on his lack of interest in the class activities.

To further illustrate the situation, the teacher said:

*...he never shows any interest in learning. While others were busy carrying out tasks or activities or answering my questions, he just stayed quietly empty minded, and without any inquisitiveness he stared (at the things outside the class) away. To make him engaged in any task, I had to sit next to him and guide him 'personally'; ...then, he just did it for a short time before he abandoned the work as he was pondering and looking around again and again ... until he got more personal attention. His work was messy and never completed. IM(M1: 1)*

Justi's behaviours were presumed by the teacher as a consequence of parenting styles, because other pupils were staying in his neighbourhood notified her that Justi's father was 'ferocious'. To support her assumption, the teacher stated:



*As I mentioned to you before, he is difficult to manage ...as to make him do any tasks, he needs personal attention. I don't know the real cause but I'm pretty sure he has no interest in learning... If I force him he would cry, sometimes up to 11.30 a.m. On one occasion, he screamed loudly until another teacher and pupils' next class surrounded the preschool class as they thought something serious has happened. On a different occasion, he wept in a high pitch until other preschool pupils got confused (pening), ... closed their ears ... and I'm sorry to say, nothing could stop him except his parents...I mean until his mother or his father came at 11.30 a.m. to fetch him and shouted at him (ordered him to stop crying). IM(M1: 12)*

In terms of teaching strategies, Ms Mizam admitted that she has limited knowledge in teaching children with exceptional conditions. She confessed this by stating:

*I observed that he was not active in learning...of course without any interest (he would not take part). Maybe his interest has not yet existed or...I myself am not good (not skilful) at boosting his interest to learn IM. (US: 2)*

Ms. Mizam used the term 'unreceptive' in the later part of the interview to describe Justi's character. She labelled him as from a 'pelalak' family as both his elder sisters were behaving in the same manner during their preschool time, namely crying and wailing for long periods, and inconsolable, stopping only when the parent told them to stop crying. Ms. Mizam interpreted the situation as exploiting wailing strategies to avoid the task (his elder sisters were in the same school and also taught by Ms. Mizam previously). According to Ms. Mizam, other pupils in the class were not very keen to accept him in their group during the activities and some

peers avoided him because they were worried that during the activities or during mealtimes, he might cry unreasonably.

#### **Justi from the unstructured observations**

There were some obvious patterns in Justi's behaviours during the unstructured observations. For example, during the sitting-on-the-floor setting, he changed the way he was seated (hugging his knees), the moment he lost his focus on the task. Typically, it was followed by a prolonged looking away, like daydreaming. Another pattern observed was withdrawal from the activity involving individual presentations but he complied when it came to group activities. Nonetheless, he was behind in most group activities. Additionally, it was noticed that he had the courage to voice his views or answer an adult's questions only in an indirect way. He never replied openly to questions asked but when the same questions were used to ask his peers he butted in.

In terms of academic achievement, Justi had not recognised letters, but managed to differentiate some numerical symbols. He focused on the task in the academic lessons for a very short time before looking away or day dreaming as most of the tasks were related to reading or writing, in particular to matching words or numbers in the work books.

Justi seemed lost and confused in the cognitively oriented tasks, while in the manipulation oriented task, he always seemed a step behind his peers. In pencil and paper (written task) activities such as colouring, Justi complied with the instructions though he hardly ever finished them. Sometimes, he would just pretend working on the task, but did something else irrelevant to the tasks, such as working on different pages of the workbook. Justi is not verbal in nature but occasionally says offensive words that upset others.

In general, Justi hardly replied verbally to an adult's questions and seldom talked to his peers, and he used more non-verbal indications in responding to others. He was not eager to explore new things or new experiences,

and apprehensively withdrew when he saw unfamiliar adults in the class.

*Ms. Sali – Abdul*

#### **Abdul from Ms. Sali's perceptions**

Ms. Sali exclaimed her views of Abdul by describing his difficult behaviour at the beginning of the year. She revealed her strategy in coping with it, as well as her adverse experience when his mother misunderstood her approach. Ms. Sali used the term 'bully' to explain the initial aggressive situation and 'bullet' to describe his physical movement in the class. She depicted the early circumstances of Abdul's situation with her statement as below:

*Abdul was enrolled in this programme two weeks later than others,... I mean after he was rejected by a private preschool nearby. I knew the reason he was refused (by the private preschool) after two weeks (attending the class) because his ex-teacher is my friend but I accepted him as there was a vacancy in this class. The first day in this class, I partnered him with Adha because Adha is an outgoing boy and tolerable. Unfortunately, he bullied and used insulting words (four letters words as well) towards Adha. IS(M1: 5)*

To illustrate the student's condition, she said:

*He took control of many things in the class as he (extremely active) proceeded like a bullet .... I called his mother to discuss his condition (learnt that his behaviour at home was the same)...and she pleaded for (the teacher's) any workable way and she promised to fully cooperate. Difficult! Within two months, his behaviours were really interrupting others, as he was frequently aggressive. He grabbed others' things or toys and he conquered all the game devices for*

*himself. Then I called him and told him nicely how to behave, so people would like to befriend him...I used simulation. The condition improved gradually except for his verbal violence and his attendance problem. IS(M1: 9)*

Ms. Sali described the other conditions that were difficult for her to deal with:

*He was frequently absent, sometimes only one (day) in a week (turned up) ... (and) for sure he was not in attendance at least once in a week. Otherwise, he would arrive late in the morning (up to 9.15 am) most of the time ... (despite the fact that he stayed at the council flat which was only 50 metres away). He was absent for two weeks once, and came back to school with the old bad habits after that. I wrote a letter to inform the parents but (there was) no response, and (followed by) I rang his mother on his attendance issue and reminded her that if (Abdul) absent for more than two weeks without any reasons, the school would dismiss him from the enrolment. There was further improvement after the discussion, as he arrived in school just a bit late...8.00 a.m. (compared to previously). Even if more than two days (that he was absent), I would ring his mother and in addition I regularly chatted with him on/about the advantages to be in class on time everyday... I narrated (cerita) to him the consequences of being absent regularly... IS(M1: 13)*

As many of the ways she had used to tackle his verbal misconduct were fruitless, Ms. Sali employed a radical approach to stop the habits. On one occasion, she threatened to rub a fresh chilli on his lips if he ever said such words again. She then immediately took out the chilli and showed him as he uttered the words. According to Ms. Sali, he was dreadfully attentive at the particular moment and finally promised her to

avoid the words in the future. Unfortunately, his mother misconstrued the action and complained to Ms. Sali's friend (the other teacher in the school). Ms. Sali rang her and invited her to come to discuss the matter and clarify the issue. On top of these approaches, Ms. Sali realised that some topics or methods were more effective in motivating him such as the rewards she used to make him stop the bad habit. She said:

*All the strategy I used was on a trial and error basis, but I never forgot to praise him for not uttering the bad words when he was dreadfully upset or angry (as habitually he did). I recognized that rewards and praises were effective for this particular child as his work improved a lot (using this approach) though not at par. ...another thing (I should mention) is about his interest, meaning that he just paid attention to the work within his interest. IS(M1: 12)*

In terms of his overall progress, Ms. Sali claimed that Abdul was gradually picking up the skills, and he apparently improved his aggressive manner and social skills. She perceived the state as not problematic as most of his unpleasant habits had diminished. Meanwhile, she also believed that in order to deal with children's behaviours, the teacher should be aware of some typical behaviour for children who were brought up in rough surroundings like the city council flat settlement.

#### **Abdul from the unstructured observation**

Abdul was frequently late and consequently always rushing to class. He often took a brief rest in his seat before joining the class in the 'morning talk activity'. Abdul was very anxious with his belongings, and kept his things in order before he left the class at 11.30 a.m. every day. There was also an obvious pattern in his favourite topic of warming-up discussion in the "morning talk" sessions. The teacher used the session to cheer up the pupils and give them a chance to

briefly tell anything related to the chosen topic. Abdul gave more attention in discussions on fruits, foods, or vehicles.

The classroom activities were mainly carried out in two different settings: the pupils sat cross-legged on the floor and they also sat at their desks in a fixed group. During the sessions where the pupils sat on the floor, Abdul was frequently playfully hugging a friend next to him, or drawing something on the pupil's back who was sitting in front of him, and at other times, he just looked around. A few times he drifted away, engaged in daydreaming. On some occasions, the teacher made him sit in front so that she could monitor him closely, but the pupils behind him were not happy with the sitting arrangement because he blocked their view. He was apparently sensitive and annoyed with the hassle and moved aside with a squirmy face. Abdul was among the last to finish a written task although he was given lesser amount of work.

In general, with significant encouragement from the teacher, Abdul completed his work most of the time and actively took part in class activities. He was behind his peers in terms of quality of his work as his attention was frequently disrupted. Nonetheless, he successfully managed his anger in uneasy situations as described by the teacher.

*Ms. Sali - Hafzi*

#### **Hafzi from Ms. Sali's perceptions**

Ms. Sali, in describing Hafzi's characteristics used the words, 'active thinker' instead of 'daydreamer'. She explained that Hafzi was forgetful and conducted himself differently from other pupils, and although daydreaming frequently in class, he did learn during the lessons. She gave some examples in different parts of the interview to support her strong opinions. She described Hafzi's thoughts that significantly fascinated her as follows:

*In one lesson on the topic of transportation, the pupils named a few types of ways people travel in the world. One pupil mentioned helicopters, the*

*others looked cheerful about it,...I prolonged the discussion and focused on travel by plane. Hafzi was looking at the blackboard with empty eyes (daydreamed) for about 3 minutes. I called him to join the discussion twice, but he just smiled and then went on daydreaming again. After the lesson, I asked him "Hafzi, you looked like thinking of something during the lesson, what was in your mind (actually)?" He told me the wonderful journey he was engaged in his imagination: ...he was on an aircraft, looking at a beautiful scene outside. Ironically, he did not know the destination. He revealed that he had never experienced travelling by plane. When I asked on the condition in the aircraft, he answered politely "I just imagined something like I saw in the movies. I wish one day I could go somewhere by plane. IS(M1: 4b)*

The other aspect that surprised Ms. Sali was that Hafzi as a preschool aged boy could express his concerns about the effects of negative habits:

*One morning, Hafzi was the first pupil to enter the class while I was organising the activities for the day. He approached me and said, "Teacher! My father is stubborn" and then he paused. I replied with "Ye ke?" (or "really?")... (and he continued) "He keeps on smoking after I have told him smoking is bad for his body. His lung could be burned by the smoke, isn't it?" (Then, I replied) "You are worried about your father's health, aren't you? "He then slowly said, "I want him to live longer. But, my mother is a nurse. She should tell him (to quit smoking)." The conversation stopped as the (school) bell rang (meaning that it was time for the school's weekly assembly). I wonder when a child (at his age) was concerned about his father's smoking*

*habit (normally the parent who worried about the kids). IS(M1: 6b)*

On another occasion, Ms. Sali recalled how Hafzi's father came to her to clarify, after Hafzi had confronted him for not paying the monthly donation which was collected on a voluntary basis and the fund was used to buy extra pencils, colour pencils, erasers, etc. Hafzi told his father that he was not supposed to use class pencils or other things, as his father did not contribute, whereas other poorer people made contributions.

Ms. Sali gave her opinion of Hafzi as a special boy because of his ability to learn in a different way. She ended the interview by stating:

*Even as he was engaged in daydreaming or looking somewhere else... he still gave the correct answer to the given questions and sometimes in return he asked me the question I had never expected. IS(M1: 9b)*

#### **Hafzi from the unstructured observations**

Hafzi fidgeted, as well as being out of his seat most of the time. Most of his moving around behaviour occurred either when he stood up while he was still working on a task or simply lying prone on the floor to finish his task. This behaviour occurred even during the time when he appeared to be interested in the task. He hardly hung around or bothered others though the teacher seemed lenient, allowing pupils to move around in carrying out tasks. The class was under control with pupils choosing to work in their own way.

Hafzi mostly looked around during activities which involved taking turns, and sometimes the behaviour was followed by daydreaming. He forgot his things almost every day and lost his pencil frequently. On day, he came to the teacher in the morning asking if she had seen his (school) bag. The teacher assured him that she saw him taking his bag when he stepped out of the class (yesterday) and she asked him to recall where

he was before getting on the school bus home. Then he thought for a while before slowly and consciously saying, "I put it at the canteen... then played around... the bus came (and) I forgot my bag." He never found the bag again. Yet, in line with his teacher's perceptions, he could remember the facts and subject contents he learnt which most of the other pupils could not. He was among the first to answer when the teacher asked something related to the previous lessons.

As for his written tasks, Hafzi finished his tasks on time, and most were with correct answers. However, the quality of his work was not at par and not as well organised as others, but with some encouragement, he could do slightly better. He seemed satisfied with his work and only tried to improve it upon the teacher's request. In terms of participation during class discussions, Hafzi used the appropriate terms and manner to convey his thoughts to relate the subject previously taught.

#### **PRESCHOOL TEACHERS' PERCEPTIONS AND UNDERSTANDING OF PUPILS WITH ADHD IN THEIR CLASSES**

In expressing their understanding of ADHD, all the teachers interviewed claimed that they had never heard of the term ADHD and the first time they came across such a term was from the researcher's instrument, the ADHD checklist (ADHDC) distributed for this study. They expressed their ignorance of the term. Interestingly, two of them claimed that they at the moment were aware about other types of children's problems that might affect the learning process.

Based on the characteristics listed in the ADHDC, they perceived the meaning of the term ADHD. Most of them were very interested to explore the concept of ADHD by drawing assumptions related to their pupils' behaviours. Two teachers in return asked more information from the researcher in order to answer the questions on ADHD. One of them sincerely admitted that she was interested to know more about ADHD since it is related to behaviours.

She professed that most of the preschool children were having some of the problems listed and she assumed some might have ADHD. Another teacher presumed ADHD as commonly found in the mainstream classrooms as she related the behaviours listed in ADHDC to ordinary school children.

When comparing ADHD to behavioural problems in their classes, some teachers regarded it as severe behaviour problems while others considered it as the degree of behavioural problems which differentiate between the cases of ADHD from ordinary behavioural problems. However, as they also admitted that their ignorance of ADHD led them to perceive ADHD according to their limited knowledge and information. Five of the teachers assumed that the children were considered to have ADHD if they had all the 25 behaviours listed in the ADHDC list, while the other three used their common sense to draw the logic by assuming that ADHD occurred in a continuum ranging from mild to severe as other types of children's difficulties.

However, out of ten, only three pupils with ADHD chosen for case studies were considered as possibly having ADHD by their respective teachers. All of these pupils are from combined sub-type of ADHD (Mahdi, Abdul and Kefli). The pupils of inattentive or hyperactivity sub-types were considered by their teacher as not having ADHD for the reasons of not having enough ADHD-like behaviours.

In response to the probing questions related to their ratings on the ADHDC, the teachers confessed that they did the rating based on their daily experience with the pupils. Except for the three teachers who assumed that their particular pupils might have ADHD, other teachers were not aware of the exceptional needs of the pupils with ADHD chosen in their class in terms of specific teaching strategies, as they assumed they (the pupils) were immature or playful or otherwise spoilt by their upbringing. In addition, they were not really concerned as they assumed that these particular pupils would outgrow the problems as they grew older.

## DISCUSSION

Although pupils with ADHD are heterogeneous in character, there were patterns that emerged from the data analyses. The patterns were in line with the manifestations reported in the review of some previous researches; in general, most were affected by the requirements of the academic lesson as highlighted in the previous section. Thus, to investigate the entirety of ADHD symptomatic behaviours (in relation to the exceptional situation between ADHD and the classroom atmosphere), information was collected including the views from the pupils with ADHD and their peers, as well as adults in the class. This study adopted a psychological/educational perspective that the behaviour could be learnt and unlearnt. The data from the unstructured observations and interviews revealed that the sample of pupils with ADHD tended to have characteristics which were in line with those described by many scholars (Cooper and Ideus, 1996; Hughes *et al.*, 1998; Campbell, 1990), namely:

- Handing in incomplete or untidy work (9)
- Have very few friends and the friendship is not long lasting (9)
- Bored with routine tasks and/or refuse to do them (8)
- Use inappropriate verbal requests (5)
- Play with or befriend the same peer/peers during free time (7)
- Overly active (7)
- Forgetful (8)
- Dominant and focussed on themselves or a bossy manner (4)
- Moody (4)
- Overreact due to being emotionally sensitive (3)
- Blaming others for any negative outcome, particularly during group work for any mistakes made (5)
- Make negative statements about others (5)
- Have difficulties to adapt to new situations (5)
- Stay by themselves (4)

All the above characteristics are socially related and are in line with the findings of previous research (Cunningham and Boyle, 2002; Gentschel and McLaughlin, 2000; Brendgen *et al.*, 2002). In addition to the observation procedure, a brief interview with the pupils on the means used to resolve conflicts revealed that teacher's feedback and encouragement were important. More personal attention was also expected to make them more likely to perform appropriately in their interactions, academic works, and/or to behave accordingly. The exploration of the nature of interaction displayed by particular pupils with ADHD revealed that social and global functions with regard to learning varied within and between the children. Nevertheless, they were more likely to be neglected or rejected during classroom activities or interactions.

Within the context of ADHD in the studied cases, pupils were traditionally expected to behave well and obey their teachers. However, when pupils deviated from the behaviour norm, they simply withdrew as they realised they were not expected to do such things (e.g. to question the teacher's instruction/request or behave out of norm), yet the awareness was unsustainable. Some clear examples of this situation were found in most cases of assertiveness in Kefli, Abdul, Rizam and Narmi, where they compromised easily when the teacher or assistant teacher intervened within any crisis situation, no matter what approach was used (autonomy or diplomatic). The possible explanation concerns with cultural values and moral compulsion. However, the degree of their negotiation varied. The opposite situation was found in a few cases where pupils just ignored the teachers' instructions that they disliked (e.g. Rozi and Justi: perseverant behaviour was not effectively controlled by an authoritarian approach). One possible explanation for the variation in the pupils' reactions is that it may be influenced by other problems (co morbidity), as argued by Connors (1997) and Kadesjo and Gillberg (2001). Kadesjo and Gilberg (2001) indicated that children with co-morbid problems, "by far outnumbered those with ADHD only" (p.

491). For example, Rozi apparently also had speech problems and mood instability. These problems were noticed during the observation period and were supported by the teacher's comments/perception, whereas in Justi's case, low self-esteem/confidence was noticed. The other explanation could be due to the process of upbringing. Many (6) teachers in this study perceived that pupils' behaviours were influenced by their background and stressed on the fact that parenting is an important contributing factor (Hectman, 1996).

### TEACHERS' PROFILES AND LEARNING ENVIRONMENTS OF PUPILS WITH ADHD

The findings on the profiles of teachers' knowledge regarding ADHD suggested that teachers were not aware of the gist of the term. However, they shared similar perceptions of the nature of ADHD: a condition indicated by behavioural symptoms as listed by the researcher on the ADHDC. Some of them used common sense to assume the variety of ADHD cases corresponding to the severity of the symptoms. Teachers' attitudes towards pupils with ADHD (interpreted by their responses in the interview, the observations and their approach in teaching ADHD) were positive. They positively accepted the pupils' conditions and were confident that the pupils would do well in the long term. This finding is not supportive of Haniz's (1998) findings on Malaysian mainstream teachers' attitudes towards the implementation of inclusive education (IE) for SEN children. In other words, this finding may indicate that pupils with ADHD are more acceptable by mainstream teachers compared to other SEN group. It is reasonable because teachers in the first place did not even know that the pupils had ADHD/SEN. Furthermore, pupils with ADHD are physically no different from typical children, whereas pupils with some other SEN are more apparently different in their basic needs.

Although teachers were positive about pupils with ADHD in their classes (judged in terms of their approach to teaching and planning

tasks or activities), there were clear patterns of sporadic mismatch between the individual needs of pupils with ADHD and their learning conditions. The findings also show that instead of their exceptional needs, most pupils with ADHD have been treated as a typical child. This means that they were denied the opportunities to learn according to their needs, not to mention to develop their own interests. The dominance of 'chalk and talk' approach is not encouraged for preschool education (as construed in the MOE curriculum guidelines), yet this was found in most cases. Paper and pencil activities, drilling strategy, and memorization skills dominated the teaching and learning sessions in most of the classrooms. Pupils with ADHD have less chance to express and perform what they know and understand due to the mismatch. Interestingly, despite the common practice, most teachers were aware that pupils' interests and needs were not met and they argued that the mismatches were due to their lack of knowledge and training in SEN. Most teachers admitted that they had used commonsense trial and error approaches in their practices to overcome the deficiency (in dealing with exceptional pupils). Nevertheless, the emphasis on written literacy and numeracy dominated the teaching goals in most cases. Unpersuasive environments/situations were found at times; for example, less positive reinforcement (more negative comment or reprimand), monotonous or less challenging activities (repetitive or insignificant to pupil's interest), unclear instructions (in some cases pupil's important requests/questions were not entertained by the teacher), and inconsistency in giving instructions, as well as more likely owing to limited training and expertise. These are also not beneficial to non-ADHD children.

The teachers' role in mediating pupils' behaviour is crucial, but this discussion is limited by the amount of data collected as it was only intended to relate to pupils' circumstances. Nevertheless, the MOE Malaysia stressed in one of the preschool guidebooks "*the effectiveness of children's learning depends on the wisdom and efforts of the teachers*" (p.4) (MOE: 1999 book 1). From the observations and interviews,

it was clear that the teachers' efforts varied in every individual case. The approach and strategies used in dealing with the cases by the first teacher were more towards the individual needs of the pupils with ADHD, whereas in SR4, a whole class approach was more dominantly applied and consequently the exceptional needs of pupils with ADHD were addressed by an assistant teacher (untrained personnel). Nevertheless, most teachers claimed they had put their best efforts in spite of their constraints. A majority of them tended to treat their pupils with ADHD equally as typical children (no specific approaches or strategies, as revealed by the teachers). These teachers, however, were fully aware that the pupils reacted differently to similar activities or rules.

The findings also revealed that most of the teachers were satisfied with the progress made by pupils with ADHD because their classroom behaviours were much improved within 8/9 months (compared to their behaviours at the beginning of the year) although their academic improvement was limited compared to their peers. This might be the reason for the teachers to perceive the 10 pupils with ADHD as not problematic even though they were not typical children at their age. Hence, despite the evidence from the ADHDC and observations, only a few teachers perceived the chosen pupils with ADHD in this study as 'having ADHD'. These findings have an important impact on the implementation of inclusive education for preschool children in Malaysia.

It is speculated that teachers' personal profiles are also related to the approach they adopt. All of them used common strategies in dealing with pupils' behaviours and on a trial and error basis, some teachers kept on with different ways until they were satisfied, while a few gave up and treated the pupil/pupils the same as others. Therefore, on the basis of these data, it could be said that the mismatch between individual needs and the learning conditions of the pupils with ADHD was due to the teaching skills and training issues rather than attitude/acceptance. Hence, a teacher's teaching profile does not make it possible for pupils

with ADHD to achieve the optimal level in learning, as their welfare and rights are adversely affected. However, to further take this issue into consideration, more investigation is still needed. These findings have several implications as they indicated that the pupils with ADHD might be at risk of persistent learning and attention problems as argued by many researchers (Cooper, 1993; Gaultney *et al.*, 1999). Nevertheless, the emergent issue is 'in order to broadly implement the intended inclusive education in Malaysia, how does the MOE of Malaysia deal with the variance?'

The cases studied revealed that there was a lack of elements of outward affection in all the Malaysian preschool classes. Outward affection, which is commonly practised in the western society, is crucial in dealing with ADHD. The use of verbal encouragement (praise words such as 'good' 'brilliant' or 'clever'), motherly body stroke (touch) during the time children were upset or in a state of discomfort and affectionate terms (such as love, darling and dear) should be used not only for pupils with ADHD but the whole class. These elements can be nurtured as an expanding model for a 'caring society' by showing/modelling to young pupils to appreciate others. In addition, more emphasis should be given to show 'what is right' instead of focusing on 'what is wrong' so that pupils will have the choice to correct their actions (Malaysians tend to say "don't do that" but do not show how to do other than that).

## RECOMMENDATIONS

- The sample of ADHD in this study had not been properly diagnosed but was identified through the ADHDC which was used as a screening device. Diagnostic procedures for young children are not simple but are feasible. The multidisciplinary team in Malaysia should provide access to diagnosis for teachers and/or parents with possible ADHD cases. This service must come as a priority to the MOE and other related agencies not only for ADHD but other SEN categories. Pupils with co morbid



conditions should be diagnosed accurately so that all the difficulties can be addressed appropriately.

- This study revealed that mainstream teachers lack the necessary skills and knowledge to deal with ADHD children as they exhibited impairments in many aspects, and the need for concrete and consistent experiences and much adult supervision. Hence, to implement inclusive education for ADHD, teachers' competencies need to be improved. Pedagogical aspects for ADHD related requirements in daily classroom activities could be met by improving initial and in-service training.
- Moreover, action research should be prioritised as teachers may produce valuable materials based on their educational experience. This type of research is currently promoted by the MOE for primary and secondary school teachers (Mohamad Nor, 2002). Preschool and special needs children should be included in the agenda. By promoting action research in preschools, experienced teachers could also share their expertise and experience in effectively teaching exceptional pupils. The combination of many components for effective practice will enrich the research literature.

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